Study ID:_____

FOOD FREQUENCY QUESTIONNAIE

The following food frequency questionnaire is designed to estimate you usual eating pattern. For each food listed, check the box indication how often during the past year you usually ate the amount specified in the parentheses.

If you ate a food only at certain times of year (ex. summer), average your intake over the year. The pattern you report should reflect usual eating habits no the pattern of a short term diet, some other unusual circumstance, or what you think you should eat.

The boxes include monthly, weekly and daily categories:

Never or (about) less than once a month (<1/month)
1-3 (times) per month
1 per week (about once a week)
2-4 (times) per week
5-7 times a week (or about once a day)
2-3 times a day
4 + times a day

Note that the "5-7 times a week" category is a frequency pattern of about "once a day".

For example, foods you never or rarely eat would be checked "never". A food eaten only a few times during a particular season would Also be checked "never". Foods eaten only a few times during the week or eaten a few times on the weekend would be checked "2-4 times a week". A food eaten more than once a day would checked "2-3 times a day" or "4 + times a day" depending on your eating pattern.

If you cannot estimate your usual intake of the food for any reason, leave the item blank.

Name _____ Work Phone _____
Address _____ Home Phone_____

ID TYPE ID
C_____ 1-5
FFREQ 6-10

		Average Use Last Year							
	FOOD AND AMOUNTS PER SERVING	Never or < 1 / month	1-3 per month	1 per week	2-4 per week	1 per day	2-3 per day	4 + per day	
	(for code use only)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
	Meats and Other Alternatives								
SKINCHIK	Chicken or turkey, with the skin (serving)								11
NOSKINCH	Chicken or turkey, no skin (serving)								12
LIVER	Liver, brains, kidneys, sweetbreads (serving)								13
HOTDOG	Hot dog, frankfurter (1)								14
BACON	Bacon (2 slices)								15
PROCESSD	Processed luncheon meats (sausage, salami, bologna, liverwurst, packaged beef or chicken) (piece or slice)								16
CANNED	Canned meats like deviled beef, hash, chili (serving)								17
HAMBURG	Hamburger (1)								18
BEEF	Beef - chuck, ribs, steak (serving)								19
OTHRBEEF	Other beef (round, rump, very lean (serving)								20
VEAL	Veal (serving)								21
LAMB	Lamb (roast, chops, etc.) (serving)								22
PORK	Pork (roast, chops, etc) (serving)								23
STEW	Beef, pork or lamb as a sandwich or mixed dish (stew, casserole, etc.) (serving)								24
CANTUNA	Canned tuna fish (serving)								25
SALMON	Dark meat fish, such as mackerel, salmon, sardines, bluefish, swordfish (serving)								26
LOBSTER	Shrimp, lobster, scallops as a main dish (serving)								27
OTHRFISH	Other fish (serving)								28
EGGS	Eggs (1)								29
SOYNUT	Gluten, soy nut or other vegetarian products no used in mixed dishes (serving)								30
VEGROAST	Homemade vegetarian roasts, casseroles, etc								31
VEGBURGR	Vegetarian links or burgers								32
PIZZA	Mixed cheese and tomato dish - pizza, lasagna, etc. (serving)								33
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	

	FOOD AND AMOUNTS PER SERVING	Average Use Last Year: Never or < 1 / month	1-3 per month	1 per week	2-4 per week	1 per day	2-3 per day	4 + per day	
	(for code use only)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
	Dairy Foods and Fats								
SKIMMILK	Skim mild or skim buttermilk, powder skim milk (cup)								34
LOWFMILK	Low fat (1-2%) milk (glass)								35
WHOLEMLK	Whole milk (cup)								36
SOYMILK	Imitation or soy milk (cup)								37
CREAM	Half and half, evaporated milk, cream, sour cream (on fruit, cereal, in coffee, etc. (oz)								38
NONDAIRY	Non-dairy creamer (topping or dry coffee creamer) (tsp)								39
YOGURTSK	Yogurt from skim milk (cup)								40
YOGWHOLE	Yogurt from whole milk (cup)								41
SHERBET	Sherbet or ice milk (½ cup)								42
ICECREAM	Ice cream (½ cup)								43
CHESWHOL	Whole milk cottage or ricotta cheese (½ cup)								44
CHESLOWF	Low fat cheeses such as skim cottage, skim mozzarella, etc. (slice or oz.)								45
CHESOTHR	Other hard cheese (e.g. American, cheddar, etc.) (slice or oz.)								46
STIKMARG	Margarine, stick form added to breads or foods: exclude use in cooking(tsp)								47
TUBMARG	Margarine, tub form added to breads or foods; exclude use in cooking (tsp)								48
BUTTER	Butter (added to food or bread: excluded use in cooking) (tsp)								49
	Fruits								
APPLE	Fresh apple or pear (1)								50
CIDER	Apple juice or cider (small glass)								51
APPLSAUC	Applesauce (½ cup)								52
ORANGE	Orange or tangerine (1)								53
ORNGJUIC	Orange juice (small glass)								54
GRAPFRUT	Grapefruit (½) or Grapefruit juice (small glass)								55
PEACHES	Peaches, apricots, plums or nectarines (fresh or canned) (1 pc. Or ½ cup)								56
RAISINS	Raisins (1 oz. or small pack) or grapes (small bunch)								57
PRUNES	Prunes or dry apricots (½ cup)								58
DATES	Dates or figs (½ cup)								59
BANANAS	Bananas (1)								60
STRAWBER	Strawberries- fresh, frozen or canned (½ cup)								61
BLACKBER	Blackberries, blueberries, raspberries-fresh, frozen or canned (½ cup)								62
MELON	Cantaloupe or honeydew melon (small slice)								63
WATERMEL	Watermelon (1 slice)								64
PINEAPPL	Pineapple- fresh or canned (½ cup)								65
CHERRIES	Cherries- fresh or canned (½ cup)								66
PAPAYAS	Papayas (½ cup)								67
AVOCADOS	Avocados (¼)								68
	Vegetables								
GREENBEN	Green or string beans or asparagus (½ cup)								69
BROCCOLI	Broccoli (½ cup)								70
CABBAGE	Cabbage, cole slaw or sauerkraut (½ cup)								71
CAULFLWR	Cauliflower (½ cup)								72
BRUSELSP	Brussels sprouts (½ cup)								73
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	

	FOOD AND AMOUNTS PER SERVING	Average Use Last Year							
		Never or < 1 / month	1-3 per month	1 per week	2-4 per week	1 per day	2-3 per day	4 + per day	
	(for code use only)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
CARROTS	Carrots (1 whole or ½ cup cooked)								74
CAROTJUC	Carrot juice (small glass)								75
CORN	Corn (ear or ½ cup frozen, fresh or canned)								76
SPINACH	Spinach- raw or cooked (½ cup)								77
PEPPERS	Green or red peppers (½ cup)								78
KALE	Kale, mustard, chard, beet or other greens (½ cup)								79
ICEBERG	Iceberg or head lettuce (cup)								80
ROMAINE	Escarole, romaine, watercress or leaf lettuce (cup)								81
PEAS	Peas, lima beans or pea pods (½ cup)								82
WINTERSQ	Yellow (winter) squash or pumpkin (½ cup)								83
ZUCCHINI	Eggplant, zucchini, other summer squash (½ cup)								84
YAMS	Yams and sweet potatoes (½ cup)								85
TOMATOES	Tomatoes (1 or ½ cup)								86
TOMJUICE	Tomato juice (small glass)								87
CHILSAUC	Red chili sauce (tbsp)								88
TOFU	Tofu or soy bean curd (½ cup)								89
LENTILS	Lentils, chick peas, kidney, pinto or other beans- plain or baked, not used in casseroles, soups, etc (½ cup)								90
	Sweets and Baked Goods								
PIEHOME	Pie, homemade (slice)								91
PIEREADY	Pie, ready made (slice)								92
CAKEHOME	Cake, home baked (slice)								93
CAKREADY	Cake, ready made (slice)								94
COOKIESH	Cookies, home baked (1)								95
COOKIESR	Cookies, ready baked (1)								96
BROWNIES	Brownies (1)								97
DOUGHNUT	Doughnut (1)								98
SWEETROL	Sweet roll, coffee cake, pastry, home baked (serving)								99
CRACKERS	Crackers, all kinds (serving)								100
	Breads, Cereals, Starches								
CEREAL	Refined uncooked cereals like cornflakes, cheerios (½ cup)								101
OATMEALR	Refined hot cereals like cream of wheat, instant oatmeal, etc (½ cup)								102
BRANU	Unrefined cold cereals like all bran, alpen, granola, shredded wheat, etc (½ cup)								103
OATMEALU	Unrefined cooked cereals like oatmeal, ralston, cracked wheat, etc. (½ cup)								104
ENRBREAD	Enriched breads like white, sourdough, french, italian, corn or "unbleached flour" breads (slice)								105
WHOLGRBR	Whole grain breads like 1oo% whole wheat, stoneground whole wheat, sprouted wheat, 7 grain bread etc. (slice)								106
OTHRBRED	Other breads- cracked, wheat, rye and other partial whole grains (slice)								107
COMROLLS	Commercial dinner rolls, biscuits, hot dog or hamburger rolls, buns, muffins. etc (1)								108
HOMEROLS	Home made rolls, biscuits, muffins, etc (1)								109
CHIPS	Potato chips, fritos, tortilla chips, pretzels, etc. (oz.)								110
FRNCHFRY	French fried potatoes								111
POTATOSK	Potatoes with skins eaten (1)								112
POTNOSKN	Potatoes without skins except french fries (½ cup)								113
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	

	FOOD AND AMOUNTS PER SERVING	Average Use Last Year: Never or < 1 / month	1-3 per month	1 per week	2-4 per week	1 per day	2-3 per day	4 + per day	
	(for code use only)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
TURNIPS	Parsnips and turnips (½ cup)								114
PANCAKES	Pancakes or waffles or french toast (slice)								115
BRWNRICE	Brown rice (cup)								116
WHITRICE	White rice (cup)								117
PASTA	Pasta (spaghetti, noodles, etc) (cup)								118
OTHRGRAN	Other grains, e.g. bulger, kasha, barley, couscous (cup)								119
	Beverages								120
COFFEE	Coffee (cup)								
TEA	Tea (cup)								121
COCOA	Cocoa (cup)								122
DECAFCOF	Decaffeinated coffee, herbal tea, or Postum (cup)								123
CAFPEPSI	Caffeinated beverages like Pepsi, Coke, etc (glass or can)								124
PEPSIFRE	Decaffeinated beverages like Pepsi-free, 7 Up, Ginger ale, Root Beer, etc (glass or can)								125
DIETPEPS	Caffeinated low-calorie beverages like Diet Pepsi, Diet Coke, etc. (glass or can)								126
DPEPSFRE	Decaffeinated low-calorie beverages like Diet Pepsi-free, Diet 7 Up, Diet ginger ale, etc (glass or can)								127
BEER	Beer (bottle or can)								128
REDWINE	Red wine or sherry (glass)								129
WITEWINE	White wine (glass)								130
LIQUOR	Liquor or cordial (1 shot)								131
LEMONADE	Hawaiian punch, lemonade, or not carbonated fruit drinks (glass of can)								132
	Miscellaneous								133
PEANTBUT	Peanut butter (tbsp)								
POPCORN	Popcorn (cup)								134
CHOWDER	Chowder or cream soup (cup)								135
BROTH	Broth soup (cup)								136
SALDDRES	Mayonnaise or creamy salad dressing including 1000 island, russian, creamy italian, blue cheese dressing (tbsp)								137
OIL	Oil-Corn, soy, sunflower etc. except olive oil (tbsp)								138
OLIVEOIL	Olive oil (tbsp)								139
SEEDS	Seeds like sunflower seeds, etc. (oz)								140
WALNUTS	Walnuts (5)								141
NUTSSALT	Other Salted nuts (oz)								142
NUTSUNSL	Other unsalted nuts (oz)								143
CUSTARD	Custard (½ cup)								144
PUDDING	Pudding (½ cup)								145
CHOCOLAT	Chocolate (small bar)								146
OTHRCNDY	Candy without chocolate (small bar)								147
JAMS	Jams, jellies, preserves, syrup (tbsp)								148
WHEATGRM	Wheat germ (tsp)								149
YEAST	Brewer's Yeast (tsp)								150
BRAN	Bran (tsp)								151
WHITSAUC	White or cream sauces (tbsp)								152
TOMSAUC	Tomato sauce (tbsp)								153
GRAVY	Gravy-made from meat (tbsp)								154
SUGAR	Sugar of honey (tsp)								155
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	

Are there any other important foods you eat at least once a week? Please exclude spices and don't list something you have already counted under another category. Consider these foods as possibilities: coconut, tortillas, mango, papaya, and pate. Please state the food item, indicate your usual serving size, and check the box that indicates your average use last year.

Food	Average Use Last Year						
	Never or < 1 / month	1 - 3 per month	1 per week	2 - 4 per week	1 per day	2 - 3 per day	4 + per day
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1._____							
2._____							
3._____							
4._____							
5._____							

MEMORIAL UNIVERSITY
Faculty of Medicine

Division of Biomedical Sciences (Genetics)

Study ID Number: | | | | | | |

Antibiotics using and dietary intake survey

Date form completed (dd/mm/yyyy): ___/___/_____

MEMORIAL UNIVERSITY
Faculty of Medicine

Division of Biomedical Sciences (Genetics)

Instruction for completing the questionnaire:

Please answer all questions to the best of your ability (leave blank if unknown).

Please write in block letters using the boxes where provided.

Use a black/blue pen.

Cross out any mistakes & write correct answers just below the relevant boxes.

Indicate your response by filling in the box next to the most appropriate answer or by writing clearly in the boxes or space provided.

Your answers will be completely confidential.

MEMORIAL UNIVERSITY
Faculty of Medicine

Division of Biomedical Sciences (Genetics)

1. Did you use any antibiotics in past three months?

- ☐ Yes. Please choose the antibiotics in below question 2 and dosage and frequency that you used in below question 3.

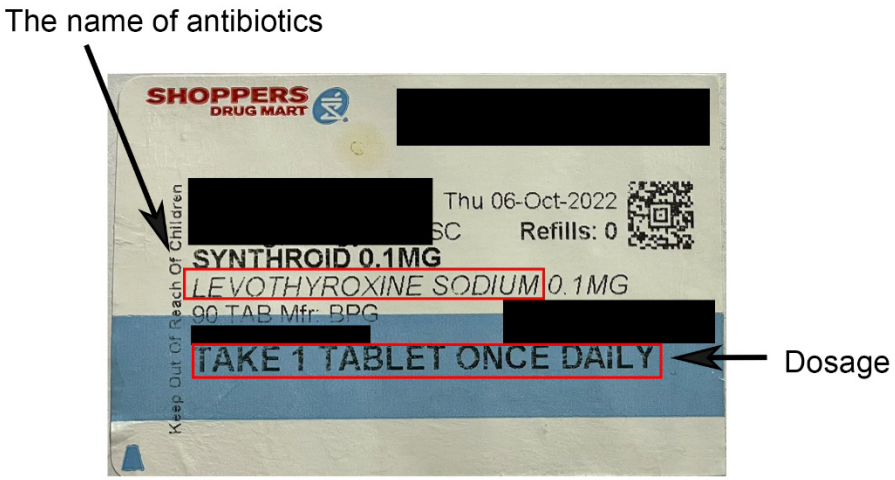
- ☐ No. that's all, thanks.

MEMORIAL UNIVERSITY
Faculty of Medicine

Division of Biomedical Sciences (Genetics)

2. Antibiotics list – order by alphabet

You can find the drug name from your prescription label as an example below:



A

- ☐ Amikacin
- ☐ Amoxicillin
- ☐ Amoxicillin/clavulanate
- ☐ Ampicillin
- ☐ Ampicillin/sulbactam
- ☐ Azithromycin
- ☐ Azlocillin
- ☐ Aztreonam

C

- ☐ Cefaclor
- ☐ Cefadroxil
- ☐ Cefalexin
- ☐ Cefamandole
- ☐ Cefazolin
- ☐ Cefdinir
- ☐ Cefditoren
- ☐ Cefepime
- ☐ Cefixime
- ☐ Cefmetazole
- ☐ Cefonicid
- ☐ Cefoperazone
- ☐ Cefotaxime
- ☐ Cefotetan

- ☐ Cefoxitin
- ☐ Cefpodoxime
- ☐ Cefprozil
- ☐ Ceftaroline fosamil
- ☐ Ceftazidime
- ☐ Ceftibuten
- ☐ Ceftizoxime
- ☐ Ceftobiprole
- ☐ Cefuroxime
- ☐ Cephalothin
- ☐ Cephapirin
- ☐ Cephradine
- ☐ Chloramphenicol
- ☐ Ciprofloxacin
- ☐ Clarithromycin
- ☐ Clindamycin
- ☐ Colistin

D

- ☐ Dalbavancin
- ☐ Daptomycin
- ☐ Demeclocycline
- ☐ Dicloxacillin
- ☐ Doripenem
- ☐ Doxycycline

E

- ☐ Enoxacin
- ☐ Ertapenem
- ☐ Erythromycin

F

- ☐ Fidaxomicin
- ☐ Flucloxacillin
- ☐ Furazolidone

G

- ☐ Gatifloxacin
- ☐ Geldanamycin
- ☐ Gemifloxacin
- ☐ Gentamicin
- ☐ Grepafloxacin

MEMORIAL UNIVERSITY
Faculty of Medicine

Division of Biomedical Sciences (Genetics)

K

- ☐ Kanamycin

L

- ☐ Levofloxacin
- ☐ Lincomycin
- ☐ Linezolid
- ☐ Lomefloxacin
- ☐ Loracarbef

M

- ☐ Mafenide
- ☐ Meropenem
- ☐ Metacycline
- ☐ Methicillin
- ☐ Metronidazole
- ☐ Mezlocillin
- ☐ Minocycline
- ☐ Moxalactam
- ☐ Moxifloxacin

N

- ☐ Nadifloxacin
- ☐ Nafcillin
- ☐ Nalidixic acid
- ☐ Neomycin
- ☐ Netilmicin
- ☐ Nitrofurantoin
- ☐ Norfloxacin

O

- ☐ Ofloxacin
- ☐ Oritavancin
- ☐ Oxacillin
- ☐ Oxytetracycline

MEMORIAL UNIVERSITY
Faculty of Medicine

Division of Biomedical Sciences (Genetics)

P

- ☐ Paromomycin
- ☐ Penicillin G
- ☐ Penicillin V
- ☐ Piperacillin
- ☐ Piperacillin/tazobactam
- ☐ Polymyxin B
- ☐ Posizolid

R

- ☐ Radezolid
- ☐ Rifaximin
- ☐ Roxithromycin

S

- ☐ Silver sulfadiazine
- ☐ Sparfloxacin
- ☐ Spiramycin
- ☐ Streptomycin
- ☐ Sulfacetamide
- ☐ Sulfadiazine
- ☐ Sulfadimethoxine
- ☐ Sulfamethizole
- ☐ Sulfamethoxazole
- ☐ Sulfasalazine
- ☐ Sulfisoxazole

T

- ☐ Teicoplanin
- ☐ Telavancin
- ☐ Telithromycin
- ☐ Temafloxacin
- ☐ Temocillin
- ☐ Tetracycline
- ☐ Ticarcillin
- ☐ Ticarcillin/clavulanate
- ☐ Tigecycline
- ☐ Tobramycin
- ☐ Torezolid
- ☐ Trovafloxacin
- ☐ Trimethoprim-Sulfamethoxazole (Co-trimoxazole) (TMP-SMX)

MEMORIAL UNIVERSITY
Faculty of Medicine

Division of Biomedical Sciences (Genetics)

V

☐ Vancomycin

Others, please specific _____

3. Please choose the dosage and frequency

☐ 50mg
☐ 100mg
☐ 150mg
☐ 200mg
☐ Others_____

☐ 1 time/per day
☐ 2 times/per day
☐ 3 times/per day
☐ Others_____

Table S1. List of metabolites determined using the Biocrates MxP Quant 500 kit

Metabolite class	Number	Metabolite name or abbreviation
Alkaloids	1	Trigonelline
Amine oxides	1	Trimethylamine N-oxide
Amino acids	20	Alanine, arginine, asparagine, aspartate, cysteine, glutamine, glutamate, glycine, histidine, isoleucine, leucine, lysine, methionine, phenylalanine, proline, serine, threonine, tryptophan, tyrosine, valine
Amino acid related	30	α-Aminoadipic acid, α-aminobutyric acid, acetylornithine, asymmetric dimethylarginine, anserine, 5-aminovaleric acid, β-aminobutyric acid, betaine, carnosine, citrulline, creatinine, cystine, dihydroxyphenylalanine, homoarginine, homocysteine, cis-4-hydroxyproline, trans-4-hydroxyproline, kynurenine, methionine sulfoxide, 1-methylhistidine, 3-methylhistidine, nitrotyrosine, ornithine, phenylacetylglycine, phenylalanine betaine, proline betaine, sarcosine, symmetric dimethylarginine, taurine, tryptophan betaine
Bile acids	14	Cholic acid, chenodeoxycholic acid, deoxycholic acid, glycocholic acid, glycodeoxycholic acid, glycochenodeoxycholic acid, glycolithocholic acid, glycolithocholic acid sulfate, glycoursodeoxycholic acid, taurocholic acid, taurochenodeoxycholic acid, taurodeoxycholic acid, taurolithocholic acid, tauromurocholic acid
Biogenic amines	9	β-Alanine, γ-aminobutyric acid, dopamine, histamine, phenylethylamine, putrescine, serotonin, spermidine, spermine
Carbohydrates and related	1	Hexoses (including glucose)
Carboxylic acids	7	Aconitic acid, dodecanedioic acid, tetradecanedioic acid, hippuric acid, 3-hydroxyglutaric acid, lactic acid, succinic acid
Cresols	1	P-cresol sulfate
Fatty acids	12	Lauric acid, myristic acid, palmitic acid, stearic acid, octadecenoic acid, octadecadienoic acid, eicosenoic acid, eicosadienoic acid, eicosatrienoic acid, arachidonic acid (FA(20:4ω6)), eicosapentaenoic acid (FA(20:5ω3)), docosahexaenoid acid (FA(22:6ω3))
Hormones and related	4	Abscisic acid, cortisol, cortisone, dehydroepiandrosterone sulfate
Indoles and derivatives	4	Indole, 3-indoleacetic acid, 3-indolepropionic acid, indoxyl sulfate
Nucleobases and related	2	Hypoxanthine, xanthine
Vitamins and cofactors	1	Choline

Acylcarnitines	40	C0, C2, C3, C3-DC (or C4-OH), C3-OH, C3:1, C4, C4:1, C5, C5-DC (or C6-OH), C5-M-DC, C5-OH (or C3-DC-M), C5:1, C5:1-DC, C6 (or C4:1-DC), C6:1, C7-DC, C8, C9, C10, C10:1, C10:2, C12, C12-DC, C12:1, C14, C14:1, C14:1-OH, C14:2, C14:2-OH, C16, C16-OH, C16:1, C16:1-OH, C16:2, C16:2-OH, C18, C18:1, C18:1-OH, C18:2
Lysophosphatidylcholines	14	LysoPC a C14:0/C16:0/C16:1/C17:0/C18:0/C18:1/C18:2/C20:3/C20:4/ C24:0/C26:0/C26:1/C28:0/C28:1
Phosphatidylcholines	76	PC aa C24:0/C26:0/C28:1/C30:0/C30:2/C32:0/C32:1/C32:2/C32:3/C34:1/C34:2/C34:3/C34:4/C36:0/C36:1/ C36:2/C36:3/C36:4/ C36:5/ C36:6/C38:0/C38:1/C38:3/C38:4/C38:5/C38:6/C40:1/C40:2/C40:3/C40:4/C40:5/C40:6/C42:0/C42:1/ C42:2/C42:4/C42:5/ C42:6, PC ae C30:0/C30:1/C30:2/C32:1/C32:2/ C34:0/C34:1/C34:2/C34:3/C36:0/C36:1/C36:2/C36:3/C36:4/C36:5/C38:0/C38:1/C38:2/C38:3/C38:4/ C38:5/C38:6/C40:1/ C40:2/C40:3/C40:4/C40:5/C40:6/C42:/C42:1/C42:2/C42:3/C42:4/C42:5/C44:3/C44:4/ C44:5/C44:6
Sphingomyelins	15	SM C16:0/C16:1/C18:0/ C18:1/C20:2/C22:3/C24:0/C24:1/C26:0/C26:1, SM (OH) C14:1/C16:1/C22:1/C22:2/C24:1
Ceramides	28	Cer(d16:1/18:0)/(d16:1/20:0)/(d16:1/22:0)/(d16:1/23:0)/(d16:1/24:0)/(d18:1/14:0)/d18:1/16:0)/(d18:1/ 18:0(OH))/(d18:1/18:0) / (d18:1/18:1)/(d18:1/20:0(OH))/(d18:1/20:0)/(d18:1/22:0)/(d18:1/23:0)/(d18:1/24:0)/(d18:1/24:1)/(d18:1/25:0)/(d18:1/26:0)/(d18:1/26:1)/(d18:2/14:0)/(d18:2/16:0)/(d18:2/18:0)/d18:2/18:1)/(d18:2/20:0)/(d18:2/22:0)/(d18:2/23:0)/(d18:2/24:0)/(d18:2/24:1)
Dihydroceramides	8	Cer(d18:0/18:0(OH))/(d18:0/18:0)/(d18:0/20:0)/(d18:0/22:0)/(d18:0/24:0)/(d18:0/24:1)/(d18:0/26:1(OH))/(d18:0/26:1)
Hexosylceramides	19	HexCer(d16:1/22:0)/(d16:1/24:0)/(d18:1/14:0)/(d18:1/16:0)/(d18:1/18:0)/(d18:1/18:1)/(d18:1/20:0)/(d18:1/22:0)/(d18:1/23:0)/ (d18:1/24:0)/(d18:1/24:1)/(d18:1/26:0) /(d18:1/26:1)/d18:2/16:0)/d18:2/18:0)/(d18:2/20:0)/(d18:2/22:0)/(d18:2/23:0)/(d18:2/24:0)
Dihexosylceramides	9	Hex2Cer(d18:1/14:0)/(d18:1/16:0)/(d18:1/18:0)(d18:1/20:0)/(d18:1/22:0)/(d18:1/24:0)/(d18:1/24:1)/(d18:1/26:0)/(d18:1/26:1)
Trihexosylceramides	6	Hex3Cer(d18:1/16:0)/(d18:1/18:0)(d18:1/24:1)/(d18:1/26:1)/(d18:1_20:0)/(d18:1_22:0)
Cholesteryl esters	22	CE(14:0)/(14:1)/(15:0)/(15:1) /(16:0)/(16:1)/(17:0)/(17:1)/(18:0)/(18:1)/(18:2)/(18:3)/(20:0)/(20:1)/(20:3)/(20:4)/(20:5)/(22:0)/(22:1) / (22:2)/(22:5)/(22:6)

Diglycerides	44	DG(14:0_14:0)/(14:0_18:1)/(14:0_18:2)/(14:0_20:0)/(14:1_18:1)/(14:1_20:2)/(16:0_16:0)/(16:0_16:1)/(16:0_18:1)/(16:0_18:2)/(16:0_20:0)/(16:0_20:3)/(16:0_20:4)/(16:1_18:0)/(16:1_18:1)/(16:1_18:2)/(16:1_20:0)/(17:0_17:1)/(17:0_18:1)/18:0_20:0)/(18:0_20:4)/(18:1_18:1)/(18:1_18:2)/(18:1_18:3)/(18:1_18:4)/(18:1_20:0)/(18:1_20:1)/(18:1_20:2)/(18:1_20:3)/(18:1_20:4)/(18:1_22:5)/(18:1_22:6)/(18:2_18:2)/(18:2_18:3)/(18:2_18:4)/(18:2_20:0)/(18:2_20:4)/(18:3_18:3)/(18:3_20:2)/(21:0_22:6)/(22:1_22:2), DG-O(14:0_18:2)/(16:0_18:1)/ (16:0_20:4)

Triglycerides	242	TG(14:0_32:2)/(14:0_34:0)/(14:0_34:1)/(14:0_34:2)/(14:0_34:3)/(14:0_35:1)/(14:0_35:2) /(14:0_36:1)/(14:0_36:2)/(14:0_36:3)/(14:0_36:4)/ (14:0_38:4)/(14:0_38:5)/(14:0_39:3)/(16:0_28:1)/(16:0_28:2)/(16:0_30:2)/(16:0_32:0)/(16:0_32:1)/(16:0_32:2)/(16:0_32:3)/(16:0_33:1)/ (16:0_33:2)/(16:0_34:0)/(16:0_34:1)/(16:0_34:2)/(16:0_34:3)/(16:0_34:4)/(16:0_35:1)/(16:0_35:2)/(16:0_35:3)/(16:0_36:2)/(16:0_36:3)/ (16:0_36:4)/(16:0_36:5)/(16:0_36:6)/(16:0_37:3)/(16:0_38:1)/(16:0_38:2)/(16:0_38:3)/(16:0_38:4)/(16:0_38:5)/(16:0_38:6)/(16:0_38:7)/ (16:0_40:6)/(16:0_40:7)/(16:0_40:8)/(16:1_28:0)/(16:1_30:1)/(16:1_32:0)/(16:1_32:1)/(16:1_32:2)/(16:1_33:1)/(16:1_34:0)/(16:1_34:1)/ (16:1_34:2)/(16:1_34:3)/(16:1_36:1)/(16:1_36:2)/(16:1_36:3)/(16:1_36:4)/(16:1_36:5)/(16:1_38:3)/(16:1_38:4)/(16:1_38:5)/(17:0_32:1)/ (17:0_34:1)/(17:0_34:2)/(17:0_34:3)/(17:0_36:3)/(17:0_36:4)/(17:1_32:1)/(17:1_34:1)/(17:1_34:2)/(17:1_34:3)/(17:1_36:3)/(17:1_36:4)/ (17:1_36:5)/(17:1_38:5)/(17:1_38:6)/(17:1_38:7)/(17:2_34:2)/(17:2_34:3)/(17:2_36:2)/(17:2_36:3)/(17:2_36:4)/(17:2_38:5)/(17:2_38:6)/ (17:2_38:7)(18:0_30:0)/(18:0_30:1)/(18:0_32:0)/(18:0_32:1)/(18:0_32:2)/(18:0_34:2)/(18:0_34:3)/(18:0_36:1)/(18:0_36:2)/(18:0_36:3)/ (18:0_36:4)/(18:0_36:5)/(18:0_38:6)/(18:0_38:7)/(18:1_26:0)/(18:1_28:1)/(18:1_30:0)/(18:1_30:1)/(18:1_30:2)/(18:1_31:0)/(18:1_32:0)/ (18:1_32:1)/(18:1_32:2)/(18:1_32:3)/(18:1_33:0)/(18:1_33:1)/(18:1_33:2)/(18:1_33:3)/(18:1_34:1)/(18:1_34:2)/(18:1_34:3)/(18:1_34:4)/ (18:1_35:2)/(18:1_35:3)/(18:1_36:0)/(18:1_36:1)/(18:1_36:2)/(18:1_36:3)/(18:1_36:4)/(18:1_36:5)/(18:1_36:6)/(18:1_38:5)/(18:1_38:6)/ (18:1_38:7)/(18:2_28:0)/(18:2_30:0)/(18:2_30:1)/(18:2_31:0)/(18:2_32:0)/(18:2_32:1)/(18:2_32:2)/(18:2_33:0)/(18:2_33:1)/(18:2_33:2)/ (18:2_34:0)/(18:2_34:1)/(18:2_34:2)/(18:2_34:3)/(18:2_34:4)/(18:2_35:1)/(18:2_35:2)/(18:2_35:3)/(18:2_36:0)/(18:2_36:1)/(18:2_36:2)/ (18:2_36:3)/(18:2_36:4)/(18:2_36:5)/(18:2_38:4)/(18:2_38:5)/(18:2_38:6)/(18:3_30:0)/(18:3_32:0)/(18:3_32:1)/(18:3_33:2)/(18:3_34:0)/
Total	630	

a: acyl; aa: acyl-acyl; ae: acyl-alkyl; CE: cholesteryl ester; Cer: ceramide; Cx:y: where x is the number of carbons in the fatty acid side chain; y is the number of double bonds in the fatty acid side chain; DC: decarboxyl; DG: diglyceride; Hex2Cer: dihexosylceramide; Hex3Cer: trihexosylceramide; HexCer: hexosylceramide; lysoPC: lysophosphatidylcholine; M: methyl; FA: fatty acid; OH: hydroxyl; PC: phosphatidylcholine; SM: sphingomyelin; TG: triglyceride.

Table S2. List of proteins determined using the Olink® Explore HT platform

Full name	Protein symbol
Guanylate-binding protein 1	GBP1
Dual specificity mitogen-activated protein kinase kinase 1	MAP2K1
ATP-binding cassette sub-family F member 3	ABCF3
1-acylglycerol-3-phosphate O-acyltransferase ABHD5	ABHD5
Protein ABHD8	ABHD8
Complex I assembly factor ACAD9, mitochondrial	ACAD9
Acyl-coenzyme A synthetase ACSM5, mitochondrial	ACSM5
Adhesion G-protein coupled receptor F2	ADGRF2
Aftiphilin	AFTPH
Jouberin	AHI1
Apical junction component 1 homolog	AJM1
A-kinase anchor protein 5	AKAP5
Alpha-protein kinase 2	ALPK2
Amelogenin, Y isoform	AMELY
Anaphase-promoting complex subunit 10	ANAPC10
Ankyrin repeat domain-containing protein 20A1	ANKRD20A1
Putative ankyrin repeat domain-containing protein 26-like protein	ANKRD26P1
Serine/threonine-protein phosphatase 6 regulatory ankyrin repeat subunit A	ANKRD28
Ankyrin repeat domain-containing protein 34B	ANKRD34B
Ankyrin repeat domain-containing protein 34C	ANKRD34C
Putative ankyrin repeat domain-containing protein 26-like 1	ANKRD36BP1
Ankyrin repeat domain-containing protein 45	ANKRD45
Anillin	ANLN
Amyloid beta precursor protein binding family B member 1	APBB1
DNA-(apurinic or apyrimidinic site) endonuclease 2	APEX2
Aprataxin and PNK-like factor	APLF
C->U-editing enzyme APOBEC-2	APOBEC2

Aprataxin	APTX
Aquaporin-1	AQP1
Apoptosis-resistant E3 ubiquitin protein ligase 1	AREL1
Brefeldin A-inhibited guanine nucleotide-exchange protein 2	ARFGEF2
Rho GTPase-activating protein 20	ARHGAP20
Rho guanine nucleotide exchange factor 33	ARHGEF33
Rho guanine nucleotide exchange factor 40	ARHGEF40
ARL14 effector protein	ARL14EP
cAMP-regulated phosphoprotein 21	ARPP21
Arrestin-C	ARR3
Splicing regulator ARVCF	ARVCF
Arf-GAP with SH3 domain, ANK repeat and PH domain-containing protein 3	ASAP3
Ankyrin repeat and SOCS box protein 11	ASB11
Ankyrin repeat and SOCS box protein 6	ASB6
Putative Polycomb group protein ASXL3	ASXL3
Ankyrin repeat, SAM and basic leucine zipper domain-containing protein 1	ASZ1
Cyclic AMP-dependent transcription factor ATF-3	ATF3
V-type proton ATPase subunit S1	ATP6AP1
Transcriptional regulator ATRX	ATRX
Ataxin-1	ATXN1
Ataxin-7	ATXN7
Ataxin-7-like protein 2	ATXN7L2
Aurora kinase A and ninein-interacting protein	AUNIP
Protein BANP	BANP
Bromodomain adjacent to zinc finger domain protein 1A	BAZ1A
Bcl-2-like protein 11	BCL2L11
Class A basic helix-loop-helix protein 15	BHLHA15
Protein bicaudal D homolog 1	BICD1
BICD family-like cargo adapter 1	BICDL1

BRD4-interacting chromatin-remodeling complex-associated protein-like	BICRAL
Bcl-2-interacting killer	BIK
Myc box-dependent-interacting protein 1	BIN1
Baculoviral IAP repeat-containing protein 3	BIRC3
Baculoviral IAP repeat-containing protein 7	BIRC7
RecQ-like DNA helicase BLM	BLM
Golgin-45	BLZF1
Polycomb complex protein BMI-1	BMI1
Bone morphogenetic protein receptor type-1B	BMPR1B
Biorientation of chromosomes in cell division protein 1-like 1	BOD1L1
BPI fold-containing family A member 3	BPIFA3
Peregrin	BRPF1
Protein BTG4	BTG4
Bystin	BYSL
Uncharacterized protein C10orf62	C10orf62
Uncharacterized protein C10orf67, mitochondrial	C10orf67
(E2-independent) E3 ubiquitin-conjugating enzyme FATS	C10orf90
Uncharacterized protein C12orf42	C12orf42
Uncharacterized protein C14orf178	C14orf178
Uncharacterized protein C1orf167	C1orf167
UPF0193 protein EVG1	C22orf23
C2 calcium-dependent domain-containing protein 4C	C2CD4C
Uncharacterized protein C2orf42	C2orf42
Folate transporter-like protein C2orf83	C2orf83
Uncharacterized protein C4orf17	C4orf17
Uncharacterized protein C6orf132	C6orf132
Uncharacterized protein C9orf131	C9orf131
Calcium-binding protein 4	CABP4
Voltage-dependent L-type calcium channel subunit beta-4	CACNB4

Cactin	CACTIN
Cancer-associated gene 1 protein	CAGE1
Calcium/calmodulin-dependent protein kinase type 1G	CAMK1G
Calcyphosin-like protein	CAPSL
Caskin-1	CASKIN1
Protein chibby homolog 2	CBY2
Coiled-coil domain-containing protein 121	CCDC121
Coiled-coil domain-containing protein 172	CCDC172
Coiled-coil domain-containing protein 181	CCDC181
Coiled-coil domain-containing protein 30	CCDC30
Coiled-coil domain-containing protein 33	CCDC33
Coiled-coil domain-containing protein 69	CCDC69
G1/S-specific cyclin-D1	CCND1
CMRF35-like molecule 5	CD300LD
M-phase inducer phosphatase 3	CDC25C
Cell division cycle-associated protein 2	CDCA2
Cell division cycle-associated protein 3	CDCA3
Borealin	CDCA8
Carcinoembryonic antigen-related cell adhesion molecule 4	CEACAM4
Centromere protein S	CENPS
Centrosomal protein of 78 kDa	CEP78
Centrosomal protein of 83 kDa	CEP83
Cerberus	CER1
Centrin-1	CETN1
Protein Flattop	CFAP126
Protein CFAP20DC	CFAP20DC
Cilia- and flagella-associated protein 43	CFAP43
Cilia- and flagella-associated protein 74	CFAP74
Cilia- and flagella-associated protein 97	CFAP97

Chromatin assembly factor 1 subunit B	CHAF1B
Chromosome alignment-maintaining phosphoprotein 1	CHAMP1
Chromodomain-helicase-DNA-binding protein 2	CHD2
Carbohydrate sulfotransferase 1	CHST1
Probable cytosolic iron-sulfur protein assembly protein CIAO1	CIAO1
CLOCK-interacting pacemaker	CIPC
CDGSH iron-sulfur domain-containing protein 2	CISD2
Uncharacterized protein CLBA1	CLBA1
Calaxin	CLXN
Connector enhancer of kinase suppressor of ras 1	CNKSR1
CCR4-NOT transcription complex subunit 11	CNOT11
Collagen alpha-1(XXIII) chain	COL23A1
Collagen alpha-6(IV) chain	COL4A6
Acetylcholinesterase collagenic tail peptide	COLQ
COMM domain-containing protein 7	COMMD7
Cleavage and polyadenylation specificity factor subunit 2	CPSF2
Cleavage and polyadenylation specificity factor subunit 3	CPSF3
Protein CREG2	CREG2
Putative ciliary rootlet coiled-coil protein-like 1 protein	CROCCP2
Putative ciliary rootlet coiled-coil protein-like 2 protein	CROCCP3
Alpha-crystallin A chain	CRYAA
Casein kinase I isoform gamma-2	CSNK1G2
Cystatin-like 1	CSTL1
Cancer/testis antigen family 45 member A1	CT45A1
CTD small phosphatase-like protein	CTDSPL
Catenin alpha-3	CTNNA3
Catenin delta-1	CTNND1
Putative inactive cathepsin L-like protein CTSL3P	CTSL3P
CTTNBP2 N-terminal-like protein	CTTNBP2NL

Cullin-7	CUL7
CWF19-like protein 1	CWF19L1
Uncharacterized protein CXorf51B	CXorf51B
Cylicin-2	CYLC2
Cysteine-rich tail protein 1	CYSRT1
Disabled homolog 1	DAB1
Disabled homolog 2-interacting protein	DAB2IP
DDB1- and CUL4-associated factor 12	DCAF12
Doublecortin domain-containing protein 2B	DCDC2B
Serine/threonine-protein kinase DCLK3	DCLK3
Protein DDI1 homolog 1	DDI1
DNA damage-inducible transcript 3 protein	DDIT3
Differentially expressed in FDCP 8 homolog	DEF8
DEP domain-containing protein 1A	DEPDC1
Deuterosome assembly protein 1	DEUP1
Disco-interacting protein 2 homolog C	DIP2C
DIS3-like exonuclease 2	DIS3L2
Dixin	DIXDC1
Leukemia-associated protein 7	DLEU7
Homeobox protein DLX-3	DLX3
Doublesex- and mab-3-related transcription factor C1	DMRTC1
Protein kintoun	DNAAF2
Dynein axonemal assembly factor 4	DNAAF4
Dynein axonemal assembly factor 6	DNAAF6
Dynein axonemal heavy chain 11	DNAH11
Dynein axonemal heavy chain 7	DNAH7
Dynein axonemal heavy chain 9	DNAH9
DnaJ homolog subfamily C member 27	DNAJC27
Axonemal dynein light intermediate polypeptide 1	DNALI1

Deoxyhypusine hydroxylase	DOHH
Protein Dok-7	DOK7
Protein dopey-2	DOP1B
Developmental pluripotency-associated protein 4	DPPA4
Dynein regulatory complex protein 1	DRC1
Dynein regulatory complex subunit 3	DRC3
Dorsal root ganglia homeobox protein	DRGX
Death domain-containing protein 1	DTHD1
tRNA-dihydrouridine(16/17) synthase [NAD(P)(+)]-like	DUS1L
tRNA-dihydrouridine(20) synthase [NAD(P)+]-like	DUS2
tRNA-dihydrouridine(47) synthase [NAD(P)(+)]-like	DUS3L
Dual specificity tyrosine-phosphorylation-regulated kinase 4	DYRK4
Double zinc ribbon and ankyrin repeat-containing protein 1	DZANK1
Protein ecdysoneless homolog	ECD
Proteasome adapter and scaffold protein ECM29	ECPAS
Ectodysplasin-A receptor-associated adapter protein	EDARADD
EF-hand calcium-binding domain-containing protein 13	EFCAB13
Histone-lysine N-methyltransferase EHMT1	EHMT1
EP300-interacting inhibitor of differentiation 1	EID1
Eukaryotic translation initiation factor 2-alpha kinase 1	EIF2AK1
Translation initiation factor eIF-2B subunit epsilon	EIF2B5
Eukaryotic translation initiation factor 3 subunit M	EIF3M
Eukaryotic translation initiation factor 5A-1-like	EIF5AL1
ETS-related transcription factor Elf-5	ELF5
ER membrane protein complex subunit 7	EMC7
Crossover junction endonuclease EME1	EME1
Echinoderm microtubule-associated protein-like 1	EML1
Homeobox protein engrailed-2	EN2
Endonuclease domain-containing 1 protein	ENDOD1

E1A-binding protein p400	EP400
Putative EP400-like protein	EP400P1
Endothelial PAS domain-containing protein 1	EPAS1
Ephrin type-A receptor 3	EPHA3
DNA excision repair protein ERCC-6-like	ERCC6L
Transcriptional regulator ERG	ERG
ERI1 exoribonuclease 2	ERI2
ETS translocation variant 4	ETV4
Ena/VASP-like protein	EVL
Envoplakin-like protein	EVPLL
Homeobox even-skipped homolog protein 2	EVX2
Exosome complex component RRP46	EXOSC5
Exophilin-5	EXPH5
FAM231A/C-like protein LOC102723383	F231L
Serine protease FAM111B	FAM111B
Constitutive coactivator of PPAR-gamma-like protein 2	FAM120C
Protein FAM13C	FAM13C
Protein FAM153A	FAM153A
Protein FAM166A	FAM166A
Protein FAM167A	FAM167A
Protein FAM170B	FAM170B
Protein FAM177B	FAM177B
Protein FAM184B	FAM184B
Protein FAM186B	FAM186B
Protein FAM193B	FAM193B
Protein FAM222B	FAM222B
Protein FAM227A	FAM227A
Protein FAM228A	FAM228A
Protein FAM81B	FAM81B

Protein FAM83C	FAM83C
FERM, ARHGEF and pleckstrin domain-containing protein 2	FARP2
F-box/LRR-repeat protein 19	FBXL19
F-box/LRR-repeat protein 7	FBXL7
F-box only protein 31	FBXO31
F-box only protein 34	FBXO34
F-box only protein 40	FBXO40
F-box only protein 42	FBXO42
F-BAR domain only protein 1	FCHO1
F-BAR and double SH3 domains protein 2	FCHSD2
NADPH:adrenodoxin oxidoreductase, mitochondrial	FDXR
Fibroblast growth factor 1	FGF1
Forkhead-associated domain-containing protein 1	FHAD1
FH1/FH2 domain-containing protein 3	FHOD3
Filamin-A-interacting protein 1	FILIP1
Flagellum-associated coiled-coil domain-containing protein 1	FLACC1
Folliculin	FLCN
Putative uncharacterized protein FLJ32790	YP010
Forkhead box protein G1	FOXG1
Forkhead box protein L1	FOXL1
Forkhead box protein N1	FOXN1
Forkhead box protein P4	FOXP4
FERM domain-containing protein 6	FRMD6
FERM domain-containing protein 8	FRMD8
FERM and PDZ domain-containing protein 1	FRMPD1
Putative protein FRMPD2-like	FRMPD2B
Fibrous sheath-interacting protein 2	FSIP2
Far upstream element-binding protein 3	FUBP3
Frizzled-9	FZD9

GRB2-associated-binding protein 4	GAB4
Cyclin-G-associated kinase	GAK
Neutral alpha-glucosidase C	GANC
Dynein regulatory complex subunit 4	GAS8
Golgi-specific brefeldin A-resistance guanine nucleotide exchange factor 1	GBF1
Lysophospholipase D GDPD1	GDPD1
ADP-ribosylation factor-binding protein GGA2	GGA2
Gap junction alpha-3 protein	GJA3
G kinase-anchoring protein 1	GKAP1
mRNA export factor GLE1	GLE1
Glycolipid transfer protein	GLTP
Glucocorticoid modulatory element-binding protein 2	GMEB2
Putative golgin subfamily A member 6-like protein 3	GOLGA6L4_GOLGA6L9_GOLGA6L10
Golgin subfamily A member 8C	GOLGA8CP
Glypican-4	GPC4
G-protein coupled receptor 135	GPR135
G-protein-signaling modulator 3	GPSM3
G protein-coupled receptor kinase 4	GRK4
Gasdermin-D	GSDMD
Germ cell-specific gene 1-like protein	GSG1L
tRNA modification GTPase GTPBP3, mitochondrial	GTPBP3
Gametocyte-specific factor 1-like	GTSF1L
Glycophorin-A	GYPA
Histone deacetylase 5	HDAC5
Hepatoma-derived growth factor-like protein 1	HDGFL1
E3 ubiquitin-protein ligase HECW2	HECW2
DNA helicase B	HELB
Transcription factor HES-4	HES4
HERV-H LTR-associating protein 1	HHLA1

Homeodomain-interacting protein kinase 3	HIPK3
Homeodomain-interacting protein kinase 4	HIPK4
Hepatocyte nuclear factor 4-alpha	HNF4A
Protein Hook homolog 1	HOOK1
BLOC-2 complex member HPS5	HPS5
Very-long-chain 3-oxoacyl-CoA reductase	HSD17B12
17-beta-hydroxysteroid dehydrogenase type 2	HSD17B2
Heat shock transcription factor, X-linked	HSFX1_HSFX2
Heat shock 70 kDa protein 12A	HSPA12A
Heat shock 70 kDa protein 4L	HSPA4L
Centriolar and ciliogenesis-associated protein HYLS1	HYLS1
DNA-binding protein inhibitor ID-2	ID2
Immediate early response gene 2 protein	IER2
Interferon alpha-2	IFNA2
Interferon beta	IFNB1
Interferon lambda-4	IFNL4
Intraflagellar transport protein 22 homolog	IFT22
Immunoglobulin superfamily member 11	IGSF11
Interleukin-11 receptor subunit alpha	IL11RA
Interleukin-17 receptor E	IL17RE
Inner centromere protein	INCENP
Phosphatidylinositide phosphatase SAC2	INPP5F
Inhibitory synaptic factor 1	INSYN1
Protein INSYN2B	INSYN2B
Dynein regulatory complex protein 11	IQCA1
IQ and AAA domain-containing protein 1-like	IQCA1L
IQ and ubiquitin-like domain-containing protein	IQUB
Interleukin-1 receptor-associated kinase 1-binding protein 1	IRAK1BP1
Integrin alpha-D	ITGAD

Centromere protein R	ITGB3BP
Inositol-trisphosphate 3-kinase A	ITPKA
Protein ITPRID2	ITPRID2
Protein Jade-1	JADE1
Janus kinase and microtubule-interacting protein 3	JAKMIP3
Juxtaposed with another zinc finger protein 1	JAZF1
Junctional cadherin 5-associated protein	JCAD
Bifunctional arginine demethylase and lysyl-hydroxylase JMJD6	JMJD6
Kalirin	KALRN
KN motif and ankyrin repeat domain-containing protein 4	KANK4
Histone acetyltransferase KAT2B	KAT2B
Calsenilin	KCNIP3
ATP-sensitive inward rectifier potassium channel 11	KCNJ11
BTB/POZ domain-containing protein KCTD20	KCTD20
Lysine-specific histone demethylase 1A	KDM1A
Lysine-specific demethylase 5A	KDM5A
Uncharacterized protein KIAA0232	KIAA0232
Protein moonraker	KIAA0753
Sickle tail protein homolog	KIAA1217
Uncharacterized protein KIAA1614	KIAA1614
Uncharacterized protein KIAA1958	KIAA1958
Uncharacterized protein KIAA2026	KIAA2026
Kinesin-like protein KIF13A	KIF13A
Kinesin-like protein KIF13B	KIF13B
Kinesin-like protein KIF26B	KIF26B
Kinesin-like protein KIF28P	KIF28P
Kinesin-like protein KIF2B	KIF2B
Kinesin-like protein KIF6	KIF6
Kinesin-like protein KIFC2	KIFC2

DNA/RNA-binding protein KIN17	KIN
Kin of IRRE-like protein 3	KIRREL3
Krueppel-like factor 15	KLF15
Krueppel-like factor 8	KLF8
Histone-lysine N-methyltransferase 2C	KMT2C
Kinase non-catalytic C-lobe domain-containing protein 1	KNDC1
Small kinetochore-associated protein	KNSTRN
Importin subunit alpha-8	KPNA7
Protein KRBA1	KRBA1
Protein KRI1 homolog	KRI1
Krev interaction trapped protein 1	KRIT1
Keratin, type I cytoskeletal 12	KRT12
Keratin, type I cytoskeletal 20	KRT20
Lethal(3)malignant brain tumor-like protein 4	L3MBTL4
Lactase-like protein	LCTL
LIM domain-binding protein 3	LDB3
LIM/homeobox protein Lhx2	LHX2
LIM and calponin homology domains-containing protein 1	LIMCH1
Protein lin-9 homolog	LIN9
Putative uncharacterized protein encoded by LINC00469	LINC00469
Putative uncharacterized protein encoded by LINC00471	LINC00471
Putative uncharacterized protein encoded by LINC01356	LINC01356
LIM domain transcription factor LMO4	LMO4
LON peptidase N-terminal domain and RING finger protein 2	LONRF2
Leucine-rich repeat and fibronectin type III domain-containing protein 1	LRFN1
Leucine-rich repeat, immunoglobulin-like domain and transmembrane domain-containing protein 2	LRIT2
Leucine-rich repeat-containing protein 1	LRRC1
Leucine-rich repeat-containing protein 27	LRRC27
Leucine-rich repeat-containing protein 43	LRRC43

Leucine-rich repeat-containing protein 75A	LRRC75A
Leucine-rich repeat transmembrane neuronal protein 1	LRRTM1
Aminopeptidase Q	LVRN
Lymphocyte antigen 6K	LY6K
Metastasis-associated in colon cancer protein 1	MACC1
ADP-ribose glycohydrolase MACROD2	MACROD2
MAP kinase-activating death domain protein	MADD
Melanoma-associated antigen 1	MAGEA1
Melanoma-associated antigen B3	MAGEB3
Melanoma-associated antigen B4	MAGEB4
Melanoma-associated antigen D4	MAGED4
Serine/threonine-protein kinase MAK	MAK
Mitogen-activated protein kinase kinase kinase 13	MAP3K13
Mitogen-activated protein kinase kinase kinase 3	MAP3K3
Mitogen-activated protein kinase kinase kinase 4	MAP3K4
Ensconsin	MAP7
Mitogen-activated protein kinase 12	MAPK12
Mitogen-activated protein kinase 4	MAPK4
MAP kinase-activated protein kinase 3	MAPKAPK3
Putative uncharacterized protein encoded by MAPKAPK5-AS1	MAPKAPK5-AS1
Mitogen-activated protein kinase-binding protein 1	MAPKBP1
Microtubule-associated serine/threonine-protein kinase 1	MAST1
Metallo-beta-lactamase domain-containing protein 1	MBLAC1
Methylcrotonoyl-CoA carboxylase subunit alpha, mitochondrial	MCCC1
Probable guanine nucleotide exchange factor MCF2L2	MCF2L2
Mini-chromosome maintenance complex-binding protein	MCMBP
Mediator of DNA damage checkpoint protein 1	MDC1
Mediator of RNA polymerase II transcription subunit 12	MED12
Homeobox protein Meis2	MEIS2

Putative methyltransferase-like protein 15P1	METTL15P1
RNA N6-adenosine-methyltransferase METTL16	METTL16
Probable methyltransferase-like protein 25	METTL25
Migration and invasion-inhibitory protein	MIIP
Probable ubiquitin carboxyl-terminal hydrolase MINDY-4	MINDY4
Inactive ubiquitin carboxyl-terminal hydrolase MINDY-4B	MINDY4B
Myeloid leukemia factor 1	MLF1
MLX-interacting protein	MLXIP
Membrane metallo-endopeptidase-like 1	MMEL1
Meiotic nuclear division protein 1 homolog	MND1
Max-binding protein MNT	MNT
ATPase MORC2	MORC2
MORN repeat-containing protein 5	MORN5
Motile sperm domain-containing protein 1	MOSPD1
DNA-3-methyladenine glycosylase	MPG
Melanocortin-2 receptor accessory protein 2	MRAP2
Melanoregulin	MREG
rRNA methyltransferase 1, mitochondrial	MRM1
Maestro heat-like repeat-containing protein family member 2A	MROH2A
Homeobox protein MSX-2	MSX2
Mitochondrial fission regulator 1	MTFR1
Mitochondrial ribosome-associated GTPase 2	MTG2
Translation initiation factor IF-2, mitochondrial	MTIF2
Mucin-3A	MUC3A
Mucin-7	MUC7
Crossover junction endonuclease MUS81	MUS81
MYCBP-associated protein	MYCBPAP
Myosin-13	MYH13
Myosin-15	MYH15

Myosin regulatory light chain 10	MYL10
Unconventional myosin-X	MYO10
Unconventional myosin-Vc	MYO5C
Myoblast determination protein 1	MYOD1
Myelin transcription factor 1-like protein	MYT1L
Putative uncharacterized protein MGC39545	YK038
Nascent polypeptide-associated complex subunit alpha-2	NACA2
Homeobox protein NANOG	NANOG
Neurobeachin	NBEA
Nck-associated protein 5	NCKAP5
Putative nuclear receptor corepressor 1-like protein NCOR1P1	NCOR1P1
NADPH-dependent diflavin oxidoreductase 1	NDOR1
Complex I intermediate-associated protein 30, mitochondrial	NDUFAF1
NADH dehydrogenase [ubiquinone] 1 alpha subcomplex assembly factor 4	NDUFAF4
NADH dehydrogenase [ubiquinone] iron-sulfur protein 3, mitochondrial	NDUFS3
N-terminal EF-hand calcium-binding protein 3	NECAB3
Serine/threonine-protein kinase Nek5	NEK5
Neuroepithelial cell-transforming gene 1 protein	NET1
Neuropilin and tolloid-like protein 2	NETO2
Nuclear factor of activated T-cells, cytoplasmic 4	NFATC4
Peptide-N(4)-(N-acetyl-beta-glucosaminyl)asparagine amidase	NGLY1
NHS-like protein 2	NHSL2
Protein Niban 2	NIBAN2
Ninjurin-2	NINJ2
Nodal homolog	NODAL
Nucleolar protein 4-like	NOL4L
Protein NPAT	NPAT
Nuclear receptor subfamily 1 group I member 3	NR1I3
Notch-regulated ankyrin repeat-containing protein	NRARP

GTPase NRas	NRAS
Nuclear respiratory factor 1	NRF1
Nuclear receptor-interacting protein 3	NRIP3
7-methylguanosine phosphate-specific 5'-nucleotidase	NT5C3B
NUAK family SNF1-like kinase 2	NUAK2
Diphosphoinositol polyphosphate phosphohydrolase 2	NUDT4
Numb-like protein	NUMBL
Nuclear pore complex protein Nup160	NUP160
NUT family member 2B	NUTM2B
Nuclear valosin-containing protein-like	NVL
Nuclear RNA export factor 3	NXF3
Neuronal tyrosine-phosphorylated phosphoinositide-3-kinase adapter 1	NYAP1
Ornithine decarboxylase	ODC1
Protein BCAP	ODF2L
Otoraplin	OTOR
OTU domain-containing protein 6A	OTUD6A
PABIR family member 2	PABIR2
Palmdelphin	PALMD
Partitioning defective 6 homolog alpha	PARD6A
Prostate androgen-regulated mucin-like protein 1	PARM1
Protein mono-ADP-ribosyltransferase PARP3	PARP3
Protein mono-ADP-ribosyltransferase PARP4	PARP4
Circadian clock protein PASD1	PASD1
PAS domain-containing serine/threonine-protein kinase	PASK
Paired box protein Pax-4	PAX4
PCNA-associated factor	PCLAF
Pericentriolar material 1 protein	PCM1
Protein-L-isoaspartate O-methyltransferase domain-containing protein 2	PCMTD2
cAMP-specific 3',5'-cyclic phosphodiesterase 4C	PDE4C

PDZ domain-containing protein 11	PDZD11
E3 ubiquitin-protein ligase PDZRN3	PDZRN3
E3 ubiquitin-protein ligase pellino homolog 1	PELI1
Peroxisomal biogenesis factor 19	PEX19
6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase 1	PFKFB1
6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase 4	PFKFB4
Pleckstrin homology-like domain family B member 3	PHLDB3
Phosphatidylinositol 4,5-bisphosphate 3-kinase catalytic subunit delta isoform	PIK3CD
Piwi-like protein 3	PIWIL3
Polycystic kidney disease 2-like 1 protein	PKD2L1
Cytosolic phospholipase A2 delta	PLA2G4D
Phospholipase A and acyltransferase 3	PLAAT3
Putative protein PLEKHA9	PLEKHA8P1
Pleckstrin homology domain-containing family G member 3	PLEKHG3
Pleckstrin homology domain-containing family G member 4B	PLEKHG4B
Pleckstrin homology domain-containing family S member 1	PLEKHS1
Inactive serine/threonine-protein kinase PLK5	PLK5
Myelin proteolipid protein	PLP1
Polyamine-modulated factor 1-binding protein 1	PMFBP1
Putative postmeiotic segregation increased 2-like protein 3	PMS2P3
Paraneoplastic antigen-like protein 5	PNMA5
Omega-hydroxyceramide transacylase	PNPLA1
Putative POM121-like protein 1	POM121L1P
POTE ankyrin domain family member B2	POTEB2
Protein phosphatase 1 regulatory subunit 32	PPP1R32
Protein phosphatase 3 catalytic subunit alpha	PPP3CA
Calcineurin subunit B type 2	PPP3R2
Putative prolyl-tRNA synthetase associated domain-containing protein 1	PRORSD1P
Proline and serine-rich protein 3	PROSER3

Pre-mRNA-processing factor 19	PRPF19
Proline-rich protein 11	PRR11
Proline-rich protein 18	PRR18
Proline-rich protein 23D2	PRR23D2
Proline-rich protein 25	PRR25
Proline-rich protein 3	PRR3
Proline-rich transmembrane protein 2	PRRT2
Serine/threonine-protein kinase H1	PSKH1
Proteasome subunit alpha type-2	PSMA2
Proteasome subunit beta type-11	PSMB11
Homologous-pairing protein 2 homolog	PSMC3IP
Putative uncharacterized protein PSMG3-AS1	PSMG3-AS1
Tyrosine-protein phosphatase non-receptor type 21	PTPN21
Putative pituitary tumor-transforming gene 3 protein	PTTG3P
R3H domain-containing protein 1	R3HDM1
Ras-related protein Rab-19	RAB19
Ras-related protein Rab-38	RAB38
Ras-related protein Rab-3B	RAB3B
Geranylgeranyl transferase type-2 subunit alpha	RABGGTA
RalA-binding protein 1	RALBP1
Ral GTPase-activating protein subunit alpha-2	RALGAPA2
RNA-binding Raly-like protein	RALYL
Receptor activity-modifying protein 3	RAMP3
Ran-binding protein 3-like	RANBP3L
Ran-binding protein 6	RANBP6
Ras and EF-hand domain-containing protein	RASEF
Ras association domain-containing protein 9	RASSF9
DNA endonuclease RBBP8	RBBP8
Serine hydrolase RBBP9	RBBP9

Putative ribosome-binding factor A, mitochondrial	RBFA
RNA-binding protein 48	RBM48
ATP-dependent DNA helicase Q5	RECQL5
Ras-related and estrogen-regulated growth inhibitor	RERG
Refilin-A	RFLNA
Regulator of G-protein signaling 12	RGS12
Regulator of G-protein signaling 22	RGS22
Regulator of G-protein signaling 5	RGS5
Regulator of G-protein signaling 7-binding protein	RGS7BP
Rhophilin-1	RHPN1
Synembryn-B	RIC8B
RIMS-binding protein 3A/C	RIMBP3C_RIMBP3
Ras and Rab interactor 1	RIN1
Receptor-interacting serine/threonine-protein kinase 3	RIPK3
E3 ubiquitin-protein ligase RNF135	RNF135
RING finger protein 17	RNF17
RING finger protein 208	RNF208
RING finger protein 212B	RNF212B
RING finger protein 32	RNF32
E3 ubiquitin-protein ligase RNF34	RNF34
E3 ubiquitin-protein ligase RNF38	RNF38
Tyrosine-protein kinase transmembrane receptor ROR2	ROR2
Nuclear receptor ROR-alpha	RORA
RPA-interacting protein	RPAIN
Putative RNA polymerase II subunit B1 CTD phosphatase RPAP2	RPAP2
60S ribosomal protein L5	RPL5
60S acidic ribosomal protein P1	RPLP1
Putative ribosomal RNA-processing protein 7 homolog B	RRP7BP
Regulator of telomere elongation helicase 1	RTEL1

Sarcoma antigen 1	SAGE1
Sterile alpha motif domain-containing protein 15	SAMD15
Protein SCAF11	SCAF11
Sciellin	SCEL
Sodium channel protein type 4 subunit alpha	SCN4A
Syndecan-3	SDC3
Selenocysteine insertion sequence-binding protein 2-like	SECISBP2L
Semaphorin-3A	SEMA3A
Semaphorin-5A	SEMA5A
Semaphorin-6D	SEMA6D
SERTA domain-containing protein 2	SERTAD2
Histone-lysine N-methyltransferase SETD7	SETD7
Splicing factor 3B subunit 3	SF3B3
Serine/threonine-protein kinase Sgk1	SGK1
SH2 domain-containing protein 3C	SH2D3C
SH2 domain-containing adapter protein E	SHE
Serine/threonine-protein kinase SIK3	SIK3
NAD-dependent protein deacetylase sirtuin-3, mitochondrial	SIRT3
NAD-dependent protein deacylase sirtuin-6	SIRT6
Solute carrier family 12 member 1	SLC12A1
Stromal membrane-associated protein 1	SMAP1
Structural maintenance of chromosomes protein 5	SMC5
Structural maintenance of chromosomes protein 6	SMC6
Telomerase-binding protein EST1A	SMG6
Nonsense-mediated mRNA decay factor SMG7	SMG7
Smoothelin-like protein 2	SMTNL2
E3 ubiquitin-protein ligase SMURF2	SMURF2
Sentan	SNTN
Transcription factor SOX-6	SOX6

Transcription factor SOX-7	SOX7
Sperm acrosome-associated protein 7	SPACA7
Sperm protein associated with the nucleus on the X chromosome N2	SPANXN2
Spermatogenesis-associated protein 19, mitochondrial	SPATA19
Spermatogenesis-associated protein 24	SPATA24
Spermatogenesis-associated protein 33	SPATA33
Spermatogenesis-associated serine-rich protein 2	SPATS2
Cytospin-B	SPECC1
Maspardin	SPG21
Spermatogenic leucine zipper protein 1	SPZ1
SLIT-ROBO Rho GTPase-activating protein 2B	SRGAP2B
Beta-galactoside alpha-2,6-sialyltransferase 2	ST6GAL2
Alpha-2,8-sialyltransferase 8F	ST8SIA6
SH3 and cysteine-rich domain-containing protein	STAC
SH3 and cysteine-rich domain-containing protein 2	STAC2
SH3 and cysteine-rich domain-containing protein 3	STAC3
Signal-transducing adaptor protein 2	STAP2
StAR-related lipid transfer protein 9	STARD9
Signal transducer and activator of transcription 1-alpha/beta	STAT1
Metalloreductase STEAP1	STEAP1
STING ER exit protein	STEEP1
Serine/threonine-protein kinase 32B	STK32B
Serine/threonine-protein kinase 35	STK35
Stathmin-2	STMN2
Stonin-1	STON1
Stimulated by retinoic acid gene 8 protein homolog	STRA8
Syntaxin-12	STX12
Syntaxin-2	STX2
Syntaxin-binding protein 4	STXBP4

Suppressor of fused homolog	SUFU
Sulfotransferase 1C2	SULT1C2
Sulfotransferase 1E1	SULT1E1
Symplekin	SYMPK
Synaptotagmin-like protein 3	SYTL3
TBC domain-containing protein kinase-like protein	TBCK
TATA box-binding protein-like 2	TBPL2
T-box transcription factor TBX22	TBX22
Tectonin beta-propeller repeat-containing protein 1	TECPR1
Tektin-4	TEKT4
Telomere length regulation protein TEL2 homolog	TELO2
Terminal nucleotidyltransferase 5A	TENT5A
AP-4 complex accessory subunit Tepsin	TEPSIN
Tesmin	TESMIN
Testis-expressed sequence 37 protein	TEX37
Homeobox protein TGIF1	TGIF1
Tyrosine 3-monooxygenase	TH
Treslin	TICRR
Tigger transposable element-derived protein 1	TIGD1
Protein mono-ADP-ribosyltransferase TIPARP	TIPARP
Transducin-like enhancer protein 2	TLE2
Transducin-like enhancer protein 6	TLE6
Transmembrane protein 248	TMEM248
Transmembrane protease serine 4	TMPRSS4
Thioredoxin-related transmembrane protein 2	TMX2
182 kDa tankyrase-1-binding protein	TNKS1BP1
Troponin C, slow skeletal and cardiac muscles	TNNC1
Troponin T, cardiac muscle	TNNT2
Tensin-4	TNS4

Type 2 DNA topoisomerase 6 subunit B-like	TOP6BL
Tumor protein p63-regulated gene 1-like protein	TPRG1L
TRAF3-interacting protein 1	TRAF3IP1
E3 ubiquitin-protein ligase TRIM17	TRIM17
E3 ubiquitin-protein ligase TRIM31	TRIM31
tRNA (adenine(37)-N6)-methyltransferase	TRMO
tRNA:m(4)X modification enzyme TRM13 homolog	TRMT13
Short transient receptor potential channel 4	TRPC4
Zinc finger transcription factor Trps1	TRPS1
Testis-specific protein 10-interacting protein	TSGA10IP
Translin-associated factor X-interacting protein 1	TSNAXIP1
18S rRNA aminocarboxypropyltransferase	TSR3
Tetratricopeptide repeat protein 24	TTC24
Tubulin polyglutamylase TTLL5	TTLL5
Tubulin polyglutamylase TTLL6	TTLL6
Tubulin polyglutamylase TTLL7	TTLL7
Tubulin beta 8B	TUBB8B
Gamma-tubulin complex component 5	TUBGCP5
Terminal uridylyltransferase 4	TUT4
Ubiquitin-60S ribosomal protein L40	UBA52
Ubiquitin-conjugating enzyme E2 E2	UBE2E2
Ubiquitin-conjugating enzyme E2 U	UBE2U
Ubinuclein-2	UBN2
E3 ubiquitin-protein ligase UBR1	UBR1
Putative E3 ubiquitin-protein ligase UBR7	UBR7
UBX domain-containing protein 10	UBXN10
UBX domain-containing protein 2A	UBXN2A
Uridine-cytidine kinase 1	UCK1
Harmonin-binding protein USHBP1	USHBP1

Ubiquitin carboxyl-terminal hydrolase 11	USP11
Ubiquitin carboxyl-terminal hydrolase 36	USP36
Ubiquitin carboxyl-terminal hydrolase 42	USP42
Ubiquitin carboxyl-terminal hydrolase 43	USP43
Ubiquitin carboxyl-terminal hydrolase 48	USP48
Vacuolar protein sorting-associated protein 41 homolog	VPS41
von Willebrand factor A domain-containing protein 5B2	VWA5B2
von Willebrand factor A domain-containing protein 8	VWA8
Wings apart-like protein homolog	WAPL
WD repeat-containing protein 25	WDR25
WD repeat-containing protein 54	WDR54
WD repeat-containing protein 64	WDR64
Methylosome protein 50	WDR77
Whirlin	WHRN
Serine/threonine-protein kinase WNK4	WNK4
Protein Wnt-7a	WNT7A
Wilms tumor protein	WT1
Xenotropic and polytropic retrovirus receptor 1	XPR1
5'-3' exoribonuclease 1	XRN1
X-ray radiation resistance-associated protein 1	XRRA1
Protein YAE1 homolog	YAE1
Zinc finger BED domain-containing protein 5	ZBED5
Zinc finger and BTB domain-containing protein 18	ZBTB18
Zinc finger and BTB domain-containing protein 20	ZBTB20
Zinc finger and BTB domain-containing protein 44	ZBTB44
Zinc finger C2HC domain-containing protein 1B	ZC2HC1B
Zinc finger CCCH domain-containing protein 15	ZC3H15
Zinc finger C3HC-type protein 1	ZC3HC1
Zinc finger CCHC domain-containing protein 14	ZCCHC14

Zinc finger CW-type PWWP domain protein 1	ZCWPW1
Zinc finger CW-type PWWP domain protein 2	ZCWPW2
AN1-type zinc finger protein 4	ZFAND4
Zinc finger protein ZFAT	ZFAT
Zinc finger homeobox protein 3	ZFHX3
Zinc finger protein 57 homolog	ZFP57
Zinc finger protein 90 homolog	ZFP90
Zinc finger RNA-binding protein 2	ZFR2
Lateral signaling target protein 2 homolog	ZFYVE28
Zinc finger protein ZIC 5	ZIC5
Zinc finger protein 131	ZNF131
Putative uncharacterized protein ZNF252P-AS1	ZNF252P-AS1
Zinc finger protein 330	ZNF330
Zinc finger protein 346	ZNF346
Zinc finger protein 350	ZNF350
Zinc finger protein 396	ZNF396
Putative protein ZNF815	ZNF815P
NFX1-type zinc finger-containing protein 1	ZNFX1
Zinc finger SWIM domain-containing protein 8	ZSWIM8
Zinc finger-containing ubiquitin peptidase 1	ZUP1
Protein zwilch homolog	ZWILCH
Aladin	AAAS
Alpha- and gamma-adaptin-binding protein p34	AAGAB
Beta-alanine-activating enzyme	AASDH
ATP-binding cassette sub-family B member 5	ABCB5
ATP-binding cassette sub-family C member 6	ABCC6
ATP-binding cassette sub-family C member 8	ABCC8
ATP-binding cassette sub-family F member 2	ABCF2
Actin-binding LIM protein 3	ABLIM3

Actin-binding Rho-activating protein	ABRA
Acyl-CoA-binding domain-containing protein 7	ACBD7
Apoptotic chromatin condensation inducer in the nucleus	ACIN1
Acetyl-coenzyme A thioesterase	ACOT12
Acyl-coenzyme A synthetase ACSM1, mitochondrial	ACSM1
Actin-related protein 5	ACTR5
Adenylate cyclase type 3	ADCY3
Adenylate cyclase type 5	ADCY5
Androglobin	ADGB
Adhesion G protein-coupled receptor A2	ADGRA2
Adhesion G protein-coupled receptor F4	ADGRF4
All-trans-retinol dehydrogenase [NAD(+)] ADH4	ADH4
Proteasomal ubiquitin receptor ADRM1	ADRM1
Arf-GAP with GTPase, ANK repeat and PH domain-containing protein 4/9	AGAP9_AGAP4
Cytosolic carboxypeptidase 3	AGBL3
Putative activator of 90 kDa heat shock protein ATPase homolog 2	AHSA2P
Adenylate kinase 4, mitochondrial	AK4
Adenylate kinase 7	AK7
A-kinase anchor protein 13	AKAP13
A-kinase anchor protein 14	AKAP14
A-kinase anchor protein 7 isoforms alpha and beta	AKAP7
A-kinase anchor protein 8	AKAP8
Aldo-keto reductase family 1 member A1	AKR1A1
5-aminolevulinate synthase, non-specific, mitochondrial	ALAS1
Aldehyde dehydrogenase family 1 member A3	ALDH1A3
Cytosolic 10-formyltetrahydrofolate dehydrogenase	ALDH1L1
ALK tyrosine kinase receptor	ALK
THO complex subunit 4	ALYREF
AMMECR1-like protein	AMMECR1L

Anaphase-promoting complex subunit 1	ANAPC1
Anaphase-promoting complex subunit 4	ANAPC4
Angiopoietin-related protein 5	ANGPTL5
Ankyrin repeat and IBR domain-containing protein 1	ANKIB1
Ankyrin repeat domain-containing protein 10	ANKRD10
Ankyrin repeat domain-containing protein 18B	ANKRD18B
Ankyrin repeat domain-containing protein 2	ANKRD2
Putative ankyrin repeat domain-containing protein 20A12 pseudogene	ANKRD20A12P
Putative ankyrin repeat domain-containing protein 20A4	ANKRD20A4P
Ankyrin repeat domain-containing protein 36B	ANKRD36B
Ankyrin repeat domain-containing protein 50	ANKRD50
Serine/threonine-protein phosphatase 6 regulatory ankyrin repeat subunit C	ANKRD52
Ankyrin repeat and SAM domain-containing protein 1A	ANKS1A
Ankyrin repeat and SAM domain-containing protein 3	ANKS3
Protein ANKUB1	ANKUB1
Anosmin-1	ANOS1
Annexin A6	ANXA6
Amyloid beta precursor protein binding family B member 2	APBB2
Apolipoprotein L5	APOL5
ADP-ribosylation factor GTPase-activating protein 3	ARFGAP3
ADP-ribosylation factor-related protein 1	ARFRP1
Rho GTPase-activating protein 10	ARHGAP10
Rho GTPase-activating protein 11A	ARHGAP11A
Rho GTPase-activating protein 17	ARHGAP17
Rho GTPase-activating protein 24	ARHGAP24
Rho GTPase-activating protein 31	ARHGAP31
Rho GTPase-activating protein 35	ARHGAP35
Rho GTPase-activating protein 42	ARHGAP42
Rho guanine nucleotide exchange factor 15	ARHGEF15

Rho guanine nucleotide exchange factor 19	ARHGEF19
Rho guanine nucleotide exchange factor 2	ARHGEF2
Rho guanine nucleotide exchange factor 28	ARHGEF28
Rho guanine nucleotide exchange factor 38	ARHGEF38
AT-rich interactive domain-containing protein 5A	ARID5A
ARL14 effector protein-like	ARL14EPL
ADP-ribosylation factor-like protein 4C	ARL4C
Arpin	ARPIN
Ecto-ADP-ribosyltransferase 4	ART4
Ankyrin repeat and SOCS box protein 14	ASB14
Ankyrin repeat and SOCS box protein 15	ASB15
Ankyrin repeat and SOCS box protein 3	ASB3
Achaete-scute homolog 1	ASCL1
Achaete-scute homolog 2	ASCL2
Histone-lysine N-methyltransferase ASH1L	ASH1L
Putative Polycomb group protein ASXL2	ASXL2
Cyclic AMP-dependent transcription factor ATF-1	ATF1
Cyclic AMP-dependent transcription factor ATF-4	ATF4
Ubiquitin-like-conjugating enzyme ATG10	ATG10
Autophagy-related protein 101	ATG101
Autophagy-related protein 13	ATG13
Beclin 1-associated autophagy-related key regulator	ATG14
Atlastin-3	ATL3
Plasma membrane calcium-transporting ATPase 3	ATP2B3
Calcium-transporting ATPase type 2C member 1	ATP2C1
V-type proton ATPase subunit d 1	ATP6V0D1
V-type proton ATPase subunit d 2	ATP6V0D2
V-type proton ATPase subunit C 2	ATP6V1C2
Ataxin-7-like protein 1	ATXN7L1

Beta-1,4-N-acetylgalactosaminyltransferase 3	B4GALNT3
Beta-secretase 1	BACE1
Bromodomain adjacent to zinc finger domain protein 2A	BAZ2A
Basal body-orientation factor 1	BBOF1
HMG box transcription factor BBX	BBX
Breast cancer anti-estrogen resistance protein 3	BCAR3
B-cell lymphoma/leukemia 11B	BCL11B
Bcl-2-like protein 10	BCL2L10
Bcl-2-like protein 2	BCL2L2
B-cell CLL/lymphoma 7 protein family member C	BCL7C
Bcl-2-associated transcription factor 1	BCLAF1
BEN domain-containing protein 2	BEND2
BEN domain-containing protein 4	BEND4
BEN domain-containing protein 5	BEND5
BEN domain-containing protein 7	BEND7
Filensin	BFSP1
Protein BHLHb9	GPRASP3
Basic immunoglobulin-like variable motif-containing protein	BIVM
Biogenesis of lysosome-related organelles complex 1 subunit 5	BLOC1S5
Putative BMP-2-inducible kinase-like protein	BMP2KL
Zinc finger protein basonuclin-1	BNC1
Protein BNIP5	BNIP5
Transcription factor IIIB 90 kDa subunit	BRF1
Fanconi anemia group J protein	BRIP1
Bromodomain and WD repeat-containing protein 3	BRWD3
Protein bassoon	BSN
BTB/POZ domain-containing protein 2	BTBD2
BTB/POZ domain-containing protein 3	BTBD3
BTB/POZ domain-containing protein 7	BTBD7

BTB/POZ domain-containing protein 8	BTBD8
BTB/POZ domain-containing protein 9	BTBD9
Butyrophilin-like protein 9	BTNL9
Mitotic checkpoint serine/threonine-protein kinase BUB1 beta	BUB1B
Uncharacterized protein C10orf95	C10orf95
Uncharacterized protein C11orf52	C11orf52
Uncharacterized protein C12orf40	C12orf40
Uncharacterized protein C12orf56	C12orf56
Uncharacterized protein C16orf78	C16orf78
Protein TNT	C16orf82
Uncharacterized protein C16orf86	C16orf86
Uncharacterized protein C16orf96	C16orf96
Uncharacterized protein C17orf50	C17orf50
Protein IL-40	C17orf99
Uncharacterized protein C18orf25	ARK2N
Uncharacterized protein C1orf131	C1orf131
Uncharacterized protein C22orf15	C22orf15
Uncharacterized protein C22orf31	C22orf31
Uncharacterized protein C22orf42	C22orf42
Uncharacterized protein C2orf16	C2orf16
UPF0561 protein C2orf68	C2orf68
Uncharacterized protein C2orf73	C2orf73
Uncharacterized protein C2orf80	C2orf80
Uncharacterized protein C2orf81	C2orf81
Uncharacterized protein C3orf38	C3orf38
Uncharacterized protein C3orf62	C3orf62
UPF0524 protein C3orf70	C3orf70
Renal cancer differentiation gene 1 protein	C4orf46
UPF0602 protein C4orf47	C4orf47

Uncharacterized protein C4orf54	C4orf54
UPF0489 protein C5orf22	C5orf22
UPF0461 protein C5orf24	C5orf24
Uncharacterized protein C5orf34	C5orf34
Uncharacterized protein C6orf118	C6orf118
Uncharacterized protein C6orf163	C6orf163
UPF0415 protein C7orf25	C7orf25
UPF0488 protein C8orf33	C8orf33
Uncharacterized protein C8orf34	C8orf34
Uncharacterized protein C8orf58	C8orf58
Uncharacterized protein C9orf152	C9orf152
Uncharacterized protein C9orf43	C9orf43
Carbonic anhydrase 5B, mitochondrial	CA5B
Calcineurin-binding protein cabin-1	CABIN1
Calcium-binding protein 7	CABP7
Calcium-binding tyrosine phosphorylation-regulated protein	CABYR
Calmodulin-like protein 6	CALML6
Calpain-8	CAPN8
Caprin-2	CAPRIN2
Caskin-2	CASKIN2
CASP8-associated protein 2	CASP8AP2
Zinc finger protein castor homolog 1	CASZ1
E3 ubiquitin-protein ligase CBLL2	CBLL2
Carbonyl reductase [NADPH] 3	CBR3
E3 SUMO-protein ligase CBX4	CBX4
Protein chibby homolog 1	CBY1
Coiled-coil and C2 domain-containing protein 1B	CC2D1B
Coiled-coil domain-containing protein 117	CCDC117
Coiled-coil domain-containing protein 125	CCDC125

Coiled-coil domain-containing protein 127	CCDC127
Coiled-coil domain-containing protein 13	CCDC13
Coiled-coil domain-containing protein 137	CCDC137
Coiled-coil domain-containing protein 138	CCDC138
Coiled-coil domain-containing protein 14	CCDC14
Coiled-coil domain-containing protein 140	CCDC140
Putative coiled-coil domain-containing protein 144C	CCDC144CP
Coiled-coil domain-containing protein 148	CCDC148
Coiled-coil domain-containing protein 157	CCDC157
Leucine-rich repeat transmembrane protein CCDC168	CCDC168
Coiled-coil domain-containing protein 169	CCDC169
Coiled-coil domain-containing protein 170	CCDC170
Uncharacterized protein CCDC197	CCDC197
Coiled-coil domain-containing protein 24	CCDC24
Coiled-coil domain-containing protein 28B	CCDC28B
Coiled-coil domain-containing protein 40	CCDC40
Coiled-coil domain-containing protein 43	CCDC43
Coiled-coil domain-containing protein 63	CCDC63
Dynein regulatory complex subunit 2	CCDC65
Coiled-coil domain-containing protein 66	CCDC66
Coiled-coil domain-containing protein 7	CCDC7
Coiled-coil domain-containing protein 73	CCDC73
Coiled-coil domain-containing protein 88B	CCDC88B
Coiled-coil domain-containing protein 89	CCDC89
Coiled-coil domain-containing protein 91	CCDC91
Coiled-coil alpha-helical rod protein 1	CCHCR1
C-C motif chemokine 1	CCL1
Cyclin-L1	CCNL1
Cyclin-L2	CCNL2

Cyclin-Y-like protein 2	CCNYL2
Centriolar coiled-coil protein of 110 kDa	CCP110
Centriole, cilia and spindle-associated protein	CCSAP
Cell surface glycoprotein CD200 receptor 2	CD200R1L
CD2 antigen cytoplasmic tail-binding protein 2	CD2BP2
CMRF35-like molecule 7	CD300LB
B-cell antigen receptor complex-associated protein alpha chain	CD79A
Hsp90 co-chaperone Cdc37-like 1	CDC37L1
Cdc42 effector protein 1	CDC42EP1
Cadherin-12	CDH12
Cadherin-related family member 4	CDHR4
Cyclin-dependent kinase 12	CDK12
Cyclin-dependent kinase 14	CDK14
Cyclin-dependent kinase 17	CDK17
Cyclin-dependent kinase 19	CDK19
Cyclin-dependent kinase 2-associated protein 2	CDK2AP2
Cyclin-dependent kinase-like 3	CDKL3
Cyclin-dependent kinase-like 5	CDKL5
Cyclin-dependent kinase inhibitor 1C	CDKN1C
Cysteine dioxygenase type 1	CDO1
Testis-specific chromodomain protein Y 1	CDY1
Carcinoembryonic antigen-related cell adhesion molecule 7	CEACAM7
CCAAT/enhancer-binding protein beta	CEBPB
Cardiac-enriched FHL2-interacting protein	CEFIP
CUGBP Elav-like family member 4	CELF4
Centrosomal AT-AC splicing factor	CENATAC
Centrosomal protein of 162 kDa	CEP162
CEP295 N-terminal-like protein	CEP295NL
Centrosomal protein CEP57L1	CEP57L1

Centrosomal protein of 85 kDa-like	CEP85L
Centrosomal protein of 89 kDa	CEP89
Centrosomal protein of 97 kDa	CEP97
Ceramide kinase	CERK
Cilia- and flagella-associated protein 161	CFAP161
Cilia- and flagella-associated protein 20	CFAP20
Cilia- and flagella-associated protein 251	CFAP251
Cilia- and flagella-associated protein 276	CFAP276
Cilia- and flagella-associated protein 299	CFAP299
Cilia- and flagella-associated protein 46	CFAP46
Cilia- and flagella-associated protein 58	CFAP58
Cilia- and flagella-associated protein 61	CFAP61
Cilia- and flagella-associated protein 69	CFAP69
Uncharacterized protein CFAP92	CFAP92
Cilia- and flagella-associated protein 99	CFAP99
Glutathione-specific gamma-glutamylcyclotransferase 1	CHAC1
Putative coiled-coil-helix-coiled-coil-helix domain-containing protein CHCHD2P9, mitochondrial	CHCHD2P9
Chromodomain-helicase-DNA-binding protein 4	CHD4
Chromodomain-helicase-DNA-binding protein 6	CHD6
Serine/threonine-protein kinase Chk2	CHEK2
Choline/ethanolamine kinase	CHKB
Charged multivesicular body protein 4c	CHMP4C
Muscarinic acetylcholine receptor M2	CHRM2
Muscarinic acetylcholine receptor M3	CHRM3
Carbohydrate sulfotransferase 2	CHST2
Carbohydrate sulfotransferase 4	CHST4
Cytosolic iron-sulfur assembly component 2A	CIAO2A
Circadian-associated transcriptional repressor	CIART
Calcium and integrin-binding family member 2	CIB2

Serine/threonine-protein kinase ICK	CILK1
Cytoskeleton-associated protein 2-like	CKAP2L
Claudin-23	CLDN23
C-type lectin domain family 4 member E	CLEC4E
Clathrin heavy chain linker domain-containing protein 1	CLHC1
Chloride intracellular channel protein 1	CLIC1
Chloride intracellular channel protein 3	CLIC3
Dual specificity protein kinase CLK3	CLK3
Putative uncharacterized protein CLLU1-AS1	CLLU1-AS1
ATP-dependent Clp protease ATP-binding subunit clpX-like, mitochondrial	CLPX
Clathrin light chain A	CLTA
Clathrin heavy chain 2	CLTCL1
Clusterin-associated protein 1	CLUAP1
Cyclic nucleotide-binding domain-containing protein 1	CNBD1
Cyclic nucleotide-gated cation channel alpha-3	CNGA3
Connector enhancer of kinase suppressor of ras 2	CNKSR2
CCR4-NOT transcription complex subunit 10	CNOT10
CCR4-NOT transcription complex subunit 4	CNOT4
Protein canopy homolog 3	CNPY3
Protein cordon-bleu	COBL
Cordon-bleu protein-like 1	COBLL1
Conserved oligomeric Golgi complex subunit 7	COG7
Putative uncharacterized protein COL25A1-DT	COL25A1-DT
Collagen alpha-1(XXVI) chain	COL26A1
Collagen alpha-6(VI) chain	COL6A6
Coatomer subunit zeta-1	COPZ1
Ubiquinone biosynthesis monooxygenase COQ6, mitochondrial	COQ6
Complexin-3	CPLX3
CRACD-like protein	CRACDL

EF-hand calcium-binding domain-containing protein 4A	CRACR2B
Cyclic AMP-responsive element-binding protein 3-like protein 1	CREB3L1
Corticotropin-releasing factor receptor 1	CRHR1
Cytokine receptor-like factor 2	CRLF2
CREB-regulated transcription coactivator 1	CRTC1
Very large A-kinase anchor protein	CRYBG3
Alpha-S1-casein	CSN1S1
Centrosome and spindle pole-associated protein 1	CSPP1
Kita-kyushu lung cancer antigen 1	CT83
Putative cTAGE family member 3	CTAGE3P
CTD small phosphatase-like protein 2	CTDSPL2
Catenin alpha-2	CTNNA2
Beta-catenin-like protein 1	CTNNBL1
CUE domain-containing protein 1	CUEDC1
Cullin-4B	CUL4B
Homeobox protein cut-like 2	CUX2
Pre-mRNA-splicing factor CWC22 homolog	CWC22
Uncharacterized protein CXorf49	CXorf49
Ubiquitin carboxyl-terminal hydrolase CYLD	CYLD
Cytochrome P450 1A2	CYP1A2
Cytochrome P450 26C1	CYP26C1
Cytochrome P450 4B1	CYP4B1
Cytohesin-2	CYTH2
Dapper homolog 1	DACT1
Deleted in azoospermia protein 1	DAZ1
D site-binding protein	DBP
Homeobox protein DBX2	DBX2
Serine/threonine-protein kinase DCLK2	DCLK2
mRNA-decapping enzyme 1A	DCP1A

m7GpppN-mRNA hydrolase	DCP2
DNA damage-induced apoptosis suppressor protein	DDIAS
Probable ATP-dependent RNA helicase DDX10	DDX10
Probable ATP-dependent RNA helicase DDX20	DDX20
Nucleolar RNA helicase 2	DDX21
Probable ATP-dependent RNA helicase DDX43	DDX43
ATP-dependent RNA helicase DDX55	DDX55
Probable ATP-dependent RNA helicase DDX59	DDX59
Probable ATP-dependent RNA helicase DDX60	DDX60
Probable ATP-dependent RNA helicase DDX60-like	DDX60L
Beta-defensin 121	DEFB121
DENN domain-containing protein 2C	DENND2C
Diacylglycerol kinase delta	DGKD
Diacylglycerol kinase eta	DGKH
ATP-dependent DNA/RNA helicase DHX36	DHX36
Probable ATP-dependent RNA helicase DHX37	DHX37
ATP-dependent RNA helicase DHX8	DHX8
Protein diaphanous homolog 3	DIAPH3
Disco-interacting protein 2 homolog B	DIP2B
DIS3-like exonuclease 1	DIS3L
Dihydrolipoyllysine-residue succinyltransferase component of 2-oxoglutarate dehydrogenase complex, mitochondrial	DLST
DNA methyltransferase 1-associated protein 1	DMAP1
Meiotic recombination protein DMC1/LIM15 homolog	DMC1
Dynein axonemal assembly factor 8	DNAAF8
Dynein axonemal heavy chain 1	DNAH1
Dynein axonemal heavy chain 10	DNAH10
Dynein axonemal heavy chain 17	DNAH17
Dynein axonemal heavy chain 6	DNAH6
Dynein axonemal intermediate chain 4	DNAI4

Dynein axonemal intermediate chain 7	DNAI7
DnaJ homolog subfamily B member 13	DNAJB13
DnaJ homolog subfamily C member 10	DNAJC10
DnaJ homolog subfamily C member 12	DNAJC12
Mitochondrial import inner membrane translocase subunit TIM14	DNAJC19
DnaJ homolog subfamily C member 28	DNAJC28
Dynein axonemal light chain 1	DNAL1
Dedicator of cytokinesis protein 10	DOCK10
Uncharacterized protein DOCK8-AS1	DOCK8-AS1
Zinc finger protein neuro-d4	DPF1
Zinc finger protein DPF3	DPF3
Putative DPH3 homolog B	DPH3P1
Dopamine D2 receptor	DRD2
Ribonuclease 3	DROSHA
Sister chromatid cohesion protein DCC1	DSCC1
Dentin sialophosphoprotein	DSPP
Denticleless protein homolog	DTL
Dual oxidase 2	DUOX2
Dual specificity protein phosphatase 15	DUSP15
Dual specificity protein phosphatase 19	DUSP19
Cytoplasmic dynein 1 intermediate chain 2	DYNC1I2
Cytoplasmic dynein 2 heavy chain 1	DYNC2H1
Cytoplasmic dynein 2 intermediate chain 1	DYNC2I1
Cytoplasmic dynein 2 light intermediate chain 1	DYNC2LI1
Cilium assembly protein DZIP1L	DZIP1L
E3 ubiquitin-protein ligase DZIP3	DZIP3
ELL-associated factor 2	EAF2
E2F-associated phosphoprotein	EAPP
Evolutionarily conserved signaling intermediate in Toll pathway, mitochondrial	ECSIT

Protein ECT2	ECT2
Endothelin receptor type B	EDNRB
EEF1A lysine methyltransferase 2	EEF1AKMT2
Endonuclease/exonuclease/phosphatase family domain-containing protein 1	EEPD1
EF-hand calcium-binding domain-containing protein 10	EFCAB10
EF-hand calcium-binding domain-containing protein 12	EFCAB12
EF-hand calcium-binding domain-containing protein 8	EFCAB8
EF-hand and coiled-coil domain-containing protein 1	EFCC1
EH domain-containing protein 2	EHD2
Eukaryotic translation initiation factor 2D	EIF2D
Eukaryotic translation initiation factor 3 subunit G	EIF3G
Eukaryotic translation initiation factor 4E transporter	EIF4ENIF1
Eukaryotic translation initiation factor 5A-2	EIF5A2
EARP and GARP complex-interacting protein 1	EIPR1
ELAV-like protein 3	ELAVL3
Embigin	EMB
Ribosomal RNA small subunit methyltransferase NEP1	EMG1
Echinoderm microtubule-associated protein-like 6	EML6
Homeobox protein engrailed-1	EN1
ENTH domain-containing protein 1	ENTHD1
Ectonucleoside triphosphate diphosphohydrolase 3	ENTPD3
Ectonucleoside triphosphate diphosphohydrolase 4	ENTPD4
Transcription and mRNA export factor ENY2	ENY2
Band 4.1-like protein 4A	EPB41L4A
Enhancer of polycomb homolog 2	EPC2
Epsin-3	EPN3
DNA repair endonuclease XPF	ERCC4
Glutamate-rich protein 1	ERICH1
Glutamate-rich protein 3	ERICH3

Glutamate-rich protein 4	ERICH4
Glutamate-rich protein 6	ERICH6
ERBB receptor feedback inhibitor 1	ERRFI1
Endogenous retrovirus group K member 19 Env polyprotein	ERVK-19
Ethanolamine kinase 2	ETNK2
Exonuclease V	EXO5
Exocyst complex component 7	EXOC7
Exosome complex component RRP41	EXOSC4
Exostosin-like 3	EXTL3
Fanconi anemia core complex-associated protein 20	FAAP20
Protein FAM102A	EEIG1
Protein FAM102B	EEIG2
Protein FAM104B	FAM104B
Protein FAM131B	FAM131B
Protein FAM131C	FAM131C
Protein FAM135B	FAM135B
Protein FAM13B	FAM13B
Protein FAM161A	FAM161A
Protein FAM161B	FAM161B
Protein FAM184A	FAM184A
Protein FAM186A	FAM186A
Protein FAM193A	FAM193A
Protein FAM204A	FAM204A
Protein FAM227B	FAM227B
Protein FAM47B	FAM47B
Protein FAM72A	FAM72A
Protein FAM83B	FAM83B
Putative protein FAM90A10	FAM90A10
Protein FAM91A1	FAM91A1

Fibronectin type 3 and ankyrin repeat domains protein 1	FANK1
Protocadherin Fat 4	FAT4
Fibrosin-1-like protein	FBRSL1
F-box/LRR-repeat protein 5	FBXL5
F-box only protein 16	FBXO16
F-box only protein 22	FBXO22
F-box only protein 46	FBXO46
F-BAR and double SH3 domains protein 1	FCHSD1
Fasciculation and elongation protein zeta-2	FEZ2
FYVE, RhoGEF and PH domain-containing protein 2	FGD2
FYVE, RhoGEF and PH domain-containing protein 6	FGD6
FHF complex subunit HOOK interacting protein 1B	FHIP1B
Fidgetin	FIGN
Fidgetin-like protein 1	FIGNL1
FAD synthase	FLAD1
Formin-like protein 3	FMNL3
Protein FosB	FOSB
Forkhead box protein K2	FOXK2
FRAS1-related extracellular matrix protein 2	FREM2
FERM domain-containing protein 1	FRMD1
Fibronectin type III and SPRY domain-containing protein 2	FSD2
Fibrous sheath-interacting protein 1	FSIP1
Ferritin light chain	FTL
FYN-binding protein 2	FYB2
GRB2-associated-binding protein 1	GAB1
Gamma-aminobutyric acid receptor subunit pi	GABRP
Growth arrest and DNA damage-inducible protein GADD45 gamma	GADD45G
G antigen 7	GAGE7
N-acetylgalactosamine kinase	GALK2

Neuromodulin	GAP43
GRB2-associated and regulator of MAPK protein 2	GAREM2
Golgi-associated RAB2 interactor protein 1B	GARIN1B
Golgi-associated RAB2 interactor protein 2	GARIN2
Golgi-associated RAB2 interactor protein 5B	GARIN5B
Granule associated Rac and RHOG effector protein 1	GARRE1
Growth arrest-specific protein 1	GAS1
GAS2-like protein 3	GAS2L3
Growth arrest-specific protein 7	GAS7
Glutamyl-tRNA	GATC
Cytosolic beta-glucosidase	GBA3
Guanylate-binding protein 3	GBP3
2-amino-3-ketobutyrate coenzyme A ligase, mitochondrial	GCAT
Hexokinase-4	GCK
Beta-1,3-galactosyl-O-glycosyl-glycoprotein beta-1,6-N-acetylglucosaminyltransferase 4	GCNT4
Germinal center-associated signaling and motility protein	GCSAM
Ganglioside-induced differentiation-associated protein 2	GDAP2
Ribosome-releasing factor 2, mitochondrial	GFM2
Glutamine--fructose-6-phosphate aminotransferase [isomerizing] 2	GFPT2
GRB10-interacting GYF protein 1	GIGYF1
GTPase IMAP family member 2	GIMAP2
GTPase IMAP family member 6	GIMAP6
DNA replication complex GINS protein SLD5	GINS4
Guanine nucleotide-binding protein-like 3-like protein	GNL3L
Golgin subfamily A member 2	GOLGA2
Putative golgin subfamily A member 2B	GOLGA2P5
Golgin subfamily A member 4	GOLGA4
Golgin subfamily A member 8B	GOLGA8B
G patch domain and ankyrin repeat-containing protein 1	GPANK1

G patch domain-containing protein 11	GPATCH11
G patch domain-containing protein 4	GPATCH4
G patch domain-containing protein 8	GPATCH8
Glypican-2	GPC2
G-protein coupled receptor-associated sorting protein 1	GPRASP1
G-protein coupled receptor-associated sorting protein 2	GPRASP2
G protein-regulated inducer of neurite outgrowth 2	GPRIN2
G protein-regulated inducer of neurite outgrowth 3	GPRIN3
Protein Aster-A	GRAMD1A
Glutamate receptor ionotropic, kainate 5	GRIK5
Beta-adrenergic receptor kinase 2	GRK3
Gasdermin-A	GSDMA
Putative uncharacterized protein GSN-AS1	GSN-AS1
Eukaryotic peptide chain release factor GTP-binding subunit ERF3A	GSPT1
General transcription factor II-I repeat domain-containing protein 2A	GTF2IRD2
General transcription factor 3C polypeptide 2	GTF3C2
Guanylyl cyclase-activating protein 1	GUCA1A
Guanylyl cyclase-activating protein 3	GUCA1C
Translation factor GUF1, mitochondrial	GUF1
Protein GVQW3	GVQW3
Histone H1t	H1-6
Heart- and neural crest derivatives-expressed protein 1	HAND1
HAUS augmin-like complex subunit 6	HAUS6
Hemoglobin subunit gamma-2	HBG2
Histone deacetylase 6	HDAC6
Guanosine-3',5'-bis(diphosphate) 3'-pyrophosphohydrolase MESH1	HDDC3
Highly divergent homeobox	HDX
HEAT repeat-containing protein 4	HEATR4
Headcase protein homolog	HECA

Probable E3 ubiquitin-protein ligase HECTD2	HECTD2
Helicase with zinc finger domain 2	HELZ2
E3 ubiquitin-protein ligase HERC2	HERC2
Endogenous retrovirus group K member 113 Pro protein	HERVK-113_VP113
Transcription factor HES-7	HES7
Hairy/enhancer-of-split related with YRPW motif protein 2	HEY2
Protein HID1	HID1
Transcription factor HIVEP3	HIVEP3
Hepatic leukemia factor	HLF
Putative Dresden prostate carcinoma protein 2	HMGN2P46
Heterogeneous nuclear ribonucleoprotein K	HNRNPK
Cilia- and flagella-associated protein HOATZ	HOATZ
Homeobox protein Hox-A2	HOXA2
Homeobox protein Hox-B3	HOXB3
Homeobox protein Hox-B4	HOXB4
Homeobox protein Hox-D8	HOXD8
Homeobox protein Hox-D9	HOXD9
Histamine H1 receptor	HRH1
Heat shock factor 2-binding protein	HSF2BP
Hematopoietic SH2 domain-containing protein	HSH2D
Putative heat shock protein HSP 90-beta 4	HSP90AB4P
Intraflagellar transport protein 25 homolog	IFT25
HSPB1-associated protein 1	HSPBAP1
5-hydroxytryptamine receptor 2A	HTR2A
Hormonally up-regulated neu tumor-associated kinase	HUNK
Hydrocephalus-inducing protein homolog	HYDIN
Islet cell autoantigen 1-like protein	ICA1L
Interferon-induced helicase C domain-containing protein 1	IFIH1
Interferon alpha-1/13	IFNA1_IFNA13

Interferon-related developmental regulator 2	IFRD2
Intraflagellar transport protein 172 homolog	IFT172
Intraflagellar transport protein 43 homolog	IFT43
Intraflagellar transport protein 74 homolog	IFT74
Intraflagellar transport protein 81 homolog	IFT81
Intraflagellar transport protein 88 homolog	IFT88
Intraflagellar transport-associated protein	IFTAP
Putative insulin-like growth factor 2 antisense gene protein	IGF2-AS
Immunoglobulin superfamily member 22	IGSF22
Interactor of HORMAD1 protein 1	IHO1
Interleukin-9 receptor	IL9R
Interleukin enhancer-binding factor 2	ILF2
Inhibitor of growth protein 2	ING2
PAK4-inhibitor INKA1	INKA1
Chromatin-remodeling ATPase INO80	INO80
Insulinoma-associated protein 2	INSM2
Inhibitory synaptic factor 2A	INSYN2A
Integrator complex subunit 13	INTS13
Integrator complex subunit 8	INTS8
Inositol hexakisphosphate kinase 1	IP6K1
Inositol polyphosphate multikinase	IPMK
Dynein regulatory complex protein 10	IQCD
IQ domain-containing protein E	IQCE
Dynein regulatory complex protein 9	IQCG
IQCJ-SCHIP1 readthrough transcript protein	IQCJ-SCHIP1
IQ domain-containing protein N	IQCN
IQ motif and SEC7 domain-containing protein 1	IQSEC1
IQ motif and SEC7 domain-containing protein 2	IQSEC2
Interferon regulatory factor 2-binding protein 2	IRF2BP2

Probable E3 ubiquitin-protein ligase IRF2BPL	IRF2BPL
Immunity-related GTPase family Q protein	IRGQ
Iron-sulfur cluster assembly 2 homolog, mitochondrial	ISCA2
Insulin gene enhancer protein ISL-1	ISL1
Inositol 1,4,5-trisphosphate receptor-interacting protein-like 1	ITPRIPL1
Izumo sperm-egg fusion protein 1	IZUMO1
Protein Jade-3	JADE3
Janus kinase and microtubule-interacting protein 2	JAKMIP2
Junctophilin-1	JPH1
KN motif and ankyrin repeat domain-containing protein 1	KANK1
KAT8 regulatory NSL complex subunit 1	KANSL1
Cysteine-rich protein 2-binding protein	KAT14
Katanin p60 ATPase-containing subunit A-like 1	KATNAL1
Kelch repeat and BTB domain-containing protein 7	KBTBD7
Potassium voltage-gated channel subfamily A member 3	KCNA3
Potassium voltage-gated channel subfamily D member 2	KCND2
Putative potassium voltage-gated channel subfamily E member 1B	KCNE1
Potassium channel regulatory protein	KCNRG
BTB/POZ domain-containing protein KCTD16	KCTD16
BTB/POZ domain-containing protein KCTD19	KCTD19
BTB/POZ domain-containing protein KCTD2	KCTD2
BTB/POZ domain-containing protein KCTD8	KCTD8
Keratinocyte differentiation factor 1	KDF1
Lysine-specific demethylase 5D	KDM5D
KH domain-containing, RNA-binding, signal transduction-associated protein 3	KHDRBS3
Uncharacterized protein KIAA0408	KIAA0408
Protein TALPID3	KIAA0586
Acrosomal protein KIAA1210	KIAA1210
Uncharacterized protein KIAA1755	KIAA1755

Kinesin-like protein KIF15	KIF15
Kinesin-like protein KIF18A	KIF18A
Kinesin-like protein KIF19	KIF19
Kinesin-like protein KIF1A	KIF1A
Kinesin-like protein KIF24	KIF24
Kinesin-like protein KIF26A	KIF26A
Kinesin-like protein KIF2C	KIF2C
Kinesin-like protein KIF3B	KIF3B
Chromosome-associated kinesin KIF4B	KIF4B
Kinesin heavy chain isoform 5C	KIF5C
Kinesin-like protein KIF7	KIF7
Kinesin-like protein KIF9	KIF9
Killer cell immunoglobulin-like receptor 3DL3	KIR3DL3
Krueppel-like factor 12	KLF12
Kelch domain-containing protein 4	KLHDC4
Kelch domain-containing protein 7B	KLHDC7B
Kelch-like protein 40	KLHL40
Putative protein KRIP1	KLKP1
Inactive histone-lysine N-methyltransferase 2E	KMT2E
N-lysine methyltransferase KMT5A	KMT5A
Histone-lysine N-methyltransferase KMT5B	KMT5B
KRR1 small subunit processome component homolog	KRR1
Keratin, type I cuticular Ha1	KRT31
Keratin, type II cytoskeletal 78	KRT78
KxDL motif-containing protein 1	KXD1
LINE-1 type transposase domain-containing protein 1	L1TD1
Lethal(3)malignant brain tumor-like protein 2	L3MBTL2
Ragulator complex protein LAMTOR1	LAMTOR1
La-related protein 1B	LARP1B

La-related protein 4	LARP4
Ribosomal biogenesis protein LAS1L	LAS1L
Transcription factor LBX2	LBX2
Lebercilin-like protein	LCA5L
Tyrosine-protein kinase Lck	LCK
Leukocyte receptor cluster member 1	LENG1
Leukocyte receptor cluster member 8	LENG8
LIM/homeobox protein Lhx1	LHX1
LIM domain-containing protein 1	LIMD1
Uncharacterized protein encoded by LINC02872	LINC02872
Putative uncharacterized protein LINC02906	LINC02906
Lipase member N	LIPN
LIM and cysteine-rich domains protein 1	LMCD1
Lamin tail domain-containing protein 2	LMNTD2
Protein LRATD2	LRATD2
Leucine-rich repeat and calponin homology domain-containing protein 1	LRCH1
Leucine-rich repeat and fibronectin type-III domain-containing protein 3	LRFN3
Leucine-rich repeat-containing protein 3	LRRC3
Leucine-rich repeat-containing protein 36	LRRC36
Leucine-rich repeat-containing protein 4	LRRC4
Leucine-rich repeat-containing protein 42	LRRC42
Leucine-rich repeat-containing protein 49	LRRC49
Leucine-rich repeat-containing protein 4C	LRRC4C
Leucine-rich repeat-containing protein 71	LRRC71
Leucine-rich repeat and coiled-coil domain-containing protein 1	LRRCC1
Leucine-rich repeat transmembrane neuronal protein 4	LRRTM4
Protein LSM12	LSM12
Leukocyte tyrosine kinase receptor	LTK
Protein LTV1 homolog	LTV1

Leucine rich adaptor protein 1	LURAP1
Lysozyme g-like protein 2	LYG2
LysM and putative peptidoglycan-binding domain-containing protein 1	LYSMD1
Leucine zipper putative tumor suppressor 3	LZTS3
MAD2L1-binding protein	MAD2L1BP
Repressor of RNA polymerase III transcription MAF1 homolog	MAF1
Transcription factor MafB	MAFB
Putative MAGE domain-containing protein MAGEA13P	MAGEA13P
Melanoma-associated antigen 4	MAGEA4
Melanoma-associated antigen 9	MAGEA9
Melanoma-associated antigen B18	MAGEB18
PDZ domain-containing protein MAGIX	MAGIX
Microtubule-associated protein 10	MAP10
Mitogen-activated protein kinase kinase kinase kinase 1	MAP4K1
MAP6 domain-containing protein 1	MAP6D1
MAP7 domain-containing protein 2	MAP7D2
C-Jun-amino-terminal kinase-interacting protein 3	MAPK8IP3
Target of rapamycin complex 2 subunit MAPKAP1	MAPKAP1
E3 ubiquitin-protein ligase MARCHF7	MARCHF7
MAP/microtubule affinity-regulating kinase 3	MARK3
MAP/microtubule affinity-regulating kinase 4	MARK4
Microtubule-associated serine/threonine-protein kinase 2	MAST2
Microtubule-associated serine/threonine-protein kinase 4	MAST4
MAP3K12-binding inhibitory protein 1	MBIP
Malonyl-CoA-acyl carrier protein transacylase, mitochondrial	MCAT
Germinal-center associated nuclear protein	MCM3AP
Microspherule protein 1	MCRS1
Mediator of RNA polymerase II transcription subunit 13-like	MED13L
Mediator of RNA polymerase II transcription subunit 6	MED6

Myocyte-specific enhancer factor 2C	MEF2C
Pyrin	MEFV
Meiosis-specific coiled-coil domain-containing protein MEIOC	MEIOC
tRNA N(3)-methylcytidine methyltransferase METTL2A	METTL2A
tRNA N(3)-methylcytidine methyltransferase METTL6	METTL6
RNA-binding protein MEX3B	MEX3B
RNA-binding protein MEX3D	MEX3D
Microfibril-associated glycoprotein 3	MFAP3
Membrane frizzled-related protein	MFRP
MAX gene-associated protein	MGA
Transport and Golgi organization protein 1 homolog	MIA3
[F-actin]-monooxygenase MICAL1	MICAL1
[F-actin]-monooxygenase MICAL3	MICAL3
Midnolin	MIDN
Inositol oxygenase	MIOX
Mis18-binding protein 1	MIS18BP1
Mitotic interactor and substrate of PLK1	MISP
Putative E3 ubiquitin-protein ligase makorin-4	MKRN4P
Melanoma antigen recognized by T-cells 1	MLANA
Myeloid leukemia factor 2	MLF2
Muscular LMNA-interacting protein	MLIP
Adenylyltransferase and sulfurtransferase MOCS3	MOCS3
Protein MON2 homolog	MON2
Mortality factor 4-like protein 2	MORF4L2
M-phase phosphoprotein 6	MPHOSPH6
39S ribosomal protein L53, mitochondrial	MRPL53
28S ribosomal protein S27, mitochondrial	MRPS27
Myb/SANT-like DNA-binding domain-containing protein 3	MSANTD3
E3 ubiquitin-protein ligase MSL2	MSL2

Macrophage-stimulating protein receptor	MST1R
S-methyl-5'-thioadenosine phosphorylase	MTAP
Microtubule cross-linking factor 1	MTCL1
Transcription termination factor 2, mitochondrial	MTERF2
Transcription termination factor 3, mitochondrial	MTERF3
Metal regulatory transcription factor 1	MTF1
Mitochondrial fission regulator 1-like	MTFR1L
Myotubularin-related protein 6	MTMR6
Myotubularin-related protein 7	MTMR7
Mitochondrial transcription rescue factor 1	MTRES1
Myosin-binding protein H	MYBPH
Myosin-1	MYH1
Myosin-10	MYH10
Myosin-7	MYH7
Myosin light chain 5	MYL5
Unconventional myosin-XVIIIb	MYO18B
Unconventional myosin-Ie	MYO1E
Unconventional myosin-Ig	MYO1G
Myosin-IIIb	MYO3B
Unconventional myosin-Va	MYO5A
Unconventional myosin-Vb	MYO5B
Deubiquitinase MYSM1	MYSM1
Putative MORF4 family-associated protein 1-like protein UPP	MR1L2
Putative uncharacterized protein ENSP00000383407	YU005
Putative uncharacterized protein FLJ45275, mitochondrial	YO027
Putative uncharacterized protein FLJ46214	YP029
Putative UPF0607 protein ENSP00000383144/ENSP00000381514	YB057_YM017
NEDD4-binding protein 2	N4BP2
NEDD4-binding protein 2-like 2	N4BP2L2

N-alpha-acetyltransferase 11	NAA11
Beta-soluble NSF attachment protein	NAPB
Neuron navigator 2	NAV2
Neurobeachin-like protein 2	NBEAL2
Neuroblastoma breakpoint family member 11	NBPF11
Condensin complex subunit 2	NCAPH
Neutrophil cytosol factor 1/1C	NCF1C_NCF1
Nck-associated protein 5-like	NCKAP5L
Nuclear receptor coactivator 1	NCOA1
Nuclear receptor coactivator 7	NCOA7
Natural cytotoxicity triggering receptor 3	NCR3
Nuclear distribution protein nudE homolog 1	NDE1
Protein NDRG1	NDRG1
NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 10, mitochondrial	NDUFA10
NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 4-like 2	NDUFA4L2
NADH dehydrogenase [ubiquinone] 1 beta subcomplex subunit 9	NDUFB9
Serine/threonine-protein kinase Nek2	NEK2
Serine/threonine-protein kinase Nek4	NEK4
Negative elongation factor C/D	NELFCD
E3 ubiquitin-protein ligase NEURL1	NEURL1
E3 ubiquitin-protein ligase NEURL1B	NEURL1B
Putative uncharacterized protein NEXN-AS1	NEXN-AS1
NFAT activation molecule 1	NFAM1
Neuroguidin	NGDN
Actin remodeling regulator NHS	NHS
NHS-like protein 1	NHSL1
NF-kappa-B-repressing factor	NKRF
NACHT, LRR and PYD domains-containing protein 14	NLRP14
Nicotinamide riboside kinase 1	NMRK1

Nicotinamide riboside kinase 2	NMRK2
Nitric oxide synthase-interacting protein	NOSIP
RNA-binding protein Nova-1	NOVA1
RNA-binding protein Nova-2	NOVA2
Nuclear pore complex-interacting protein family member A2	NPIPA2
Nuclear pore complex-interacting protein family member B6	NPIPB6
Nuclear receptor subfamily 1 group D member 2	NR1D2
Nuclear receptor subfamily 2 group C member 2	NR2C2
Nebulin-related-anchoring protein	NRAP
Pro-neuregulin-2, membrane-bound isoform	NRG2
Pro-neuregulin-3, membrane-bound isoform	NRG3
Neuronal vesicle trafficking-associated protein 1	NSG1
Endonuclease III-like protein 1	NTHL1
Cancer-related nucleoside-triphosphatase	NTPCR
High affinity nerve growth factor receptor	NTRK1
Uridine diphosphate glucose pyrophosphatase NUDT14	NUDT14
Peroxisomal coenzyme A diphosphatase NUDT7	NUDT7
FMR1-interacting protein NUFIP2	NUFIP2
Nuclear protein 1	NUPR1
Nucleoredoxin-like protein 1	NXNL1
Obscurin	OBSCN
Outer dynein arm-docking complex subunit 4	ODAD4
N-glycosylase/DNA lyase	OGG1
Noelin-2	OLFM2
Protein OS-9	OS9
Oxidative stress-responsive serine-rich protein 1	OSER1
Ubiquitin thioesterase OTUB1	OTUB1
OTU domain-containing protein 4	OTUD4
Oviduct-specific glycoprotein	OVGP1

Endoplasmic reticulum protein SC65	P3H4
Polyadenylate-binding protein 4-like	PABPC4L
PACRG-like protein	PACRGL
Protein kinase C and casein kinase substrate in neurons protein 3	PACSIN3
P antigen family member 3	PAGE3
Partitioning defective 3 homolog B	PARD3B
Partitioning defective 6 homolog beta	PARD6B
Poly(A)-specific ribonuclease PARN	PARN
Protein mono-ADP-ribosyltransferase PARP10	PARP10
Protein mono-ADP-ribosyltransferase PARP8	PARP8
PCNA-interacting partner	PARPBP
InaD-like protein	PATJ
Lymphokine-activated killer T-cell-originated protein kinase	PBK
Pre-B-cell leukemia transcription factor 1	PBX1
Protocadherin-10	PCDH10
Protocadherin alpha-1	PCDHA1
Proliferating cell nuclear antigen	PCNA
Choline-phosphate cytidylyltransferase A	PCYT1A
Phosducin	PDC
Programmed cell death protein 2	PDCD2
Phosducin-like protein	PDCL
Dual specificity calcium/calmodulin-dependent 3',5'-cyclic nucleotide phosphodiesterase 1A	PDE1A
cGMP-dependent 3',5'-cyclic phosphodiesterase	PDE2A
Myomegalin	PDE4DIP
Rod cGMP-specific 3',5'-cyclic phosphodiesterase subunit beta	PDE6B
Putative pyridoxal-dependent decarboxylase domain-containing protein 2	PDXDC2P
PDZ domain-containing protein 4	PDZD4
PDZ domain-containing RING finger protein 4	PDZRN4
Inactive tyrosine-protein kinase PEAK1	PEAK1

Phosphoacetylglucosamine mutase	PGM3
Phosphatase and actin regulator 1	PHACTR1
Polyhomeotic-like protein 2	PHC2
PHD finger protein 12	PHF12
PHD finger protein 20-like protein 1	PHF20L1
PHD finger protein 21B	PHF21B
PHD finger protein 24	PHF24
Pleckstrin homology-like domain family A member 3	PHLDA3
Paired mesoderm homeobox protein 2A	PHOX2A
Piwi-like protein 4	PIWIL4
E3 ubiquitin-protein ligase Praja-1	PJA1
1-phosphatidylinositol 4,5-bisphosphate phosphodiesterase delta-1	PLCD1
1-phosphatidylinositol 4,5-bisphosphate phosphodiesterase delta-4	PLCD4
1-phosphatidylinositol 4,5-bisphosphate phosphodiesterase gamma-1	PLCG1
1-phosphatidylinositol 4,5-bisphosphate phosphodiesterase eta-1	PLCH1
Inactive phospholipase C-like protein 1	PLCL1
Pleckstrin homology domain-containing family A member 4	PLEKHA4
Pleckstrin homology domain-containing family D member 1	PLEKHD1
Pleckstrin homology domain-containing family F member 1	PLEKHF1
Pleckstrin homology domain-containing family G member 2	PLEKHG2
Pleckstrin homology domain-containing family G member 5	PLEKHG5
Pleckstrin homology domain-containing family H member 1	PLEKHH1
Pleckstrin homology domain-containing family H member 2	PLEKHH2
Serine/threonine-protein kinase PLK2	PLK2
Multifunctional procollagen lysine hydroxylase and glycosyltransferase LH3	PLOD3
Pleiotropic regulator 1	PLRG1
Plastin-3	PLS3
Plexin-A2	PLXNA2
Paraneoplastic antigen-like protein 8A	PNMA8A

POC1 centriolar protein homolog B	POC1B
Protein O-glucosyltransferase 1	POGLUT1
DNA polymerase beta	POLB
DNA polymerase delta subunit 3	POLD3
DNA polymerase delta subunit 4	POLD4
Polymerase delta-interacting protein 3	POLDIP3
DNA-directed RNA polymerase III subunit RPC4	POLR3D
POTE ankyrin domain family member A	POTEA
POTE ankyrin domain family member C	POTEC
Putative beta-actin-like protein 3	POTEKP
Putative POTE ankyrin domain family member M	POTEM
POU domain, class 2, transcription factor 3	POU2F3
Inorganic pyrophosphatase 2, mitochondrial	PPA2
Liprin-alpha-1	PPFIA1
Liprin-alpha-4	PPFIA4
Liprin-beta-1	PPFIBP1
Liprin-beta-2	PPFIBP2
Apoptosis-stimulating of p53 protein 1	PPP1R13B
Protein phosphatase 1 regulatory subunit 1A	PPP1R1A
Protein phosphatase 1 regulatory subunit 1C	PPP1R1C
Putative protein phosphatase inhibitor 2-like protein 1	PPP1R2P1
Protein phosphatase 1 regulatory subunit 35	PPP1R35
Protein phosphatase 1 regulatory subunit 3B	PPP1R3B
Protein phosphatase 1 regulatory subunit 7	PPP1R7
Serine/threonine-protein phosphatase 4 regulatory subunit 4	PPP4R4
Serine/threonine-protein phosphatase 6 regulatory subunit 2	PPP6R2
PR domain-containing protein 11	PRDM11
PR domain zinc finger protein 2	PRDM2
DNA primase small subunit	PRIM1

Protein kinase C iota type	PRKCI
E3 ubiquitin-protein ligase parkin	PRKN
Protein arginine N-methyltransferase 3	PRMT3
Protein PRR14L	PRR14L
Proline-rich protein 15-like protein	PRR15L
Proline-rich protein 32	PRR32
Proline-rich protein 35	PRR35
Transmembrane gamma-carboxyglutamic acid protein 1	PRRG1
Tyrosine-protein phosphatase non-receptor type 11	PTPN11
Tyrosine-protein phosphatase non-receptor type 14	PTPN14
Tyrosine-protein phosphatase non-receptor type 2	PTPN2
Tyrosine-protein phosphatase non-receptor type 20	PTPN20
Receptor-type tyrosine-protein phosphatase alpha	PTPRA
PX domain-containing protein 1	PXDC1
Pyrroline-5-carboxylate reductase 2	PYCR2
Glutamine-rich protein 2	QRICH2
Glutamine and serine-rich protein 1	QSER1
Sulfhydryl oxidase 2	QSOX2
R3H and coiled-coil domain-containing protein 1	R3HCC1
Coiled-coil domain-containing protein R3HCC1L	R3HCC1L
Ras-related protein Rab-11A	RAB11A
Rab11 family-interacting protein 5	RAB11FIP5
Ras-related protein Rab-39A	RAB39A
Ras-related protein Rab-3C	RAB3C
Rab-like protein 2B	RABL2B
RAD51-associated protein 1	RAD51AP1
RAD51-associated protein 2	RAD51AP2
Ras-associating and dilute domain-containing protein	RADIL
Ras-specific guanine nucleotide-releasing factor RalGPS2	RALGPS2

Ran guanine nucleotide release factor	RANGRF
Rap guanine nucleotide exchange factor 6	RAPGEF6
Ras association domain-containing protein 10	RASSF10
Ras association domain-containing protein 5	RASSF5
Ras association domain-containing protein 7	RASSF7
Retinal homeobox protein Rx	RAX
Retinoblastoma-binding protein 5	RBBP5
RNA-binding protein 20	RBM20
Pre-mRNA-splicing factor RBM22	RBM22
RNA-binding protein 27	RBM27
RNA-binding protein 33	RBM33
RNA-binding motif, single-stranded-interacting protein 3	RBMS3
CapZ-interacting protein	RCSD1
GTP-binding protein REM 2	REM2
RalBP1-associated Eps domain-containing protein 2	REPS2
Replication factor C subunit 1	RFC1
Raftlin	RFTN1
DNA-binding protein RFX5	RFX5
Regulator of G-protein signaling 3	RGS3
Regulator of G-protein signaling 4	RGS4
Regulator of G-protein signaling 6	RGS6
Regulator of hemoglobinization and erythroid cell expansion protein	RHEX
Rho-related BTB domain-containing protein 1	RHOBTB1
RIB43A-like with coiled-coils protein 1	RIBC1
RAD50-interacting protein 1	RINT1
Serine/threonine-protein kinase RIO2	RIOK2
Rho family-interacting cell polarization regulator 2	RIPOR2
RBPJ-interacting and tubulin-associated protein 1	RITA1
Retinaldehyde-binding protein 1	RLBP1

Relaxin-3	RLN3
Inactive ribonuclease-like protein 9	RNASE9
Rho-related GTP-binding protein RhoE	RND3
RING finger protein 10	RNF10
RING finger protein 141	RNF141
E3 ubiquitin-protein ligase RNF213	RNF213
RING finger protein 214	RNF214
RING finger protein 227	RNF227
RNA-binding region-containing protein 3	RNPC3
Roundabout homolog 3	ROBO3
Oxygen-regulated protein 1	RP1
Ribulose-phosphate 3-epimerase-like protein 1	RPEL1
Ribosome production factor 1	RPF1
Protein fantom	RPGRIP1L
Rab effector Noc2	RPH3AL
Ribonuclease P protein subunit p30	RPP30
Regulation of nuclear pre-mRNA domain-containing protein 1A	RPRD1A
40S ribosomal protein S12	RPS12
RNA polymerase I-specific transcription initiation factor RRN3	RRN3
Radical S-adenosyl methionine domain-containing protein 2	RSAD2
Radial spoke head protein 4 homolog A	RSPH4A
Serine/Arginine-related protein 53	RSRC1
Arginine/serine-rich protein 1	RSRP1
Replication termination factor 2	RTF2
Reticulon-4 receptor-like 2	RTN4RL2
Receptor-transporting protein 4	RTP4
Protein associated with UVRAG as autophagy enhancer	RUBCNL
RUN domain-containing protein 3A	RUNDC3A
AP-4 complex accessory subunit RUSC1	RUSC1

RWD domain-containing protein 3	RWDD3
Tyrosine-protein kinase RYK	RYK
Protein S100-A5	S100A5
Protein S100-Z	S100Z
Sal-like protein 4	SALL4
Sterile alpha motif domain-containing protein 12	SAMD12
Sterile alpha motif domain-containing protein 13	SAMD13
Sphingomyelin synthase-related protein 1	SAMD8
SANT and BTB domain regulator of class switch recombination	SANBR
Ribosome maturation protein SBDS	SBDS
Myotubularin-related protein 13	SBF2
Signal peptide, CUB and EGF-like domain-containing protein 3	SCUBE3
Succinate dehydrogenase [ubiquinone] flavoprotein subunit, mitochondrial	SDHA
Succinate dehydrogenase assembly factor 3, mitochondrial	SDHAF3
Succinate dehydrogenase assembly factor 4, mitochondrial	SDHAF4
Epidermal retinol dehydrogenase 2	SDR16C5
Serine dehydratase-like	SDSL
Protein SEC13 homolog	SEC13
SEC14-like protein 2	SEC14L2
Semaphorin-6B	SEMA6B
Sentrin-specific protease 2	SENP2
Sentrin-specific protease 8	SENP8
Septin-10	SEPTIN10
Septin-14	SEPTIN14
Small EDRK-rich factor 1	SERF1A_SERF1B
SERTA domain-containing protein 1	SERTAD1
SERTA domain-containing protein 4	SERTAD4
SEC14 domain and spectrin repeat-containing protein 1	SESTD1
SET-binding protein	SETBP1

Histone-lysine N-methyltransferase SETD5	SETD5
Gamma-sarcoglycan	SGCG
SH2 domain-containing protein 4B	SH2D4B
SH2 domain-containing protein 7	SH2D7
SH3 domain-containing protein 21	SH3D21
Endophilin-A2	SH3GL1
SH3 and multiple ankyrin repeat domains protein 1	SHANK1
Protein shortage in chiasmata 1 ortholog	SHOC1
Short stature homeobox protein	SHOX
Short stature homeobox protein 2	SHOX2
Protein Shroom1	SHROOM1
Protein Shroom2	SHROOM2
Protein Shroom3	SHROOM3
Protein Shroom4	SHROOM4
Suppressor of IKBKE 1	SIKE1
Single-minded homolog 1	SIM1
SUMO-interacting motif-containing protein 1	SIMC1
Paired amphipathic helix protein Sin3b	SIN3B
Signal-regulatory protein gamma	SIRPG
Spindle and kinetochore-associated protein 1	SKA1
Ski-like protein	SKIL
SKI family transcriptional corepressor 1	SKOR1
Solute carrier family 12 member 9	SLC12A9
Solute carrier family 13 member 2	SLC13A2
Reduced folate transporter	SLC19A1
Sodium/iodide cotransporter	SLC5A5
SLIT and NTRK-like protein 5	SLITRK5
Protein SLX4IP	SLX4IP
Probable global transcription activator SNF2L1	SMARCA1

Transcription activator BRG1	SMARCA4
Structural maintenance of chromosomes protein 4	SMC4
Single-pass membrane and coiled-coil domain-containing protein 2	SMCO2
Single-pass membrane and coiled-coil domain-containing protein 3	SMCO3
Spermine oxidase	SMOX
E3 ubiquitin-protein ligase SMURF1	SMURF1
Histone-lysine N-methyltransferase SMYD3	SMYD3
Clathrin coat assembly protein AP180	SNAP91
Synphilin-1	SNCAIP
SNF-related serine/threonine-protein kinase	SNRK
Small nuclear ribonucleoprotein Sm D2	SNRPD2
Sorting nexin-19	SNX19
Spermatogenesis- and oogenesis-specific basic helix-loop-helix-containing protein 2	SOHLH2
VPS10 domain-containing receptor SorCS1	SORCS1
VPS10 domain-containing receptor SorCS3	SORCS3
Ankyrin repeat domain-containing protein SOWAHB	SOWAHB
Transcription factor SOX-13	SOX13
Transcription factor SOX-30	SOX30
Transcription factor SOX-4	SOX4
Transcription factor SOX-8	SOX8
Nuclear body protein SP140	SP140
Transcription factor Sp3	SP3
Transcription factor Sp7	SP7
Sperm-associated antigen 16 protein	SPAG16
Sperm-associated antigen 5	SPAG5
Sperm-associated antigen 7	SPAG7
Sperm-associated antigen 8	SPAG8
Sperm protein associated with the nucleus on the X chromosome B1	SPANXB1
Spermatogenesis-associated protein 1	SPATA1

Spermatogenesis-associated protein 21	SPATA21
Spermatogenesis-associated protein 3	SPATA3
Ribosome biogenesis protein SPATA5	AFG2A
Spermatogenesis associated 6-like protein	SPATA6L
Spermatogenesis-associated protein 7	SPATA7
Speriolin	SPATC1
Spermatogenesis-associated serine-rich protein 1	SPATS1
Protein Spindly	SPDL1
Sperm flagellar protein 1	SPEF1
Msx2-interacting protein	SPEN
Leukosialin	SPN
Putative methyltransferase C9orf114	SPOUT1
DNA-dependent metalloprotease SPRTN	SPRTN
Spectrin beta chain, non-erythrocytic 4	SPTBN4
Spectrin beta chain, non-erythrocytic 5	SPTBN5
S1 RNA-binding domain-containing protein 1	SRBD1
Serum response factor-binding protein 1	SRFBP1
SLIT-ROBO Rho GTPase-activating protein 3	SRGAP3
Signal recognition particle receptor subunit alpha	SRPRA
Signal recognition particle receptor subunit beta	SRPRB
Serrate RNA effector molecule homolog	SRRT
Sex-determining region Y protein	SRY
Protein phosphatase Slingshot homolog 2	SSH2
Translocon-associated protein subunit alpha	SSR1
Somatostatin receptor type 3	SSTR3
Protein SSUH2 homolog	SSUH2
Protein SSX5	SSX5
Putative protein FAM10A5	ST13P5
Cohesin subunit SA-1	STAG1

Cohesin subunit SA-3	STAG3
Signal transducing adapter molecule 2	STAM2
Steroidogenic acute regulatory protein, mitochondrial	STAR
START domain-containing protein 10	STARD10
StAR-related lipid transfer protein 13	STARD13
StAR-related lipid transfer protein 3	STARD3
StAR-related lipid transfer protein 8	STARD8
Serine/threonine-protein kinase 11-interacting protein	STK11IP
Serine/threonine-protein kinase 17A	STK17A
Serine/threonine-protein kinase 26	STK26
Serine/threonine-protein kinase 32C	STK32C
Serine/threonine-protein kinase 33	STK33
Serine/threonine-protein kinase 36	STK36
STE20/SPS1-related proline-alanine-rich protein kinase	STK39
Stathmin-4	STMN4
Storkhead-box protein 2	STOX2
O(6)-methylguanine-induced apoptosis 2	STPG1
Syntaxin-17	STX17
Succinate--CoA ligase [ADP-forming] subunit beta, mitochondrial	SUCLA2
Extracellular sulfatase Sulf-2	SULF2
Small ubiquitin-related modifier 1	SUMO1
Transcription factor SPT20 homolog	SUPT20H
Synaptonemal complex protein 3	SYCP3
Tyrosine-protein kinase SYK	SYK
Nesprin-3	SYNE3
Synaptotagmin-like protein 1	SYTL1
Synaptotagmin-like protein 2	SYTL2
Transforming acidic coiled-coil-containing protein 2	TACC2
Transcription initiation factor TFIID subunit 11	TAF11

Chemokine-like protein TAFA-1	TAFA1
Chemokine-like protein TAFA-3	TAFA3
Protein TANC1	TANC1
TAR DNA-binding protein 43	TARDBP
Threonine--tRNA ligase 2, cytoplasmic	TARS3
TBC1 domain family member 13	TBC1D13
TBC1 domain family member 22B	TBC1D22B
TBC1 domain family member 28	TBC1D28
TBC1 domain family member 31	TBC1D31
Protein broad-minded	TBC1D32
T-box transcription factor TBX2	TBX2
Transcription elongation factor A protein 2	TCEA2
Transcription elongation factor A protein-like 1	TCEAL1
Transcription factor 25	TCF25
Trichohyalin	TCHH
Trichohyalin-like protein 1	TCHHL1
Trichoplein keratin filament-binding protein	TCHP
T-cell leukemia/lymphoma protein 1B	TCL1B
Beta-tectorin	TECTB
Tubulin epsilon and delta complex protein 2	TEDC2
Tektin-1	TEKT1
Tektin-3	TEKT3
Testis-expressed protein 11	TEX11
Testis-expressed protein 12	TEX12
Testis-expressed protein 13A	TEX13A
Testis-expressed protein 44	TEX44
Testis-expressed protein 9	TEX9
Transcription factor Dp family member 3	TFDP3
Transcription factor EB	TFEB

Trimethylguanosine synthase	TGS1
Peroxynitrite isomerase THAP4	THAP4
Thrombospondin type-1 domain-containing protein 7A	THSD7A
T-cell leukemia homeobox protein 1	TLX1
Transmembrane protein 131-like	TMEM131L
Tropomodulin-2	TMOD2
Trinucleotide repeat-containing gene 6B protein	TNRC6B
TOG array regulator of axonemal microtubules protein 1	TOGARAM1
Mitochondrial import receptor subunit TOM34	TOMM34
Apoptosis-stimulating of p53 protein 2	TP53BP2
Tumor protein D55	TPD52L3
Tubulin polyglutamylase complex subunit 2	TPGS2
Targeting protein for Xklp2	TPX2
TRAF-type zinc finger domain-containing protein 1	TRAFD1
Transcriptional-regulating factor 1	TRERF1
Tripartite motif-containing protein 14	TRIM14
E3 ubiquitin-protein ligase TRIM41	TRIM41
E3 ubiquitin-protein ligase TRIM47	TRIM47
Tripartite motif-containing protein 54	TRIM54
Tripartite motif-containing protein 60	TRIM60
TRIO and F-actin-binding protein	TRIOBP
Cdc42-interacting protein 4	TRIP10
Pachytene checkpoint protein 2 homolog	TRIP13
Probable tRNA methyltransferase 9B	TRMT9B
Short transient receptor potential channel 4-associated protein	TRPC4AP
Putative uncharacterized protein TRPC5OS	TRPC5OS
Transient receptor potential cation channel subfamily V member 1	TRPV1
TSC22 domain family protein 3	TSC22D3
Testis-specific gene 10 protein	TSGA10

Teashirt homolog 2	TSHZ2
Tetraspanin-13	TSPAN13
Peripheral-type benzodiazepine receptor-associated protein 1	TSPOAP1
Testis-specific Y-encoded protein 3/10	TSPY3_TSPY10
Testis-specific Y-encoded-like protein 5	TSPYL5
Protein TSSC4	TSSC4
Tetratricopeptide repeat protein 12	TTC12
Tetratricopeptide repeat protein 14	TTC14
Tetratricopeptide repeat protein 16	TTC16
Tetratricopeptide repeat protein 21A	TTC21A
Tetratricopeptide repeat protein 5	TTC5
Tubulin monoglutamylase TTLL4	TTLL4
Tubulin alpha-1C chain	TUBA1C
Tubulin gamma-2 chain	TUBG2
Tubby-related protein 4	TULP4
Twinkle mtDNA helicase	TWNK
Putative gamma-taxilin 2	TXLNGY
Putative uncharacterized protein TXNRD3NB	TXNRD3NB
S-adenosyl-L-methionine-dependent tRNA 4-demethylwyosine synthase TYW1	TYW1
tRNA wybutosine-synthesizing protein 5	TYW5
Ubiquitin-like modifier-activating enzyme 1	UBA1
Ubiquitin-associated protein 2	UBAP2
Ubiquitin-associated and SH3 domain-containing protein A	UBASH3A
Ubiquitin-conjugating enzyme E2 D2	UBE2D2
Ubiquitin conjugation factor E4 B	UBE4B
RING finger protein 37	UBOX5
Ubiquilin-like protein	UBQLNL
E3 ubiquitin-protein ligase UBR2	UBR2
UBX domain-containing protein 11	UBXN11

UBX domain-containing protein 6	UBXN6
Unique cartilage matrix-associated protein	UCMA
Serine/threonine-protein kinase ULK2	ULK2
Serine/threonine-protein kinase ULK4	ULK4
Protein unc-45 homolog A	UNC45A
Putative E3 ubiquitin-protein ligase UNKL	UNKL
Ubiquinol-cytochrome-c reductase complex assembly factor 2	UQCC2
Putative 2-oxo-4-hydroxy-4-carboxy-5-ureidoimidazoline decarboxylase	URAD
Harmonin	USH1C
pre-mRNA splicing regulator USH1G	USH1G
Ubiquitin carboxyl-terminal hydrolase 31	USP31
Ubiquitin carboxyl-terminal hydrolase 33	USP33
Ubiquitin carboxyl-terminal hydrolase 34	USP34
Ubiquitin carboxyl-terminal hydrolase 37	USP37
Probable ubiquitin carboxyl-terminal hydrolase FAF-X	USP9X
Vesicle-associated membrane protein 4	VAMP4
Ventral anterior homeobox 1	VAX1
Ventral anterior homeobox 2	VAX2
Villin-1	VIL1
Vimentin	VIM
Vacuolar protein sorting-associated protein 16 homolog	VPS16
Vacuolar protein sorting-associated protein 54	VPS54
Serine/threonine-protein kinase VRK1	VRK1
Inactive serine/threonine-protein kinase VRK3	VRK3
V-set and transmembrane domain-containing protein 4	VSTM4
Postacrosomal sheath WW domain-binding protein	WBP2NL
WD repeat and coiled-coil-containing protein	WDCP
WD repeat and HMG-box DNA-binding protein 1	WDHD1
WD repeat-containing protein 20	WDR20

GATOR complex protein WDR24	WDR24
WD repeat-containing protein 53	WDR53
WD repeat-containing protein 70	WDR70
WAP four-disulfide core domain protein 3	WFDC3
Serine/threonine-protein kinase WNK3	WNK3
Protein Wnt-16	WNT16
Bifunctional 3'-5' exonuclease/ATP-dependent helicase WRN	WRN
Protein KIBRA	WWC1
Protein WWC2	WWC2
NEDD4-like E3 ubiquitin-protein ligase WWP1	WWP1
Xin actin-binding repeat-containing protein 2	XIRP2
DNA repair protein XRCC1	XRCC1
DNA repair protein XRCC2	XRCC2
Y-box-binding protein 2	YBX2
Probable splicing factor YJU2B	YJU2B
Synaptobrevin homolog YKT6	YKT6
YY1-associated protein 1	YY1AP1
Transcription factor YY2	YY2
Zinc finger BED domain-containing protein 4	ZBED4
Zinc finger and BTB domain-containing protein 24	ZBTB24
Zinc finger and BTB domain-containing protein 32	ZBTB32
Telomere zinc finger-associated protein	ZBTB48
Zinc finger and BTB domain-containing protein 49	ZBTB49
Zinc finger and BTB domain-containing protein 7B	ZBTB7B
Zinc finger and BTB domain-containing protein 7C	ZBTB7C
Probable ribonuclease ZC3H12D	ZC3H12D
Zinc finger CCCH domain-containing protein 6	ZC3H6
Zinc finger CCHC domain-containing protein 18	ZCCHC18
Zinc finger CCHC domain-containing protein 2	ZCCHC2

AN1-type zinc finger protein 3	ZFAND3
Zinc finger X-chromosomal protein	ZFX
Zinc finger FYVE domain-containing protein 16	ZFYVE16
Zinc finger FYVE domain-containing protein 9	ZFYVE9
Zinc finger protein ZIC 3	ZIC3
Zinc finger matrin-type protein 3	ZMAT3
Zinc finger MYND domain-containing protein 11	ZMYND11
Zinc finger protein 175	ZNF175
Zinc finger protein 202	ZNF202
Zinc finger protein 217	ZNF217
Zinc finger protein 264	ZNF264
Zinc finger protein 282	ZNF282
Zinc finger protein 35	ZNF35
Zinc finger protein 385A	ZNF385A
Zinc finger protein 385B	ZNF385B
Zinc finger protein 394	ZNF394
Zinc finger protein 397	ZNF397
Zinc finger protein 608	ZNF608
Zinc finger protein 687	ZNF687
Zinc finger protein 746	ZNF746
Zinc finger protein 75A	ZNF75A
Zinc finger protein 831	ZNF831
Zinc finger protein 839	ZNF839
Zinc-regulated GTPase metalloprotein activator 1B	ZNG1B
Ubiquitin thioesterase ZRANB1	ZRANB1
DNA annealing helicase and endonuclease ZRANB3	ZRANB3
U2 small nuclear ribonucleoprotein auxiliary factor 35 kDa subunit-related protein 2	ZRSR2
Zinc finger and SCAN domain-containing protein 21	ZSCAN21
Zinc finger and SCAN domain-containing protein 31	ZSCAN31

Zinc finger SWIM domain-containing protein 3	ZSWIM3
ATP-binding cassette sub-family A member 2	ABCA2
BRISC complex subunit Abraxas 2	ABRAXAS2
3-ketoacyl-CoA thiolase, peroxisomal	ACAA1
Medium-chain specific acyl-CoA dehydrogenase, mitochondrial	ACADM
Prostatic acid phosphatase	ACP3
Long-chain-fatty-acid--CoA ligase 1	ACSL1
Actin, gamma-enteric smooth muscle	ACTG2
Alpha-actinin-4	ACTN4
N-acyl-aromatic-L-amino acid amidohydrolase	ACY3
Disintegrin and metalloproteinase domain-containing protein 12	ADAM12
A disintegrin and metalloproteinase with thrombospondin motifs 4	ADAMTS4
Pituitary adenylate cyclase-activating polypeptide type I receptor	ADCYAP1R1
Adhesion G protein-coupled receptor G3	ADGRG3
Adhesion G-protein coupled receptor V1	ADGRV1
Acireductone dioxygenase	ADI1
Alpha-2A adrenergic receptor	ADRA2A
Actin filament-associated protein 1-like 2	AFAP1L2
Arf-GAP with GTPase, ANK repeat and PH domain-containing protein 3	AGAP3
Anterior gradient protein 3	AGR3
Axin interactor, dorsalization-associated protein	AIDA
Allograft inflammatory factor 1	AIF1
A-kinase anchor protein 11	AKAP11
Protein AKNAD1	AKNAD1
Aldo-keto reductase family 1 member B1	AKR1B1
Aldo-keto reductase family 1 member B10	AKR1B10
Aldo-keto reductase family 1 member C4	AKR1C4
Aflatoxin B1 aldehyde reductase member 4	AKR7L
RAC-gamma serine/threonine-protein kinase	AKT3

4-trimethylaminobutyraldehyde dehydrogenase	ALDH9A1
Centrosome-associated protein ALMS1	ALMS1
Intestinal-type alkaline phosphatase	ALPI
Ameloblastin	AMBN
E3 ubiquitin-protein ligase AMFR	AMFR
Protein amnionless	AMN
Angiomotin-like protein 2	AMOTL2
Ankyrin-2	ANK2
Ankyrin repeat family A protein 2	ANKRA2
Ankyrin repeat domain-containing protein 11	ANKRD11
Ankyrin repeat domain-containing protein 35	ANKRD35
Ankyrin repeat domain-containing protein 53	ANKRD53
Ankyrin repeat domain-containing protein 54	ANKRD54
Ankyrin repeat domain-containing protein 55	ANKRD55
Ankyrin repeat domain-containing protein 6	ANKRD6
Acidic leucine-rich nuclear phosphoprotein 32 family member E	ANP32E
Annexin A5	ANXA5
Amiloride-sensitive amine oxidase [copper-containing]	AOC1
AP-1 complex-associated regulatory protein	AP1AR
AP-1 complex subunit gamma-1	AP1G1
AP-1 complex subunit gamma-like 2	AP1G2
AP-2 complex subunit beta	AP2B1
Serine/threonine-protein kinase A-Raf	ARAF
Arginase-2, mitochondrial	ARG2
Rho GTPase-activating protein 1	ARHGAP1
Rho GTPase-activating protein 12	ARHGAP12
Rho GTPase-activating protein 25	ARHGAP25
Rho GTPase-activating protein 5	ARHGAP5
Rho guanine nucleotide exchange factor 5	ARHGEF5

AT-rich interactive domain-containing protein 1A	ARID1A
AT-rich interactive domain-containing protein 3A	ARID3A
AT-rich interactive domain-containing protein 4B	ARID4B
ADP-ribosylation factor-like protein 2-binding protein	ARL2BP
Armadillo repeat-containing protein 3	ARMC3
Armadillo repeat-containing X-linked protein 2	ARMCX2
Aryl hydrocarbon receptor nuclear translocator	ARNT
Ecto-ADP-ribosyltransferase 5	ART5
Artemin	ARTN
Arf-GAP with SH3 domain, ANK repeat and PH domain-containing protein 2	ASAP2
60 kDa lysophospholipase	ASPG
ATPase family AAA domain-containing protein 3B	ATAD3B
Arginyl-tRNA--protein transferase 1	ATE1
Cyclic AMP-dependent transcription factor ATF-2	ATF2
Cysteine protease ATG4A	ATG4A
Sodium/potassium-transporting ATPase subunit beta-1	ATP1B1
Sodium/potassium-transporting ATPase subunit beta-2	ATP1B2
Sodium/potassium-transporting ATPase subunit beta-3	ATP1B3
Protein ATP1B4	ATP1B4
Plasma membrane calcium-transporting ATPase 4	ATP2B4
ATP synthase subunit delta, mitochondrial	ATP5F1D
ATP synthase subunit d, mitochondrial	ATP5PD
ATP synthase subunit O, mitochondrial	ATP5PO
Renin receptor	ATP6AP2
V-type proton ATPase subunit F	ATP6V1F
Ataxin-10	ATXN10
Ataxin-2	ATXN2
BRISC and BRCA1-A complex member 1	BABAM1
BAG family molecular chaperone regulator 4	BAG4

Brain-specific angiogenesis inhibitor 1-associated protein 2	BAIAP2
Brain-specific angiogenesis inhibitor 1-associated protein 2-like protein 2	BAIAP2L2
BMP and activin membrane-bound inhibitor homolog	BAMBI
Bargin	BARGIN
Basic leucine zipper transcriptional factor ATF-like	BATF
Apoptosis regulator BAX	BAX
Branched-chain-amino-acid aminotransferase, mitochondrial	BCAT2
Bcl-2-like protein 15	BCL2L15
B-cell CLL/lymphoma 7 protein family member A	BCL7A
Dehydrogenase/reductase SDR family member 6	BDH2
Protein BEX3	BEX3
Biglycan	BGN
Class E basic helix-loop-helix protein 40	BHLHE40
S-methylmethionine--homocysteine S-methyltransferase BHMT2	BHMT2
BICD family-like cargo adapter 2	BICDL2
Bridging integrator 3	BIN3
Baculoviral IAP repeat-containing protein 2	BIRC2
Biogenesis of lysosome-related organelles complex 1 subunit 2	BLOC1S2
Biliverdin reductase A	BLVRA
bMERB domain-containing protein 1	BMERB1
BolA-like protein 1	BOLA1
Bromodomain-containing protein 1	BRD1
Bromodomain-containing protein 2	BRD2
Bromodomain-containing protein 3	BRD3
Break repair meiotic recombinase recruitment factor 1	BRME1
Barttin	BSND
B box and SPRY domain-containing protein	BSPRY
Probetacellulin	BTC
B- and T-lymphocyte attenuator	BTLA

Putative butyrophilin-like protein 10 pseudogene	BTNL10P
Uncharacterized protein C14orf93	C14orf93
Protein C19orf12	C19orf12
Phospholipid transfer protein C2CD2L	C2CD2L
Mitochondrial protein C2orf69	C2orf69
Uncharacterized protein C7orf31	C7orf31
Carbonic anhydrase-related protein 11	CA11
Carbonic anhydrase 5A, mitochondrial	CA5A
Carbonic anhydrase 7	CA7
Carbonic anhydrase-related protein	CA8
Calcium-binding protein 2	CABP2
Voltage-dependent L-type calcium channel subunit alpha-1C	CACNA1C
Voltage-dependent T-type calcium channel subunit alpha-1H	CACNA1H
Voltage-dependent L-type calcium channel subunit beta-1	CACNB1
Calcium-dependent secretion activator 1	CADPS
Calretinin	CALB2
Neuron-specific vesicular protein calcyon	CALY
Calcium/calmodulin-dependent protein kinase type IV	CAMK4
Calcium/calmodulin-dependent protein kinase kinase 1	CAMKK1
Guided entry of tail-anchored proteins factor CAMLG	CAMLG
Calmodulin-regulated spectrin-associated protein 2	CAMSAP2
Adenylyl cyclase-associated protein 2	CAP2
Caprin-1	CAPRIN1
Calcium-regulated heat-stable protein 1	CARHSP1
Protein CASC3	CASC3
Caspase-1	CASP1
Caspase-4	CASP4
Calsequestrin-2	CASQ2
Calpastatin	CAST

E3 ubiquitin-protein ligase CBL-B	CBLB
Cerebellin-1	CBLN1
Coiled-coil domain-containing protein 102A	CCDC102A
Coiled-coil domain-containing protein 102B	CCDC102B
Coiled-coil domain-containing protein 150	CCDC150
Coiled-coil domain-containing protein 85A	CCDC85A
G1/S-specific cyclin-D2	CCND2
G1/S-specific cyclin-E1	CCNE1
T-complex protein 1 subunit epsilon	CCT5
CD164 sialomucin-like 2 protein	CD164L2
T-cell surface antigen CD2	CD2
T-cell-specific surface glycoprotein CD28	CD28
Platelet glycoprotein 4	CD36
Leukocyte antigen CD37	CD37
T-cell surface glycoprotein CD3 delta chain	CD3D
T-cell surface glycoprotein CD3 epsilon chain	CD3E
T-cell surface glycoprotein CD3 gamma chain	CD3G
CD82 antigen	CD82
Cell division cycle protein 123 homolog	CDC123
M-phase inducer phosphatase 1	CDC25A
Cell division cycle protein 27 homolog	CDC27
Serine/threonine-protein kinase MRCK gamma	CDC42BPG
Cadherin-4	CDH4
CDAN1-interacting nuclease 1	CDIN1
Cyclin-dependent kinase 11A	CDK11A
CDK5 regulatory subunit-associated protein 3	CDK5RAP3
Cerebellar degeneration-related protein 2-like	CDR2L
Carcinoembryonic antigen-related cell adhesion molecule 18	CEACAM18
Carcinoembryonic antigen-related cell adhesion molecule 20	CEACAM20

Carcinoembryonic antigen-related cell adhesion molecule 3	CEACAM3
Carcinoembryonic antigen-related cell adhesion molecule 5	CEACAM5
CCAAT/enhancer-binding protein alpha	CEBPA
Chromatin remodeling regulator CECR2	CECR2
CUGBP Elav-like family member 5	CELF5
CUGBP Elav-like family member 6	CELF6
Cell surface hyaluronidase	CEMIP2
Cell cycle exit and neuronal differentiation protein 1	CEND1
Centromere protein F	CENPF
Centromere protein J	CENPJ
Centrosomal protein of 104 kDa	CEP104
Centrosomal protein of 112 kDa	CEP112
Centrosomal protein of 120 kDa	CEP120
Centrosomal protein of 128 kDa	CEP128
Centrosomal protein of 152 kDa	CEP152
Centrosomal protein of 164 kDa	CEP164
Centrosomal protein of 170 kDa protein B	CEP170B
Centrosomal protein 20	CEP20
Centrosomal protein of 290 kDa	CEP290
Centrosome-associated protein 350	CEP350
Centrosomal protein of 44 kDa	CEP44
Centrosomal protein of 55 kDa	CEP55
Centrosomal protein of 85 kDa	CEP85
Ceramide transfer protein	CERT1
Centrin-2	CETN2
Cilia- and flagella-associated protein 410	CFAP410
Cilia- and flagella-associated protein 45	CFAP45
Cryptic protein	CFC1
Craniofacial development protein 1	CFDP1

Cingulin	CGN
Glutathione-specific gamma-glutamylcyclotransferase 2	CHAC2
MICOS complex subunit MIC19	CHCHD3
Calcineurin B homologous protein 1	CHP1
Muscarinic acetylcholine receptor M1	CHRM1
Inhibitor of nuclear factor kappa-B kinase subunit alpha	CHUK
Cyclin-dependent kinase 2-interacting protein	CINP
CLIP-associating protein 1	CLASP1
C-type lectin domain family 2 member L	CLEC2L
C-type lectin domain family 6 member A	CLEC6A
Calmegin	CLGN
Chloride intracellular channel protein 5	CLIC5
Clathrin interactor 1	CLINT1
Methylosome subunit pICln	CLNS1A
Claspin	CLSPN
Clavesin-2	CLVS2
Citramalyl-CoA lyase, mitochondrial	CLYBL
Cyclic nucleotide-gated cation channel beta-3	CNGB3
Protein canopy homolog 2	CNPY2
CB1 cannabinoid receptor-interacting protein 1	CNRIP1
Ciliary neurotrophic factor	CNTF
Centriolin	CNTRL
Collagen alpha-4(IV) chain	COL4A4
Collagen alpha-2(IX) chain	COL9A2
Coatomer subunit epsilon	COPE
Coronin-6	CORO6
Oxygen-dependent coproporphyrinogen-III oxidase, mitochondrial	CPOX
Ceramide-1-phosphate transfer protein	CPTP
Carboxypeptidase Z	CPZ

EF-hand calcium-binding domain-containing protein 4B	CRACR2A
Cyclic AMP-responsive element-binding protein 3	CREB3
CREB/ATF bZIP transcription factor	CREBZF
Corticoliberin	CRH
Cysteine-rich PDZ-binding protein	CRIPT
Cartilage-associated protein	CRTAP
Cone-rod homeobox protein	CRX
Ketimine reductase mu-crystallin	CRYM
Granulocyte-macrophage colony-stimulating factor	CSF2
Granulocyte colony-stimulating factor	CSF3
Casein kinase I isoform delta	CSNK1D
Chondroitin sulfate proteoglycan 5	CSPG5
Cancer/testis antigen 1	CTAG1A_CTAG1B
Cardiotrophin-1	CTF1
CBP80/20-dependent translation initiation factor	CTIF
Catenin alpha-1	CTNNA1
CTP synthase 1	CTPS1
Cathepsin W	CTSW
Copper homeostasis protein cutC homolog	CUTC
CUB and zona pellucida-like domain-containing protein 1	CUZD1
CWF19-like protein 2	CWF19L2
C-X-C motif chemokine 14	CXCL14
Cytochrome b5	CYB5A
1,25-dihydroxyvitamin D(3) 24-hydroxylase, mitochondrial	CYP24A1
Cytochrome P450 3A4	CYP3A4
Cytohesin-3	CYTH3
Deleted in azoospermia protein 4	DAZ4
Netrin receptor DCC	DCC
Doublecortin domain-containing protein 2C	DCDC2C

Protein artemis	DCLRE1C
mRNA-decapping enzyme 1B	DCP1B
Dynactin subunit 4	DCTN4
DCN1-like protein 1	DCUN1D1
DCN1-like protein 2	DCUN1D2
DET1- and DDB1-associated protein 1	DDA1
ATP-dependent RNA helicase DDX19B	DDX19B
Probable ATP-dependent RNA helicase DDX23	DDX23
ATP-dependent RNA helicase DDX25	DDX25
ATP-dependent RNA helicase DDX39A	DDX39A
Probable ATP-dependent RNA helicase DDX4	DDX4
Probable ATP-dependent RNA helicase DDX49	DDX49
Probable ATP-dependent RNA helicase DDX53	DDX53
Antiviral innate immune response receptor RIG-I	RIGI
Beta-defensin 104	DEFB104A_DEFB104B
Beta-defensin 112	DEFB112
Beta-defensin 116	DEFB116
Defensin beta 118	DEFB118
DENN domain-containing protein 2B	DENND2B
Density-regulated protein	DENR
Protein DGCR6	DGCR6
Diacylglycerol kinase beta	DGKB
Diacylglycerol kinase zeta	DGKZ
Dihydroorotate dehydrogenase	DHODH
Dehydrogenase/reductase SDR family member 7	DHRS7
Divergent protein kinase domain 1C	DIPK1C
Disks large-associated protein 5	DLGAP5
Dynein axonemal assembly factor 11	DNAAF11
Dynein axonemal heavy chain 5	DNAH5

DnaJ homolog subfamily A member 1	DNAJA1
DnaJ homolog subfamily B member 3	DNAJB3
DnaJ homolog subfamily C member 30, mitochondrial	DNAJC30
DNL-type zinc finger protein	DNLZ
Double C2-like domain-containing protein beta	DOC2B
Dedicator of cytokinesis protein 9	DOCK9
Cell adhesion molecule DSCAM	DSCAM
Probable E3 ubiquitin-protein ligase DTX2	DTX2
E3 ubiquitin-protein ligase DTX3L	DTX3L
Dual specificity phosphatase 29	DUSP29
Dual specificity protein phosphatase 3	DUSP3
Cytoplasmic dynein 1 heavy chain 1	DYNC1H1
Dynein light chain Tctex-type 1	DYNLT1
Enoyl-CoA delta isomerase 2	ECI2
Endothelial cell-specific chemotaxis regulator	ECSCR
ER degradation-enhancing alpha-mannosidase-like protein 2	EDEM2
Dynein regulatory complex protein 8	EFCAB2
Ephrin-B2	EFNB2
Epidermal growth factor-like protein 7	EGFL7
EH domain-containing protein 4	EHD4
Eukaryotic translation initiation factor 2-alpha kinase 3	EIF2AK3
Eukaryotic translation initiation factor 4E type 2	EIF4E2
Eukaryotic translation initiation factor 5	EIF5
Eukaryotic translation initiation factor 5A-1	EIF5A
ELAV-like protein 4	ELAVL4
Protein phosphatase 1 regulatory subunit 29	ELFN2
Elongin-B	ELOB
EMI domain-containing protein 1	EMID1
Protein enabled homolog	ENAH

Enolase-phosphatase E1	ENOPH1
Glutamyl aminopeptidase	ENPEP
Alpha-endosulfine	ENSA
Ectonucleoside triphosphate diphosphohydrolase 2	ENTPD2
Band 4.1-like protein 3	EPB41L3
Band 4.1-like protein 5	EPB41L5
Enhancer of polycomb homolog 1	EPC1
Ectopic P granules protein 5 homolog	EPG5
Ephrin type-A receptor 10	EPHA10
Bifunctional epoxide hydrolase 2	EPHX2
Epsin-1	EPN1
ERC protein 2	ERC2
DNA excision repair protein ERCC-1	ERCC1
ETS domain-containing transcription factor ERF	ERF
3'-5' exoribonuclease 1	ERI1
Endoplasmic reticulum resident protein 27	ERP27
Endogenous retrovirus group V member 1 Env polyprotein	ERVV-1
Separin	ESPL1
Estrogen receptor	ESR1
Protein EVI2B	EVI2B
EVI5-like protein	EVI5L
Envoplakin	EVPL
Exosome component 10	EXOSC10
Exosome complex component RRP40	EXOSC3
Exostosin-like 1	EXTL1
Fatty acid-binding protein 9	FABP9
FAS-associated factor 2	FAF2
Protein NOXP20	FAM114A1
Constitutive coactivator of peroxisome proliferator-activated receptor gamma	FAM120B

Protein FAM171B	FAM171B
Protein FAM221A	FAM221A
Protein FAM83F	FAM83F
Phenylalanine--tRNA ligase alpha subunit	FARSA
F-box only protein 28	FBXO28
F-box only protein 5	FBXO5
High affinity immunoglobulin epsilon receptor subunit alpha	FCER1A
Low affinity immunoglobulin gamma Fc region receptor II-b	FCGR2B
F-BAR domain only protein 2	FCHO2
Fc receptor-like protein 3	FCRL3
Fc receptor-like B	FCRLB
Adrenodoxin, mitochondrial	FDX1
Ferredoxin-2, mitochondrial	FDX2
Flap endonuclease 1	FEN1
Tyrosine-protein kinase Fes/Fps	FES
Fibroblast growth factor 12	FGF12
Fibroblast growth factor 20	FGF20
Fibroblast growth factor 5	FGF5
Fibroblast growth factor 6	FGF6
Fibroblast growth factor 7	FGF7
Fibroblast growth factor 9	FGF9
Tyrosine-protein kinase Fgr	FGR
Fumarate hydratase, mitochondrial	FH
Bis(5'-adenosyl)-triphosphatase	FHIT
Polyphosphoinositide phosphatase	FIG4
Peptidyl-prolyl cis-trans isomerase FKBP10	FKBP10
FK506-binding protein 15	FKBP15
Peptidyl-prolyl cis-trans isomerase FKBP7	FKBP7
Friend leukemia integration 1 transcription factor	FLI1

Uncharacterized protein FLJ40521	YH007
Receptor-type tyrosine-protein kinase FLT3	FLT3
FLYWCH family member 2	FLYWCH2
Fragile X messenger ribonucleoprotein 1	FMR1
Glutamate carboxypeptidase 2	FOLH1
Protein c-Fos	FOS
Hepatocyte nuclear factor 3-gamma	FOXA3
Forkhead box protein J3	FOXJ3
Forkhead box protein O3	FOXO3
FERM domain-containing protein 4B	FRMD4B
FERM domain-containing protein 7	FRMD7
RNA-binding protein FUS	FUS
Galactoside alpha-(1,2)-fucosyltransferase 1	FUT1
FXYD domain-containing ion transport regulator 5	FXYD5
FYVE and coiled-coil domain-containing protein 1	FYCO1
Frizzled-10	FZD10
Frizzled-8	FZD8
Gamma-aminobutyric acid receptor subunit alpha-4	GABRA4
Glutamate decarboxylase 1	GAD1
Glutamate decarboxylase 2	GAD2
Growth arrest and DNA damage-inducible protein GADD45 beta	GADD45B
G antigen 2A	GAGE2A
Polypeptide N-acetylgalactosaminyltransferase 3	GALNT3
Guanidinoacetate N-methyltransferase	GAMT
Growth arrest-specific protein 2	GAS2
Golgi-associated kinase 1A	GASK1A
Trans-acting T-cell-specific transcription factor GATA-3	GATA3
Guanylate-binding protein 2	GBP2
Guanylate-binding protein 4	GBP4

Guanylate-binding protein 6	GBP6
Intron Large complex component GCFC2	GCFC2
Pro-glucagon	GCG
Glutamate--cysteine ligase regulatory subunit	GCLM
Glial cell line-derived neurotrophic factor	GDNF
Gem-associated protein 2	GEMIN2
Gem-associated protein 8	GEMIN8
Glial fibrillary acidic protein	GFAP
FAD-linked sulfhydryl oxidase ALR	GFER
Glucose-fructose oxidoreductase domain-containing protein 2	GFOD2
ADP-ribosylation factor-binding protein GGA1	GGA1
ADP-ribosylation factor-binding protein GGA3	GGA3
Gametogenetin	GGN
Growth hormone variant	GH2
Growth hormone-releasing hormone receptor	GHRHR
GTPase IMAP family member 8	GIMAP8
Gap junction alpha-1 protein	GJA1
Gap junction alpha-8 protein	GJA8
Zinc finger protein GLI2	GLI2
Glucagon-like peptide 1 receptor	GLP1R
Glycosyltransferase 8 domain-containing protein 2	GLT8D2
Geminin	GMNN
Bifunctional UDP-N-acetylglucosamine 2-epimerase/N-acetylmannosamine kinase	GNE
Guanine nucleotide-binding protein G(T) subunit gamma-T1	GNGT1
Golgin subfamily A member 1	GOLGA1
Golgin subfamily A member 6A	GOLGA6A
Putative golgin subfamily A member 8F/8G	GOLGA8F_GOLGA8G
Golgi membrane protein 1	GOLM1
G patch domain-containing protein 1	GPATCH1

Probable G-protein coupled receptor 101	GPR101
G-protein coupled receptor family C group 5 member C	GPRC5C
Phospholipid hydroperoxide glutathione peroxidase	GPX4
Glutamate receptor ionotropic, kainate 2	GRIK2
Glutamate receptor ionotropic, NMDA 2B	GRIN2B
Glutamate receptor-interacting protein 2	GRIP2
GRIP1-associated protein 1	GRIPAP1
G protein-coupled receptor kinase 5	GRK5
G-rich sequence factor 1	GRSF1
Gamma-secretase-activating protein	GSAP
Glutathione S-transferase A3	GSTA3
Glutathione S-transferase Mu 4	GSTM4
Glutathione S-transferase P	GSTP1
General transcription factor IIF subunit 1	GTF2F1
General transcription factor II-I repeat domain-containing protein 1	GTF2IRD1
GTP-binding protein 2	GTPBP2
Guanylyl cyclase C	GUCY2C
Guanylate kinase	GUK1
Histone H1.1	H1-1
Huntingtin-interacting protein M	H2AP
Hydroxyacyl-coenzyme A dehydrogenase, mitochondrial	HADH
HBS1-like protein	HBS1L
Host cell factor 2	HCFC2
Protein PBMUCL2	HCG22
Histone deacetylase 8	HDAC8
Histone deacetylase 9	HDAC9
Heme-binding protein 1	HEBP1
Endogenous retrovirus group K member 113 Gag polyprotein	HERVK-113_GA113
Probable ATP-dependent DNA helicase HFM1	HFM1

Hepatocyte growth factor-regulated tyrosine kinase substrate	HGS
Hypoxia-inducible factor 1-alpha	HIF1A
Huntingtin-interacting protein 1	HIP1
Homeodomain-interacting protein kinase 2	HIPK2
Transcription factor HIVEP2	HIVEP2
Hexokinase-2	HK2
Homeobox-containing protein 1	HMBOX1
Hydroxymethylglutaryl-CoA synthase, cytoplasmic	HMGCS1
Hyaluronan mediated motility receptor	HMMR
Hepatocyte nuclear factor 1-alpha	HNF1A
Heterogeneous nuclear ribonucleoprotein A0	HNRNPA0
Homer protein homolog 1	HOMER1
Hippocalcin-like protein 4	HPCAL4
Hematopoietic prostaglandin D synthase	HPGDS
GTPase HRas	HRAS
Heparan-sulfate 6-O-sulfotransferase 2	HS6ST2
17-beta-hydroxysteroid dehydrogenase type 3	HSD17B3
Endoplasmin	HSP90B1
5-hydroxytryptamine receptor 1A	HTR1A
5-hydroxytryptamine receptor 1B	HTR1B
Islet cell autoantigen 1	ICA1
DNA-binding protein inhibitor ID-4	ID4
Isopentenyl-diphosphate delta-isomerase 2	IDI2
Interferon-induced protein with tetratricopeptide repeats 1	IFIT1
Interferon-induced protein with tetratricopeptide repeats 3	IFIT3
Interferon gamma	IFNG
Interferon lambda-1	IFNL1
Interferon lambda-2	IFNL2
Interferon omega-1	IFNW1

Intraflagellar transport protein 20 homolog	IFT20
Immunoglobulin superfamily DCC subclass member 3	IGDCC3
Insulin-like growth factor 2 mRNA-binding protein 3	IGF2BP3
DNA-binding protein SMUBP-2	IGHMBP2
IgLON family member 5	IGLON5
Zinc finger protein Helios	IKZF2
Interleukin-10	IL10
Interleukin-10 receptor subunit alpha	IL10RA
Interleukin-11	IL11
Interleukin-12 receptor subunit beta-1	IL12RB1
Interleukin-12 receptor subunit beta-2	IL12RB2
Interleukin-13	IL13
Interleukin-13 receptor subunit alpha-2	IL13RA2
Interleukin-15 receptor subunit alpha	IL15RA
Interleukin-17A	IL17A
Interleukin-17C	IL17C
Interleukin-17D	IL17D
Interleukin-17F	IL17F
Interleukin-1 alpha	IL1A
Interleukin-1 beta	IL1B
Interleukin-1 receptor-like 2	IL1RL2
Interleukin-2	IL2
Interleukin-20	IL20
Interleukin-20 receptor subunit alpha	IL20RA
Interleukin-20 receptor subunit beta	IL20RB
Interleukin-21 receptor	IL21R
Interleukin-22 receptor subunit alpha-1	IL22RA1
Interleukin-24	IL24
Interleukin-25	IL25

Interleukin-2 receptor subunit beta	IL2RB
Interleukin-3	IL3
Interleukin-31	IL31
Interleukin-31 receptor subunit alpha	IL31RA
Interleukin-33	IL33
Interleukin-34	IL34
Interleukin-36 alpha	IL36A
Interleukin-36 beta	IL36B
Interleukin-3 receptor subunit alpha	IL3RA
Interleukin-4	IL4
Interleukin-5	IL5
Interleukin-9	IL9
Integrin-linked kinase-associated serine/threonine phosphatase 2C	ILKAP
Interphotoreceptor matrix proteoglycan 1	IMPG1
Inhibitor of growth protein 1	ING1
Inositol polyphosphate 4-phosphatase type II	INPP4B
Phosphatidylinositol 4,5-bisphosphate 5-phosphatase A	INPP5J
IQ domain-containing protein C	IQCC
Interleukin-1 receptor-associated kinase 1	IRAK1
E3 ubiquitin-protein ligase Itchy homolog	ITCH
Integrin alpha-X	ITGAX
Integrin beta-1-binding protein 1	ITGB1BP1
Integrin beta-6	ITGB6
Inosine triphosphate pyrophosphatase	ITPA
Inositol 1,4,5-trisphosphate receptor-interacting protein	ITPRIP
Isovaleryl-CoA dehydrogenase, mitochondrial	IVD
Janus kinase and microtubule-interacting protein 1	JAKMIP1
Immunoglobulin J chain	JCHAIN
Probable JmjC domain-containing histone demethylation protein 2C	JMJD1C

Protein JTB	JTB
Transcription factor Jun	JUN
KN motif and ankyrin repeat domain-containing protein 2	KANK2
Histone acetyltransferase KAT6A	KAT6A
Katanin p80 WD40 repeat-containing subunit B1	KATNB1
Potassium voltage-gated channel subfamily C member 4	KCNC4
Kv channel-interacting protein 4	KCNIP4
BTB/POZ domain-containing protein KCTD18	KCTD18
Lysine-specific demethylase 3A	KDM3A
KH domain-containing protein 3	KHDC3L
Dyslexia-associated protein KIAA0319-like protein	KIAA0319L
Uncharacterized protein KIAA0513	KIAA0513
Uncharacterized protein KIAA1143	KIAA1143
Protein hinderin	KIAA1328
UPF0606 protein KIAA1549	KIAA1549
UPF0606 protein KIAA1549L	KIAA1549L
Kinesin-like protein KIF1C	KIF1C
Kinesin-like protein KIF20B	KIF20B
Kinesin-like protein KIF27	KIF27
Kinesin-like protein KIF3A	KIF3A
Chromosome-associated kinesin KIF4A	KIF4A
Kinesin-associated protein 3	KIFAP3
Kinesin-like protein KIFC1	KIFC1
Killer cell immunoglobulin-like receptor 3DL1	KIR3DL1
Killer cell immunoglobulin-like receptor 3DL2	KIR3DL2
Kin of IRRE-like protein 1	KIRREL1
Kin of IRRE-like protein 2	KIRREL2
Krueppel-like factor 4	KLF4
Kelch-like protein 41	KLHL41

Kallikrein-12	KLK12
Kallikrein-9	KLK9
NKG2-A/NKG2-B type II integral membrane protein	KLRC1
Killer cell lectin-like receptor subfamily F member 1	KLRF1
Keratin, type I cytoskeletal 14	KRT14
Keratin, type I cytoskeletal 17	KRT17
Keratin, type II cytoskeletal 5	KRT5
Keratin, type II cytoskeletal 8	KRT8
LINE-1 retrotransposable element ORF1 protein	L1RE1
Laminin subunit alpha-1	LAMA1
Cytosol aminopeptidase	LAP3
Ligand-dependent nuclear receptor corepressor-like protein	LCORL
Protein LEKR1	LEKR1
Late cornified envelope-like proline-rich protein 1	LELP1
RNA polymerase-associated protein LEO1	LEO1
Lutropin subunit beta	LHB
Leukemia inhibitory factor	LIF
DNA ligase 3	LIG3
Leukocyte immunoglobulin-like receptor subfamily A member 4	LILRA4
Leukocyte immunoglobulin-like receptor subfamily B member 4	LILRB4
Leiomodin-2	LMOD2
Leupaxin	LPXN
Lipopolysaccharide-responsive and beige-like anchor protein	LRBA
Leucine-rich repeat and fibronectin type-III domain-containing protein 2	LRFN2
Leucine-rich repeats and immunoglobulin-like domains protein 3	LRIG3
Low-density lipoprotein receptor-related protein 2	LRP2
LRP2-binding protein	LRP2BP
Leucine-rich repeat-containing protein 38	LRRC38
Leucine-rich repeat-containing protein 45	LRRC45

Leucine-rich repeat flightless-interacting protein 1	LRRFIP1
Leucine-rich repeat neuronal protein 1	LRRN1
Leucine-rich repeat and transmembrane domain-containing protein 1	LRTM1
Large subunit GTPase 1 homolog	LSG1
U6 snRNA-associated Sm-like protein LSm1	LSM1
U6 snRNA-associated Sm-like protein LSm8	LSM8
Latent-transforming growth factor beta-binding protein 3	LTBP3
Protein LTO1 homolog	LTO1
Putative RNA-binding protein Luc7-like 1	LUC7L
Luc7-like protein 3	LUC7L3
Cell growth-regulating nucleolar protein	LYAR
Ly6/PLAUR domain-containing protein 1	LYPD1
Ly6/PLAUR domain-containing protein 8	LYPD8
Acyl-protein thioesterase 2	LYPLA2
LysM and putative peptidoglycan-binding domain-containing protein 3	LYSMD3
Lysozyme-like protein 2	LYZL2
Microtubule-actin cross-linking factor 1, isoforms 1/2/3/4/5	MACF1
E3 ubiquitin-protein transferase MAEA	MAEA
Melanoma-associated antigen 3/6	MAGEA3_MAGEA6
Melanoma-associated antigen B2	MAGEB2
Melanoma-associated antigen C2	MAGEC2
Melanoma-associated antigen D1	MAGED1
Apical endosomal glycoprotein	MAMDC4
Glycoprotein endo-alpha-1,2-mannosidase-like protein	MANEAL
MANSC domain-containing protein 4	MANSC4
Microtubule-associated proteins 1A/1B light chain 3A	MAP1LC3A
Microtubule-associated proteins 1A/1B light chain 3 beta 2	MAP1LC3B2
Mitogen-activated protein kinase kinase kinase 19	MAP3K19
Mitogen-activated protein kinase kinase kinase 5	MAP3K5

Microtubule-associated protein 9	MAP9
Mitogen-activated protein kinase 13	MAPK13
MAP kinase-activated protein kinase 2	MAPKAPK2
Microtubule-associated protein RP/EB family member 3	MAPRE3
Microtubule-associated protein tau	MAPT
MARVEL domain-containing protein 3	MARVELD3
Mitochondrial antiviral-signaling protein	MAVS
Protein max	MAX
Protein MCM10 homolog	MCM10
Nuclear protein MDM1	MDM1
Mediator of RNA polymerase II transcription subunit 21	MED21
Mediator of RNA polymerase II transcription subunit 30	MED30
Multiple epidermal growth factor-like domains protein 11	MEGF11
Homeobox protein Meis3	MEIS3
Homeobox protein MOX-1	MEOX1
Methionine aminopeptidase 1	METAP1
RNA-binding E3 ubiquitin-protein ligase MEX3C	MEX3C
Microfibrillar-associated protein 3-like	MFAP3L
E3 ubiquitin-protein ligase MIB2	MIB2
MICAL-like protein 2	MICALL2
Allergin-1	MILR1
Ubiquitin carboxyl-terminal hydrolase MINDY-2	MINDY2
Proliferation marker protein Ki-67	MKI67
Protein ENL	MLLT1
Corrinoid adenosyltransferase MMAB	MMAB
Collagenase 3	MMP13
Methylmalonyl-CoA mutase, mitochondrial	MMUT
Transcriptional activator MN1	MN1
CDK-activating kinase assembly factor MAT1	MNAT1

MAPK/MAK/MRK overlapping kinase	MOK
Mortality factor 4-like protein 1	MORF4L1
MORN repeat-containing protein 4	MORN4
M-phase phosphoprotein 9	MPHOSPH9
3-mercaptopyruvate sulfurtransferase	MPST
Melanocortin-2 receptor accessory protein	MRAP
Methylthioribose-1-phosphate isomerase	MRI1
39S ribosomal protein L46, mitochondrial	MRPL46
39S ribosomal protein L52, mitochondrial	MRPL52
28S ribosomal protein S16, mitochondrial	MRPS16
28S ribosomal protein S18b, mitochondrial	MRPS18B
Ribosome-recycling factor, mitochondrial	MRRF
Myocardin-related transcription factor A	MRTFA
Mesothelin-like protein	MSLNL
C-1-tetrahydrofolate synthase, cytoplasmic	MTHFD1
Methenyltetrahydrofolate synthase domain-containing protein	MTHFSD
Methionine synthase	MTR
Microtubule-associated tumor suppressor 1	MTUS1
Microtubule-associated tumor suppressor candidate 2	MTUS2
Mucin-13	MUC13
Mucin-20	MUC20
Mucin-like protein 3	MUCL3
Mevalonate kinase	MVK
Myosin-4	MYH4
Myosin-7B	MYH7B
Myosin light chain 1/3, skeletal muscle isoform	MYL1
Myosin regulatory light chain 11	MYL11
Myosin light chain 3	MYL3
Myosin light chain 6B	MYL6B

Unconventional myosin-VI	MYO6
Unconventional myosin-IXb	MYO9B
Myomesin-1	MYOM1
Myomesin-2	MYOM2
Mitotic-spindle organizing protein 1	MZT1
Mitotic-spindle organizing protein 2B	MZT2B
NEDD4-binding protein 3	N4BP3
N-alpha-acetyltransferase 40	NAA40
N-alpha-acetyltransferase 80	NAA80
NAC-alpha domain-containing protein 1	NACAD
H/ACA ribonucleoprotein complex non-core subunit NAF1	NAF1
Nicotinamide phosphoribosyltransferase	NAMPT
Nibrin	NBN
Condensin complex subunit 3	NCAPG
F-box only protein 50	NCCRP1
NCK-interacting protein with SH3 domain	NCKIPSD
Nicalin	NCLN
NADH dehydrogenase [ubiquinone] 1 alpha subcomplex assembly factor 2	NDUFAF2
NADH dehydrogenase [ubiquinone] 1 beta subcomplex subunit 10	NDUFB10
NADH dehydrogenase [ubiquinone] iron-sulfur protein 6, mitochondrial	NDUFS6
Nebulin	NEB
N-terminal EF-hand calcium-binding protein 1	NECAB1
N-terminal EF-hand calcium-binding protein 2	NECAB2
Adaptin ear-binding coat-associated protein 2	NECAP2
Protein NEDD1	NEDD1
Neurofilament light polypeptide	NEFL
Serine/threonine-protein kinase Nek3	NEK3
Serine/threonine-protein kinase Nek7	NEK7
Neudesin	NENF

Nuclear factor of activated T-cells, cytoplasmic 3	NFATC3
Nuclear factor 1 C-type	NFIC
Nuclear factor NF-kappa-B p105 subunit	NFKB1
Nuclear factor NF-kappa-B p100 subunit	NFKB2
NF-kappa-B inhibitor epsilon	NFKBIE
Transcriptional repressor NF-X1	NFX1
Nuclear transcription factor Y subunit alpha	NFYA
H/ACA ribonucleoprotein complex subunit 2	NHP2
Ninjurin-1	NINJ1
NF-kappa-B inhibitor-interacting Ras-like protein 1	NKIRAS1
Neuroligin-1	NLGN1
Neuroligin-2	NLGN2
NACHT, LRR and PYD domains-containing protein 9	NLRP9
Nucleoside diphosphate kinase A	NME1
Noggin	NOG
Nucleolar protein 56	NOP56
Nitric oxide synthase, brain	NOS1
Nitric oxide synthase, inducible	NOS2
Nitric oxide synthase, endothelial	NOS3
Podocin	NPHS2
Natriuretic peptides B	NPPB
Atrial natriuretic peptide receptor 1	NPR1
Neuroplastin	NPTN
NAD(P)H dehydrogenase [quinone] 1	NQO1
Neuritin	NRN1
Neurturin	NRTN
Neurexin-1-beta	NRXN1
Neurexin-3	NRXN3
Sterol-4-alpha-carboxylate 3-dehydrogenase, decarboxylating	NSDHL

E3 SUMO-protein ligase NSE2	NSMCE2
Neurotrophin-4	NTF4
Netrin-G2	NTNG2
Nucleotide triphosphate diphosphatase NUDT15	NUDT15
Nuclear pore complex protein Nup50	NUP50
NUT family member 1	NUTM1
NXPE family member 4	NXPE4
Neurexophilin-1	NXPH1
ORC ubiquitin ligase 1	OBI1
Odontogenic ameloblast-associated protein	ODAM
Centriole and centriolar satellite protein OFD1	OFD1
UDP-N-acetylglucosamine--peptide N-acetylglucosaminyltransferase 110 kDa subunit	OGT
Osteocrin	OSTN
Otoancorin	OTOA
OTU domain-containing protein 1	OTUD1
Esterase OVCA2	OVCA2
Prolyl 3-hydroxylase 3	P3H3
Protein-arginine deiminase type-2	PADI2
Protein-arginine deiminase type-4	PADI4
Platelet-activating factor acetylhydrolase 2, cytoplasmic	PAFAH2
Polyadenylate-binding protein-interacting protein 1	PAIP1
Polyadenylate-binding protein-interacting protein 2B	PAIP2B
Serine/threonine-protein kinase PAK 4	PAK4
Palladin	PALLD
Pappalysin-1	PAPPA
Partitioning defective 3 homolog	PARD3
Poly [ADP-ribose] polymerase 1	PARP1
Phenazine biosynthesis-like domain-containing protein	PBLD
Photoreceptor cilium actin regulator	PCARE

Protocadherin gamma-B3	PCDHGB3
Pericentrin	PCNT
Phosducin-like protein 2	PDCL2
cAMP and cAMP-inhibited cGMP 3',5'-cyclic phosphodiesterase 10A	PDE10A
Dual specificity calcium/calmodulin-dependent 3',5'-cyclic nucleotide phosphodiesterase 1C	PDE1C
cAMP-specific 3',5'-cyclic phosphodiesterase 4D	PDE4D
Platelet-derived growth factor C	PDGFC
Protein disulfide-isomerase A2	PDIA2
Protein disulfide-isomerase A5	PDIA5
[Pyruvate dehydrogenase [acetyl-transferring]]-phosphatase 1, mitochondrial	PDP1
p53 and DNA damage-regulated protein 1	PDRG1
Pyridoxal-dependent decarboxylase domain-containing protein 1	PDXDC1
PDZ domain-containing protein 2	PDZD2
Phosphatidylethanolamine-binding protein 4	PEBP4
Protein pelota homolog	PELO
Prefoldin subunit 4	PFDN4
Prefoldin subunit 6	PFDN6
Peptidoglycan recognition protein 4	PGLYRP4
Phosphopentomutase	PGM2
Progesterone receptor	PGR
PHD finger protein 20	PHF20
Pleckstrin homology-like domain family B member 2	PHLDB2
1-phosphatidylinositol 3-phosphate 5-kinase	PIKFYVE
Peptidyl-prolyl cis-trans isomerase NIMA-interacting 4	PIN4
PITH domain-containing protein 1	PITHD1
E3 ubiquitin-protein ligase Praja-2	PJA2
Serine/threonine-protein kinase N3	PKN3
Group IID secretory phospholipase A2	PLA2G2D
Phospholipase A and acyltransferase 5	PLAAT5

1-phosphatidylinositol 4,5-bisphosphate phosphodiesterase beta-1	PLCB1
Pleckstrin homology domain-containing family G member 1	PLEKHG1
Perilipin-1	PLIN1
Plexin domain-containing protein 1	PLXDC1
Phosphomannomutase 2	PMM2
PMS1 protein homolog 1	PMS1
Phosphomevalonate kinase	PMVK
Bifunctional polynucleotide phosphatase/kinase	PNKP
Paraneoplastic antigen Ma1	PNMA1
Paraneoplastic antigen Ma2	PNMA2
Polyribonucleotide nucleotidyltransferase 1, mitochondrial	PNPT1
DNA-directed RNA polymerase III subunit RPC6	POLR3F
Liprin-alpha-2	PPFIA2
Peptidyl-prolyl cis-trans isomerase E	PPIE
Protein phosphatase 1A	PPM1A
Protein phosphatase 1 regulatory subunit 12B	PPP1R12B
Protein phosphatase 1 regulatory subunit 1B	PPP1R1B
Protein phosphatase 1 regulatory subunit 27	PPP1R27
Protein phosphatase inhibitor 2 family member B	PPP1R2B
Palmitoyl-protein thioesterase 1	PPT1
Polyglutamine-binding protein 1	PQBP1
Melanoma antigen preferentially expressed in tumors	PRAME
Protein regulator of cytokinesis 1	PRC1
Thioredoxin-dependent peroxide reductase, mitochondrial	PRDX3
Prolactin regulatory element-binding protein	PREB
5'-AMP-activated protein kinase subunit beta-1	PRKAB1
5'-AMP-activated protein kinase subunit gamma-3	PRKAG3
cAMP-dependent protein kinase type I-beta regulatory subunit	PRKAR1B
Protein kinase C theta type	PRKCQ

Serine/threonine-protein kinase D2	PRKD2
Interferon-inducible double-stranded RNA-dependent protein kinase activator A	PRKRA
Endothelial protein C receptor	PROCR
Prominin-1	PROM1
Peripherin	PRPH
Proline-rich protein 15	PRR15
Proline-rich protein 20A	PRR20A
Proline-rich protein 20B	PRR20B
Proline-rich protein 23A	PRR23A
Proline-rich protein 5	PRR5
Protein PRRC1	PRRC1
Brain-specific serine protease 4	PRSS22
Phosphoribosyltransferase domain-containing protein 1	PRTFDC1
Protein prune homolog 2	PRUNE2
Proteasome subunit alpha type-1	PSMA1
26S proteasome regulatory subunit 6A	PSMC3
26S proteasome non-ATPase regulatory subunit 5	PSMD5
Proteasome assembly chaperone 1	PSMG1
Proline/serine-rich coiled-coil protein 1	PSRC1
Phosphatidylinositol 3,4,5-trisphosphate 3-phosphatase and dual-specificity protein phosphatase PTEN	PTEN
Putative protein PTGES3L	PTGES3L
Protein tyrosine phosphatase type IVA 3	PTP4A3
Phosphatidylglycerophosphatase and protein-tyrosine phosphatase 1	PTPMT1
Tyrosine-protein phosphatase non-receptor type 9	PTPN9
6-pyruvoyl tetrahydrobiopterin synthase	PTS
Securin	PTTG1
Paxillin	PXN
Peptide YY	PYY
Ras-related protein Rab-33A	RAB33A

Ras-related protein Rab-36	RAB36
Ras-related protein Rab-37	RAB37
Ras-related protein Rab-39B	RAB39B
Rab3 GTPase-activating protein catalytic subunit	RAB3GAP1
Ras-related protein Rab-44	RAB44
Ras-related protein Rab-6B	RAB6B
Rab9 effector protein with kelch motifs	RABEPK
Rab GTPase-activating protein 1-like	RABGAP1L
Ras-related C3 botulinum toxin substrate 3	RAC3
UV excision repair protein RAD23 homolog B	RAD23B
DNA repair protein RAD51 homolog 1	RAD51
Ras-specific guanine nucleotide-releasing factor RalGPS1	RALGPS1
Receptor activity-modifying protein 2	RAMP2
E3 SUMO-protein ligase RanBP2	RANBP2
Ran GTPase-activating protein 1	RANGAP1
Ras-related protein Rap-1A	RAP1A
Rap1 GTPase-activating protein 1	RAP1GAP
Rap1 GTPase-GDP dissociation stimulator 1	RAP1GDS1
Retinoic acid receptor responder protein 1	RARRES1
Ras GTPase-activating protein 1	RASA1
Ras-specific guanine nucleotide-releasing factor 1	RASGRF1
Ras association domain-containing protein 2	RASSF2
RNA binding protein fox-1 homolog 3	RBFOX3
Probable RNA-binding protein 19	RBM19
RNA-binding protein 25	RBM25
RNA-binding protein 3	RBM3
Retinol-binding protein 1	RBP1
Roquin-1	RC3H1
Regulator of chromosome condensation	RCC1

REST corepressor 1	RCOR1
Transcription factor RelB	RELB
N-acylglucosamine 2-epimerase	RENBP
RalBP1-associated Eps domain-containing protein 1	REPS1
RE1-silencing transcription factor	REST
Oligoribonuclease, mitochondrial	REXO2
E3 ubiquitin-protein ligase rififylin	RFFL
DNA-binding protein RFX2	RFX2
Ral guanine nucleotide dissociation stimulator-like 2	RGL2
Regulator of G-protein signaling 8	RGS8
Rapamycin-insensitive companion of mTOR	RICTOR
RILP-like protein 1	RILPL1
RAB7A-interacting MON1-CCZ1 complex subunit 1	RIMOC1
Receptor-interacting serine/threonine-protein kinase 4	RIPK4
E3 ubiquitin-protein ligase RNF169	RNF169
E3 ubiquitin-protein ligase RNF25	RNF25
E3 ubiquitin-protein ligase RNF31	RNF31
E3 ubiquitin-protein ligase RNF4	RNF4
E3 ubiquitin-protein ligase BRE1B	RNF40
E3 ubiquitin-protein ligase NRDP1	RNF41
E3 ubiquitin-protein ligase RNF43	RNF43
Nuclear receptor ROR-beta	RORB
Replication protein A 32 kDa subunit	RPA2
Replication protein A 30 kDa subunit	RPA4
RNA polymerase II-associated protein 3	RPAP3
Ribulose-phosphate 3-epimerase	RPE
X-linked retinitis pigmentosa GTPase regulator	RPGR
Rabphilin-3A	RPH3A
Regulation of nuclear pre-mRNA domain-containing protein 1B	RPRD1B

40S ribosomal protein S10	RPS10
Ras-related protein R-Ras	RRAS
Ribonucleoside-diphosphate reductase subunit M2	RRM2
Ribonucleoside-diphosphate reductase subunit M2 B	RRM2B
Ribosomal RNA processing protein 1 homolog A	RRP1
RRP15-like protein	RRP15
Rhotekin-2	RTKN2
RuvB-like 1	RUVBL1
RING1 and YY1-binding protein	RYBP
Ryanodine receptor 1	RYR1
Protein S100-A14	S100A14
Protein S100-A3	S100A3
S-arrestin	SAG
Sterile alpha motif domain-containing protein 14	SAMD14
Histone deacetylase complex subunit SAP18	SAP18
U4/U6.U5 tri-snRNP-associated protein 1	SART1
Spindle assembly abnormal protein 6 homolog	SASS6
Diamine acetyltransferase 1	SAT1
Thialysine N-epsilon-acetyltransferase	SAT2
Protein salvador homolog 1	SAV1
Somatomedin-B and thrombospondin type-1 domain-containing protein	SBSPON
Scavenger receptor class B member 1	SCARB1
Mammaglobin-A	SCGB2A2
Secretagogin	SCGN
Scinderin	SCIN
Sodium channel subunit beta-2	SCN2B
Sodium channel protein type 3 subunit alpha	SCN3A
Sodium channel subunit beta-3	SCN3B
Sterol carrier protein 2	SCP2

Secretin	SCT
Selenoprotein H	SELENOH
Protein adenylyltransferase SelO, mitochondrial	SELENOO
Septin-7	SEPTIN7
Serpin B5	SERPINB5
Serpin H1	SERPINH1
Pulmonary surfactant-associated protein A2	SFTPA2
SAGA-associated factor 29	SGF29
SH2B adapter protein 3	SH2B3
SH3 domain-binding glutamic acid-rich-like protein 2	SH3BGRL2
SH3 domain-binding protein 5	SH3BP5
SH3 domain-binding protein 5-like	SH3BP5L
SH3 domain-containing protein 19	SH3D19
Endophilin-A3	SH3GL3
SHC-transforming protein 1	SHC1
SHC-transforming protein 3	SHC3
SH2 domain-containing adapter protein D	SHD
Sedoheptulokinase	SHPK
E3 ubiquitin-protein ligase SHPRH	SHPRH
Sialic acid-binding Ig-like lectin 15	SIGLEC15
Signal-induced proliferation-associated protein 1	SIPA1
NAD-dependent protein deacetylase sirtuin-1	SIRT1
NAD-dependent protein deacylase sirtuin-5, mitochondrial	SIRT5
Signaling threshold-regulating transmembrane adapter 1	SIT1
Helicase SKI2W	SKIC2
Signaling lymphocytic activation molecule	SLAMF1
SLAM family member 6	SLAMF6
SLAM family member 8	SLAMF8
Solute carrier family 12 member 2	SLC12A2

Monocarboxylate transporter 1	SLC16A1
Neutral amino acid transporter A	SLC1A4
Long-chain fatty acid transport protein 4	SLC27A4
Sodium/nucleoside cotransporter 1	SLC28A1
Sodium-dependent phosphate transport protein 2C	SLC34A3
Metal cation symporter ZIP14	SLC39A14
Solute carrier family 40 member 1	SLC40A1
Choline transporter-like protein 4	SLC44A4
Organic solute transporter subunit beta	SLC51B
SRA stem-loop-interacting RNA-binding protein, mitochondrial	SLIRP
Slit homolog 2 protein	SLIT2
STE20-like serine/threonine-protein kinase	SLK
Mothers against decapentaplegic homolog 1	SMAD1
Mothers against decapentaplegic homolog 2	SMAD2
Probable global transcription activator SNF2L2	SMARCA2
Structural maintenance of chromosomes protein 3	SMC3
Sperm mitochondrial-associated cysteine-rich protein	SMCP
Sphingomyelin phosphodiesterase 3	SMPD3
Spermine synthase	SMS
Synaptosomal-associated protein 25	SNAP25
NHP2-like protein 1	SNU13
Sorbin and SH3 domain-containing protein 1	SORBS1
VPS10 domain-containing receptor SorCS2	SORCS2
Sclerostin domain-containing protein 1	SOSTDC1
Ankyrin repeat domain-containing protein SOWAHA	SOWAHA
Transcription factor SOX-14	SOX14
Transcription factor SOX-2	SOX2
Transcription factor SOX-9	SOX9
Sperm surface protein Sp17	SPA17

Sperm acrosome-associated protein 5	SPACA5
Sperm-associated antigen 1	SPAG1
Spastin	SPAST
Mitochondria-eating protein	SPATA18
Spermatogenesis-associated protein 2-like protein	SPATA2L
Serine protease inhibitor Kazal-type 8	SPINK8
Protein spire homolog 2	SPIRE2
Sprouty-related, EVH1 domain-containing protein 2	SPRED2
SREBP regulating gene protein	SPRING1
Cornifin-B	SPRR1B
Protein sprouty homolog 2	SPRY2
Spectrin beta chain, non-erythrocytic 2	SPTBN2
SRC kinase signaling inhibitor 1	SRCIN1
SLIT-ROBO Rho GTPase-activating protein 2	SRGAP2
Lupus La protein	SSB
Single-stranded DNA-binding protein, mitochondrial	SSBP1
Protein phosphatase Slingshot homolog 3	SSH3
Alpha-N-acetylneuraminide alpha-2,8-sialyltransferase	ST8SIA1
Double-stranded RNA-binding protein Staufen homolog 1	STAU1
Metalloreductase STEAP4	STEAP4
Serine/threonine-protein kinase 24	STK24
Stomatin-like protein 2, mitochondrial	STOML2
Syntaxin-16	STX16
Syntaxin-1B	STX1B
Syntaxin-5	STX5
Syntaxin-6	STX6
Syntaxin-binding protein 3	STXBP3
Syntaxin-binding protein 5-like	STXBP5L
Protein SGT1 homolog	SUGT1

Formylglycine-generating enzyme	SUMF1
Surfeit locus protein 2	SURF2
Sushi domain-containing protein 1	SUSD1
Synaptonemal complex central element protein 1-like	SYCE1L
Pre-mRNA-splicing factor SYF2	SYF2
Ras/Rap GTPase-activating protein SynGAP	SYNGAP1
Synemin	SYNM
TGF-beta-activated kinase 1 and MAP3K7-binding protein 2	TAB2
TAF5-like RNA polymerase II p300/CBP-associated factor-associated factor 65 kDa subunit 5L	TAF5L
Transgelin-3	TAGLN3
TRAF family member-associated NF-kappa-B activator	TANK
Antigen peptide transporter 1	TAP1
RISC-loading complex subunit TARBP2	TARBP2
T-cell-interacting, activating receptor on myeloid cells protein 1	TARM1
TBC1 domain family member 17	TBC1D17
TBC1 domain family member 2A	TBC1D2
F-box-like/WD repeat-containing protein TBL1X	TBL1X
T-box brain protein 1	TBR1
Transcription elongation factor A N-terminal and central domain-containing protein 2	TCEANC2
T-complex protein 11 homolog	TCP11
Teratocarcinoma-derived growth factor 1	TDGF1
Tryptophan 2,3-dioxygenase	TDO2
Tudor and KH domain-containing protein	TDRKH
Alpha-tectorin	TECTA
Thyrotroph embryonic factor	TEF
Terminal nucleotidyltransferase 4B	TENT4B
Telomeric repeat-binding factor 1	TERF1
Telomeric repeat-binding factor 2-interacting protein 1	TERF2IP
Testin	TES

Methylcytosine dioxygenase TET2	TET2
Testis-expressed protein 33	TEX33
Testis-expressed protein 35	TEX35
Transcription factor A, mitochondrial	TFAM
Transcription factor AP-2-alpha	TFAP2A
Protein-glutamine gamma-glutamyltransferase 5	TGM5
THAP domain-containing protein 10	THAP10
52 kDa repressor of the inhibitor of the protein kinase	THAP12
THAP domain-containing protein 3	THAP3
Testicular haploid expressed gene protein-like	THEGL
Thrombospondin type-1 domain-containing protein 1	THSD1
Thymocyte nuclear protein 1	THYN1
Cytotoxic granule associated RNA binding protein TIA1	TIA1
T-cell immunoreceptor with Ig and ITIM domains	TIGIT
Tight junction protein ZO-3	TJP3
Thymidine kinase, cytosolic	TK1
Toll-like receptor 2	TLR2
Toll-like receptor 4	TLR4
Translation machinery-associated protein 16	TMA16
Transmembrane and coiled-coil domain-containing protein 5A	TMCO5A
Transmembrane emp24 domain-containing protein 1	TMED1
Transmembrane emp24 domain-containing protein 10	TMED10
Transmembrane emp24 domain-containing protein 4	TMED4
Transmembrane protein 108	TMEM108
Tropomodulin-4	TMOD4
Transmembrane protease serine 11B	TMPRSS11B
Tumor necrosis factor	TNF
Tumor necrosis factor alpha-induced protein 8	TNFAIP8
Tumor necrosis factor receptor superfamily member 13C	TNFRSF13C

Tumor necrosis factor ligand superfamily member 15	TNFSF15
Tumor necrosis factor ligand superfamily member 9	TNFSF9
Troponin I, cardiac muscle	TNNI3
Trinucleotide repeat-containing gene 18 protein	TNRC18
TOG array regulator of axonemal microtubules protein 2	TOGARAM2
TOM1-like protein 1	TOM1L1
DNA topoisomerase I, mitochondrial	TOP1MT
Thymocyte selection-associated high mobility group box protein TOX	TOX
TOX high mobility group box family member 3	TOX3
Cellular tumor antigen p53	TP53
TP53-binding protein 1	TP53BP1
Tumor protein p53-inducible nuclear protein 2	TP53INP2
Tumor protein p73	TP73
Trophoblast glycoprotein-like	TPBGL
Tropomyosin alpha-3 chain	TPM3
Thiopurine S-methyltransferase	TPMT
Tubulin polymerization-promoting protein family member 2	TPPP2
Tubulin polymerization-promoting protein family member 3	TPPP3
Nucleoprotein TPR	TPR
EKC/KEOPS complex subunit TPRKB	TPRKB
Taperin	TPRN
Tryptase delta	TPSD1
Translationally-controlled tumor protein	TPT1
TNF receptor-associated factor 3	TRAF3
E3 ubiquitin ligase TRAF3IP2	TRAF3IP2
Trafficking kinesin-binding protein 1	TRAK1
Trafficking protein particle complex subunit 4	TRAPPC4
tRNA (cytosine(38)-C(5))-methyltransferase	TRDMT1
Transcription intermediary factor 1-alpha	TRIM24

Tripartite motif-containing protein 26	TRIM26
E3 ubiquitin-protein ligase TRIM39	TRIM39
E3 ubiquitin ligase TRIM40	TRIM40
E3 ubiquitin-protein ligase TRIM69	TRIM69
Transient receptor potential cation channel subfamily V member 3	TRPV3
Hamartin	TSC1
Thymic stromal lymphopoietin	TSLP
Tetraspanin-15	TSPAN15
Tetraspanin-7	TSPAN7
Thiosulfate sulfurtransferase	TST
Tau-tubulin kinase 1	TTBK1
Tetratricopeptide repeat protein 1	TTC1
Tetratricopeptide repeat protein 32	TTC32
Transcription termination factor 2	TTF2
Titin	TTN
Tubulin beta-3 chain	TUBB3
Tubulin beta-8 chain	TUBB8
Tyrosine-protein kinase TXK	TXK
Beta-taxilin	TXLNB
Thioredoxin-like protein 1	TXNL1
Thymidylate synthase	TYMS
Ubiquitin-conjugating enzyme E2 Z	UBE2Z
Ubiquitin-like protein 4B	UBL4B
Ubiquilin-3	UBQLN3
Ubiquitin domain-containing protein 2	UBTD2
Nucleolar transcription factor 1	UBTF
Upstream-binding factor 1-like protein 1	UBTFL1
UDP-glucose 6-dehydrogenase	UGDH
UDP-glucose:glycoprotein glucosyltransferase 1	UGGT1

UHRF1-binding protein 1-like	BLTP3B
UBAP1-MVB12-associated	UMAD1
Netrin receptor UNC5D	UNC5D
Protein unc-79 homolog	UNC79
Regulator of nonsense transcripts 3A	UPF3A
Uroplakin-3b-like protein 1	UPK3BL1
Ubiquitin carboxyl-terminal hydrolase 47	USP47
Vesicle-associated membrane protein 5	VAMP5
Protein N-lysine methyltransferase METTL21D	VCPKMT
Vasoactive intestinal polypeptide receptor 1	VIPR1
Vacuolar protein sorting-associated protein 28 homolog	VPS28
V-set and transmembrane domain-containing protein 1	VSTM1
V-set and transmembrane domain-containing protein 2B	VSTM2B
V-set and transmembrane domain-containing protein 2-like protein	VSTM2L
V-set domain-containing T-cell activation inhibitor 1	VTCN1
von Willebrand factor A domain-containing protein 5A	VWA5A
Actin nucleation-promoting factor WAS	WAS
Actin nucleation-promoting factor WASL	WASL
WASP homolog-associated protein with actin, membranes and microtubules	WHAMM
Protein Wnt-9a	WNT9A
WSC domain-containing protein 2	WSCD2
E3 ubiquitin-protein ligase XIAP	XIAP
DNA repair protein XRCC4	XRCC4
YTH domain-containing family protein 3	YTHDF3
Transcriptional repressor protein YY1	YY1
Zinc finger BED domain-containing protein 6	ZBED6
Zinc finger and BTB domain-containing protein 16	ZBTB16
Zinc finger C2HC domain-containing protein 1A	ZC2HC1A
Endoribonuclease ZC3H12A	ZC3H12A

Zinc finger CCHC domain-containing protein 8	ZCCHC8
AN1-type zinc finger protein 6	ZFAND6
Zinc finger protein with KRAB and SCAN domains 3	ZKSCAN3
Zinc finger MYND domain-containing protein 15	ZMYND15
BUB3-interacting and GLEBS motif-containing protein ZNF207	ZNF207
Neurotrophin receptor-interacting factor homolog	ZNF274
Zinc finger protein 423	ZNF423
Zinc finger protein 572	ZNF572
Zinc finger protein 649	ZNF649
Zinc finger protein 75D	ZNF75D
Zinc finger protein 830	ZNF830
E3 ubiquitin-protein ligase ZNRF4	ZNRF4
Zona pellucida sperm-binding protein 4	ZP4
Zinc finger protein ZPR1	ZPR1
Mth938 domain-containing protein	AAMDC
Alanyl-tRNA editing protein Aarsd1	AARSD1
Putative protein-lysine deacylase ABHD14B	ABHD14B
Target of Nesh-SH3	ABI3BP
Tyrosine-protein kinase ABL1	ABL1
Actin-binding LIM protein 1	ABLIM1
Angiotensin-converting enzyme 2	ACE2
Acyl-coenzyme A thioesterase 13	ACOT13
Low molecular weight phosphotyrosine protein phosphatase	ACP1
Lysophosphatidic acid phosphatase type 6	ACP6
Acrosin-binding protein	ACRBP
Acrosomal protein SP-10	ACRV1
Actin, aortic smooth muscle	ACTA2
Alpha-actinin-2	ACTN2
Serine/threonine-protein kinase receptor R3	ACVRL1

Adenosine deaminase	ADA
Disintegrin and metalloproteinase domain-containing protein 15	ADAM15
Disintegrin and metalloproteinase domain-containing protein 22	ADAM22
Disintegrin and metalloproteinase domain-containing protein 23	ADAM23
Disintegrin and metalloproteinase domain-containing protein 9	ADAM9
A disintegrin and metalloproteinase with thrombospondin motifs 1	ADAMTS1
A disintegrin and metalloproteinase with thrombospondin motifs 15	ADAMTS15
ADAMTS-like protein 4	ADAMTSL4
Adhesion G protein-coupled receptor B1	ADGRB1
Adhesion G protein-coupled receptor B3	ADGRB3
Adhesion G protein-coupled receptor E1	ADGRE1
Adhesion G protein-coupled receptor E3	ADGRE3
Adhesion G-protein coupled receptor G1	ADGRG1
Pro-adrenomedullin	ADM
Adenylosuccinate lyase	ADSL
Actin filament-associated protein 1-like 1	AFAP1L1
Cytosolic carboxypeptidase 2	AGBL2
Anterior gradient protein 2 homolog	AGR2
Agouti-related protein	AGRP
Neuroblast differentiation-associated protein AHNAK	AHNAK
Protein AHNAK2	AHNAK2
Activator of 90 kDa heat shock protein ATPase homolog 1	AHSA1
Allograft inflammatory factor 1-like	AIF1L
Apoptosis-inducing factor 1, mitochondrial	AIFM1
Adenylate kinase 2, mitochondrial	AK2
A-kinase anchor protein 2	AKAP2
Proline-rich AKT1 substrate 1	AKT1S1
RAC-beta serine/threonine-protein kinase	AKT2
Aldehyde dehydrogenase, mitochondrial	ALDH2

Aldehyde dehydrogenase, dimeric NADP-preferring	ALDH3A1
Succinate-semialdehyde dehydrogenase, mitochondrial	ALDH5A1
Alkaline phosphatase, placental type	ALPP
Protein AMBP	AMBP
Probable imidazolonepropionase	AMDHD1
Amphoterin-induced protein 2	AMIGO2
AMP deaminase 3	AMPD3
Angiopoietin-2	ANGPT2
Angiopoietin-related protein 7	ANGPTL7
Ankyrin repeat and MYND domain-containing protein 2	ANKMY2
Ankyrin repeat and zinc finger domain-containing protein 1	ANKZF1
Acidic leucine-rich nuclear phosphoprotein 32 family member C	ANP32C
Annexin A10	ANXA10
Annexin A11	ANXA11
Annexin A2	ANXA2
AP-3 complex subunit beta-1	AP3B1
AP-3 complex subunit sigma-2	AP3S2
Amyloid beta A4 precursor protein-binding family B member 1-interacting protein	APBB1IP
DNA-(apurinic or apyrimidinic site) endonuclease	APEX1
Methylthioribulose-1-phosphate dehydratase	APIP
Adenine phosphoribosyltransferase	APRT
Amphiregulin	AREG
ADP-ribosylation factor 6	ARF6
Arfaptin-1	ARFIP1
Arginase-1	ARG1
Rho GTPase-activating protein 27	ARHGAP27
Rho GTPase-activating protein 30	ARHGAP30
Rho guanine nucleotide exchange factor 1	ARHGEF1
Rho guanine nucleotide exchange factor 10	ARHGEF10

Rho guanine nucleotide exchange factor 12	ARHGEF12
Aryl hydrocarbon receptor nuclear translocator-like protein 1	BMAL1
Arylsulfatase B	ARSB
Neutral ceramidase	ASAH2
Activating signal cointegrator 1 complex subunit 1	ASCC1
Asialoglycoprotein receptor 1	ASGR1
Tether containing UBX domain for GLUT4	ASPSCR1
Isoaspartyl peptidase/L-asparaginase	ASRGL1
Argininosuccinate synthase	ASS1
Autophagy-related protein 16-1	ATG16L1
V-type proton ATPase subunit D	ATP6V1D
V-type proton ATPase subunit G 1	ATP6V1G1
V-type proton ATPase subunit G 2	ATP6V1G2
All-trans retinoic acid-induced differentiation factor	ATRAID
Ataxin-3	ATXN3
Axin-1	AXIN1
5-azacytidine-induced protein 2	AZI2
UDP-GlcNAc:betaGal beta-1,3-N-acetylglucosaminyltransferase 7	B3GNT7
Transcription regulator protein BACH1	BACH1
BAG family molecular chaperone regulator 3	BAG3
BAG family molecular chaperone regulator 5	BAG5
Large proline-rich protein BAG6	BAG6
B-cell scaffold protein with ankyrin repeats	BANK1
Chromatin complexes subunit BAP18	BAP18
Brevican core protein	BCAN
Apoptosis regulator Bcl-2	BCL2
Bcl-2-like protein 1	BCL2L1
B-cell CLL/lymphoma 7 protein family member B	BCL7B
Breakpoint cluster region protein	BCR

Beclin-1	BECN1
B-cell linker protein	BLNK
Biogenesis of lysosome-related organelles complex 1 subunit 3	BLOC1S3
Bone morphogenetic protein 4	BMP4
Bone morphogenetic protein 6	BMP6
Bone morphogenetic protein 7	BMP7
BCL2/adenovirus E1B 19 kDa protein-interacting protein 3-like	BNIP3L
Brother of CDO	BOC
BolA-like protein 2	BOLA2
BPI fold-containing family A member 2	BPIFA2
BRCA1-associated protein	BRAP
Bromodomain testis-specific protein	BRDT
Protein BRICK1	BRK1
Serine/threonine-protein kinase BRSK2	BRSK2
Basigin	BSG
Butyrophilin subfamily 1 member A1	BTN1A1
Butyrophilin subfamily 3 member A2	BTN3A2
UPF0764 protein C16orf89	C16orf89
C1GALT1-specific chaperone 1	C1GALT1C1
Complement C1q subcomponent subunit A	C1QA
Complement component 1 Q subcomponent-binding protein, mitochondrial	C1QBP
Complement C1q-like protein 2	C1QL2
Complement C1q tumor necrosis factor-related protein 6	C1QTNF6
Uncharacterized protein C7orf50	C7orf50
Uncharacterized protein C9orf40	C9orf40
Carbonic anhydrase 12	CA12
Carbonic anhydrase 14	CA14
Carbonic anhydrase 9	CA9
Voltage-dependent L-type calcium channel subunit beta-3	CACNB3

Calbindin	CALB1
Calcitonin	CALCA
Calcitonin gene-related peptide 2	CALCB
Calcium-binding and coiled-coil domain-containing protein 1	CALCOCO1
Calcium-binding and coiled-coil domain-containing protein 2	CALCOCO2
Calmodulin-like protein 4	CALML4
Calmodulin-regulated spectrin-associated protein 1	CAMSAP1
Macrophage-capping protein	CAPG
Calpain-3	CAPN3
Calcyphosin	CAPS
Caspase-10	CASP10
Caspase-2	CASP2
Caspase-7	CASP7
Caspase-8	CASP8
Caspase-9	CASP9
Cerebellin-4	CBLN4
Cystathionine beta-synthase	CBS
Coiled-coil and C2 domain-containing protein 1A	CC2D1A
Cell division cycle and apoptosis regulator protein 1	CCAR1
Cell cycle and apoptosis regulator protein 2	CCAR2
Coiled-coil domain-containing protein 134	CCDC134
Coiled-coil domain-containing protein 28A	CCDC28A
Coiled-coil domain-containing protein 50	CCDC50
Coiled-coil domain-containing glutamate-rich protein 2	CCER2
Cholecystokinin	CCK
Eotaxin	CCL11
C-C motif chemokine 20	CCL20
C-C motif chemokine 25	CCL25
C-C motif chemokine 26	CCL26

C-C motif chemokine 28	CCL28
C-C motif chemokine 3	CCL3
C-C motif chemokine 7	CCL7
C-C motif chemokine 8	CCL8
CCN family member 1	CCN1
CCN family member 4	CCN4
Copper chaperone for superoxide dismutase	CCS
Immunoglobulin superfamily member 2	CD101
CD160 antigen	CD160
OX-2 membrane glycoprotein	CD200
Cell surface glycoprotein CD200 receptor 1	CD200R1
C-type lectin domain family 4 member K	CD207
B-cell receptor CD22	CD22
CD226 antigen	CD226
Natural killer cell receptor 2B4	CD244
Programmed cell death 1 ligand 1	CD274
CMRF35-like molecule 2	CD300E
CMRF35-like molecule 1	CD300LF
CD302 antigen	CD302
ADP-ribosyl cyclase/cyclic ADP-ribose hydrolase 1	CD38
T-cell surface glycoprotein CD4	CD4
CD40 ligand	CD40LG
T-cell surface glycoprotein CD5	CD5
T-cell differentiation antigen CD6	CD6
CD63 antigen	CD63
T-cell antigen CD7	CD7
CD70 antigen	CD70
B-cell antigen receptor complex-associated protein beta chain	CD79B
CD83 antigen	CD83

SLAM family member 5	CD84
T-lymphocyte activation antigen CD86	CD86
Codanin-1	CDAN1
Anaphase-promoting complex subunit CDC26	CDC26
Serine/threonine-protein kinase MRCK beta	CDC42BPB
CUB domain-containing protein 1	CDCP1
Cadherin-related family member 2	CDHR2
Cyclin-dependent kinase inhibitor 1	CDKN1A
Cyclin-dependent kinase 4 inhibitor D	CDKN2D
Cerebral dopamine neurotrophic factor	CDNF
Corneodesmosin	CDSN
Carcinoembryonic antigen-related cell adhesion molecule 16	CEACAM16
Carcinoembryonic antigen-related cell adhesion molecule 19	CEACAM19
Carcinoembryonic antigen-related cell adhesion molecule 21	CEACAM21
Carcinoembryonic antigen-related cell adhesion molecule 8	CEACAM8
Centrosomal protein of 135 kDa	CEP135
Centrosomal protein of 170 kDa	CEP170
Centrosome-associated protein CEP250	CEP250
Centrosomal protein 43	CEP43
Cocaine esterase	CES2
Carboxylesterase 3	CES3
Centrin-3	CETN3
Cilia- and flagella-associated protein 36	CFAP36
Coiled-coil-helix-coiled-coil-helix domain-containing protein 10, mitochondrial	CHCHD10
MICOS complex subunit MIC25	CHCHD6
Rab proteins geranylgeranyltransferase component A 1	CHM
Charged multivesicular body protein 1a	CHMP1A
Cold-inducible RNA-binding protein	CIRBP
Citron Rho-interacting kinase	CIT

Cytoskeleton-associated protein 4	CKAP4
C-type lectin domain family 10 member A	CLEC10A
C-type lectin domain family 12 member A	CLEC12A
C-type lectin domain family 1 member A	CLEC1A
C-type lectin domain family 4 member A	CLEC4A
C-type lectin domain family 4 member C	CLEC4C
C-type lectin domain family 4 member D	CLEC4D
C-type lectin domain family 4 member G	CLEC4G
C-type lectin domain family 7 member A	CLEC7A
CAP-Gly domain-containing linker protein 2	CLIP2
CXADR-like membrane protein	CLMP
ATP-dependent Clp protease proteolytic subunit, mitochondrial	CLPP
Calsyntenin-2	CLSTN2
Calsyntenin-3	CLSTN3
C-Maf-inducing protein	CMIP
Cardiomyopathy-associated protein 5	CMYA5
2',3'-cyclic-nucleotide 3'-phosphodiesterase	CNP
Protein canopy homolog 4	CNPY4
Contactin-2	CNTN2
Contactin-associated protein-like 2	CNTNAP2
Collagen alpha-1(XXIV) chain	COL24A1
Collagen alpha-1(XXVIII) chain	COL28A1
Collagen alpha-1(II) chain	COL2A1
Collagen alpha-1(IX) chain	COL9A1
COMM domain-containing protein 1	COMMD1
COMM domain-containing protein 9	COMMD9
Catechol O-methyltransferase	COMT
Coatomer subunit beta'	COPB2
5-demethoxyubiquinone hydroxylase, mitochondrial	COQ7

Cytochrome c oxidase subunit 5B, mitochondrial	COX5B
Carboxypeptidase E	CPE
Probable serine carboxypeptidase CPVL	CPVL
Death domain-containing protein CRADD	CRADD
Cysteine-rich protein 2	CRIP2
Cysteine-rich secretory protein 2	CRISP2
Cornulin	CRNN
Cytotoxic and regulatory T-cell molecule	CRTAM
Beta-crystallin B2	CRYBB2
Gamma-crystallin D	CRYGD
Quinone oxidoreductase-like protein 1	CRYZL1
Cold shock domain-containing protein E1	CSDE1
Granulocyte-macrophage colony-stimulating factor receptor subunit alpha	CSF2RA
Cytokine receptor common subunit beta	CSF2RB
Granulocyte colony-stimulating factor receptor	CSF3R
Casein kinase II subunit alpha	CSNK2A1
Cysteine and glycine-rich protein 3	CSRP3
Cystatin-D	CST5
Cystathionine gamma-lyase	CTH
Chymotrypsin-like protease CTRL-1	CTRL
Pro-cathepsin H	CTSH
Cathepsin O	CTSO
Cathepsin L2	CTSV
Spliceosome-associated protein CWC15 homolog	CWC15
Fractalkine	CX3CL1
Coxsackievirus and adenovirus receptor	CXADR
C-X-C motif chemokine 17	CXCL17
Interleukin-8	CXCL8
NADH-cytochrome b5 reductase 2	CYB5R2

Disabled homolog 2	DAB2
Death-associated protein kinase 2	DAPK2
Dual adapter for phosphotyrosine and 3-phosphotyrosine and 3-phosphoinositide	DAPP1
Aspartate--tRNA ligase, cytoplasmic	DARS1
Drebrin	DBN1
Decorin	DCN
m7GpppX diphosphatase	DCPS
Dynactin subunit 1	DCTN1
Dynactin subunit 2	DCTN2
Dynactin subunit 6	DCTN6
N(G),N(G)-dimethylarginine dimethylaminohydrolase 1	DDAH1
Phospholipase DDHD2	DDHD2
ATP-dependent RNA helicase DDX1	DDX1
2,4-dienoyl-CoA reductase [(3E)-enoyl-CoA-producing], mitochondrial	DECR1
Beta-defensin 103	DEFB103A_DEFB103B
Defensin beta 4A	DEFB4A_DEFB4B
DNA fragmentation factor subunit alpha	DFFA
Diacylglycerol kinase alpha	DGKA
Diacylglycerol kinase iota	DGKI
Deoxyhypusine synthase	DHPS
Dehydrogenase/reductase SDR family member 4-like 2	DHRS4L2
Dickkopf-related protein 4	DKK4
Dickkopf-like protein 1	DKKL1
Disks large homolog 4	DLG4
Delta-like protein 4	DLL4
Dystrophin	DMD
Dentin matrix acidic phosphoprotein 1	DMP1
DnaJ homolog subfamily A member 2	DNAJA2
DnaJ homolog subfamily A member 4	DNAJA4

DnaJ homolog subfamily B member 1	DNAJB1
DnaJ homolog subfamily B member 14	DNAJB14
DnaJ homolog subfamily B member 4	DNAJB4
DnaJ homolog subfamily B member 8	DNAJB8
DnaJ homolog subfamily C member 17	DNAJC17
DnaJ homolog subfamily C member 21	DNAJC21
Putative tyrosine-protein phosphatase auxilin	DNAJC6
DnaJ homolog subfamily C member 9	DNAJC9
Dynamin-1	DNM1
Dynamin-3	DNM3
Dynamin-binding protein	DNMBP
Aspartyl aminopeptidase	DNPEP
Docking protein 1	DOK1
Dipeptidase 1	DPEP1
Dipeptidase 2	DPEP2
Inactive dipeptidyl peptidase 10	DPP10
Dipeptidyl aminopeptidase-like protein 6	DPP6
Protein dpy-30 homolog	DPY30
Draxin	DRAXIN
Developmentally-regulated GTP-binding protein 2	DRG2
Desmoglein-3	DSG3
Desmoglein-4	DSG4
Dystrobrevin beta	DTNB
Probable E3 ubiquitin-protein ligase DTX3	DTX3
Deoxyuridine 5'-triphosphate nucleotidohydrolase, mitochondrial	DUT
Decapping and exoribonuclease protein	DXO
Dynein light chain Tctex-type 3	DYNLT3
Receptor-binding cancer antigen expressed on SiSo cells	EBAG9
Interleukin-27	EBI3_IL27

Endothelin-converting enzyme 1	ECE1
Enoyl-CoA hydratase, mitochondrial	ECHS1
Tumor necrosis factor receptor superfamily member 27	EDA2R
Tumor necrosis factor receptor superfamily member EDAR	EDAR
Epididymal secretory protein E3-beta	EDDM3B
Endothelial differentiation-related factor 1	EDF1
EGF-like repeat and discoidin I-like domain-containing protein 3	EDIL3
Endothelin-1	EDN1
EF-hand domain-containing protein D1	EFHD1
EF-hand domain-containing protein D2	EFHD2
Ephrin-A4	EFNA4
Pikachurin	EGFLAM
Egl nine homolog 1	EGLN1
EH domain-containing protein 3	EHD3
Eukaryotic translation initiation factor 1A, X-chromosomal	EIF1AX
Interferon-induced, double-stranded RNA-activated protein kinase	EIF2AK2
Translation initiation factor eIF-2B subunit delta	EIF2B4
Eukaryotic translation initiation factor 2 subunit 2	EIF2S2
Eukaryotic translation initiation factor 4B	EIF4B
Eukaryotic translation initiation factor 4E	EIF4E
Eukaryotic translation initiation factor 4 gamma 1	EIF4G1
Eukaryotic translation initiation factor 4 gamma 3	EIF4G3
Eukaryotic translation initiation factor 4H	EIF4H
Zinc phosphodiesterase ELAC protein 1	ELAC1
Elongin-A	ELOA
Echinoderm microtubule-associated protein-like 4	EML4
Uridylate-specific endoribonuclease	ENDOU
Beta-enolase	ENO3
Glycerophosphocholine cholinephosphodiesterase ENPP6	ENPP6

Nucleoside diphosphate phosphatase ENTPD5	ENTPD5
Ectonucleoside triphosphate diphosphohydrolase 6	ENTPD6
Endosome-associated-trafficking regulator 1	ENTR1
Band 4.1-like protein 2	EPB41L2
Epigen	EPGN
Ephrin type-A receptor 2	EPHA2
Ephrin type-B receptor 6	EPHB6
Erythropoietin	EPO
Epiplakin	EPPK1
Epidermal growth factor receptor kinase substrate 8-like protein 2	EPS8L2
Erbin	ERBIN
Proepiregulin	EREG
Serine/threonine-protein kinase/endoribonuclease IRE1	ERN1
Endoplasmic reticulum resident protein 44	ERP44
Extended synaptotagmin-2	ESYT2
Protein eva-1 homolog C	EVA1C
Ecotropic viral integration site 5 protein homolog	EVI5
Tissue factor	F3
Gastrotropin	FABP6
Protein FAM114A2	FAM114A2
Protein FAM13A	FAM13A
Protein FAM171A2	FAM171A2
Cotranscriptional regulator FAM172A	FAM172A
Protein FAM3B	FAM3B
Protein FAM3D	FAM3D
Tumor necrosis factor ligand superfamily member 6	FASLG
Fibrillin-2	FBN2
Immunoglobulin alpha Fc receptor	FCAR
Fc receptor-like protein 2	FCRL2

Fc receptor-like protein 6	FCRL6
FYVE, RhoGEF and PH domain-containing protein 3	FGD3
Fibroblast growth factor 16	FGF16
Fibroblast growth factor 2	FGF2
Fibroblast growth factor 21	FGF21
Fibroblast growth factor 23	FGF23
Fibroblast growth factor 3	FGF3
Fibroblast growth factor-binding protein 3	FGFBP3
FHF complex subunit HOOK interacting protein 2A	FHIP2A
Peptidyl-prolyl cis-trans isomerase FKBP14	FKBP14
Peptidyl-prolyl cis-trans isomerase FKBP1B	FKBP1B
Peptidyl-prolyl cis-trans isomerase FKBP4	FKBP4
Peptidyl-prolyl cis-trans isomerase FKBP5	FKBP5
FK506-binding protein-like	FKBPL
Leucine-rich repeat transmembrane protein FLRT2	FLRT2
Vascular endothelial growth factor receptor 1	FLT1
Fms-related tyrosine kinase 3 ligand	FLT3LG
Formin-like protein 1	FMNL1
Formin-binding protein 4	FNBP4
Fibronectin type III domain-containing protein 1	FNDC1
Protein farnesyltransferase/geranylgeranyltransferase type-1 subunit alpha	FNTA
Forkhead box protein O1	FOXO1
Secreted frizzled-related protein 3	FRZB
Follitropin subunit beta	FSHB
Follistatin-related protein 1	FSTL1
Formimidoyltransferase-cyclodeaminase	FTCD
Alpha-(1,6)-fucosyltransferase	FUT8
Frataxin, mitochondrial	FXN
Gamma-aminobutyric acid receptor-associated protein	GABARAP

Growth arrest and DNA damage-inducible proteins-interacting protein 1	GADD45GIP1
Polypeptide N-acetylgalactosaminyltransferase 10	GALNT10
Polypeptide N-acetylgalactosaminyltransferase 2	GALNT2
N-acetylgalactosaminyltransferase 7	GALNT7
Trifunctional purine biosynthetic protein adenosine-3	GART
Gastrin	GAST
Glutamine amidotransferase-like class 1 domain-containing protein 3, mitochondrial	GATD3
Lysosomal acid glucosylceramidase	GBA1
GRIP and coiled-coil domain-containing protein 1	GCC1
Beta-1,3-galactosyl-O-glycosyl-glycoprotein beta-1,6-N-acetylglucosaminyltransferase	GCNT1
GDNF family receptor alpha-1	GFRA1
GDNF family receptor alpha-2	GFRA2
GDNF family receptor alpha-3	GFRA3
GDNF family receptor alpha-like	GFRAL
Glutathione hydrolase 5 proenzyme	GGT5
Glucose-induced degradation protein 8 homolog	GID8
GRB10-interacting GYF protein 2	GIGYF2
PDZ domain-containing protein GIPC2	GIPC2
PDZ domain-containing protein GIPC3	GIPC3
Gastric inhibitory polypeptide receptor	GIPR
ARF GTPase-activating protein GIT1	GIT1
Gastrokine-1	GKN1
Beta-galactosidase	GLB1
Glioma pathogenesis-related protein 1	GLIPR1
Lactoylglutathione lyase	GLO1
Glutaredoxin-2, mitochondrial	GLRX2
Cytokine-like nuclear factor N-PAC	GLYR1
GMP reductase 1	GMPR
Neuroendocrine secretory protein 55	GNAS

Glucosamine-6-phosphate isomerase 1	GNPDA1
Golgin subfamily A member 3	GOLGA3
Golgi-associated PDZ and coiled-coil motif-containing protein	GOPC
Golgi reassembly-stacking protein 2	GORASP2
Platelet glycoprotein Ib beta chain	GP1BB
Pancreatic secretory granule membrane major glycoprotein GP2	GP2
Cell surface A33 antigen	GPA33
Glypican-1	GPC1
Glypican-5	GPC5
Glycerol-3-phosphate dehydrogenase [NAD(+)], cytoplasmic	GPD1
Glycoprotein hormone alpha-2	GPHA2
Glycosylphosphatidylinositol-anchored high density lipoprotein-binding protein 1	GPIHBP1
G-patch domain and KOW motifs-containing protein	GPKOW
Probable G-protein coupled receptor 158	GPR158
Protein GPR15LG	GPR15LG
Prosaposin receptor GPR37	GPR37
Gastrin-releasing peptide	GRP
GrpE protein homolog 1, mitochondrial	GRPEL1
Glutathione S-transferase theta-2B	GSTT2B
Glycogen [starch] synthase, muscle	GYS1
Granzyme A	GZMA
Granzyme B	GZMB
Granzyme H	GZMH
Hydroxyacylglutathione hydrolase, mitochondrial	HAGH
2-Hydroxyacid oxidase 1	HAO1
Hepatitis A virus cellular receptor 1	HAVCR1
Proheparin-binding EGF-like growth factor	HBEGF
Hemoglobin subunit theta-1	HBQ1
Hematopoietic lineage cell-specific protein	HCLS1

5'-deoxynucleotidase HDDC2	HDDC2
Hepatoma-derived growth factor	HDGF
Hepatoma-derived growth factor-related protein 2	HDGFL2
HEPACAM family member 2	HEPACAM2
Protein HEXIM1	HEXIM1
Hepatocyte growth factor	HGF
Hematopoietically-expressed homeobox protein HHEX	HHEX
Huntingtin-interacting protein 1-related protein	HIP1R
Hemojuvelin	HJV
HLA class I histocompatibility antigen, A alpha chain	HLA-A
HLA class II histocompatibility antigen, DR alpha chain	HLA-DRA
HLA class I histocompatibility antigen, alpha chain E	HLA-E
Porphobilinogen deaminase	HMBS
Hydroxymethylglutaryl-CoA lyase, mitochondrial	HMGCL
Heme oxygenase 2	HMOX2
Histamine N-methyltransferase	HNMT
Heterogeneous nuclear ribonucleoprotein U-like protein 1	HNRNPUL1
Homer protein homolog 3	HOMER3
Protein Hook homolog 2	HOOK2
Hippocalcin-like protein 1	HPCAL1
Sarcoplasmic reticulum histidine-rich calcium-binding protein	HRC
HCLS1-binding protein 3	HS1BP3
Heparan sulfate glucosamine 3-O-sulfotransferase 3B1	HS3ST3B1
Heparan-sulfate 6-O-sulfotransferase 1	HS6ST1
Heat shock factor-binding protein 1	HSBP1
11-beta-hydroxysteroid dehydrogenase 1	HSD11B1
17-beta-hydroxysteroid dehydrogenase 14	HSD17B14
Hydroxysteroid dehydrogenase-like protein 2	HSDL2
Heat shock 70 kDa protein 13	HSPA13

Heat shock-related 70 kDa protein 2	HSPA2
Heat shock protein beta-6	HSPB6
Hydroxyacyl-thioester dehydratase type 2, mitochondrial	HTD2
Intercellular adhesion molecule 4	ICAM4
ICOS ligand	ICOSLG
Indoleamine 2,3-dioxygenase 1	IDO1
Iduronate 2-sulfatase	IDS
Alpha-L-iduronidase	IDUA
Gamma-interferon-inducible lysosomal thiol reductase	IFI30
Interferon alpha/beta receptor 1	IFNAR1
Interferon gamma receptor 2	IFNGR2
Interferon lambda receptor 1	IFNLR1
Immunoglobulin-binding protein 1	IGBP1
Insulin-like growth factor 1 receptor	IGF1R
Insulin growth factor-like family member 4	IGFL4
Immunoglobulin superfamily member 21	IGSF21
Immunoglobulin superfamily member 3	IGSF3
NF-kappa-B essential modulator	IKBKG
Interleukin-12	IL12A_IL12B
Interleukin-12 subunit beta	IL12B
Interleukin-15	IL15
Pro-interleukin-16	IL16
Interleukin-17 receptor B	IL17RB
Interleukin-18 receptor 1	IL18R1
Interleukin-18 receptor accessory protein	IL18RAP
Interleukin-22	IL22
Interleukin-23 receptor	IL23R
Cytokine receptor common subunit gamma	IL2RG
Interleukin-32	IL32

Interleukin-36 gamma	IL36G
Interleukin-4 receptor subunit alpha	IL4R
Interleukin-5 receptor subunit alpha	IL5RA
Interleukin-6	IL6
Interleukin-7	IL7
MICOS complex subunit MIC60	IMMT
Inositol monophosphatase 1	IMPA1
Protein IMPACT	IMPACT
Inositol polyphosphate 1-phosphatase	INPP1
Phosphatidylinositol 3,4,5-trisphosphate 5-phosphatase 1	INPP5D
Phosphatidylinositol 3,4,5-trisphosphate 5-phosphatase 2	INPPL1
Insulin-like 3	INSL3
Early placenta insulin-like peptide	INSL4
Insulin-like peptide INSL5	INSL5
Insulin receptor	INSR
Interactor protein for cytohesin exchange factors 1	IPCEF1
Ras GTPase-activating-like protein IQGAP2	IQGAP2
Inositol 1,4,5-triphosphate receptor associated 2	IRAG2
Interleukin-1 receptor-associated kinase 4	IRAK4
Immunoglobulin superfamily containing leucine-rich repeat protein 2	ISLR2
Isthmin-1	ISM1
IST1 homolog	IST1
Integrin alpha-11	ITGA11
Integrin alpha-6	ITGA6
Integrin alpha-L	ITGAL
Integrin alpha-V	ITGAV
Integrin beta-1-binding protein 2	ITGB1BP2
Integrin beta-7	ITGB7
Inter-alpha-trypsin inhibitor heavy chain H5	ITIH5

Integral membrane protein 2A	ITM2A
Inositol 1,4,5-trisphosphate receptor type 1	ITPR1
Jupiter microtubule associated homolog 2	JPT2
Kazal-type serine protease inhibitor domain-containing protein 1	KAZALD1
Kazrin	KAZN
BTB/POZ domain-containing protein KCTD5	KCTD5
Kell blood group glycoprotein	KEL
Ketohexokinase	KHK
Dyslexia-associated protein KIAA0319	KIAA0319
Uncharacterized protein KIAA2013	KIAA2013
Kinesin-like protein KIF22	KIF22
Kinesin-like protein KIFC3	KIFC3
Killer cell immunoglobulin-like receptor 2DL2/2DL3	KIR2DL2_KIR2DL3
Beta-klotho	KLB
Kallikrein-13	KLK13
Kallikrein-14	KLK14
Kallikrein-15	KLK15
Kallikrein-4	KLK4
Killer cell lectin-like receptor subfamily B member 1	KLRB1
Natural killer cells antigen CD94	KLRD1
NKG2-D type II integral membrane protein	KLRK1
Keratin, type I cytoskeletal 18	KRT18
Keratin, type I cytoskeletal 19	KRT19
Keratin, type II cytoskeletal 6C	KRT6C
Kynureninase	KYNU
Extracellular glycoprotein lacritin	LACRT
Lymphocyte activation gene 3 protein	LAG3
Leukocyte-associated immunoglobulin-like receptor 2	LAIR2
Laminin subunit beta-1	LAMB1

Lysosome-associated membrane glycoprotein 3	LAMP3
Ragulator complex protein LAMTOR5	LAMTOR5
La-related protein 1	LARP1
Linker for activation of T-cells family member 1	LAT
Linker for activation of T-cells family member 2	LAT2
Serine/threonine-protein kinase LATS1	LATS1
Layilin	LAYN
Lipocalin-15	LCN15
Low density lipoprotein receptor adapter protein 1	LDLRAP1
Left-right determination factor 2	LEFTY2
Mitochondrial proton/calcium exchanger protein	LETM1
Galectin-7	LGALS7
Leukemia inhibitory factor receptor	LIFR
Gastric triacylglycerol lipase	LIPF
Lamin-B1	LMNB1
Lamin-B2	LMNB2
Leiomodin-1	LMOD1
Lon protease homolog, mitochondrial	LONP1
Lysyl oxidase homolog 2	LOXL2
Lysophosphatidylcholine acyltransferase 2	LPCAT2
Lactoperoxidase	LPO
Lipoma-preferred partner	LPP
Leucine-rich repeat and calponin homology domain-containing protein 4	LRCH4
Leucine-rich repeats and immunoglobulin-like domains protein 1	LRIG1
Prolow-density lipoprotein receptor-related protein 1	LRP1
Leucine-rich repeat-containing protein 25	LRRC25
Leucine-rich repeat-containing protein 37A2	LRRC37A2
Leucine-rich repeat and transmembrane domain-containing protein 2	LRTM2
Lymphocyte-specific protein 1	LSP1

Leukotriene A-4 hydrolase	LTA4H
Lymphotoxin-beta	LTB
Leucine zipper protein 2	LUZP2
Latexin	LXN
Lymphocyte antigen 75	LY75
T-lymphocyte surface antigen Ly-9	LY9
Lymphocyte antigen 96	LY96
Tyrosine-protein kinase Lyn	LYN
Leucine zipper putative tumor suppressor 1	LZTS1
Cation-dependent mannose-6-phosphate receptor	M6PR
Mitotic spindle assembly checkpoint protein MAD1	MAD1L1
Myelin-associated glycoprotein	MAG
Mannosyl-oligosaccharide 1,2-alpha-mannosidase IB	MAN1A2
Microtubule-associated protein 2	MAP2
Dual specificity mitogen-activated protein kinase kinase 6	MAP2K6
Mitogen-activated protein kinase kinase kinase kinase 5	MAP4K5
Mitogen-activated protein kinase 9	MAPK9
Mannan-binding lectin serine protease 1	MASP1
Matrilin-3	MATN3
Methylmalonyl-CoA epimerase, mitochondrial	MCEE
Mast cell-expressed membrane protein 1	MCEMP1
Guanine nucleotide exchange factor DBS	MCF2L
MAM domain-containing glycosylphosphatidylinositol anchor protein 1	MDGA1
Enoyl-[acyl-carrier-protein] reductase, mitochondrial	MECR
Meprin A subunit alpha	MEP1A
Methionine aminopeptidase 1D, mitochondrial	METAP1D
Methionine aminopeptidase 2	METAP2
Methylated-DNA--protein-cysteine methyltransferase	MGMT
MHC class I polypeptide-related sequence A_MHC class I polypeptide-related sequence B	MICA_MICB

MIF4G domain-containing protein	MIF4GD
Ubiquitin carboxyl-terminal hydrolase MINDY-1	MINDY1
Misshapen-like kinase 1	MINK1
MIT domain-containing protein 1	MITD1
MAP kinase-interacting serine/threonine-protein kinase 1	MKNK1
Promotilin	MLN
Neprilysin	MME
Macrophage metalloelastase	MMP12
Myelin-oligodendrocyte glycoprotein	MOG
MORC family CW-type zinc finger protein 3	MORC3
M-phase phosphoprotein 8	MPHOSPH8
Mannose-6-phosphate isomerase	MPI
MAGUK p55 subfamily member 7	MPP7
Myosin phosphatase Rho-interacting protein	MPRIP
39S ribosomal protein L24, mitochondrial	MRPL24
39S ribosomal protein L28, mitochondrial	MRPL28
Peptidyl-tRNA hydrolase ICT1, mitochondrial	MRPL58
B-lymphocyte antigen CD20	MS4A1
Mesothelin	MSLN
Growth/differentiation factor 8	MSTN
Protein LYRIC	MTDH
Bifunctional methylenetetrahydrofolate dehydrogenase/cyclohydrolase, mitochondrial	MTHFD2
Translation initiation factor IF-3, mitochondrial	MTIF3
Myotrophin	MTPN
Protein MTSS 1	MTSS1
Protein MTSS 2	MTSS2
Mucin-16	MUC16
Myosin-binding protein C, fast-type	MYBPC2
E3 ubiquitin-protein ligase MYCBP2	MYCBP2

Myosin light chain 4	MYL4
N-alpha-acetyltransferase 10	NAA10
N-acylethanolamine-hydrolyzing acid amidase	NAAA
Nucleus accumbens-associated protein 1	NACC1
Alpha-N-acetylgalactosaminidase	NAGA
N-acetyl-D-glucosamine kinase	NAGK
Sialic acid synthase	NANS
Nucleosome assembly protein 1-like 4	NAP1L4
Nicotinate phosphoribosyltransferase	NAPRT
Asparagine--tRNA ligase, cytoplasmic	NARS1
Neutrophil cytosol factor 2	NCF2
Natural cytotoxicity triggering receptor 1	NCR1
Natural cytotoxicity triggering receptor 3 ligand 1	NCR3LG1
Neuronal calcium sensor 1	NCS1
Bifunctional heparan sulfate N-deacetylase/N-sulfotransferase 1	NDST1
NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 5	NDUFA5
NADH dehydrogenase [ubiquinone] 1 beta subcomplex subunit 7	NDUFB7
Nectin-1	NECTIN1
E3 ubiquitin-protein ligase NEDD4-like	NEDD4L
Enhancer of filamentation 1	NEDD9
Neogenin	NEO1
Neurofascin	NFASC
Nuclear factor of activated T-cells 5	NFAT5
Nuclear factor of activated T-cells, cytoplasmic 1	NFATC1
Transcription factor NF-E2 45 kDa subunit	NFE2
NFU1 iron-sulfur cluster scaffold homolog, mitochondrial	NFU1
Neugrin	NGRN
Non-homologous end-joining factor 1	NHEJ1
Deaminated glutathione amidase	NIT1

N-myc-interactor	NMI
Nicotinamide/nicotinic acid mononucleotide adenylyltransferase 1	NMNAT1
Glycylpeptide N-tetradecanoyltransferase 1	NMT1
Nephrin	NPHS1
Nucleophosmin	NPM1
C-type natriuretic peptide	NPPC
Pro-neuropeptide Y	NPY
Cytosolic 5'-nucleotidase 1A	NT5C1A
Cytosolic 5'-nucleotidase 3A	NT5C3A
Neurotrophin-3	NTF3
NEDD8 ultimate buster 1	NUB1
Cytosolic Fe-S cluster assembly factor NUBP1	NUBP1
Nucleobindin-2	NUCB2
Nuclear migration protein nudC	NUDC
NudC domain-containing protein 3	NUDCD3
Diphosphoinositol polyphosphate phosphohydrolase 3-alpha	NUDT10
U8 snoRNA-decapping enzyme	NUDT16
Bis(5'-nucleosyl)-tetraphosphatase [asymmetrical]	NUDT2
Protein numb homolog	NUMB
Neurexophilin-3	NXPH3
Odorant-binding protein 2b	OBP2B
Occludin	OCLN
Protein O-GlcNAcase	OGA
Opioid growth factor receptor	OGFR
Oligodendrocyte-myelin glycoprotein	OMG
Oligophrenin-1	OPHN1
5-oxoprolinase	OPLAH
Opticin	OPTC
Oxysterol-binding protein-related protein 2	OSBPL2

Oncostatin-M	OSM
Deubiquitinase OTUD6B	OTUD6B
OTU domain-containing protein 7B	OTUD7B
Succinyl-CoA:3-ketoacid coenzyme A transferase 1, mitochondrial	OXCT1
Phosphofurin acidic cluster sorting protein 2	PACS2
Glycodelin	PAEP
Platelet-activating factor acetylhydrolase IB subunit alpha1	PAFAH1B3
Phosphoprotein associated with glycosphingolipid-enriched microdomains 1	PAG1
PAXIP1-associated glutamate-rich protein 1	PAGR1
Paralemmin-1	PALM
Paralemmin-2	PALM2
Paralemmin-3	PALM3
Pre-B-cell leukemia transcription factor-interacting protein 1	PBXIP1
Poly(rC)-binding protein 2	PCBP2
Protocadherin-12	PCDH12
Protocadherin-7	PCDH7
Protocadherin-9	PCDH9
Protocadherin beta-15	PCDHB15
Proprotein convertase subtilisin/kexin type 7	PCSK7
Ethanolamine-phosphate cytidylyltransferase	PCYT2
Programmed cell death protein 1	PDCD1
Programmed cell death 1 ligand 2	PDCD1LG2
PDZ and LIM domain protein 5	PDLIM5
Na(+)/H(+) exchange regulatory cofactor NHE-RF3	PDZK1
Peroxisomal trans-2-enoyl-CoA reductase	PECR
Period circadian protein homolog 3	PER3
Prefoldin subunit 2	PFDN2
6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase 2	PFKFB2
Placenta growth factor	PGF

Peptidoglycan recognition protein 3	PGLYRP3
Phosphatase and actin regulator 2	PHACTR2
Pleckstrin homology-like domain family B member 1	PHLDB1
Phosphoethanolamine/phosphocholine phosphatase	PHOSPHO1
Progesterone-induced-blocking factor 1	PIBF1
Phosphoinositide 3-kinase adapter protein 1	PIK3AP1
Polycystin-2	PKD2
Group 10 secretory phospholipase A2	PLA2G10
Phospholipase B1, membrane-associated	PLB1
1-phosphatidylinositol 4,5-bisphosphate phosphodiesterase beta-2	PLCB2
Pleckstrin homology domain-containing family O member 1	PLEKHO1
Phospholipid scramblase 3	PLSCR3
Plexin domain-containing protein 2	PLXDC2
Plexin-A4	PLXNA4
Pro-MCH	PMCH
Inactive pancreatic lipase-related protein 1	PNLIPRP1
Podocalyxin	PODXL
Protein POF1B	POF1B
DNA-directed RNA polymerases I, II, and III subunit RPABC2	POLR2F
Pro-opiomelanocortin	POMC
Serum paraoxonase/arylesterase 2	PON2
Periplakin	PPL
Protein phosphatase 1B	PPM1B
Protein phosphatase methylesterase 1	PPME1
Serine/threonine-protein phosphatase PP1-gamma catalytic subunit	PPP1CC
Protein phosphatase 1 regulatory subunit 14A	PPP1R14A
Protein phosphatase 1 regulatory subunit 14D	PPP1R14D
Phostensin	PPP1R18
Neurabin-2	PPP1R9B

Serine/threonine-protein phosphatase 2A 56 kDa regulatory subunit alpha isoform	PPP2R5A
Calcineurin subunit B type 1	PPP3R1
Peroxiredoxin-1	PRDX1
Peroxiredoxin-5, mitochondrial	PRDX5
Peroxiredoxin-6	PRDX6
cAMP-dependent protein kinase type II-alpha regulatory subunit	PRKAR2A
Prion-like protein doppel	PRND
Prokineticin-1	PROK1
Proline-rich transmembrane protein 3	PRRT3
Serine protease 53	PRSS53
Protogenin	PRTG
Proactivator polypeptide-like 1	PSAPL1
Prostate stem cell antigen	PSCA
Pregnancy-specific beta-1-glycoprotein 1	PSG1
PC4 and SFRS1-interacting protein	PSIP1
26S proteasome non-ATPase regulatory subunit 1	PSMD1
26S proteasome non-ATPase regulatory subunit 9	PSMD9
Proteasome activator complex subunit 1	PSME1
Proteasome activator complex subunit 2	PSME2
Proteasome assembly chaperone 3	PSMG3
Proteasome assembly chaperone 4	PSMG4
Persephin	PSPN
Proline-serine-threonine phosphatase-interacting protein 1	PSTPIP1
Prostaglandin E synthase 2	PTGES2
Parathyroid hormone	PTH
Parathyroid hormone/parathyroid hormone-related peptide receptor	PTH1R
Inactive tyrosine-protein kinase 7	PTK7
Pleiotrophin	PTN
Tyrosine-protein phosphatase non-receptor type 1	PTPN1

Receptor-type tyrosine-protein phosphatase H	PTPRH
Receptor-type tyrosine-protein phosphatase kappa	PTPRK
Receptor-type tyrosine-protein phosphatase-like N	PTPRN
Receptor-type tyrosine-protein phosphatase N2	PTPRN2
Receptor-type tyrosine-protein phosphatase R	PTPRR
Securin-2	PTTG2
Parvalbumin alpha	PVALB
Probable oxidoreductase PXDNL	PXDNL
Pyrin domain-containing protein 1	PYDC1
Pyrin and HIN domain-containing protein 1	PYHIN1
Ras-related protein Rab-2B	RAB2B
Guanine nucleotide exchange factor for Rab-3A	RAB3IL1
Rab-3A-interacting protein	RAB3IP
Rab GTPase-binding effector protein 2	RABEP2
Ras-related protein Ral-B	RALB
RNA-binding protein Raly	RALY
Ran-specific GTPase-activating protein	RANBP1
Rap guanine nucleotide exchange factor 2	RAPGEF2
RAS guanyl-releasing protein 2	RASGRP2
Ribokinase	RBKS
Splicing factor 45	RBM17
Retinol-binding protein 2	RBP2
Retinol-binding protein 5	RBP5
Retinoid-binding protein 7	RBP7
RNA-binding protein with multiple splicing	RBPMS
RNA-binding protein with multiple splicing 2	RBPMS2
Reversion-inducing cysteine-rich protein with Kazal motifs	RECK
Receptor expression-enhancing protein 4	REEP4
Regenerating islet-derived protein 3-gamma	REG3G

Proto-oncogene tyrosine-protein kinase receptor Ret	RET
Replication factor C subunit 4	RFC4
Regulator of cell cycle RGCC	RGCC
Regulator of G-protein signaling 10	RGS10
Rho-related GTP-binding protein RhoC	RHOC
Rab-interacting lysosomal protein	RILP
Prorelaxin H1	RLN1
Inactive ribonuclease-like protein 10	RNASE10
Ribonuclease H2 subunit A	RNASEH2A
E3 ubiquitin-protein ligase RNF149	RNF149
E3 ubiquitin-protein ligase RNF168	RNF168
E3 ubiquitin-protein ligase RNF5	RNF5
Roundabout homolog 4	ROBO4
Protein XRP2	RP2
60S ribosomal protein L14	RPL14
R-spondin-1	RSPO1
R-spondin-3	RSPO3
Retbindin	RTBDN
Reticulon-4-interacting protein 1, mitochondrial	RTN4IP1
Reticulon-4 receptor	RTN4R
Protein S100-A12	S100A12
Protein S100-A13	S100A13
Protein S100-A16	S100A16
Protein S100-G	S100G
Protein S100-P	S100P
Scaffold attachment factor B2	SAFB2
Sterile alpha motif domain-containing protein 9-like	SAMD9L
SAM and SH3 domain-containing protein 3	SASH3
DNA-binding protein SATB1	SATB1

Secretory carrier-associated membrane protein 2	SCAMP2
Secretory carrier-associated membrane protein 3	SCAMP3
Lysosome membrane protein 2	SCARB2
Secretogranin-2	SCG2
Sodium channel and clathrin linker 1	SCLT1
Selenocysteine lyase	SCLY
Sodium channel protein type 2 subunit alpha	SCN2A
Sodium channel subunit beta-4	SCN4B
Retinoid-inducible serine carboxypeptidase	SCPEP1
Protein scribble homolog	SCRIB
Secernin-1	SCRN1
Serologically defined colon cancer antigen 8	SDCCAG8
Succinate dehydrogenase [ubiquinone] iron-sulfur subunit, mitochondrial	SDHB
Protein transport protein Sec31A	SEC31A
Protein sel-1 homolog 1	SEL1L
Semaphorin-4C	SEMA4C
Semaphorin-6C	SEMA6C
Neuronal-specific septin-3	SEPTIN3
Septin-8	SEPTIN8
Septin-9	SEPTIN9
Serpin A9	SERPINA9
Serpin B4	SERPINB4
Serpin B8	SERPINB8
Serpin B9	SERPINB9
Serpin I2	SERPINI2
Histone-lysine N-methyltransferase SETMAR	SETMAR
Seizure protein 6 homolog	SEZ6
Seizure 6-like protein 2	SEZ6L2
Splicing factor 3B subunit 4	SF3B4

Secreted frizzled-related protein 1	SFRP1
SH2 domain-containing protein 1A	SH2D1A
SH3 domain-binding protein 1	SH3BP1
Endophilin-B2	SH3GLB2
SH3 and PX domain-containing protein 2B	SH3PXD2B
Sonic hedgehog protein	SHH
Sialic acid-binding Ig-like lectin 10	SIGLEC10
Sialic acid-binding Ig-like lectin 6	SIGLEC6
Sialic acid-binding Ig-like lectin 8	SIGLEC8
Sialic acid-binding Ig-like lectin 9	SIGLEC9
Nucleotide exchange factor SIL1	SIL1
NAD-dependent protein deacetylase sirtuin-2	SIRT2
Src kinase-associated phosphoprotein 1	SKAP1
Src-like-adapter 2	SLA2
SLAM family member 7	SLAMF7
Solute carrier family 13 member 1	SLC13A1
Zinc transporter ZIP5	SLC39A5
SLIT and NTRK-like protein 1	SLITRK1
SLIT and NTRK-like protein 2	SLITRK2
SLIT and NTRK-like protein 6	SLITRK6
Sarcolemmal membrane-associated protein	SLMAP
Mothers against decapentaplegic homolog 3	SMAD3
Mothers against decapentaplegic homolog 5	SMAD5
Survival of motor neuron-related-splicing factor 30	SMNDC1
SPARC-related modular calcium-binding protein 1	SMOC1
Acid sphingomyelinase-like phosphodiesterase 3b	SMPDL3B
Smoothelin	SMTN
SNARE-associated protein Snapin	SNAPIN
Gamma-synuclein	SNCG

Sushi, nidogen and EGF-like domain-containing protein 1	SNED1
U2 small nuclear ribonucleoprotein B"	SNRPB2
Sorting nexin-18	SNX18
Sorting nexin-2	SNX2
Sorting nexin-29	SNX29
Sorting nexin-33	SNX33
Sorting nexin-5	SNX5
Sorbitol dehydrogenase	SORD
Ankyrin repeat domain-containing protein SOWAHC	SOWAHC
Serine protease inhibitor Kazal-type 4	SPINK4
Serine protease inhibitor Kazal-type 6	SPINK6
Kunitz-type protease inhibitor 3	SPINT3
Testican-1	SPOCK1
Small proline-rich protein 3	SPRR3
Serine palmitoyltransferase 1	SPTLC1
Signal recognition particle 14 kDa protein	SRP14
SRSF protein kinase 2	SRPK2
Microtubule nucleation factor SSNA1	SSNA1
CMP-N-acetylneuraminate-beta-galactosamide-alpha-2,3-sialyltransferase 1	ST3GAL1
Signal transducing adapter molecule 1	STAM
STAM-binding protein	STAMBP
Signal transducer and activator of transcription 2	STAT2
Signal transducer and activator of transcription 5B	STAT5B
Serine/threonine-protein kinase STK11	STK11
Syntaxin-3	STX3
Syntaxin-4	STX4
Syntaxin-7	STX7
Syntaxin-8	STX8
Syntaxin-binding protein 1	STXBP1

SURP and G-patch domain-containing protein 1	SUGP1
Sulfotransferase 2A1	SULT2A1
Sulfite oxidase, mitochondrial	SUOX
Sushi domain-containing protein 4	SUSD4
Synaptic vesicle glycoprotein 2A	SV2A
Switch-associated protein 70	SWAP70
Synaptotagmin-1	SYT1
Transforming acidic coiled-coil-containing protein 3	TACC3
Tumor-associated calcium signal transducer 2	TACSTD2
Transcriptional adapter 3	TADA3
Chemokine-like protein TAFA-5	TAFA5
Tax1-binding protein 1	TAX1BP1
TBC1 domain family member 23	TBC1D23
Tubulin-folding cofactor B	TBCB
Tubulin-specific chaperone C	TBCC
Transcription elongation regulator 1	TCERG1
T-cell leukemia/lymphoma protein 1A	TCL1A
Tyrosyl-DNA phosphodiesterase 1	TDP1
Tudor domain-containing protein 3	TDRD3
Testis-expressed protein 101	TEX101
Thyroglobulin	TG
Protransforming growth factor alpha	TGFA
Transforming growth factor beta-1 proprotein	TGFB1
Transforming growth factor beta-2 proprotein	TGFB2
TGF-beta receptor type-1	TGFBR1
Thrombopoietin	THPO
Thiamine-triphosphatase	THTPA
Fructose-2,6-bisphosphatase TIGAR	TIGAR
Mitochondrial import inner membrane translocase subunit Tim8 A	TIMM8A

Toll-like receptor 1	TLR1
Toll-like receptor 3	TLR3
Protein TMED8	TMED8
Transmembrane protein 106A	TMEM106A
Transmembrane protein 132A	TMEM132A
Transmembrane protein 25	TMEM25
TATA element modulatory factor	TMF1
Transmembrane protease serine 11D	TMPRSS11D
Enteropeptidase	TMPRSS15
Transmembrane protease serine 5	TMPRSS5
Tumor necrosis factor alpha-induced protein 2	TNFAIP2
Tumor necrosis factor-inducible gene 6 protein	TNFAIP6
Tumor necrosis factor receptor superfamily member 10A	TNFRSF10A
Tumor necrosis factor receptor superfamily member 10B	TNFRSF10B
Tumor necrosis factor receptor superfamily member 11A	TNFRSF11A
Tumor necrosis factor receptor superfamily member 19	TNFRSF19
Tumor necrosis factor receptor superfamily member 4	TNFRSF4
Tumor necrosis factor receptor superfamily member 6B	TNFRSF6B
Tumor necrosis factor receptor superfamily member 9	TNFRSF9
Tumor necrosis factor ligand superfamily member 10	TNFSF10
Tumor necrosis factor ligand superfamily member 11	TNFSF11
Tumor necrosis factor ligand superfamily member 12	TNFSF12
Tumor necrosis factor ligand superfamily member 14	TNFSF14
TNFAIP3-interacting protein 1	TNIP1
Tenascin-R	TNR
TOM1-like protein 2	TOM1L2
DNA topoisomerase 1	TOP1
DNA topoisomerase 2-beta	TOP2B
Torsin-1A-interacting protein 1	TOR1AIP1

Tumor protein p53-inducible nuclear protein 1	TP53INP1
Tryptase alpha/beta-1	TPSAB1
TNF receptor-associated factor 2	TRAF2
TP53-regulated inhibitor of apoptosis 1	TRIAP1
E3 ubiquitin-protein ligase TRIM21	TRIM21
E3 ubiquitin/ISG15 ligase TRIM25	TRIM25
Tripartite motif-containing protein 5	TRIM5
E3 ubiquitin-protein ligase TRIM58	TRIM58
Thyroid receptor-interacting protein 11	TRIP11
TSC22 domain family protein 1	TSC22D1
Tetraspanin-1	TSPAN1
Tetraspanin-8	TSPAN8
Testis-specific Y-encoded-like protein 1	TSPYL1
Alpha-taxilin	TXLNA
Thioredoxin domain-containing protein 9	TXNDC9
5,6-dihydroxyindole-2-carboxylic acid oxidase	TYRP1
Ubiquitin-associated domain-containing protein 1	UBAC1
Ubiquitin-conjugating enzyme E2 B	UBE2B
Ubiquitin-like protein 4A	UBL4A
UBX domain-containing protein 2B	UBXN2B
Ubiquitin recognition factor in ER-associated degradation protein 1	UFD1
E3 ubiquitin-protein ligase UHRF2	UHRF2
UL16-binding protein 2/6	RAET1L_ULBP2
Uracil-DNA glycosylase	UNG
Uroplakin-3a	UPK3A
Uroporphyrinogen-III synthase	UROS
General vesicular transport factor p115	USO1
Ubiquitin carboxyl-terminal hydrolase 25	USP25
Ubiquitin carboxyl-terminal hydrolase 28	USP28

Ubiquitin carboxyl-terminal hydrolase 8	USP8
Vesicle-associated membrane protein 8	VAMP8
Tubulinyl-Tyr carboxypeptidase 1	VASH1
Synaptic vesicle membrane protein VAT-1 homolog	VAT1
Guanine nucleotide exchange factor VAV3	VAV3
Vascular endothelial growth factor A	VEGFA
Vascular endothelial growth factor B	VEGFB
Vascular endothelial growth factor D	VEGFD
Neurosecretory protein VGF	VGF
Vitelline membrane outer layer protein 1 homolog	VMO1
Pantetheine hydrolase VNN2	VNN2
Vacuolar protein sorting-associated protein 37A	VPS37A
Vacuolar protein sorting-associated protein 4B	VPS4B
Vacuolar protein sorting-associated protein 53 homolog	VPS53
V-set and immunoglobulin domain-containing protein 10	VSIG10
V-set and immunoglobulin domain-containing protein 10-like	VSIG10L
V-set and immunoglobulin domain-containing protein 2	VSIG2
Visinin-like protein 1	VSNL1
von Willebrand factor A domain-containing protein 1	VWA1
Brorin	VWC2
von Willebrand factor C domain-containing protein 2-like	VWC2L
Actin-binding protein WASF1	WASF1
Actin-binding protein WASF3	WASF3
WASH complex subunit 3	WASHC3
WD repeat-containing protein 46	WDR46
WD repeat-containing protein 91	WDR91
WAP four-disulfide core domain protein 1	WFDC1
WAP four-disulfide core domain protein 12	WFDC12
WAP, Kazal, immunoglobulin, Kunitz and NTR domain-containing protein 1	WFIKKN1

Wnt inhibitory factor 1	WIF1
WW domain-containing oxidoreductase	WWOX
NEDD4-like E3 ubiquitin-protein ligase WWP2	WWP2
Lymphotactin	XCL1
Tyrosine--tRNA ligase, cytoplasmic	YARS1
Tyrosine-protein kinase Yes	YES1
Splicing factor YJU2	YJU2
Ubiquitin thioesterase OTU1	YOD1
Z-DNA-binding protein 1	ZBP1
Zinc finger and BTB domain-containing protein 17	ZBTB17
Protein zer-1 homolog	ZER1
AN1-type zinc finger protein 2B	ZFAND2B
Abscission/NoCut checkpoint regulator	ZFYVE19
Zinc fingers and homeoboxes protein 2	ZHX2
Protein ZNRD2	ZNRD2
Zona pellucida sperm-binding protein 3	ZP3
Methionine--tRNA ligase, cytoplasmic	MARS1
APOBEC1 complementation factor	A1CF
Short/branched chain specific acyl-CoA dehydrogenase, mitochondrial	ACADSB
Aggrecan core protein	ACAN
Acetylcholinesterase	ACHE
Peroxisomal acyl-coenzyme A oxidase 1	ACOX1
Aminoacylase-1	ACY1
Acylphosphatase-1	ACYP1
Disintegrin and metalloproteinase domain-containing protein 8	ADAM8
A disintegrin and metalloproteinase with thrombospondin motifs 8	ADAMTS8
ADAMTS-like protein 5	ADAMTSL5
Alpha-adducin	ADD1
Beta-adducin	ADD2

Adhesion G-protein coupled receptor D1	ADGRD1
Adhesion G protein-coupled receptor E2	ADGRE2
Adhesion G protein-coupled receptor F5	ADGRF5
Adhesion G-protein coupled receptor G2	ADGRG2
All-trans-retinol dehydrogenase [NAD(+)] ADH1B	ADH1B
Adipocyte enhancer-binding protein 1	AEBP1
Actin filament-associated protein 1	AFAP1
Advanced glycosylation end product-specific receptor	AGER
Agrin	AGRN
Alanine--glyoxylate aminotransferase	AGXT
Adenosylhomocysteinase	AHCY
Adenylate kinase isoenzyme 1	AK1
A-kinase anchor protein 12	AKAP12
Alkaline phosphatase, germ cell type	ALPG
Angiomotin	AMOT
Angiopoietin-1	ANGPT1
Angiopoietin-related protein 1	ANGPTL1
Angiopoietin-related protein 2	ANGPTL2
Angiopoietin-related protein 4	ANGPTL4
Annexin A1	ANXA1
Annexin A3	ANXA3
Annexin A4	ANXA4
Amyloid beta precursor like protein 1	APLP1
Apolipoprotein B receptor	APOBR
DCC-interacting protein 13-beta	APPL2
Rho GTPase-activating protein 45	ARHGAP45
Asporin	ASPN
Copper transport protein ATOX1	ATOX1
ATPase inhibitor, mitochondrial	ATP5IF1

Beta-1,4-galactosyltransferase 1	B4GALT1
Branched-chain-amino-acid aminotransferase, cytosolic	BCAT1
Protein bicaudal D homolog 2	BICD2
Bone morphogenetic protein 10	BMP10
BMP-binding endothelial regulator protein	BMPER
BCL2/adenovirus E1B 19 kDa protein-interacting protein 2	BNIP2
Bactericidal permeability-increasing protein	BPI
BPI fold-containing family B member 2	BPIFB2
Bromodomain-containing protein 4	BRD4
ADP-ribosyl cyclase/cyclic ADP-ribose hydrolase 2	BST1
Bone marrow stromal antigen 2	BST2
Butyrophilin subfamily 2 member A1	BTN2A1
Complement C1q tumor necrosis factor-related protein 5	C1QTNF5
Complement C1q and tumor necrosis factor-related protein 9A	C1QTNF9
Small membrane A-kinase anchor protein	C2orf88
C4b-binding protein beta chain	C4BPB
Carbonic anhydrase 13	CA13
Calcyclin-binding protein	CACYBP
Soluble calcium-activated nucleotidase 1	CANT1
Cobalamin binding intrinsic factor	CBLIF
Collagen and calcium-binding EGF domain-containing protein 1	CCBE1
Coiled-coil domain-containing protein 80	CCDC80
C-C motif chemokine 13	CCL13
C-C motif chemokine 17	CCL17
C-C motif chemokine 19	CCL19
C-C motif chemokine 2	CCL2
C-C motif chemokine 21	CCL21
C-C motif chemokine 22	CCL22
C-C motif chemokine 23	CCL23

C-C motif chemokine 24	CCL24
C-C motif chemokine 27	CCL27
C-C motif chemokine 4	CCL4
CCN family member 2	CCN2
T-cell surface glycoprotein CD1c	CD1C
CD27 antigen	CD27
CD276 antigen	CD276
CD2-associated protein	CD2AP
CMRF35-like molecule 8	CD300A
CMRF35-like molecule 6	CD300C
Myeloid cell surface antigen CD33	CD33
Hematopoietic progenitor cell antigen CD34	CD34
Tumor necrosis factor receptor superfamily member 5	CD40
CD48 antigen	CD48
Lymphocyte function-associated antigen 3	CD58
Early activation antigen CD69	CD69
B-cell differentiation antigen CD72	CD72
HLA class II histocompatibility antigen gamma chain	CD74
T-lymphocyte activation antigen CD80	CD80
T-cell surface glycoprotein CD8 alpha chain	CD8A
Cytidine deaminase	CDA
Hsp90 co-chaperone Cdc37	CDC37
Cadherin-15	CDH15
Cadherin-17	CDH17
Cadherin-2	CDH2
Cadherin-3	CDH3
Cadherin-6	CDH6
Cadherin-related family member 5	CDHR5
Cell adhesion molecule-related/down-regulated by oncogenes	CDON

Protein CDV3 homolog	CDV3
Carcinoembryonic antigen-related cell adhesion molecule 1	CEACAM1
Cadherin EGF LAG seven-pass G-type receptor 2	CELSR2
Centrosomal protein of 131 kDa	CEP131
Cell growth regulator with EF hand domain protein 1	CGREF1
Chondroadherin	CHAD
Secretogranin-1	CHGB
Charged multivesicular body protein 6	CHMP6
Chordin-like protein 1	CHRDL1
Chordin-like protein 2	CHRDL2
Anamorsin	CIAPIN1
Cytoskeleton-associated protein 5	CKAP5
Creatine kinase U-type, mitochondrial	CKMT1A_CKMT1B
Galectin-10	CLC
C-type lectin domain family 1 member B	CLEC1B
C-type lectin domain family 5 member A	CLEC5A
Clathrin light chain B	CLTB
Clusterin-like protein 1	CLUL1
COX assembly mitochondrial protein homolog	CMC1
Calponin-2	CNN2
Consortin	CNST
Contactin-5	CNTN5
Cochlin	COCH
Collagen alpha-1(IV) chain	COL4A1
Collagen alpha-1(V) chain	COL5A1
Collectin-12	COLEC12
COMM domain-containing protein 2	COMMD2
Cytochrome c oxidase subunit 6B1	COX6B1
Carboxypeptidase A2	CPA2

Carboxypeptidase A4	CPA4
Carboxypeptidase M	CPM
Serine/threonine-protein phosphatase CPPED1	CPPED1
Probable carboxypeptidase X1	CPXM1
Inactive carboxypeptidase-like protein X2	CPXM2
Protein crumbs homolog 2	CRB2
Protein CREG1	CREG1
Protein disulfide isomerase CRELD1	CRELD1
Protein disulfide isomerase CRELD2	CRELD2
Corticotropin-releasing factor-binding protein	CRHBP
Cysteine-rich motor neuron 1 protein	CRIM1
Crk-like protein	CRKL
Cytokine receptor-like factor 1	CRLF1
Beta-crystallin B1	CRYBB1
Macrophage colony-stimulating factor 1	CSF1
Cystatin-SN	CST1
Cystatin-F	CST7
Chymotrypsin-C	CTRC
Dipeptidyl peptidase 1	CTSC
Cathepsin E	CTSE
Cathepsin F	CTSF
Procathepsin L	CTSL
Cathepsin S	CTSS
Growth-regulated alpha protein	CXCL1
C-X-C motif chemokine 10	CXCL10
C-X-C motif chemokine 11	CXCL11
C-X-C motif chemokine 13	CXCL13
C-X-C motif chemokine 5	CXCL5
C-X-C motif chemokine 6	CXCL6

C-X-C motif chemokine 9	CXCL9
Disheveled-associated activator of morphogenesis 1	DAAM1
Dystroglycan 1	DAG1
Death-associated protein 1	DAP
Drebrin-like protein	DBNL
Discoidin, CUB and LCCL domain-containing protein 2	DCBLD2
Deoxycytidylate deaminase	DCTD
dCTP pyrophosphatase 1	DCTPP1
L-xylulose reductase	DCXR
Aromatic-L-amino-acid decarboxylase	DDC
Protein DDI1 homolog 2	DDI2
Epithelial discoidin domain-containing receptor 1	DDR1
Protein DEPP1	DEPP1
Diablo IAP-binding mitochondrial protein	DIABLO
Divergent protein kinase domain 2B	DIPK2B
Dickkopf-related protein 1	DKK1
Delta-like protein 1	DLL1
DnaJ homolog subfamily B member 2	DNAJB2
DnaJ homolog subfamily C member 7	DNAJC7
Delta and Notch-like epidermal growth factor-related receptor	DNER
2'-deoxynucleoside 5'-phosphate N-hydrolase 1	DNPH1
Docking protein 2	DOK2
Dipeptidyl peptidase 2	DPP7
D-aminoacyl-tRNA deacylase 1	DTD1
Thymidylate kinase	DTYMK
Enoyl-CoA hydratase domain-containing protein 3, mitochondrial	ECHDC3
Elongation factor 1-delta	EEF1D
EGF-containing fibulin-like extracellular matrix protein 2	EFEMP2
Pro-epidermal growth factor	EGF

Epidermal growth factor-like protein 6	EGFL6
EH domain-binding protein 1	EHBP1
Eukaryotic translation initiation factor 4E-binding protein 1	EIF4EBP1
Elastin	ELN
ER membrane protein complex subunit 2	EMC2
Alpha-enolase	ENO1
Gamma-enolase	ENO2
Ectonucleotide pyrophosphatase/phosphodiesterase family member 1	ENPP1
Ectonucleotide pyrophosphatase/phosphodiesterase family member 5	ENPP5
Ectonucleotide pyrophosphatase/phosphodiesterase family member 7	ENPP7
Epithelial cell adhesion molecule	EPCAM
Mammalian ependymin-related protein 1	EPDR1
Ephrin type-A receptor 1	EPHA1
Ephrin type-A receptor 4	EPHA4
Receptor tyrosine-protein kinase erbB-2	ERBB2
Receptor tyrosine-protein kinase erbB-3	ERBB3
Receptor tyrosine-protein kinase erbB-4	ERBB4
Endoplasmic reticulum resident protein 29	ERP29
Endothelial cell-specific molecule 1	ESM1
Extended synaptotagmin-1	ESYT1
Ezrin	EZR
Proteinase-activated receptor 1	F2R
Fatty acid-binding protein, liver	FABP1
Fatty acid-binding protein, intestinal	FABP2
Fatty acid-binding protein, heart	FABP3
Fatty acid-binding protein 5	FABP5
FAS-associated death domain protein	FADD
Pseudokinase FAM20A	FAM20A
Protein FAM3C	FAM3C

Fibulin-7	FBLN7
Fructose-1,6-bisphosphatase 1	FBP1
High affinity immunoglobulin alpha and immunoglobulin mu Fc receptor	FCAMR
Fc receptor-like protein 1	FCRL1
Fibroblast growth factor 19	FGF19
Fibroblast growth factor-binding protein 1	FGFBP1
Fibroblast growth factor receptor 2	FGFR2
Fibroblast growth factor receptor 4	FGFR4
Mitochondrial fission 1 protein	FIS1
Vascular endothelial growth factor receptor 3	FLT4
Formin-binding protein 1	FNBP1
Folate receptor alpha	FOLR1
Folate receptor beta	FOLR2
Folate receptor gamma	FOLR3
Follistatin	FST
Follistatin-related protein 3	FSTL3
Alpha-ketoglutarate-dependent dioxygenase FTO	FTO
Fucose mutarotase	FUOM
Furin	FURIN
3-galactosyl-N-acetylglucosaminide 4-alpha-L-fucosyltransferase FUT3_4-galactosyl-N-acetylglucosaminide 3-alpha-L-fucosyltransferase FUT5	FUT3_FUT5
Galanin peptides	GAL
Galactose mutarotase	GALM
Polypeptide N-acetylgalactosaminyltransferase 5	GALNT5
Glyceraldehyde-3-phosphate dehydrogenase	GAPDH
GAS2-like protein 1	GAS2L1
GTP cyclohydrolase 1 feedback regulatory protein	GCHFR
Growth/differentiation factor 2	GDF2
ATPase GET3	GET3
Gamma-glutamylaminecyclotransferase	GGACT

Gamma-glutamylcyclotransferase	GGCT
Somatotropin	GH1
Growth hormone receptor	GHR
Appetite-regulating hormone	GHRL
GTPase IMAP family member 7	GIMAP7
Glyoxalase domain-containing protein 4	GLOD4
Glutaredoxin-1	GLRX
Glutaredoxin-related protein 5, mitochondrial	GLRX5
Glia maturation factor gamma	GMFG
GMP reductase 2	GMPR2
Glucosamine-6-phosphate isomerase 2	GNPDA2
Protein GOLM2	GOLM2
Platelet glycoprotein V	GP5
Transmembrane glycoprotein NMB	GPNMB
Glutathione peroxidase 1	GPX1
GRB2-related adapter protein 2	GRAP2
Glyoxylate reductase/hydroxypyruvate reductase	GRHPR
Glutathione S-transferase A1	GSTA1
3-hydroxyanthranilate 3,4-dioxygenase	HAAO
Hemoglobin subunit zeta	HBZ
Protein HEG homolog 1	HEG1
Hephaestin	HEPH
Hemicentin-2	HMCN2
Heme oxygenase 1	HMOX1
Homer protein homolog 2	HOMER2
Heat shock 70 kDa protein 1A	HSPA1A
Serine protease HTRA2, mitochondrial	HTRA2
Isoamyl acetate-hydrolyzing esterase 1 homolog	IAH1
Intercellular adhesion molecule 5	ICAM5

Interferon gamma receptor 1	IFNGR1
Insulin-like growth factor-binding protein-like 1	IGFBPL1
Insulin growth factor-like family member 3	IGFL3
Immunoglobulin superfamily member 8	IGSF8
Protein turtle homolog A	IGSF9
Interleukin-10 receptor subunit beta	IL10RB
Interleukin-13 receptor subunit alpha-1	IL13RA1
Interleukin-18	IL18
Interleukin-19	IL19
Interleukin-1 receptor type 2	IL1R2
Interleukin-1 receptor antagonist protein	IL1RN
Interleukin-6 receptor subunit beta	IL6ST
Inhibin beta B chain	INHBB
Insulin C-peptide	INS-CPEPTIDE
Interferon regulatory factor 3	IRF3
Integrin beta-5	ITGB5
Junctional adhesion molecule B	JAM2
Junctional adhesion molecule C	JAM3
Vascular endothelial growth factor receptor 2	KDR
Kit ligand	KITLG
Kallikrein-1	KLK1
Kallikrein-10	KLK10
Kallikrein-11	KLK11
Kallikrein-6	KLK6
Kallikrein-7	KLK7
Kallikrein-8	KLK8
Kynurenine--oxoglutarate transaminase 1	KYAT1
Neural cell adhesion molecule L1	L1CAM
Trans-3-hydroxy-L-proline dehydratase	L3HYPDH

Endoribonuclease LACTB2	LACTB2
Leukocyte-associated immunoglobulin-like receptor 1	LAIR1
Laminin subunit alpha-4	LAMA4
Lysosome-associated membrane glycoprotein 2	LAMP2
Delta(14)-sterol reductase LBR	LBR
Lymphocyte cytosolic protein 2	LCP2
Leukocyte cell-derived chemotaxin-2	LECT2
Protein LEG1 homolog	LEG1
Leptin	LEP
Leptin receptor	LEPR
Galectin-1	LGALS1
Galectin-4	LGALS4
Galectin-8	LGALS8
Galectin-9	LGALS9
Legumain	LGMN
Phospholysine phosphohistidine inorganic pyrophosphate phosphatase	LHPP
Leukocyte immunoglobulin-like receptor subfamily A member 5	LILRA5
Leukocyte immunoglobulin-like receptor subfamily A member 6	LILRA6
Lipoprotein lipase	LPL
Low-density lipoprotein receptor-related protein 11	LRP11
Alpha-2-macroglobulin receptor-associated protein	LRPAP1
Tumor necrosis factor receptor superfamily member 3	LTBR
Lymphocyte antigen 6D	LY6D
Ly6/PLAUR domain-containing protein 3	LYPD3
Leucine zipper transcription factor-like protein 1	LZTFL1
MAM domain-containing protein 2	MAMDC2
Epididymis-specific alpha-mannosidase	MAN2B2
Mesencephalic astrocyte-derived neurotrophic factor	MANF
MANSC domain-containing protein 1	MANSC1

Macrophage receptor MARCO	MARCO
Matrilin-2	MATN2
Multiple coagulation factor deficiency protein 2	MCFD2
Midkine	MDK
Multiple epidermal growth factor-like domains protein 10	MEGF10
Melanotransferrin	MELTF
Protein MENT	MENT
Meprin A subunit beta	MEP1B
Matrix extracellular phosphoglycoprotein	MEPE
Tyrosine-protein kinase Mer	MERTK
Microfibril-associated glycoprotein 4	MFAP4
Alpha-1,6-mannosyl-glycoprotein 2-beta-N-acetylglucosaminyltransferase	MGAT2
Monoglyceride lipase	MGLL
Melanoma-derived growth regulatory protein	MIA
Interstitial collagenase	MMP1
Stromelysin-2	MMP10
Matrix metalloproteinase-15	MMP15
Matrilysin	MMP7
Neutrophil collagenase	MMP8
Multimerin-2	MMRN2
Myeloid cell nuclear differentiation antigen	MNDA
Molybdopterin synthase catalytic subunit	MOCS2
Megakaryocyte and platelet inhibitory receptor G6b	MPIG6B
Prostate-associated microseminoprotein	MSMP
Macrophage scavenger receptor types I and II	MSR1
Mitochondrial peptide methionine sulfoxide reductase	MSRA
Myosin-binding protein C, slow-type	MYBPC1
Myeloid-derived growth factor	MYDGF
Myomesin-3	MYOM3

Marginal zone B- and B1-cell-specific protein	MZB1
NAD kinase	NADK
N-acetylglucosamine-1-phosphodiester alpha-N-acetylglucosaminidase	NAGPA
Neuroblastoma suppressor of tumorigenicity 1	NBL1
Neurocan core protein	NCAN
Cytoplasmic protein NCK2	NCK2
Nectin-2	NECTIN2
Nectin-4	NECTIN4
Protein kinase C-binding protein NELL1	NELL1
Protein kinase C-binding protein NELL2	NELL2
NF-kappa-B inhibitor beta	NFKBIB
Tumor necrosis factor receptor superfamily member 16	NGFR
NHL repeat-containing protein 3	NHLRC3
Omega-amidase NIT2	NIT2
Nucleoside diphosphate kinase 3	NME3
Nucleolar protein 3	NOL3
Neural proliferation differentiation and control protein 1	NPDC1
N-acetylneuraminate lyase	NPL
Neuronal pentraxin receptor	NPTXR
Neuronal cell adhesion molecule	NRCAM
NSFL1 cofactor p47	NSFL1C
5'-nucleotidase	NT5E
N-terminal prohormone of brain natriuretic peptide	NT-proBNP
BDNF/NT-3 growth factors receptor	NTRK2
NT-3 growth factor receptor	NTRK3
Olfactomedin-4	OLFM4
Oxidized low-density lipoprotein receptor 1	OLR1
Osteomodulin	OMD
Osteoclast-associated immunoglobulin-like receptor	OSCAR

Oxytocin-neurophysin 1	OXT
Protein disulfide-isomerase	P4HB
Protein PAXX	PAXX
Pterin-4-alpha-carbinolamine dehydratase	PCBD1
Protocadherin-17	PCDH17
28 kDa heat- and acid-stable phosphoprotein	PDAP1
Programmed cell death protein 5	PDCD5
Programmed cell death protein 6	PDCD6
cGMP-specific 3',5'-cyclic phosphodiesterase	PDE5A
Platelet-derived growth factor subunit B	PDGFB
Platelet-derived growth factor D	PDGFD
Platelet-derived growth factor receptor alpha	PDGFRA
Protein disulfide-isomerase A3	PDIA3
PDZ and LIM domain protein 7	PDLIM7
Proenkephalin-A	PENK
6-phosphogluconate dehydrogenase, decarboxylating	PGD
5-phosphohydroxy-L-lysine phospho-lyase	PHYKPL
Paired immunoglobulin-like type 2 receptor beta	PILRB
phospholipase A2 inhibitor and Ly6/PLAUR domain-containing protein	PINLYP
Polycystin-1	PKD1
Pyruvate kinase PKLR	PKLR
Group XIIA secretory phospholipase A2	PLA2G12A
Phospholipase A2 group XV	PLA2G15
Cytosolic phospholipase A2	PLA2G4A
Urokinase plasminogen activator surface receptor	PLAUR
Perilipin-3	PLIN3
Pyridoxal phosphate homeostasis protein	PLPBP
Plexin-B3	PLXNB3
N-fatty-acyl-amino acid synthase/hydrolase PM20D1	PM20D1

Pancreatic lipase-related protein 2	PNLIPRP2
Purine nucleoside phosphorylase	PNP
Podocalyxin-like protein 2	PODXL2
Serum paraoxonase/lactonase 3	PON3
Phosphopantothenoylcysteine decarboxylase	PPCDC
Protein phosphatase 1F	PPM1F
Protein phosphatase 1 regulatory subunit 12A	PPP1R12A
Protein phosphatase inhibitor 2	PPP1R2
Pancreatic prohormone	PPY
Prolargin	PRELP
cAMP-dependent protein kinase type I-alpha regulatory subunit	PRKAR1A
cGMP-dependent protein kinase 1	PRKG1
Prolactin	PRL
Proline-rich protein 4	PRR4
Serine protease 27	PRSS27
Prostasin	PRSS8
Prostamide/prostaglandin F synthase	PRXL2B
Proline-serine-threonine phosphatase-interacting protein 2	PSTPIP2
Prostaglandin reductase 1	PTGR1
Tyrosine-protein phosphatase non-receptor type 6	PTPN6
Receptor-type tyrosine-protein phosphatase beta	PTPRB
Receptor-type tyrosine-protein phosphatase zeta	PTPRZ1
Putative peptidyl-tRNA hydrolase PTRHD1	PTRHD1
Pentraxin-related protein PTX3	PTX3
Pseudouridine-5'-phosphatase	PUDP
Poliovirus receptor	PVR
Partner of Y14 and mago	PYM1
Dihydropteridine reductase	QDPR
Ras-related protein Rab-10	RAB10

Rab11 family-interacting protein 3	RAB11FIP3
Ras-related protein Rab-27B	RAB27B
Rab GTPase-binding effector protein 1	RABEP1
Regenerating islet-derived protein 4	REG4
RAB11-binding protein RELCH	RELCH
Renin	REN
Repulsive guidance molecule A	RGMA
Repulsive guidance molecule B	RGMB
2-iminobutanoate/2-iminopropanoate deaminase	RIDA
RILP-like protein 2	RILPL2
Eosinophil cationic protein	RNASE3
Roundabout homolog 1	ROBO1
Roundabout homolog 2	ROBO2
Inactive tyrosine-protein kinase transmembrane receptor ROR1	ROR1
RWD domain-containing protein 1	RWDD1
Protein S100-A11	S100A11
Protein S100-A4	S100A4
Specifically androgen-regulated gene protein	SARG
Scavenger receptor class A member 5	SCARA5
Scavenger receptor class F member 2	SCARF2
Secretogranin-3	SCG3
Uteroglobin	SCGB1A1
Secretoglobin family 3A member 1	SCGB3A1
Secretoglobin family 3A member 2	SCGB3A2
Scrapie-responsive protein 1	SCRG1
Syndecan-1	SDC1
Syndecan-4	SDC4
Stromal cell-derived factor 2	SDF2
Protein sidekick-2	SDK2

Semaphorin-3F	SEMA3F
Semaphorin-3G	SEMA3G
Semaphorin-4D	SEMA4D
Serpin A12	SERPINA12
Serpin B6	SERPINB6
Glia-derived nexin	SERPINE2
Neuroserpin	SERPINI1
Seizure 6-like protein	SEZ6L
Secreted frizzled-related protein 4	SFRP4
Pulmonary surfactant-associated protein D	SFTPD
N-sulphoglucosamine sulphohydrolase	SGSH
Small glutamine-rich tetratricopeptide repeat-containing protein alpha	SGTA
Serine hydroxymethyltransferase, cytosolic	SHMT1
Serine hydroxymethyltransferase, mitochondrial	SHMT2
Sialate O-acetylesterase	SIAE
Sialoadhesin	SIGLEC1
Sialic acid-binding Ig-like lectin 7	SIGLEC7
Signal-regulatory protein beta-1	SIRPB1
Src kinase-associated phosphoprotein 2	SKAP2
Putative sodium-coupled neutral amino acid transporter 10	SLC38A10
Na(+)/H(+) exchange regulatory cofactor NHE-RF1	NHERF1
SPARC-related modular calcium-binding protein 2	SMOC2
Sphingomyelin phosphodiesterase	SMPD1
Acid sphingomyelinase-like phosphodiesterase 3a	SMPDL3A
Synaptosomal-associated protein 23	SNAP23
Synaptosomal-associated protein 29	SNAP29
Alpha-synuclein	SNCA
Sorting nexin-9	SNX9
Sortilin	SORT1

Sclerostin	SOST
C-Jun-amino-terminal kinase-interacting protein 4	SPAG9
SPARC	SPARC
Spartin	SPART
Sperm equatorial segment protein 1	SPESP1
Serine protease inhibitor Kazal-type 2	SPINK2
Serine protease inhibitor Kazal-type 7	SPINK7
Kunitz-type protease inhibitor 2	SPINT2
Spondin-1	SPON1
Spondin-2	SPON2
Proto-oncogene tyrosine-protein kinase Src	SRC
Sushi repeat-containing protein SRPX	SRPX
Scavenger receptor cysteine-rich domain-containing group B protein	SSC4D
Hsc70-interacting protein	ST13
Stanniocalcin-1	STC1
Serine/threonine-protein kinase 4	STK4
Striatin	STRN
Sulfotransferase 1A1	SULT1A1
Inactive C-alpha-formylglycine-generating enzyme 2	SUMF2
Sushi domain-containing protein 5	SUSD5
Synapse-associated protein 1	SYAP1
Synaptotagmin-like protein 4	SYTL4
Tubulin-specific chaperone A	TBCA
Treacle protein	TCOF1
Tectonic-3	TCTN3
Angiopoietin-1 receptor	TEK
Tissue factor pathway inhibitor 2	TFPI2
TGF-beta receptor type-2	TGFBR2
Protein-glutamine gamma-glutamyltransferase 2	TGM2

Thrombomodulin	THBD
Thimet oligopeptidase	THOP1
Thy-1 membrane glycoprotein	THY1
Mitochondrial import inner membrane translocase subunit Tim10	TIMM10
Metalloproteinase inhibitor 2	TIMP2
Metalloproteinase inhibitor 3	TIMP3
Tubulointerstitial nephritis antigen-like	TINAGL1
Tight junction-associated protein 1	TJAP1
Tumor necrosis factor alpha-induced protein 8-like protein 2	TNFAIP8L2
Tumor necrosis factor receptor superfamily member 11B	TNFRSF11B
Tumor necrosis factor receptor superfamily member 12A	TNFRSF12A
Tumor necrosis factor receptor superfamily member 13B	TNFRSF13B
Tumor necrosis factor receptor superfamily member 14	TNFRSF14
Tumor necrosis factor receptor superfamily member 21	TNFRSF21
Tumor necrosis factor receptor superfamily member 8	TNFRSF8
Tumor necrosis factor ligand superfamily member 13	TNFSF13
Mitochondrial import receptor subunit TOM20 homolog	TOMM20
Quinone oxidoreductase PIG3	TP53I3
Tumor protein D52	TPD52
Tumor protein D54	TPD52L2
Thiamin pyrophosphokinase 1	TPK1
Tripeptidyl-peptidase 1	TPP1
Triggering receptor expressed on myeloid cells 2	TREM2
tRNA methyltransferase 10 homolog C	TRMT10C
Thyrotropin subunit beta	TSHB
Thioredoxin domain-containing protein 15	TXNDC15
Thioredoxin domain-containing protein 5	TXNDC5
Thymidine phosphorylase	TYMP
Tyrosine-protein kinase receptor TYRO3	TYRO3

Uveal autoantigen with coiled-coil domains and ankyrin repeats	UACA
Ubiquitin/ISG15-conjugating enzyme E2 L6	UBE2L6
UBX domain-containing protein 1	UBXN1
Beta-ureidopropionase	UPB1
Regulator of nonsense transcripts 3B	UPF3B
Uroporphyrinogen decarboxylase	UROD
Versican core protein	VCAN
Vascular endothelial growth factor C	VEGFC
Vitrin	VIT
V-type immunoglobulin domain-containing suppressor of T-cell activation	VSIR
Vacuolar protein sorting-associated protein VTA1 homolog	VTA1
Vesicle transport through interaction with t-SNAREs homolog 1A	VTI1A
WAP four-disulfide core domain protein 2	WFDC2
WAP, Kazal, immunoglobulin, Kunitz and NTR domain-containing protein 2	WFIKKN2
Xaa-Pro aminopeptidase 2	XPNPEP2
14-3-3 protein theta (14-3-3 protein T-cell) (14-3-3 protein tau) (Protein HS1)	YWHAQ
Tartrate-resistant acid phosphatase type 5	ACP5
A disintegrin and metalloproteinase with thrombospondin motifs 13	ADAMTS13
ADAMTS-like protein 2	ADAMTSL2
Adhesion G protein-coupled receptor E5	ADGRE5
Alpha-fetoprotein	AFP
Alpha-hemoglobin-stabilizing protein	AHSP
CD166 antigen	ALCAM
Aldehyde dehydrogenase 1A1	ALDH1A1
N-acetylglucosamine-6-phosphate deacetylase	AMDHD2
Beta-2-glycoprotein 1	APOH
Amyloid-beta precursor protein	APP
Acid ceramidase	ASAH1
Azurocidin	AZU1

Beta-1,4-glucuronyltransferase 1	B4GAT1
Basal cell adhesion molecule	BCAM
Brain-derived neurotrophic factor	BDNF
Osteocalcin	BGLAP
Bridging integrator 2	BIN2
Bleomycin hydrolase	BLMH
Flavin reductase	BLVRB
BPI fold-containing family B member 1	BPIFB1
Carbonic anhydrase 2	CA2
Carbonic anhydrase 3	CA3
Carbonic anhydrase 4	CA4
Carbonic anhydrase 6	CA6
Caspase-3	CASP3
Cerebellin-2	CBLN2
C-C motif chemokine 15	CCL15
C-C motif chemokine 16	CCL16
CCN family member 3	CCN3
CCN family member 5	CCN5
CD109 antigen	CD109
Sialomucin core protein 24	CD164
CD177 antigen	CD177
Endosialin	CD248
CMRF35-like molecule 9	CD300LG
CD59 glycoprotein	CD59
CD99 antigen	CD99
CD99 antigen-like protein 2	CD99L2
Cadherin-5	CDH5
Carcinoembryonic antigen-related cell adhesion molecule 6	CEACAM6
Chymotrypsin-like elastase family member 2A	CELA2A

Chymotrypsin-like elastase family member 3A	CELA3A
Liver carboxylesterase 1	CES1
Chromogranin-A	CHGA
Chitotriosidase-1	CHIT1
Cartilage intermediate layer protein 1	CILP
Creatine kinase B-type	CKB
C-type lectin domain family 11 member A	CLEC11A
C-type lectin domain family 14 member A	CLEC14A
C-type lectin domain family 4 member M	CLEC4M
Colipase	CLPS
Contactin-1	CNTN1
Contactin-3	CNTN3
Contactin-4	CNTN4
Collagen alpha-1(XV) chain	COL15A1
Collagen alpha-1(XVIII) chain	COL18A1
Collagen alpha-1(I) chain	COL1A1
Collagen alpha-1(III) chain	COL3A1
Collagen alpha-3(VI) chain	COL6A3
Collectin-11	COLEC11
Coronin-1A	CORO1A
Carboxypeptidase A1	CPA1
Carboxypeptidase B	CPB1
Carboxypeptidase Q	CPQ
Cartilage acidic protein 1	CRTAC1
Chondroitin sulfate proteoglycan 4	CSPG4
Cystatin-M	CST6
Cystatin-B	CSTB
Collagen triple helix repeat-containing protein 1	CTHRC1
Cytotoxic T-lymphocyte protein 4	CTLA4

Chymotrypsinogen B	CTRB1
Lysosomal protective protein	CTSA
Cathepsin B	CTSB
C-X-C motif chemokine 16	CXCL16
C-X-C motif chemokine 3	CXCL3
Cytokine-like protein 1	CYTL1
Acyl-CoA-binding protein	DBI
D-dopachrome decarboxylase	DDT
Beta-defensin 1	DEFB1
Dickkopf-related protein 3	DKK3
Protein delta homolog 1	DLK1
Deoxyribonuclease-1	DNASE1
Dermatopontin	DPT
Desmocollin-2	DSC2
Desmoglein-2	DSG2
Enoyl-CoA delta isomerase 1, mitochondrial	ECI1
Ephrin-A1	EFNA1
Epidermal growth factor receptor	EGFR
Endoglin	ENG
Ectonucleotide pyrophosphatase/phosphodiesterase family member 2	ENPP2
Ephrin type-B receptor 4	EPHB4
Endothelial cell-selective adhesion molecule	ESAM
Junctional adhesion molecule A	F11R
Fatty acid-binding protein, adipocyte	FABP4
Prolyl endopeptidase FAP	FAP
Tumor necrosis factor receptor superfamily member 6	FAS
Fibulin-2	FBLN2
Low affinity immunoglobulin epsilon Fc receptor	FCER2
Fc receptor-like protein 5	FCRL5

Fibroblast growth factor-binding protein 2	FGFBP2
Tissue alpha-L-fucosidase	FUCA1
FYN-binding protein 1	FYB1
Growth arrest-specific protein 6	GAS6
Growth/differentiation factor 15	GDF15
Glutathione hydrolase 1 proenzyme	GGT1
Ganglioside GM2 activator	GM2A
Granulysin	GNLY
Aspartate aminotransferase, cytoplasmic	GOT1
Platelet glycoprotein VI	GP6
Progranulin	GRN
Guanylin	GUCA2A
Beta-glucuronidase	GUSB
Histidine--tRNA ligase, cytoplasmic	HARS1
Hepatitis A virus cellular receptor 2	HAVCR2
4-hydroxyphenylpyruvate dioxygenase	HPD
Heparanase	HPSE
Heat shock protein beta-1	HSPB1
Hypoxia up-regulated protein 1	HYOU1
Intercellular adhesion molecule 2	ICAM2
Intercellular adhesion molecule 3	ICAM3
Interferon alpha/beta receptor 2	IFNAR2
Immunoglobulin superfamily DCC subclass member 4	IGDCC4
Cation-independent mannose-6-phosphate receptor	IGF2R
Insulin-like growth factor-binding protein 1	IGFBP1
Insulin-like growth factor-binding protein 2	IGFBP2
Insulin-like growth factor-binding protein 4	IGFBP4
Insulin-like growth factor-binding protein 7	IGFBP7
Interleukin-17 receptor A	IL17RA

Interleukin-1 receptor type 1	IL1R1
Interleukin-1 receptor accessory protein	IL1RAP
Interleukin-1 receptor-like 1	IL1RL1
Interleukin-2 receptor subunit alpha	IL2RA
Interleukin-7 receptor subunit alpha	IL7R
Immortalization up-regulated protein	IMUP
Inhibin beta C chain	INHBC
Isthmin-2	ISM2
Integrin alpha-5	ITGA5
Integrin alpha-M	ITGAM
Integrin beta-2	ITGB2
Integrin beta-like protein 1	ITGBL1
Involucrin	IVL
Metastasis-suppressor KiSS-1	KISS1
Laminin subunit beta-2	LAMB2
Lysosome-associated membrane glycoprotein 1	LAMP1
Plastin-2	LCP1
Low-density lipoprotein receptor	LDLR
Galectin-3	LGALS3
Leukocyte immunoglobulin-like receptor subfamily A member 2	LILRA2
Leukocyte immunoglobulin-like receptor subfamily A member 3	LILRA3
Leukocyte immunoglobulin-like receptor subfamily B member 5	LILRB5
Latent-transforming growth factor beta-binding protein 2	LTBP2
Lactotransferrin	LTF
Multiple epidermal growth factor-like domains protein 9	MEGF9
LRP chaperone MESD	MESD
Hepatocyte growth factor receptor	MET
Microfibrillar-associated protein 5	MFAP5
Lactadherin	MFGE8

Macrophage migration inhibitory factor	MIF
Stromelysin-1	MMP3
Matrix metalloproteinase-9	MMP9
Myeloperoxidase	MPO
Beta-microseminoprotein	MSMB
Mucin-1	MUC1
Mucin-2	MUC2
Myosin-9	MYH9
Myocilin	MYOC
Neural cell adhesion molecule 2	NCAM2
Nidogen-2	NID2
Nodal modulator 1	NOMO1
Neurogenic locus notch homolog protein 1	NOTCH1
Neurogenic locus notch homolog protein 2	NOTCH2
Neurogenic locus notch homolog protein 3	NOTCH3
NPC intracellular cholesterol transporter 2	NPC2
Neuronal pentraxin-1	NPTX1
Neuronal pentraxin-2	NPTX2
Neuropilin-2	NRP2
ADP-sugar pyrophosphatase	NUDT5
Out at first protein homolog	OAF
Mimecan	OGN
Peptidyl-glycine alpha-amidating monooxygenase	PAM
Inactive serine protease PAMR1	PAMR1
Parkinson disease protein 7	PARK7
Proprotein convertase subtilisin/kexin type 9	PCSK9
Platelet-derived growth factor subunit A	PDGFA
Platelet-derived growth factor receptor beta	PDGFRB
Protein disulfide-isomerase A4	PDIA4

PDZ and LIM domain protein 1	PDLIM1
Platelet endothelial aggregation receptor 1	PEAR1
Phosphatidylethanolamine-binding protein 1	PEBP1
Platelet endothelial cell adhesion molecule	PECAM1
Peptidoglycan recognition protein 1	PGLYRP1
Elafin	PI3
Polymeric immunoglobulin receptor	PIGR
Phosphoinositide-3-kinase-interacting protein 1	PIK3IP1
Paired immunoglobulin-like type 2 receptor alpha	PILRA
Phospholipase A2	PLA2G1B
Phospholipase A2, membrane associated	PLA2G2A
Platelet-activating factor acetylhydrolase	PLA2G7
Urokinase-type plasminogen activator	PLAU
Phospholipid transfer protein	PLTP
Plexin-B2	PLXNB2
Periostin	POSTN
Peptidyl-prolyl cis-trans isomerase B	PPIB
Peptidyl-prolyl cis-trans isomerase F, mitochondrial	PPIF
PML-RARA-regulated adapter molecule 1	PRAM1
Proline-rich acidic protein 1	PRAP1
Lysosomal Pro-X carboxypeptidase	PRCP
Bone marrow proteoglycan	PRG2
Proteoglycan 3	PRG3
Myeloblastin	PRTN3
Prosaposin	PSAP
Receptor-type tyrosine-protein phosphatase C	PTPRC
Receptor-type tyrosine-protein phosphatase F	PTPRF
Receptor-type tyrosine-protein phosphatase S	PTPRS
Glutaminyl-peptide cyclotransferase	QPCT

Lithostathine-1-beta	REG1B
Regenerating islet-derived protein 3-alpha	REG3A
Tumor necrosis factor receptor superfamily member 19L	RELT
Resistin	RETN
Ribonuclease T2	RNASET2
Suprabasin	SBSN
Scavenger receptor class F member 1	SCARF1
E-selectin	SELE
L-selectin	SELL
Semaphorin-7A	SEMA7A
Serpin A11	SERPINA11
Leukocyte elastase inhibitor	SERPINB1
Plasminogen activator inhibitor 1	SERPINE1
Protein shisa-5	SHISA5
Sialic acid-binding Ig-like lectin 5	SIGLEC5
Tyrosine-protein phosphatase non-receptor type substrate 1	SIRPA
Band 3 anion transport protein	SLC4A1
Antileukoproteinase	SLPI
Secreted Ly-6/uPAR-related protein 1	SLURP1
Superoxide dismutase [Mn], mitochondrial	SOD2
Serine protease inhibitor Kazal-type 1	SPINK1
Serine protease inhibitor Kazal-type 5	SPINK5
Kunitz-type protease inhibitor 1	SPINT1
Osteopontin	SPP1
Beta-galactoside alpha-2,6-sialyltransferase 1	ST6GAL1
Stabilin-2	STAB2
Stanniocalcin-2	STC2
Stress-induced-phosphoprotein 1	STIP1
Sushi domain-containing protein 2	SUSD2

Transaldolase	TALDO1
Trefoil factor 1	TFF1
Trefoil factor 2	TFF2
Transforming growth factor beta receptor type 3	TGFBR3
Thrombospondin-2	THBS2
Tyrosine-protein kinase receptor Tie-1	TIE1
Metalloproteinase inhibitor 4	TIMP4
Thymosin beta-10	TMSB10
Tumor necrosis factor receptor superfamily member 10C	TNFRSF10C
Tumor necrosis factor receptor superfamily member 17	TNFRSF17
Tumor necrosis factor receptor superfamily member 1A	TNFRSF1A
Tumor necrosis factor receptor superfamily member 1B	TNFRSF1B
Tumor necrosis factor ligand superfamily member 13B	TNFSF13B
Tumor necrosis factor ligand superfamily member 8	TNFSF8
Tenascin-N	TNN
Tenascin-X	TNXB
Trehalase	TREH
Trem-like transcript 2 protein	TREML2
Twinfilin-2	TWF2
Thioredoxin reductase 1, cytoplasmic	TXNRD1
Uromodulin	UMOD
V-set and immunoglobulin domain-containing protein 4	VSIG4
von Willebrand factor	VWF
Tryptophan--tRNA ligase, cytoplasmic	WARS1
Glycoprotein Xg	XG
Histo-blood group ABO system transferase	ABO
Angiotensin-converting enzyme	ACE
Adenosine deaminase 2	ADA2
Angiotensinogen	AGT

Alpha-2-HS-glycoprotein	AHSG
Alpha-amylase 1/2	AMY1_AMY2
Angiogenin	ANG
Angiopoietin-related protein 3	ANGPTL3
Aminopeptidase N	ANPEP
Membrane primary amine oxidase	AOC3
Apolipoprotein A-II	APOA2
Apolipoprotein B-100	APOB
Apolipoprotein F	APOF
Apolipoprotein L1	APOL1
Apolipoprotein M	APOM
Ecto-ADP-ribosyltransferase 3	ART3
Asialoglycoprotein receptor 2	ASGR2
Tyrosine-protein kinase receptor UFO	AXL
Cholinesterase	BCHE
Complement C1q tumor necrosis factor-related protein 1	C1QTNF1
Complement C1r subcomponent	C1R
Complement C2	C2
Complement component C9	C9
Carbonic anhydrase 1	CA1
Catalase	CAT
C-C motif chemokine 14	CCL14
C-C motif chemokine 18	CCL18
C-C motif chemokine 5	CCL5
Monocyte differentiation antigen CD14	CD14
Scavenger receptor cysteine-rich type 1 protein M130	CD163
Membrane cofactor protein	CD46
Complement decay-accelerating factor	CD55
Complement component C1q receptor	CD93

Cadherin-1	CDH1
Complement factor H-related protein 5	CFHR5
Choriogonadotropin subunit beta 3	CGB3_CGB5_CGB8
Chitinase-3-like protein 1	CHI3L1
Neural cell adhesion molecule L1-like protein	CHL1
Beta-Ala-His dipeptidase	CNDP1
Cartilage oligomeric matrix protein	COMP
Carboxypeptidase N subunit 2	CPN2
Complement receptor type 1	CR1
Complement receptor type 2	CR2
Cysteine-rich secretory protein 3	CRISP3
Macrophage colony-stimulating factor 1 receptor	CSF1R
Chorionic somatomammotropin hormone 1	CSH1
Cystatin-C	CST3
Di-N-acetylchitobiase	CTBS
Cathepsin D	CTSD
Cathepsin Z	CTSZ
Dopamine beta-hydroxylase	DBH
Neutrophil defensin 1	DEFA1
Dipeptidyl peptidase 4	DPP4
EGF-containing fibulin-like extracellular matrix protein 1	EFEMP1
Neutrophil elastase	ELANE
Coagulation factor X	F10
Coagulation factor XI	F11
Coagulation factor VII	F7
Coagulation factor IX	F9
Low affinity immunoglobulin gamma Fc region receptor II-a	FCGR2A
Low affinity immunoglobulin gamma Fc region receptor III-A/B	FCGR3B_FCGR3A
Ficolin-1	FCN1

Ficolin-2	FCN2
Fetuin-B	FETUB
Fibrinogen-like protein 1	FGL1
Gamma-glutamyl hydrolase	GGH
Platelet glycoprotein Ib alpha chain	GP1BA
Glucose-6-phosphate isomerase	GPI
Gelsolin	GSN
Glutathione reductase, mitochondrial	GSR
Hepatocyte growth factor activator	HGFAC
Basement membrane-specific heparan sulfate proteoglycan core protein	HSPG2
Hyaluronidase-1	HYAL1
Intercellular adhesion molecule 1	ICAM1
Insulin-like growth factor-binding protein 3	IGFBP3
Insulin-like growth factor-binding protein 6	IGFBP6
Interleukin-18-binding protein	IL18BP
Interleukin-6 receptor subunit alpha	IL6R
Integrin beta-1	ITGB1
Inter-alpha-trypsin inhibitor heavy chain H3	ITIH3
Mast/stem cell growth factor receptor Kit	KIT
Lipopolysaccharide-binding protein	LBP
Phosphatidylcholine-sterol acyltransferase	LCAT
Neutrophil gelatinase-associated lipocalin	LCN2
Cell surface glycoprotein MUC18	MCAM
Malate dehydrogenase, cytoplasmic	MDH1
Macrophage mannose receptor 1	MRC1
Hepatocyte growth factor-like protein	MST1
Neural cell adhesion molecule 1	NCAM1
Nexilin	NEXN
Nidogen-1	NID1

Neurogranin	NRGN
Neuropilin-1	NRP1
Oncostatin-M-specific receptor subunit beta	OSMR
Procollagen C-endopeptidase enhancer 1	PCOLCE
Xaa-Pro dipeptidase	PEPD
Platelet factor 4	PF4
Pepsin A-4	PGA4
Peptidase inhibitor 16	PI16
Pancreatic triacylglycerol lipase	PNLIP
Serum paraoxonase/arylesterase 1	PON1
Peroxiredoxin-2	PRDX2
Vitamin K-dependent protein C	PROC
Trypsin-2	PRSS2
Prostaglandin-H2 D-isomerase	PTGDS
Retinoic acid receptor responder protein 2	RARRES2
Lithostathine-1-alpha	REG1A
Ribonuclease pancreatic	RNASE1
Ribonuclease 4	RNASE4
Ribonuclease K6	RNASE6
Serum amyloid A-4 protein	SAA4
P-selectin	SELP
Sex hormone-binding globulin	SHBG
Superoxide dismutase [Cu-Zn]	SOD1
Extracellular superoxide dismutase [Cu-Zn]	SOD3
SPARC-like protein 1	SPARCL1
Soluble scavenger receptor cysteine-rich domain-containing protein SSC5D	SSC5D
Transcobalamin-1	TCN1
Transcobalamin-2	TCN2
Trefoil factor 3	TFF3

Tissue factor pathway inhibitor	TFPI
Transferrin receptor protein 1	TFRC
Transforming growth factor-beta-induced protein ig-h3	TGFBI
Trans-Golgi network integral membrane protein 2	TGOLN2
Thrombospondin-4	THBS4
T-cell immunoglobulin and mucin domain-containing protein 4	TIMD4
Metalloproteinase inhibitor 1	TIMP1
Tenascin	TNC
Trem-like transcript 1 protein	TREML1
Thioredoxin	TXN
Vasorin	VASN
Vasodilator-stimulated phosphoprotein	VASP
Vascular cell adhesion protein 1	VCAM1
Pantetheinase	VNN1
Alpha-1B-glycoprotein	A1BG
Afamin	AFM
Serum amyloid P-component	APCS
Apolipoprotein A-I	APOA1
Apolipoprotein A-IV	APOA4
Apolipoprotein D	APOD
Apolipoprotein E	APOE
Attractin	ATRN
Beta-2-microglobulin	B2M
Biotinidase	BTD
Complement C1r subcomponent-like protein	C1RL
Complement C1s subcomponent	C1S
Complement C3	C3
Complement C4-B	C4B
Complement C5	C5

Complement component C7	C7
Complement component C8 beta chain	C8B
CD5 antigen-like	CD5L
Complement factor B	CFB
Complement factor D	CFD
Complement factor H	CFH
Complement factor H-related protein 2	CFHR2
Complement factor H-related protein 4	CFHR4
Complement factor I	CFI
Properdin	CFP
Clusterin	CLU
Carboxypeptidase B2	CPB2
Extracellular matrix protein 1	ECM1
Coagulation factor XII	F12
Coagulation factor XIII B chain	F13B
Prothrombin	F2
Fibrinogen alpha chain	FGA
Fibrinogen gamma chain	FGG
Fibronectin	FN1
Vitamin D-binding protein	GC
Hyaluronan-binding protein 2	HABP2
Histidine-rich glycoprotein	HRG
Immunoglobulin lambda constant 2	IGLC2
Inter-alpha-trypsin inhibitor heavy chain H1	ITIH1
Inter-alpha-trypsin inhibitor heavy chain H4	ITIH4
Plasma kallikrein	KLKB1
Galectin-3-binding protein	LGALS3BP
Apolipoprotein(a)	LPA
Leucine-rich alpha-2-glycoprotein	LRG1

Lumican	LUM
Lymphatic vessel endothelial hyaluronic acid receptor 1	LYVE1
Mannose-binding protein C	MBL2
Alpha-1-acid glycoprotein 1	ORM1
N-acetylmuramoyl-L-alanine amidase	PGLYRP2
Plasminogen	PLG
Platelet basic protein	PPBP
Pregnancy zone protein	PZP
Retinol-binding protein 4	RBP4
Selenoprotein P	SELENOP
Alpha-1-antitrypsin	SERPINA1
Alpha-1-antichymotrypsin	SERPINA3
Kallistatin	SERPINA4
Plasma serine protease inhibitor	SERPINA5
Corticosteroid-binding globulin	SERPINA6
Thyroxine-binding globulin	SERPINA7
Antithrombin-III	SERPINC1
Heparin cofactor 2	SERPIND1
Pigment epithelium-derived factor	SERPINF1
Alpha-2-antiplasmin	SERPINF2
Plasma protease C1 inhibitor	SERPING1
Serotransferrin	TF
Transthyretin	TTR
Vitronectin	VTN

Table S3. List of components included in each category

Category	Compoents
White meat	Chicken, Canned tuna, Dark fish, Shrimp, Other fish
Red meat	Organ meat, canned meat, beef, veal, lamb, pork
Processed meat	Hot dog, Bacon, Processed meat, Pizza/lasagna, Hamburger
Plant-based protein	Soy/vege main, Vegetarian, Tofu
Animal-based protein	Milk, Cream, Yogurt, Sherbet/ice milk, Ice cream, Cheese, Margarine stick/tub, Butter
Fruits	Apple, pear, Apple juice, Applesauce, Orange, Orange juice, Grapefruit, Peach, Raisin, grape, Prune, Date, fig, Banana, Berry, Melon, Watermelon, Pineapple, Cherry, Papaya, Avocado
Vegetables	Green bean, Broccoli, Cabbage, Cauliflower, Brussels sprout, Carrot, Carrot juice, Corn, Spinach, Pepper, Other green, Lettuce, Pea, Squash, Eggplant, Yam, Tomato, Tomato juice, Chili sauce, Bean
Refined carbohydrates and swee	Pie, Cake, Cookie, Brownie, Doughnut, Pastry, Cracker
Grains and cereals	Cereal, Bread, Rolls, Buns, Fries, Potato, Parsnip, Pancake, Rice, Pasta, Other grains
Beverages	Coffee, Tea, Cocoa, Beer, Red wine, White wine, Liquor
Nuts and seeds	Seeds, Walnut, Salted nuts, Unsalted nuts

Table S4. Study partcipants details

Group	StudyID	Age	Sex	BMI	Antibiotic use
OB-OA-	AS-0122	56.20	M	27.54	
OB+OA-	AS-1444	54.44	F	30.34	
OB-OA-	AS-1869	59.80	F	24.88	
OB+OA-	AS-2371	40.10	F	33.71	Amoxicillin/clavulanate
OB+OA-	AS-2444	54.46	M	30.39	Amoxicillin
OB-OA-	AS-2554	46.47	F	28.63	
OB-OA-	AS-2575	55.10	F	27.09	
OB-OA-	AS-2776	48.87	F	29.72	
OB-OA-	AS-2853	55.39	F	25.65	Amoxicillin/clavulanate
OB-OA-	AS-3015	56.67	F	29.41	
OB+OA-	AS-3038	50.20	F	34.78	
OB+OA-	AS-3105	62.03	F	37.41	
OB+OA+	NF1059	52.38	F	30.51	
OB+OA+	NF1063	67.52	F	38.21	
OB+OA+	NF1075	67.45	F	43.83	
OB+OA+	NF1077	62.77	M	33.36	
OB+OA+	NF108	57.14	F	42.81	
OB+OA+	NF1082	65.61	F	30.40	
OB+OA+	NF1105	62.95	F	38.58	
OB+OA+	NF1116	69.52	M	43.10	
OB+OA+	NF1125	56.23	F	36.11	Amoxicillin/clavulanate
OB-OA+	NF1134	70.58	F	25.80	
OB-OA+	NF1142	68.13	M	29.39	
OB-OA+	NF1154	58.43	F	25.98	
OB+OA+	NF1157	64.45	F	36.91	
OB+OA+	NF1207	68.17	F	40.52	Levofloxacin
OB+OA+	NF1253	64.62	F	30.64	
OB-OA+	NF1264	62.69	M	28.85	
OB+OA+	NF1301	63.07	F	31.09	
OB-OA+	NF1311	79.27	F	28.23	
OB+OA+	NF135	61.18	F	35.47	
OB+OA+	NF147	56.18	M	37.81	

OB-OA+	NF150	72.28	F	23.92	
OB+OA+	NF155	64.70	F	32.23	
OB+OA+	NF156	54.78	F	43.27	Amoxicillin
OB+OA+	NF16	57.95	M	31.48	
OB-OA+	NF165	66.34	F	29.23	
OB-OA+	NF175	73.03	F	28.09	
OB-OA+	NF205	56.72	F	23.78	
OB-OA+	NF22	72.23	F	28.81	
OB-OA+	NF221	71.22	M	28.15	
OB+OA+	NF233	61.95	F	35.14	
OB+OA+	NF245	63.18	M	42.64	Amoxicillin
OB+OA+	NF250	62.14	F	37.09	
OB+OA+	NF252	61.26	F	39.55	
OB-OA+	NF264	60.55	M	28.83	
OB+OA+	NF283	57.96	F	42.88	
OB-OA+	NF287	59.91	M	26.42	
OB-OA+	NF294	65.74	M	27.41	
OB+OA+	NF298	69.77	M	31.45	Amoxicillin
OB+OA+	NF3	58.60	M	36.83	
OB+OA+	NF300	64.53	F	30.86	
OB+OA+	NF306	57.65	M	32.03	
OB+OA+	NF319	53.80	F	43.75	Amoxicillin/clavulanate
OB+OA+	NF326	60.52	M	30.52	
OB+OA+	NF33	65.69	F	30.83	
OB+OA+	NF333	60.61	F	43.13	Azithromycin
OB+OA+	NF334	69.88	F	33.57	
OB+OA+	NF343	66.57	M	31.26	
OB+OA+	NF349	63.05	M	41.85	
OB-OA+	NF381	57.46	M	28.72	
OB+OA+	NF384	68.25	F	30.11	
OB+OA+	NF399	67.54	F	32.95	Amoxicillin
OB-OA+	NF40	63.15	M	27.68	
OB+OA+	NF400	66.16	F	35.06	
OB+OA+	NF431	67.58	F	30.86	

OB-OA+	NF45	56.97	F	29.24	
OB+OA+	NF505	59.87	M	39.03	
OB+OA+	NF552	68.50	F	31.24	
OB+OA+	NF562	59.87	M	41.33	
OB-OA+	NF566	66.65	F	23.71	
OB+OA+	NF567	66.37	F	41.00	
OB+OA+	NF571	62.84	M	32.69	
OB+OA+	NF574	59.76	F	31.76	Metronidazole, Ciprofloxacin
OB+OA+	NF59	54.45	F	34.82	Cephalexin
OB+OA+	NF607	51.95	F	42.21	Ciprofloxacin
OB+OA+	NF638	69.14	M	32.57	
OB-OA+	NF642	59.08	F	28.51	
OB+OA+	NF665	60.57	M	40.55	
OB+OA+	NF667	57.43	F	41.55	
OB+OA+	NF673	65.84	F	31.53	
OB+OA+	NF694	53.36	F	35.52	
OB+OA+	NF699	58.61	F	49.00	
OB+OA+	NF722	61.92	F	33.44	
OB+OA+	NF750	62.98	F	30.33	
OB+OA+	NF751	65.22	F	45.96	
OB+OA+	NF757	57.46	M	32.09	Penicillin V
OB-OA+	NF76	65.74	M	26.53	
OB+OA+	NF773	62.12	M	31.90	
OB+OA+	NF793	66.60	F	37.11	
OB+OA+	NF803	57.67	F	36.89	
OB+OA+	NF816	61.83	F	31.22	Nitrofurantoin
OB+OA+	NF823	53.14	M	36.57	
OB-OA+	NF828	72.49	M	27.87	
OB+OA+	NF867	55.58	F	35.01	
OB+OA+	NF871	63.72	F	38.67	
OB+OA+	NF895	61.01	F	36.94	
OB-OA+	NF911	61.06	M	24.95	
OB+OA+	NF915	58.75	M	36.43	
OB-OA+	NF920	61.15	M	29.49	

OB-OA+	NF938	61.13	F	27.34
OB-OA+	NF940	68.14	M	24.84
OB+OA+	NF956	51.02	F	52.58 Doxycycline

Table S5. List of significant spearman correlation between significant taxa and metabolites

Metabolites	Microbial taxa	Spearman_Rho	p_value
Hex2Cer.d18.1.26	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.25	0.014869892
DG.21.0_22.6.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.25	0.015071668
C0	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.24	0.020806147
SM.C20.2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.22	0.027968107
DG.14.1_20.2.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.22	0.031857916
C10	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.30	0.003126906
TG.20.4_35.3.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.27	0.00701595
beta.Ala	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.27	0.008219631
DG.O.16.0_20.4.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.26	0.009854642
C10.1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.26	0.010822824
TG.18.1_36.6.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.25	0.012820188
X3.Met.His	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.25	0.013730175
TG.17.1_32.1.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.24	0.01658986
Cer.d18.1.25.0.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.24	0.016677677
C14.1.OH	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.24	0.018953537
CE.22.2.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.24	0.020792791
DG.16.0_20.0.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.24	0.021111749
Suc	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.24	0.021152812
FA.16.0.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.23	0.021334166
TG.18.3_35.2.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.23	0.021497115
Ala	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.23	0.024072306
C4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.23	0.024125902
CE.22.0.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.23	0.024205106
TG.18.2_34.4.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.22	0.028201786
TG.16.0_38.7.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.22	0.029123906
C6.1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.22	0.032318515
TG.18.1_32.3.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.22	0.03400116
TG.20.4_36.3.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.22	0.035379294
C14.2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.21	0.035721887
lysoPC.a.C26.0	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.21	0.036357061
TG.18.3_38.5.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.21	0.03660439

TG.16.1_32.2.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.21	0.036746492
EPA	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.21	0.036807625
TG.16.1_36.5.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.21	0.038642902
FA.20.3.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.21	0.039304383
Nitro.Tyr	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.21	0.040224396
PC.aa.C38.4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.21	0.040455968
TG.20.4_36.4.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.21	0.04092946
TG.16.0_28.2.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.21	0.04110241
TG.18.1_36.5.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.21	0.041565118
TG.20.2_34.3.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.21	0.041626303
TG.18.3_38.6.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.21	0.0443158
TMAO	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.21	0.044911907
PheAlaBetaine	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.20	0.047437594
TG.17.2_36.4.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.20	0.048080515
TG.18.3_36.2.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.20	0.048577928
Cer.d18.0.18.0.OH	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.20	0.049456377
PC.ae.C36.5	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.20	0.049882732
HexCer.d18.1.24.1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.28	0.005683373
TG.20.3_36.5.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.26	0.011464035
CE.17.1.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.26	0.011603995
CE.14.1.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.26	0.01172989
Cer.d18.1.24.1.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.26	0.011746422
Dopamine	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.25	0.01337522
CE.18.1.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.25	0.0150635
Hex2Cer.d18.1.16	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.25	0.015595771
Cer.d18.1.25.0.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.24	0.01912821
Cer.d18.1.22.0.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.24	0.019634315
lysoPC.a.C26.1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.24	0.019731123
C5	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.23	0.021310838
HexCer.d18.1.22.(	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.23	0.024455561
HexCer.d18.1.16.(	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.23	0.025738247
Hex2Cer.d18.1.24	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.22	0.027819011
C5.DC..C6.OH.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.22	0.029715694

Cer.d18.1.16.0.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.22	0.030215928
C3.OH	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.22	0.034682268
Hex2Cer.d18.1.26	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.21	0.035519401
TDCA	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.21	0.036359969
lysoPC.a.C28.0	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.21	0.038563628
c4.OH.Pro	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.21	0.038885498
C3.1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.21	0.042075117
C16.1.OH	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.21	0.043090157
HexCer.d18.2.24.(	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.21	0.044685086
HexCer.d18.1.24.(	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.20	0.049584888
TG.16.0_28.1.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.37	0.00024898
DG.14.0_18.1.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.32	0.001638007
TG.18.0_30.1.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.31	0.002420124
Histamine	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.27	0.007127102
DG.14.0_18.2.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.27	0.007854912
TG.18.1_30.2.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.27	0.008112886
TG.20.4_30.0.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.27	0.008447965
TG.18.3_30.0.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.26	0.012132763
PC.aa.C42.1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.25	0.012327914
TG.18.0_32.0.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.25	0.014035641
PC.aa.C42.0	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.25	0.015046045
CE.14.0.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.25	0.015672402
TG.18.2_30.1.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.24	0.016211257
DG.16.0_16.0.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.24	0.016927804
TG.18.1_28.1.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.24	0.017006145
DG.16.1_18.1.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.24	0.017027481
TG.22.6_32.0.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.24	0.018533716
Cer.d18.0.22.0.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.24	0.019264753
TG.20.3_34.0.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.24	0.019861249
TG.18.1_26.0.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.24	0.019934201
PC.ae.C42.2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.24	0.020493119
TG.20.4_32.2.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.24	0.020593161
TG.16.0_33.2.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.23	0.021197568

DG.18.1_20.0.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.23	0.021409379
PC.aa.C36.6	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.23	0.022147066
TG.16.0_30.2.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.23	0.022997185
TG.16.0_36.6.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.23	0.02311837
TG.18.2_30.0.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.23	0.023704714
PC.aa.C40.6	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.23	0.023773892
TG.14.0_32.2.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.23	0.024176265
TG.17.2_36.4.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.23	0.024278394
TG.14.0_38.4.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.23	0.024582953
TG.22.5_32.0.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.23	0.025372463
DG.16.0_20.0.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.23	0.025673066
TG.16.0_32.3.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.23	0.026251361
DG.18.1_20.1.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.23	0.026398716
TG.14.0_36.1.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.23	0.026549533
PC.ae.C42.3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.23	0.027186666
TG.18.2_28.0.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.23	0.027305528
PC.aa.C40.2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.22	0.027537017
TG.18.0_30.0.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.22	0.0284658
PC.aa.C36.0	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.22	0.030706316
PC.aa.C38.0	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.22	0.031428948
DG.18.1_20.2.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.22	0.032058355
TG.14.0_34.1.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.22	0.032661881
TG.16.0_33.1.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.22	0.03319653
TG.16.0_40.8.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.22	0.033382986
TG.22.6_32.1.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.22	0.033951454
Hex2Cer.d18.1.14	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.22	0.033991384
PC.aa.C36.5	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.22	0.033991531
TG.20.5_34.1.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.22	0.034424268
DG.18.0_20.0.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.22	0.034441684
TG.20.3_36.4.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.22	0.034578498
TG.16.0_37.3.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.22	0.035066285
PC.ae.C40.1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.22	0.035115024
TG.22.6_34.1.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.21	0.03599453

TG.18.1_30.1.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.21	0.037004051
PC.aa.C38.6	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.21	0.037427664
DG.22.1_22.2.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.21	0.037674921
CE.15.0.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.21	0.038828461
TG.18.3_32.1.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.21	0.039279808
PC.aa.C42.5	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.21	0.04021117
TG.22.5_32.1.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.21	0.040385391
TG.16.1_32.0.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.21	0.040961464
TG.18.1_30.0.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.21	0.041246532
TG.20.5_36.2.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.21	0.041661978
TG.20.1_30.1.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.21	0.041878064
TG.20.1_32.2.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.21	0.042242269
TG.18.1_31.0.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.21	0.044157465
PC.ae.C44.4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.21	0.044557884
TG.20.2_34.2.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.21	0.044696101
TG.16.0_32.2.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.21	0.044810592
GCDCA	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.20	0.045195775
TG.14.0_35.2.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.20	0.045834056
EPA	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.20	0.04693054
FA.20.1.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.20	0.0490443
DiCA.12.0.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	-0.24	0.016589743
HexCer.d18.1.26.1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	-0.24	0.017094126
CDCA	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	-0.23	0.023176389
Cer.d18.1.18.1.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	-0.23	0.027197902
TG.17.2_38.7.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	-0.22	0.029743269
DG.18.2_18.4.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	-0.22	0.033851387
TG.18.0_30.0.	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.22	0.033953343
C14.2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	-0.21	0.036405483
Sarcosine	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	-0.21	0.03888986
DG.18.1_18.4.	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	0.38	0.000142992
H1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	0.33	0.000863681
PC.aa.C26.0	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	0.31	0.00212995
TG.20.1_31.0.	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	-0.29	0.0047143

C3.DC..C4.OH.	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	0.28	0.004932193
Cer.d18.1.18.0.OH	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	0.28	0.005449536
Cer.d18.2.14.0.	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	0.28	0.005830968
SM.C26.0	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	-0.28	0.006391256
PC.aa.C36.1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	-0.28	0.006473522
C0	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	-0.27	0.007050848
Taurine	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	-0.27	0.007495198
C3.OH	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	0.27	0.008169246
C16.OH	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	0.27	0.008525062
lysoPC.a.C17.0	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	-0.27	0.00854565
Hex2Cer.d18.1.20	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	-0.26	0.010573652
PC.aa.C38.3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	-0.26	0.011548656
SM.C24.0	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	-0.26	0.011630853
Val	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	0.26	0.01207327
Hex2Cer.d18.1.24	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	-0.25	0.012653524
PC.aa.C38.1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	-0.25	0.014320508
SM..OH..C22.1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	-0.25	0.015329757
CE.14.1.	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	-0.25	0.015747949
Cer.d18.0.18.0.	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	-0.24	0.016784104
lysoPC.a.C18.2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	-0.24	0.018138434
DG.17.0_18.1.	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	-0.24	0.019388477
SM.C16.0	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	-0.24	0.019456348
SM.C26.1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	-0.24	0.019589934
PC.ae.C36.3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	-0.24	0.020080843
Hex3Cer.d18.1_2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	-0.24	0.02103006
Spermidine	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	-0.23	0.021852826
C16.1.OH	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	-0.23	0.023947269
lysoPC.a.C18.0	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	-0.23	0.024966978
C18	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	-0.23	0.026127795
SM..OH..C22.2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	-0.23	0.0271428
Hex2Cer.d18.1.24	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	-0.22	0.027902748
HexCer.d18.1.22.(	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	-0.22	0.028758964
TG.20.4_33.2.	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	-0.22	0.02882849

lysoPC.a.C26.0	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	0.22	0.028950776
TG.20.2_34.4.	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	-0.22	0.030006216
PC.ae.C34.3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	-0.22	0.030099213
GLCAS	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	-0.22	0.030425606
HexCer.d18.2.23.(	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	-0.22	0.030793325
HexCer.d18.1.23.(	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	-0.22	0.030890243
SM.C24.1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	-0.22	0.033406416
CE.22.2.	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	0.22	0.03381857
PC.ae.C34.0	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	-0.22	0.033857056
TG.20.1_30.1.	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	-0.22	0.034394788
Asp	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	-0.22	0.034428421
SM..OH..C14.1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	-0.21	0.036566469
Glu	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	-0.21	0.036962145
C16	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	-0.21	0.037483094
PC.aa.C38.0	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	-0.21	0.039331513
CE.20.1.	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	0.21	0.040997641
CE.22.5.	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	-0.21	0.042081752
lysoPC.a.C14.0	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	-0.21	0.043281746
TG.14.0_35.1.	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	-0.20	0.046224566
Serotonin	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	-0.20	0.046469618
C4.1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	0.20	0.046857403
PC.ae.C40.1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	-0.20	0.046881432
CE.17.0.	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	-0.20	0.047608916
PC.aa.C42.6	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	-0.20	0.048317539
DG.O.16.0_20.4.	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	0.20	0.048473749
Hex2Cer.d18.1.18	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	-0.20	0.049325706
PC.ae.C38.6	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	-0.20	0.049492501
TG.16.1_30.1.	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclos	-0.20	0.049796059
DG.16.1_20.0.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellac	0.31	0.001800387
Cer.d18.2.14.0.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellac	0.29	0.003732645
HexCer.d18.2.22.(	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellac	0.29	0.00402346
Gly	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellac	0.29	0.004436016
C10	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellac	-0.28	0.00525444

DG.18.3_20.2.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellac	-0.23	0.02326132
HArg	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellac	-0.23	0.024728411
Cer.d18.0.18.0.OH	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellac	0.22	0.032860888
TLCA	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellac	0.21	0.037125781
Met.SO	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellac	0.21	0.038982749
C10.1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellac	-0.21	0.039650949
TG.20.0_34.1.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellac	0.21	0.042769883
C4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellac	0.21	0.043685979
Sarcosine	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellac	0.20	0.045511687
C7.DC	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.31	0.002059898
DG.18.1_18.4.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.25	0.012569259
C3.DC..C4.OH.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.24	0.019777305
TG.22.3_30.2.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.23	0.023241291
Hex2Cer.d18.1.22	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.22	0.030089994
CE.22.1.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.22	0.031121587
C3.1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.22	0.035252704
CE.22.2.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.30	0.002625632
Cer.d18.1.14.0.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.30	0.003163062
CE.22.1.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.29	0.00473746
CE.20.1.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.28	0.005007138
CA	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.27	0.00831985
TG.17.2_36.2.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.25	0.012799451
Cer.d18.1.20.0.OH	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.24	0.018069665
TG.17.2_36.4.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.24	0.020157582
CE.20.0.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.23	0.022762835
PC.ae.C40.3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.23	0.023619959
ProBetaine	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.23	0.02673577
X3.IAA	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.23	0.027135596
Asn	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.22	0.028697955
DG.14.1_20.2.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.22	0.033755269
DG.18.1_20.4.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.21	0.036947434
Hex3Cer.d18.1.26	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.20	0.046572271
DG.18.1_18.3.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.20	0.047886982

TG.20.0_32.4.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.20	0.048019521
Cystine	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.30	0.002859085
DG.O.16.0_20.4.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.24	0.016687594
Pro	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.24	0.020116685
C12.1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	-0.22	0.029988101
TG.16.0_38.1.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.22	0.03246546
DG.16.0_20.3.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.21	0.038111123
PC.ae.C34.3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	-0.21	0.044959819
C10.1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	-0.20	0.049243094
Choline	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	-0.36	0.000276411
C18.2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	-0.31	0.001802235
lysoPC.a.C16.0	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	-0.30	0.00256926
C16	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	-0.30	0.003451939
C18	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	-0.29	0.00411543
C18.1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	-0.28	0.005197238
HCys	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	-0.28	0.006516822
lysoPC.a.C16.1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	-0.28	0.006587593
Lac	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	-0.27	0.007105686
SDMA	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	-0.27	0.007187717
lysoPC.a.C18.0	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	-0.27	0.008523679
Cys	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	-0.27	0.008878924
Orn	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	-0.26	0.009361454
lysoPC.a.C18.1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	-0.26	0.009378861
Cer.d18.1.18.0.OH	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.26	0.00989637
Creatinine	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	-0.26	0.01129032
lysoPC.a.C17.0	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	-0.25	0.015454057
PC.ae.C44.3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	-0.23	0.02395184
beta.Ala	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	-0.23	0.025882626
Leu	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	-0.23	0.026419726
Kynurenine	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	-0.22	0.029009784
Suc	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	-0.22	0.03081993
lysoPC.a.C18.2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	-0.22	0.034417509
DG.16.0_16.1.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	-0.20	0.046030541

FA.18.0.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.20	0.046370578
TG.20.5_36.2.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.25	0.01432451
DiCA.14.0.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.25	0.015569734
AA	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.24	0.018275021
TG.16.0_38.1.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.22	0.027675254
C16.OH	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.30	0.003053176
lysoPC.a.C26.0	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.28	0.005467704
C4.1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.28	0.006563772
DiCA.12.0.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.27	0.007118337
C5.1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.27	0.008822595
C3.DC..C4.OH.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.25	0.013444497
C3.OH	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.25	0.014274414
C3.1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.25	0.015334744
TG.17.2_34.3.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.25	0.016016716
PC.aa.C32.1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.24	0.017384367
PC.aa.C26.0	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.24	0.019709193
C6.1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.23	0.021248462
Cer.d16.1.20.0.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.23	0.022628914
HexCer.d18.2.23.(	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.23	0.025290407
C10.2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.22	0.028573618
C5.M.DC	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.22	0.030285262
C5.OH..C3.DC.M	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.22	0.033772126
TrpBetaine	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.22	0.034948413
Cer.d18.1.26.0.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.22	0.034981425
Cer.d18.1.26.1.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.21	0.038737199
TG.20.4_35.3.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.21	0.040653484
DG.18.3_18.3.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.21	0.043246677
Cer.d18.1.18.0.OH	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.20	0.045229377
Cer.d16.1.22.0.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.20	0.048331713
PC.aa.C26.0	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.32	0.001602477
AA	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.31	0.002209382
GDCA	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.30	0.002704151
OH.GlutAcid	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.30	0.003196534

TG.20.1_30.1.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.28	0.005964876
C14.1.OH	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.26	0.009624102
EPA	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.26	0.009781538
DG.O.16.0_20.4.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.26	0.011244124
HCys	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.26	0.012009837
TG.18.3_33.2.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.25	0.014061893
Lac	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.25	0.01514155
PC.aa.C40.3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.25	0.015868235
C16.2.OH	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.25	0.016021125
DG.18.1_22.6.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.24	0.016920647
TDCA	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.24	0.018399502
p.Cresol.SO4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.23	0.02148133
PC.aa.C38.3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.23	0.023776645
DG.14.0_14.0.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.23	0.024943498
DHEAS	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.23	0.025630062
PC.aa.C40.2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.23	0.025938271
PC.ae.C38.3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.22	0.032985007
TG.20.1_31.0.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.22	0.034843585
PC.aa.C42.4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.21	0.035440506
SDMA	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.21	0.036020989
CDCA	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.21	0.037303073
PC.aa.C40.1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.21	0.039502882
PC.ae.C42.1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.21	0.039560528
DG.18.2_18.3.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.21	0.040996685
TG.18.2_31.0.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.21	0.042639514
DG.16.0_18.2.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.21	0.044113096
Hex2Cer.d18.1.18	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.21	0.044852495
C6..C4.1.DC.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.20	0.045383466
PC.aa.C36.3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.20	0.047093106
PC.ae.C42.3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.20	0.048499272
Asp	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.20	0.049948212
TG.18.3_36.4.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.38	0.000119349
TG.18.2_36.5.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.36	0.000302628

TG.18.1_36.5.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.34	0.000618223
TG.18.3_36.3.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.34	0.000818006
TG.14.0_36.4.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.33	0.00097208
TG.18.2_32.2.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.33	0.0011291
TG.16.1_36.5.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.32	0.001236516
TG.18.2_34.4.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.32	0.001370515
TG.18.1_32.3.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.32	0.001509364
TG.18.2_36.4.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.32	0.001547245
TG.18.1_30.2.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.31	0.002200583
TG.18.3_34.3.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.30	0.002909865
TG.18.3_36.2.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.30	0.003456014
TG.16.0_36.5.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.29	0.003648391
TG.18.1_33.3.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.29	0.003808267
TG.18.3_33.2.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.29	0.003930813
TG.16.0_36.6.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.29	0.004339344
TG.18.3_36.1.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.29	0.004425074
TG.14.0_36.3.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.29	0.004552377
TG.18.0_32.2.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.29	0.00469763
TG.18.0_36.5.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.29	0.004801089
TG.18.2_30.0.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.28	0.005275878
TG.18.2_30.1.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.28	0.005724593
TG.18.3_35.2.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.28	0.005799515
TG.16.1_36.4.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.28	0.006176903
TG.18.2_36.3.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.28	0.006231358
TG.18.3_34.2.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.27	0.007101039
TG.18.0_34.3.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.27	0.007335819
TG.18.0_36.4.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.27	0.007471405
TG.18.2_28.0.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.27	0.008024817
TG.18.1_36.4.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.27	0.008527077
DG.18.2_18.3.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.27	0.00894024
TG.18.2_33.2.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.26	0.009118891
TG.18.3_32.1.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.26	0.009482997
TG.20.4_34.3.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.26	0.009930969

TG.18.1_32.2.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.26	0.009939487
TG.22.6_34.3.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.26	0.010108184
TG.18.2_34.3.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.26	0.010134084
C14.2.OH	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.26	0.010419597
Betaine	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.26	0.010725187
TG.17.1_36.4.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.26	0.010974675
TG.18.1_36.6.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.26	0.011195797
TG.16.1_38.4.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.26	0.011800492
TG.20.2_34.2.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.26	0.011923333
TG.18.2_36.0.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.25	0.012194873
Cer.d18.0.18.0.OH	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.25	0.01221119
TG.14.0_34.2.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.25	0.012459626
TG.22.6_32.1.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.25	0.012915682
TG.17.1_36.3.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.25	0.013247735
TG.18.3_30.0.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.25	0.013452219
TG.18.1_34.4.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.25	0.013452523
TG.18.3_34.1.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.25	0.014225055
TG.18.3_34.0.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.25	0.014306373
Pro	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.25	0.015361798
TG.16.0_40.8.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.25	0.015919674
TG.14.0_36.2.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.24	0.017042198
TG.16.0_30.2.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.24	0.017291129
DG.14.0_18.2.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.24	0.017337265
TG.20.5_34.1.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.24	0.017377308
TG.18.1_34.3.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.24	0.018031893
TG.14.0_34.3.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.24	0.018561149
TG.14.0_34.1.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.24	0.019185244
TG.17.1_34.3.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.24	0.019753464
TG.16.0_38.7.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.24	0.019888919
TG.18.3_32.0.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.24	0.019928198
TG.16.0_36.4.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.24	0.020045711
TG.20.5_36.3.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.24	0.020348253
TG.20.4_34.2.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.24	0.02078439

TG.20.2_32.0.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.24	0.02084749
TG.16.1_34.3.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.23	0.021532299
TG.18.2_36.2.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.23	0.021669565
TG.17.0_36.4.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.23	0.023005958
TG.16.0_32.3.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.23	0.023888856
DG.18.0_20.4.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.23	0.023932436
TG.14.0_36.1.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.23	0.024091641
TG.18.1_30.1.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.23	0.025448367
TG.18.2_32.1.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.23	0.025717824
TG.14.0_38.5.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.23	0.02595145
TG.18.0_32.1.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.23	0.026081188
TG.16.0_34.4.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.23	0.026182778
Dopamine	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.23	0.026454984
TG.18.2_36.1.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.23	0.026545054
TG.16.0_28.2.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.23	0.026837413
TG.17.0_36.3.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.23	0.027166719
TG.18.1_26.0.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.22	0.027878586
TG.18.2_34.2.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.22	0.028810777
TG.18.2_38.4.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.22	0.028864949
TG.20.5_34.2.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.22	0.029164277
TG.18.2_33.0.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.22	0.029288458
TG.18.1_33.2.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.22	0.029524006
TG.16.0_32.2.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.22	0.030061687
TG.18.2_38.6.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.22	0.030135116
TG.16.0_37.3.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.22	0.030425817
TG.14.0_32.2.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.22	0.030587182
TG.18.0_30.0.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.22	0.031619718
ProBetaine	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.22	0.032345938
Creatinine	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.22	0.03243801
DG.18.3_18.3.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.22	0.032747846
TG.18.1_28.1.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.22	0.032784628
TG.18.1_35.3.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.22	0.033066262
TG.20.4_30.0.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.22	0.033201198

TG.18.0_36.3.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.22	0.03413592
TG.18.0_34.2.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.22	0.034289973
TG.18.1_30.0.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.22	0.034530074
DG.18.1_18.3.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.22	0.034557482
TG.16.0_38.6.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.22	0.034583075
TG.18.1_38.7.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.21	0.035515232
Kynurenine	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.21	0.035545252
TG.20.0_32.4.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.21	0.036036329
TG.20.2_34.3.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.21	0.036167105
DG.18.1_20.2.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.21	0.036610385
TG.16.0_38.4.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.21	0.038473882
TG.17.2_36.2.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.21	0.038680715
DG.18.1_20.1.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.21	0.038837828
TG.18.2_33.1.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.21	0.039908683
TG.20.4_32.2.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.21	0.040177541
C5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.21	0.0406384
TG.20.3_32.1.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.21	0.04067934
TG.16.0_38.3.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.21	0.040692274
TG.18.2_35.2.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.21	0.042015745
TG.18.0_30.1.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.21	0.042518855
TG.14.0_34.0.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.21	0.042575147
TG.18.0_36.2.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.20	0.046421692
TG.16.0_28.1.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.20	0.04792057
TG.16.0_34.3.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.20	0.048021951
TG.18.2_32.0.	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.20	0.048927928
CA	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemo	0.33	0.000965902
PC.aa.C42.0	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemo	-0.28	0.005474647
TG.20.4_33.2.	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemo	-0.27	0.008177838
TG.18.1_36.6.	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemo	-0.27	0.008718144
TG.16.0_36.6.	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemo	-0.26	0.009716417
CE.22.2.	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemo	-0.25	0.012352577
PC.ae.C42.3	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemo	-0.24	0.016939092
PC.ae.C38.4	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemo	-0.24	0.017051121

PC.ae.C40.3	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemo	-0.24	0.017784119
SM.C16.1	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemo	-0.24	0.018185647
PC.ae.C42.5	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemo	-0.24	0.019018092
PC.ae.C44.5	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemo	-0.24	0.020612003
PC.ae.C42.2	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemo	-0.24	0.02113972
PC.ae.C44.6	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemo	-0.23	0.021597395
PC.ae.C40.4	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemo	-0.23	0.022155616
PC.ae.C42.4	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemo	-0.23	0.022796279
SM.C16.0	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemo	-0.23	0.024006643
TG.16.1_36.5.	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemo	-0.23	0.024951786
TG.20.1_24.3.	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemo	-0.23	0.025046748
TG.18.2_36.5.	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemo	-0.23	0.025953708
SM.C18.0	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemo	-0.23	0.026687796
PC.ae.C44.3	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemo	-0.23	0.027138012
PC.aa.C38.5	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemo	-0.22	0.028430298
DG.18.1_18.4.	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemo	0.22	0.02920192
PC.aa.C36.4	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemo	-0.22	0.031369697
PC.aa.C42.1	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemo	-0.22	0.032188674
TG.18.2_34.4.	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemo	-0.22	0.035068007
TG.18.1_33.3.	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemo	-0.21	0.0366002
TG.18.3_36.3.	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemo	-0.21	0.03792494
TG.20.3_32.2.	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemo	-0.21	0.038031513
SM..OH..C16.1	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemo	-0.21	0.038650252
CE.20.4.	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemo	-0.21	0.039106177
PC.ae.C40.5	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemo	-0.21	0.039227412
TG.17.1_32.1.	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemo	-0.21	0.039515948
PC.aa.C38.4	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemo	-0.21	0.039638051
Cystine	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemo	0.21	0.039817383
DG.18.3_18.3.	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemo	-0.21	0.043070178
lysoPC.a.C28.1	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemo	-0.21	0.043762868
alpha.AAA	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemo	0.21	0.0449279
PC.aa.C40.2	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemo	-0.20	0.046225011
Nitro.Tyr	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemo	-0.20	0.046629785

SM.C18.1	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemo	-0.20	0.047180163
PC.ae.C40.6	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemo	-0.20	0.047970281

Table S6. Enrichment analysis results of microbial taxa-associated metabolites

Microbial taxa	Pathway	P	Impact
d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	Sphingolipid metabolism	2.92E-05	0.36585
d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoc	Sphingolipid metabolism	0.000207	0.16885
d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	One carbon pool by folate	0.00077253	0.10388
d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	Biosynthesis of unsaturated fatty	0.0011439	0
d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	Propanoate metabolism	0.0076744	0
d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoc	Arginine biosynthesis	0.0080353	0.12234
d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	Pantothenate and CoA biosynthe	0.0091809	0.04762
d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes	Sphingolipid metabolism	0.010166	0.34709
d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoc	Histidine metabolism	0.010472	0
d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	Propanoate metabolism	0.011069	0
d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	Alanine, aspartate and glutamate	0.012307	0
d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoc	Pantothenate and CoA biosynthe	0.016197	0
d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	Glutathione metabolism	0.017662	0.00343
d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoc	beta-Alanine metabolism	0.017798	0
d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae	One carbon pool by folate	0.017917	0.18575
d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Hae	Linoleic acid metabolism	0.018726	0
d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoc	Neomycin, kanamycin and genta	0.020006	0
d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes	Primary bile acid biosynthesis	0.020475	0.00977
d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	Glycine, serine and threonine m	0.024159	0
d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	Cysteine and methionine metabo	0.024159	0.2341
d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes	Linoleic acid metabolism	0.024905	0
d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	Glycerophospholipid metabolism	0.028466	0.04308
d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoc	Glutathione metabolism	0.03075	0.02685
d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoc	Alanine, aspartate and glutamate	0.03075	0.42068
d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	Linoleic acid metabolism	0.031053	0
d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae	Biosynthesis of unsaturated fatty	0.033169	0
d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae	Linoleic acid metabolism	0.040217	0
d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae	Arachidonic acid metabolism	0.048007	0.27659
d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Hae	alpha-Linolenic acid metabolism	0.04808	0
d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoc	Arginine and proline metabolism	0.048913	0.06628
d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoc	Glycerophospholipid metabolism	0.048913	0.11201
d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoc	Linoleic acid metabolism	0.049312	0

Table S7. List of significant spearman correlation between significant taxa and protein

Protein	Microbial taxa	SpearmanRho	p_value
CIAO2A	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.679356334	7.21E-06
GP1BA	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.677885613	7.68E-06
ANPEP	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.652186087	2.19E-05
MARVELD3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.647822016	2.59E-05
S100A3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.635162097	4.15E-05
SERPINE2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.629719205	5.05E-05
AFAP1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.624301355	6.13E-05
PDGFB	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.621314329	6.8E-05
DCTN4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.618404949	7.52E-05
SPINK1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.615505659	8.31E-05
PPBP	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.604181311	0.000121
SPARC	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.603534782	0.000124
EGFL7	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.602726621	0.000127
ACAA1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.600140505	0.000138
VEGFC	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.599978873	0.000139
TNFSF12	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.598362551	0.000147
HTRA2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.598362551	0.000147
ANGPT1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.597392757	0.000151
DKK1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.596261332	0.000157
SPINT2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.595979804	0.000158
EIF4E2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.58963441	0.000193
PRKAB1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.588341352	0.000201
SLC44A4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.584462178	0.000227
PDGFA	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.582684224	0.00024
CPXM1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.580906269	0.000253
MMAB	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.579774843	0.000262
NEK7	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.579289947	0.000266
TRDMT1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.577673624	0.000279
GALM	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.577027095	0.000285
CD40LG	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.576057302	0.000293
STC2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.575930925	0.000294
MAX	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.57589567	0.000295

GP5	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.57589567	0.000295
HMGCL	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.575734037	0.000296
CD84	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.574602612	0.000306
SEMA4D	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.573915458	0.000313
RNF5	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.573632818	0.000315
CFAP74	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.57191874	0.000332
NECAB1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.571918716	0.000332
MREG	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.571371624	0.000337
CDC25A	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.571057125	0.00034
PSRC1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.569915277	0.000352
SEPTIN7	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.569834539	0.000353
NOG	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.569268748	0.000359
PPM1B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.56917271	0.00036
GFER	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.568622219	0.000365
NHERF1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.568622219	0.000365
MPIG6B	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.567329161	0.000379
ITCH	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.566521	0.000388
SHMT2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.566197735	0.000392
TBL1X	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.566036103	0.000394
EGF	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.565874471	0.000396
QDPR	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.565227942	0.000403
IFNL2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.565103297	0.000405
PAFAH2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.562803458	0.000432
WWOX	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.562803458	0.000432
MRM1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.562156929	0.000441
PIN4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.5615104	0.000449
CASP7	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.561187136	0.000453
FDX2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.560568936	0.000461
SMARCA2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.560540607	0.000461
CELF4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.560113325	0.000467
BLOC1S5	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.559894078	0.00047
PAK4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.559085917	0.000481
FAM161B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.559046179	0.000481
CCL5	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.558924284	0.000483

EVA1C	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.558439388	0.00049
CAST	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.557792859	0.000499
COL2A1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.55714633	0.000508
SMAD3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.55714633	0.000508
AIFM1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.556984698	0.00051
LRRC49	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.556928878	0.000511
PPP2R5A	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.556661433	0.000515
RFLNA	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.556543991	0.000517
TPD52	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.555853272	0.000527
AFG2A	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.555206743	0.000536
PPP3CA	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	-0.554943392	0.00054
CLEC1A	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.55443276	0.000548
AP3S2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.55359042	0.000561
PIGR	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.551664658	0.000592
P4HB	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.551489201	0.000595
FBXO22	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.550886592	0.000605
LAMA4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.550519408	0.000611
KYAT1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.549711247	0.000625
CNTF	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.54966935	0.000626
PPP1R35	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.549549614	0.000628
DCP1B	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.549387982	0.000631
TMEM106A	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.549387982	0.000631
PMVK	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.54922635	0.000633
CRYBG3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.548815589	0.000641
CLEC1B	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.548418189	0.000648
SDC4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.547610028	0.000662
CDNF	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.547286763	0.000668
SUSD1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.546963499	0.000674
VSIR	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.546640234	0.00068
MTUS2	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.546495079	0.000683
SPATA2L	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.546478602	0.000683
GYS1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.54631697	0.000686
SLC13A1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.546155337	0.000689
CHRDL1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.545993705	0.000692

SNAP29	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.545508808	0.000701
PCDH7	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.544086112	0.000729
ALDH5A1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.544054118	0.000729
SPINT1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.543507826	0.00074
IDO1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.542699561	0.000757
RAB39A	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.542304487	0.000765
GDF2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.542193706	0.000767
MAP2K6	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.541791267	0.000775
CCL17	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.541629635	0.000779
EGFL6	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.541144738	0.000789
TDRKH	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.540821474	0.000796
CD46	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.540778528	0.000797
C16orf89	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.540714074	0.000798
LHX1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.540700036	0.000798
SNRPD2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.540659841	0.000799
CTSA	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.540498209	0.000803
VCPKMT	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.53985168	0.000817
RBM3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.539528416	0.000824
GRHPR	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.538881887	0.000838
RSPO1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.5388635	0.000838
LYSMD3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.538558622	0.000845
CCN2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.53839699	0.000849
CLUAP1	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.537594507	0.000867
CETN3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.537588829	0.000867
CD40	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.536780668	0.000886
ITPR1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.536619035	0.00089
TXNDC5	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.536457403	0.000894
GSR	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.536457403	0.000894
F2R	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.536134139	0.000901
RILPL1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.535972506	0.000905
HNMT	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.535750359	0.000911
CDC37	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.535164345	0.000925
CD69	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.535002713	0.000929
SMAD2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.534841081	0.000933

LYPD1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.534517816	0.000941
SNAP23	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.534194552	0.000949
BAX	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.533709655	0.000961
TOX3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.533709655	0.000961
DCTD	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.533709655	0.000961
ZC3HC1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.533224758	0.000973
STARD9	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.533103044	0.000976
RABL2B	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.532901494	0.000981
ESYT1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.532739862	0.000985
KRBA1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.532612409	0.000989
MINDY1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.532578229	0.00099
ARHGAP12	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.532254965	0.000998
MAGED1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.531446804	0.001019
GPRC5C	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.531421644	0.00102
SLC4A1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.530823817	0.001036
PRKAR1A	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.530315378	0.00105
TPK1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.530315378	0.00105
METAP1D	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.530153746	0.001054
CRYBB1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.529668849	0.001067
PAFAH1B3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.529565905	0.00107
CLPP	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.529507217	0.001072
XIAP	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.529345585	0.001076
IGHMBP2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.528860688	0.00109
GLRX2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.528860688	0.00109
ARID1A	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.528052527	0.001113
NECAP2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.528052527	0.001113
DOK2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.528052527	0.001113
RPEL1	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.527884793	0.001118
DKK4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.527729262	0.001122
DIABLO	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.52756763	0.001127
TYMP	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.52756763	0.001127
RRAS	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.527244365	0.001136
MRRF	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.527082733	0.001141
CD55	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.526921101	0.001146

SPRY2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.526597836	0.001155
DCTPP1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.526597836	0.001155
RABEPK	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.526484757	0.001159
IL9R	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.526460532	0.001159
ACADSB	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.526274572	0.001165
MAPKAP1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.526148254	0.001169
EN2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.525978144	0.001174
DHX8	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.525808035	0.001179
RIC8B	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.525781022	0.00118
VAMP8	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.525628043	0.001184
ECHS1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.525466411	0.001189
ABHD14B	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.525304779	0.001194
NUDT16	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.524981514	0.001204
PHACTR1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.52465825	0.001214
SASS6	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.524334985	0.001224
DGKA	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.524334985	0.001224
MGMT	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.524334985	0.001224
GGACT	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.523688456	0.001244
BDNF	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.523688456	0.001244
SNAPIN	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.523526824	0.001249
TIMM8A	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.523203559	0.00126
FRMD8	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.522880295	0.00127
CHMP6	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.522718663	0.001275
IFT172	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.522395398	0.001286
IMMT	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.522395398	0.001286
TOMM20	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.522233766	0.001291
AGXT	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.521910502	0.001302
KLRK1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.521892561	0.001302
C3orf62	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.521432338	0.001318
AP1AR	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.521425605	0.001318
ARHGAP5	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.521425605	0.001318
GRSF1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.521425605	0.001318
ARID3A	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.521385192	0.001319
GORASP2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.521263973	0.001323

COCH	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.52110234	0.001329
MTHFSD	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.520940708	0.001334
TMED1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.520859212	0.001337
ASGR2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.520620725	0.001345
MAPKAPK2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.520617444	0.001345
GP1BB	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.520617444	0.001345
STX6	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.520294179	0.001356
EIF4H	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.520294179	0.001356
RPAP3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.519970915	0.001367
PPP1R12A	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.519809282	0.001372
SMAD5	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.51964765	0.001378
FIS1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.519486018	0.001384
ZNF330	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.519324386	0.001389
PRKRA	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.519324386	0.001389
LRRC75A	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.519162753	0.001395
FUT8	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.519162753	0.001395
NELL2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.518616024	0.001414
PROSER3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.51819296	0.001429
CTSW	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.51819296	0.001429
IFTAP	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.518118986	0.001432
NIT1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.517546431	0.001452
LGALS8	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.517384799	0.001458
CRTAC1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.517234938	0.001464
MAP7	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.517223167	0.001464
NFATC1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.517223167	0.001464
LRRC45	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.516899902	0.001476
YTHDF3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.516899902	0.001476
ARTN	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.516622129	0.001486
RBM17	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.516415005	0.001494
TIA1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.516253373	0.0015
DDHD2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.516253373	0.0015
TRAFD1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.516091741	0.001506
HBEGF	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.516091741	0.001506
NIT2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.516091741	0.001506

PTPRN	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.516043357	0.001508
SCG3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.5160316	0.001508
MITD1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.515930109	0.001512
ENAH	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.515909479	0.001513
DOCK10	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.515423993	0.001531
ARL2BP	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.51528358	0.001537
C17orf99	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.514938508	0.00155
SPINK6	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.514921036	0.00155
TREML1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.514475419	0.001568
PGF	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.514410708	0.00157
PDE4C	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.514152154	0.00158
KDM5A	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.514131925	0.001581
MYH4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.514068774	0.001583
PPCDC	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.513990522	0.001586
LAT	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.51382889	0.001593
CEP164	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.513608552	0.001601
ADGRG3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.51322381	0.001617
USP31	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.513182361	0.001618
F11R	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.513182361	0.001618
NUDC	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.513020728	0.001625
NRTN	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.512709614	0.001637
UBE2L6	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.512697464	0.001638
CLIC5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	-0.512586353	0.001642
CXCL5	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.512535832	0.001644
YY1AP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.511960377	0.001668
GNE	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.511889303	0.001671
TPMT	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.511889303	0.001671
BCL2L1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.511889303	0.001671
CASP9	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.511521044	0.001686
VASN	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.511081141	0.001704
COX5B	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.510919509	0.001711
GPNMB	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.510838411	0.001714
TP53	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.510817134	0.001715
DNAJB1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.510757877	0.001718

METTL16	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.510504626	0.001728
OTUD6B	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.510434613	0.001731
METAP2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.510111348	0.001745
RTN4IP1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.510111348	0.001745
CAPRIN2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.510078139	0.001746
HSBP1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.509949716	0.001752
FAM172A	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.509626451	0.001766
TPD52L2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.509626451	0.001766
PDGFD	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.509141555	0.001787
FHIT	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.508979922	0.001794
TTF2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.508656658	0.001808
LYN	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.508656658	0.001808
TRIAP1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.508010129	0.001836
IL17RB	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.507790642	0.001846
CCDC65	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.507625656	0.001854
RBMS3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.507625656	0.001854
UBXN2B	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.5073636	0.001865
ELAC1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.507201968	0.001873
MAPK9	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.507201968	0.001873
PELO	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.506878703	0.001887
CMC1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.506878703	0.001887
MUC13	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.506587821	0.001901
BNIP2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.506555439	0.001902
NAA80	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.506232174	0.001917
DCXR	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.506232174	0.001917
DNAJC7	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.506232174	0.001917
TP53I3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.506232174	0.001917
PRRC1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.50590891	0.001932
TRAF3IP1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.505585645	0.001947
GBP3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.505424013	0.001955
SAT2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.505306237	0.00196
HES7	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.505224802	0.001964
CRYGD	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.505100749	0.00197
RAB11FIP3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.505100749	0.00197

ZNF687	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.505066965	0.001972
LIG3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.504615852	0.001993
PRDX1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.50445422	0.002001
C10orf67	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.504198773	0.002013
SOWAHC	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.50398258	0.002024
PMM2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.503807691	0.002032
NDUFB7	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.503807691	0.002032
CNST	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.503646058	0.00204
DBNL	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.503646058	0.00204
PRXL2B	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.503646058	0.00204
MUC2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.503483652	0.002048
EIF4E	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.503322794	0.002056
IL7	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.503322794	0.002056
EHBP1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.502999529	0.002072
AFAP1L2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.502837897	0.00208
FXYD5	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.502676265	0.002088
RIDA	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.502658922	0.002089
COMT	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.502514633	0.002096
ANKRD35	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.502029736	0.00212
ARFIP1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.502029736	0.00212
EVI5	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.501868104	0.002128
AKR7L	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.501544839	0.002145
CEP131	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.501383207	0.002153
SYK	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.501059943	0.00217
GLRX5	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.501059943	0.00217
PPM1F	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.501059943	0.00217
EPDR1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.500736678	0.002186
ITGAL	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.500342522	0.002207
MECR	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.500251781	0.002212
PPP1R2P1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.500090149	0.00222
ASS1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.500090149	0.00222
RILPL2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.499928517	0.002228
BICD2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.499766885	0.002237
PF4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.499766885	0.002237

SKAP2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.499120356	0.002271
PIBF1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.498958724	0.00228
WDR24	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.498797091	0.002289
XIRP2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.498797091	0.002289
MSRA	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.498797091	0.002289
CCDC140	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.498790581	0.002289
LACTB2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.498635459	0.002298
YBX2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.498590537	0.0023
NUPR1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.498285293	0.002317
EREG	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.498150562	0.002324
IMPA1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.498150562	0.002324
LGALS9	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.498026121	0.002331
RAB3GAP1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.4979101	0.002337
SERPINB6	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.497342401	0.002369
GSDMA	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.496978742	0.002389
DNASE1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.496904364	0.002393
TBC1D23	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.496857504	0.002396
RENBP	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.496695872	0.002405
FZD9	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.496599085	0.00241
HPCAL1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.496372608	0.002423
PLCB2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.496372608	0.002423
VPS37A	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.496372608	0.002423
YH007	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.496210975	0.002432
GPI	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.496210975	0.002432
NUDT5	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.496049343	0.002441
LEFTY2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.495983745	0.002445
ERBIN	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.495887711	0.002451
GRIK5	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.495868787	0.002452
RNF10	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.495726079	0.00246
RASGRP2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.495726079	0.00246
STK11	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.495726079	0.00246
MLN	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.495698678	0.002461
BTC	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.495564446	0.002469
DDX19B	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.495402814	0.002479

ASPSCR1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.495402814	0.002479
FABP6	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.495378806	0.00248
HIVEP3	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.495357251	0.002481
LONP1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.495241182	0.002488
SPART	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.495241182	0.002488
LRCH1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.49507955	0.002497
AKT2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.49507955	0.002497
PTPN6	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.49507955	0.002497
FUOM	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.494917918	0.002507
UMAD1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.494756285	0.002516
CFAP36	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.494756285	0.002516
ANKRD20A1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.494509309	0.002531
MFGE8	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.494507913	0.002531
AMY1_AMY	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.494306005	0.002543
TPD52L3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.494279198	0.002544
PIWIL4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.493970396	0.002563
ERBB4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.493958208	0.002563
DAPP1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.493948124	0.002564
ITGB7	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.493557268	0.002587
MOSPD1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.493452041	0.002594
ZRANB3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.493317147	0.002602
ACOT13	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.493301595	0.002603
SCAMP2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.493301595	0.002603
EEPD1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.493128641	0.002613
VSIG2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.492991731	0.002622
SDHA	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	0.492493434	0.002652
TYMS	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.492484265	0.002652
TRIM40	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.492331802	0.002662
IST1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.492008537	0.002682
CCL13	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.492008537	0.002682
GRAP2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.492008537	0.002682
LHX2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.491978084	0.002684
PSMA1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.491786163	0.002696
TRIP13	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.491685273	0.002702

KIAA0513	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.491685273	0.002702
RWDD1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.491685273	0.002702
FAM171B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.491675039	0.002703
CD3E	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.491552567	0.00271
LETM1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.49152364	0.002712
UBE2Z	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.491362008	0.002722
STK4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.491362008	0.002722
TWF2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.491200376	0.002732
PADI2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.491057639	0.002741
TBCB	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.491038744	0.002743
L3HYPDH	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.491038744	0.002743
RNF135	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.490827527	0.002756
CHCHD3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.490715479	0.002763
PLXNB3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.490230583	0.002794
CXCL11	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.489907318	0.002815
SH3BP5L	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.489745686	0.002825
CCDC24	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.48967697	0.00283
PPP1R2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.489584054	0.002836
DFFA	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.489422421	0.002846
FADD	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.489422421	0.002846
PKN3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.489260789	0.002857
ARK2N	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.489099157	0.002867
TUBGCP5	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.488775892	0.002889
MTSS2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.488775892	0.002889
PYM1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.488775892	0.002889
EXOSC3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.48861426	0.002899
MVK	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.48861426	0.002899
EHD4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.488290996	0.002921
ANXA3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.488129363	0.002932
ASCC1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.487967731	0.002943
GMPR2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.487806099	0.002954
HARS1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.487806099	0.002954
EPB41L4A	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.487698169	0.002961
CEP20	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.487644467	0.002964

SH2B3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.487644467	0.002964
MAP2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.487644467	0.002964
TRIM25	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.487644467	0.002964
C2orf88	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.487644467	0.002964
CHM	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.487482834	0.002975
HEBP1	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.487103994	0.003001
OPLAH	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.486997938	0.003008
PRKAR2A	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.486997938	0.003008
CEP290	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.486836306	0.003019
RAD23B	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.486836306	0.003019
NUB1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.486836306	0.003019
TBCC	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.486836306	0.003019
GOLGA1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.486674673	0.003031
ASB11	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.486455411	0.003046
AKR1B1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.486351409	0.003053
STAT2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.486351409	0.003053
DOCK9	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.486349254	0.003053
CDH17	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.486340346	0.003054
KCNE1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.486021506	0.003076
TEX11	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.485948141	0.003081
MICAL1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.485866512	0.003087
FNTA	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.485543248	0.003109
JAM3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.485543248	0.003109
RAB36	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.485534966	0.00311
RASA1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.485071593	0.003143
ATP5IF1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.484896719	0.003155
SRPRB	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.484844632	0.003159
SIRT2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.484735086	0.003167
VTI1A	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.484735086	0.003167
DAZ4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.48456253	0.003179
FNBP4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.484458632	0.003187
GFPT2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.484143133	0.00321
PEAK1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.484127718	0.003211
SIN3B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.484127718	0.003211

CRYM	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.484088557	0.003213
MMP1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.484088557	0.003213
PHACTR2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.483879995	0.003229
BLOC1S3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.483765293	0.003237
CRKL	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.483765293	0.003237
PRTFDC1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.483603661	0.003249
TARBP2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.483603661	0.003249
PCYT2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.483603661	0.003249
PLXNA4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.483603661	0.003249
GOLGA4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.483280695	0.003273
SNX5	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.483280396	0.003273
VSTM2B	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.483263965	0.003274
HDAC5	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.483118764	0.003284
CDR2L	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.482957132	0.003296
IL6ST	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.482600257	0.003323
CEP78	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.482543518	0.003327
MAP1LC3A	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.482260039	0.003348
PDIA3	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.482249137	0.003349
NEK4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.482148971	0.003357
SNX2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.481825706	0.003381
CPB2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.481825706	0.003381
FGD3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.481664074	0.003394
EXOSC5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.481623073	0.003397
GRIPAP1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.481502442	0.003406
SWAP70	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.481480403	0.003408
HSPBAP1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.481340809	0.003418
MINK1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.481340809	0.003418
MICA_MICB	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.481077041	0.003438
FAM131C	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.481069273	0.003439
SAMD9L	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.481017545	0.003443
CCL11	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.480855913	0.003455
HPSE	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.480855913	0.003455
GP6	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.48069428	0.003468
TREH	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.48069428	0.003468

GRN	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.480558945	0.003478
UBXN6	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.480532648	0.00348
NMT1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.480371016	0.003493
VPS4B	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.480371016	0.003493
NUAK2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.480242405	0.003503
PAXX	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.480209384	0.003506
CDCA3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.480162194	0.003509
ACP5	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.480145365	0.003511
COX6B1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.479886119	0.003531
TSHZ2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.479596441	0.003554
ID4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.479524364	0.00356
KIF2B	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.479498051	0.003562
EBAG9	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.479401223	0.003569
SP140	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.479321959	0.003576
PPP1R2B	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.47923959	0.003582
CACYBP	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.47923959	0.003582
PTPN14	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.479091848	0.003594
ARHGAP10	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.479077958	0.003595
HLF	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.479077958	0.003595
KCTD19	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.478928667	0.003607
ASRGL1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.478916326	0.003608
TNFAIP8L2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.478916326	0.003608
OFD1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.478857851	0.003613
EIF2AK2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.478754694	0.003621
NAGK	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.478754694	0.003621
PARK7	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.478754694	0.003621
TLR4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.478722484	0.003624
CIAPIN1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.478593061	0.003634
GAS6	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.478527554	0.003639
LDB3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.478518121	0.00364
THYN1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.478502174	0.003641
NRAP	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.478453374	0.003645
NEDD1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.478269797	0.00366
IRF3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.478269797	0.00366

PDAP1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.478269797	0.00366
LRTM2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.478121074	0.003672
PSTPIP2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.478108165	0.003673
NAA10	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.477946532	0.003687
TNFSF9	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.477814764	0.003697
LAT2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.4777849	0.0037
DYNC2I1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.477725329	0.003705
IP6K1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.477461636	0.003726
BMP6	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.47739428	0.003732
LDLRAP1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.477300003	0.00374
MPHOSPH8	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.477300003	0.00374
MERTK	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.477085276	0.003758
C8orf58	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.477020846	0.003763
GGCT	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.476976739	0.003767
PLA2G4A	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.476815107	0.00378
SYTL2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.476653474	0.003794
KATNB1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.476653474	0.003794
TRIM5	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.476653474	0.003794
BIRC2	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.476585137	0.003799
HSPB6	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.476136102	0.003837
CALCOCO2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.476006945	0.003848
CLGN	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.475854859	0.003861
DNAJA2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.475845313	0.003862
FYB1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.475845313	0.003862
KCTD20	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.475683681	0.003876
CCL28	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.475554731	0.003887
SPAST	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.475522049	0.003889
PDCD5	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.475522049	0.003889
CORO1A	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.475522049	0.003889
NPTN	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.475198784	0.003917
GMFG	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.475198784	0.003917
HDAC8	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.475011216	0.003933
ANGPTL7	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.474945336	0.003939
ACAD9	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.474913553	0.003942

CEP128	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.47487552	0.003945
KLK7	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.47487552	0.003945
TRIM24	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.474713888	0.003959
SPAG7	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.474552255	0.003973
VPS53	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.474552255	0.003973
ERICH6	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.474349695	0.003991
FAM120B	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.474262204	0.003998
IRAK1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.474228991	0.004001
ACAD9	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.47399588	0.004022
DDX20	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.473905726	0.00403
MMUT	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.473905726	0.00403
RNF168	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.473799287	0.004039
PCOLCE	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.473744094	0.004044
ACSL1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.473714201	0.004047
GJA3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.473658722	0.004052
SKA1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.473658722	0.004052
TMPRSS11D	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.473642783	0.004053
ENTR1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.473584461	0.004058
RC3H1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.473582462	0.004058
CNP	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.47342083	0.004073
CDV3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.47342083	0.004073
CGN	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.47340028	0.004075
RNF214	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.473259197	0.004087
NARS1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.473259197	0.004087
TMED10	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.473207544	0.004092
OVCA2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.473097565	0.004102
DRG2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.473097565	0.004102
LCP2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.472935933	0.004116
USP28	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.472876629	0.004121
ATOX1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.47272659	0.004135
CXCL5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.472670833	0.00414
DEFB121	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.472563805	0.00415
CD63	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.472451036	0.00416
TXLNA	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.472451036	0.00416

KCNE1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.472440135	0.004161
LONRF2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.472223586	0.004181
CEACAM6	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.47216123	0.004186
KCNC4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.472127772	0.004189
DAG1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.472127772	0.004189
FMR1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.471966139	0.004204
SHMT1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.471966139	0.004204
VAT1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.471883886	0.004212
SF3B3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.471804507	0.004219
ITGB1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.471642875	0.004234
MTFR1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.471319611	0.004264
EVI5L	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.471157978	0.004279
FH	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.471106968	0.004283
ICA1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.470996346	0.004294
CAPRIN1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.470834714	0.004309
CACNB3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.470834714	0.004309
HTD2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.470834714	0.004309
MZT1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.470673082	0.004324
CTH	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.470673082	0.004324
SCARF1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.470673082	0.004324
DIP2C	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.470511449	0.004339
IPCEF1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.470511449	0.004339
NCK2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.470349817	0.004354
SELP	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.470349817	0.004354
GAS2L1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.470188185	0.00437
SGCG	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.470182274	0.00437
CD300LF	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.469903629	0.004397
BCR	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.46986492	0.0044
S100A4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.46986492	0.0044
RNF25	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.469703288	0.004416
CYB5R2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.469703288	0.004416
DHRS4L2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.469703288	0.004416
TRERF1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.469567486	0.004429
TEX37	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.469515935	0.004434

BACH1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.469380024	0.004447
PLPBP	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.469380024	0.004447
STAMBP	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.469218391	0.004462
VTA1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.469218391	0.004462
RUNDC3A	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.469056759	0.004478
ARHGAP35	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.468895127	0.004493
HHEX	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.468733495	0.004509
RELCH	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.468733495	0.004509
CABP4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.468698981	0.004513
NFKB1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.468571862	0.004525
YWHAQ	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.468571862	0.004525
ZC3H15	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.46841023	0.004541
FAM221A	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.46841023	0.004541
CMIP	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.46841023	0.004541
BTBD3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.468282439	0.004553
L1RE1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.468282439	0.004553
ATP6V1F	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.468248598	0.004557
NAV2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.468243828	0.004557
RBKS	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.468243828	0.004557
GVQW3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.468135005	0.004568
ARHGEF1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.468086966	0.004572
PBXIP1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.468086966	0.004572
SIAE	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.468086966	0.004572
LCN15	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.467829986	0.004598
PAGE3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.467816391	0.004599
INPPL1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.467763701	0.004604
EEF1D	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.467763701	0.004604
MAP4K1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.467602069	0.00462
GGA3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.467440437	0.004636
LZTFL1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.467440437	0.004636
DOP1B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.467429465	0.004638
ATP6V1G2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.467278805	0.004653
NUMB	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.467117172	0.004669
ITIH4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.46702822	0.004678

EIF1AX	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.46695554	0.004685
DAAM1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.46695554	0.004685
CHMP4C	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.466745778	0.004706
SNRK	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.466632276	0.004718
TYW5	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.466632276	0.004718
PPIB	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.466632276	0.004718
ORM1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.466609977	0.00472
COL4A1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.466325325	0.004749
LELP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.466293341	0.004752
FAM177B	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.466269759	0.004754
KCTD18	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.466147379	0.004767
MYCBP2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.466147379	0.004767
DBI	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.466147379	0.004767
TJAP1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.465985747	0.004783
ZCCHC2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.465975501	0.004784
GCHFR	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.465927428	0.004789
AFM	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.465892501	0.004793
RNF43	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.465778209	0.004805
PNPLA1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.465515278	0.004832
DENND2C	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.46550085	0.004833
VIT	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.465461089	0.004837
LENG1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.465339218	0.00485
IFIT3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.465339218	0.00485
NID2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.465339218	0.00485
PRELP	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.465297032	0.004854
EMB	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.465285166	0.004855
PCSK9	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.465055055	0.004879
GPC1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.464912837	0.004894
SECISBP2L	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.464908884	0.004895
ZP3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.464682682	0.004918
MEX3B	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.464568665	0.00493
PPP1CC	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.464531056	0.004934
ANXA4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.464531056	0.004934
BICRAL	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.464488607	0.004939

IFNL4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.464398556	0.004948
PCM1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.464369424	0.004951
ANKS1A	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.464207792	0.004968
PTEN	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.464207792	0.004968
OTUD7B	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.464207792	0.004968
NT5C3A	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.46404616	0.004985
RYK	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.463986981	0.004992
ANOS1	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.463962508	0.004994
PTPN9	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.463941941	0.004996
NAGA	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.463884528	0.005003
ITGB5	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.46373075	0.005019
ENY2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.463561263	0.005037
ACRBP	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.463561263	0.005037
MRPL28	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.463561263	0.005037
EIF4G1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.463399631	0.005054
LATS1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.463399631	0.005054
GDNF	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	-0.463280113	0.005067
MPHOSPH9	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.463237999	0.005072
CNN2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.463237999	0.005072
OVGP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.463214164	0.005074
ZFYVE28	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.463164598	0.00508
ACADSB	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.46315397	0.005081
C8B	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.463019394	0.005095
SMAD1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.462914734	0.005107
MIF	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.462914734	0.005107
MUC3A	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.462753941	0.005124
MAVS	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.462753102	0.005124
ROBO1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.46268488	0.005132
HGS	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.46259147	0.005142
CRYZL1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.46259147	0.005142
IRAK4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.46259147	0.005142
CDKN1A	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.462429837	0.005159
GUCA1A	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.462357243	0.005167
MAK	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.46231314	0.005172

PLS3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.462311625	0.005172
TRPC4AP	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.462293719	0.005174
CCL28	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.462268205	0.005177
CHMP1A	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.462268205	0.005177
EFEMP1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.462187134	0.005186
DENR	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.462106573	0.005195
AP3B1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.462106573	0.005195
RABEP2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.462106573	0.005195
RAB27B	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.462106573	0.005195
BARGIN	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.461944941	0.005213
AIF1L	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.461885138	0.005219
FN1	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.461858737	0.005222
DOK1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.461783308	0.00523
TNFAIP2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.461621676	0.005248
PDLIM7	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.461621676	0.005248
SETD5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.461460514	0.005266
SARG	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.461460044	0.005266
HPD	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.461460044	0.005266
PEBP1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.461460044	0.005266
ITIH5	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.461415864	0.005271
SCN3A	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.461373273	0.005276
DARS1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.461298412	0.005284
RAB3IP	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.461298412	0.005284
CTSE	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.461298412	0.005284
RARRES2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.461298412	0.005284
TNFRSF10A	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.461166478	0.005299
CAMSAP1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.460975147	0.00532
ABHD5	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.460651883	0.005357
SMAP1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.460651883	0.005357
PPA2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.46049025	0.005375
NEK3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.46049025	0.005375
SORD	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.46049025	0.005375
CASP3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.46049025	0.005375
FOXO1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.460328618	0.005393

NRGN	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.460328618	0.005393
ANP32C	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.460222717	0.005405
PCBP2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.460166986	0.005412
VAV3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.460166986	0.005412
TTC5	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.460012775	0.005429
MAP7D2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.460005354	0.00543
GLOD4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.460005354	0.00543
DCPS	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.459970969	0.005434
CLSTN3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.459942303	0.005437
NFKBIE	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.459762494	0.005458
STMN2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.459752704	0.005459
ESYT2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.459682089	0.005467
IGSF8	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.459682089	0.005467
TIMP2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.459682089	0.005467
IMPACT	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.459358825	0.005504
CSF3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.459326217	0.005508
CWC22	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.45930914	0.00551
BTBD3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.459197193	0.005523
FMNL3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.459197193	0.005523
AK2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.459197193	0.005523
CLASP1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.45903556	0.005542
XRCC4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.45903556	0.005542
GIT1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.458825244	0.005566
CEP104	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.458712296	0.005579
DLGAP5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.458698656	0.005581
MICA_MICB	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.458614837	0.005591
RABEP1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.458550664	0.005598
UCK1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	0.458389031	0.005617
RPA2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.458316397	0.005626
DGKI	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.458227399	0.005636
CLTB	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.458227399	0.005636
MAK	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.458208803	0.005638
DPP4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.458008191	0.005662
DTX2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.457921603	0.005672

TBC1D32	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.457921603	0.005672
GH2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.457807921	0.005686
SEMA6C	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.457807921	0.005686
RINT1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.457764291	0.005691
CCDC43	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.45758087	0.005713
CD226	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.45758087	0.005713
GOLGA6L4_(	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.457469133	0.005726
COMMD1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.457257606	0.005752
EDAR	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.457257606	0.005752
MKNK1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.457257606	0.005752
SYCE1L	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.457129798	0.005767
XPNPEP2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.457097785	0.005771
UBAC1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.457097785	0.005771
CRACR2A	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.457095973	0.005771
MRPL46	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.457095973	0.005771
SPATA24	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.456913744	0.005793
CEACAM19	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.456913744	0.005793
NETO2	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.456680223	0.005821
MINDY2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.456611077	0.00583
PKD2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.456611077	0.00583
WASHC3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.456611077	0.00583
C10orf67	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.456521006	0.005841
CELF5	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.456521006	0.005841
RITA1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.456449445	0.005849
EML4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.456449445	0.005849
GBP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.456330911	0.005864
MDK	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.456287812	0.005869
EPHA1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.455999997	0.005904
PNPT1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.455964548	0.005908
BCL2L2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.455864682	0.005921
ATAD3B	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.455722978	0.005938
GJA3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.455552869	0.005959
TRMT10C	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.455479651	0.005968
NBL1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.455390378	0.005979

GPD1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.455338168	0.005986
UBR1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.455318019	0.005988
ABCF2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.455318019	0.005988
BLTP3B	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.455318019	0.005988
ASAH2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.455318019	0.005988
DXO	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.455318019	0.005988
MAP2K1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.455318019	0.005988
EVI2B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.45506135	0.00602
MTDH	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.454994754	0.006029
SCAMP3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.454994754	0.006029
ARHGAP45	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.454994754	0.006029
CCL27	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.454833122	0.006049
OTUD4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.454702322	0.006065
LPCAT2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.454676339	0.006068
SERPINB1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.45467149	0.006069
RPP30	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.454576451	0.006081
PPP1R1B	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.454348225	0.00611
IKBKG	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.454348225	0.00611
CPA4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.454348225	0.00611
TXNRD1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.454024961	0.006151
CTSV	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.453929137	0.006163
FKBPL	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.453863329	0.006171
ASB14	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.453637108	0.0062
CPA2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.453637108	0.0062
LAYN	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.453635249	0.0062
GEMIN8	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.453598653	0.006205
NCKIPSD	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.453540064	0.006213
GADD45GIP1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.453540064	0.006213
PRR25	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.453398212	0.006231
RGS3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.453378432	0.006233
APP	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.453378432	0.006233
TIGD1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.453355403	0.006236
CSPG5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	-0.453352682	0.006237
TRIM21	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.4532168	0.006254

AKAP5	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.453197771	0.006257
LYPD8	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.453171338	0.00626
CFAP69	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	-0.453060329	0.006274
GSDMD	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.453055167	0.006275
EEIG2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.453055167	0.006275
FAM13B	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.453055167	0.006275
CASP8	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.453055167	0.006275
FBXO34	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.452928916	0.006291
AXIN1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.452893535	0.006296
PRR25	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	0.452893535	0.006296
PDGFRB	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.452856336	0.006301
LAP3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.452731903	0.006317
POLDIP3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.452690853	0.006322
GSTM4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.452661377	0.006326
CD33	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.452661377	0.006326
ASZ1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.452655779	0.006327
PRR23D2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.45250243	0.006347
ASCL2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	-0.452359939	0.006365
USP8	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.452247006	0.00638
YBX2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.452168819	0.00639
MON2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.452085374	0.006401
ABL1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.452085374	0.006401
GIGYF2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.452085374	0.006401
NFU1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.452085374	0.006401
TLR4	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.451987194	0.006414
PDLIM5	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.451923742	0.006423
IKZF2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.451906769	0.006425
NRARP	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.451810463	0.006438
FREM2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.45179401	0.00644
SERTAD4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.451649456	0.006459
MGLL	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.451600477	0.006465
LUZP2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.451563855	0.00647
ITGAD	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.451553189	0.006472
PTGES3L	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.451438845	0.006487

ARHGEF5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.451367195	0.006496
IRGQ	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.451188445	0.00652
DBN1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.451130025	0.006528
GEMIN2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.451115581	0.00653
PRR23D2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.451018262	0.006543
CSH1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.451018262	0.006543
SPATA6L	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.450992917	0.006546
MRI1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.450953948	0.006552
GRK5	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.450792316	0.006573
TMPRSS11B	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.450789807	0.006574
CAMLG	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.450469052	0.006617
MATN2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.450469052	0.006617
CIRBP	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.450307419	0.006639
SH2D1A	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.450307419	0.006639
PHLDA3	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.45020708	0.006652
TCF25	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.450145787	0.006661
FKBP5	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.450145787	0.006661
RPL14	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.450043538	0.006675
ZBTB17	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.450043538	0.006675
CDH2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.450043538	0.006675
GATD3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.449984155	0.006683
UFD1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.449984155	0.006683
CD93	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.449867705	0.006699
FCAR	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.449712624	0.00672
MSLNL	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.44966089	0.006727
BIN2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.44966089	0.006727
BHMT2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.449589828	0.006737
C16orf96	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.449559766	0.006741
FLI1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.449499258	0.006749
MRTFA	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.449499258	0.006749
ATP6V1G1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.449499258	0.006749
REEP4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.449499258	0.006749
LIPF	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.449492461	0.00675
PHC2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.449407483	0.006762

MLF1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.449253386	0.006783
AREL1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.449177371	0.006794
CDC37L1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.449175994	0.006794
FYCO1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.449175994	0.006794
CHAMP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.449050795	0.006811
AP1G2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.449014361	0.006816
PLEKHO1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.449014361	0.006816
VASH1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.449014361	0.006816
KIF3A	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.44894726	0.006826
OPTC	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.448912451	0.00683
FZD8	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.448852729	0.006839
MARS1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.448852729	0.006839
OTOA	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.448691097	0.006861
CRADD	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.448691097	0.006861
MTHFD1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.448529465	0.006884
UPF3A	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.448529465	0.006884
CSDE1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.448529465	0.006884
DAZ1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.448408276	0.006901
ACYP1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.448367833	0.006906
CPPED1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.448367833	0.006906
IFNB1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.448256926	0.006922
CFAP161	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.448237562	0.006925
LYSMD1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.4482062	0.006929
DAP	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.448044568	0.006952
MACC1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.447882936	0.006975
INPP1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.447882936	0.006975
SMC5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.447811076	0.006985
USP37	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.447796703	0.006987
HAAO	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.447727137	0.006997
SMYD3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.447721304	0.006998
SH3BP5	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.447721304	0.006998
CENPJ	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.447559671	0.007021
DENND2B	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.447559671	0.007021
TNRC18	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.447557729	0.007021

RIGI	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.447398039	0.007044
SERPINB8	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.447396223	0.007044
KIR2DL2_KI	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.44733648	0.007052
PPP1R9B	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.447236407	0.007067
NDUFS3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.44721751	0.007069
EPN3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.44717626	0.007075
GRPEL1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.447074775	0.00709
TBPL2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.447004143	0.0071
ASB6	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.446783649	0.007132
HS1BP3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.44675151	0.007136
UPB1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.44675151	0.007136
C12orf42	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.446730603	0.007139
CCL24	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.446730603	0.007139
ATP2B3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.446646146	0.007152
AFTPH	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.446589878	0.00716
SNX18	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.446589878	0.00716
UNC45A	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.446266613	0.007207
SRPK2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.446266613	0.007207
SESTD1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.446196854	0.007217
OTUB1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.446105129	0.00723
ANKZF1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.446104981	0.00723
NANS	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.446104981	0.00723
ITGB6	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.446026745	0.007242
CCHCR1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.445856635	0.007267
HYDIN	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.445850584	0.007267
ROBO3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.445850584	0.007267
RALBP1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.445781717	0.007278
COL4A4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.445781717	0.007278
GNGT1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.445781443	0.007278
SH2D7	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.445781443	0.007278
CEP135	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.445620084	0.007301
NFAT5	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.445620084	0.007301
TOM1L2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.445620084	0.007301
VWC2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.445579828	0.007307

TSC22D3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.445458452	0.007325
VPS28	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.44529682	0.007349
ZSCAN21	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.445176198	0.007367
NT.proBNP	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	0.445135188	0.007373
SIPA1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.445135188	0.007373
IL17F	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.444987795	0.007395
SRPRA	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.444973555	0.007397
EDF1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.444811923	0.007421
ARHGEF33	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.444779236	0.007426
UBASH3A	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.444697025	0.007438
GFOD2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.444697025	0.007438
GATC	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.44466587	0.007443
DTYMK	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.444488659	0.007469
CLDN23	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.444345033	0.007491
CETN2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.444327027	0.007494
BAG5	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.444327027	0.007494
MANF	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.444327027	0.007494
SH2D4B	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.444057594	0.007534
BAG6	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.444003762	0.007542
PTPN1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.443680498	0.007592
SERPINB9	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.443680498	0.007592
YOD1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.443543466	0.007612
REPS2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.443357233	0.007641
SERPINH1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.443357233	0.007641
PCNA	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.443346447	0.007642
STARD8	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.443278279	0.007653
SNX29	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.443195601	0.007666
ANKRD36BP	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.443134886	0.007675
RALY	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.443094336	0.007681
BRD1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.442966687	0.007701
FAM193B	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.442872336	0.007715
HDAC6	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.442710704	0.00774
RTBDN	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.442637875	0.007752
NPPC	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.442624557	0.007754

PDCD1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.442587815	0.007759
WDR25	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.442504142	0.007772
DTNB	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.442454448	0.00778
JPH1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.442437405	0.007783
RPL5	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.442389907	0.00779
SYNGAP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	-0.442389907	0.00779
PTPRZ1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.442236935	0.007814
WHAMM	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.442225807	0.007816
GCC1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.442225807	0.007816
SIRT6	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.442064175	0.007841
DHX36	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.442064175	0.007841
PITHD1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.441887471	0.007869
LAMP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.441825734	0.007878
TPPP2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.441813127	0.00788
ATE1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.441740911	0.007892
HMOX2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.441740911	0.007892
MPP7	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.441740911	0.007892
STAT5B	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.441740911	0.007892
DYNC1I2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.441603901	0.007913
ITPA	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.441579278	0.007917
PIKFYVE	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.441579278	0.007917
CXCL1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.441579278	0.007917
FEN1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.441439765	0.007939
EIF4G3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.441417646	0.007943
RAB10	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.441417646	0.007943
CYTL1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.441413774	0.007943
RIBC1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.441353585	0.007953
SLC40A1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.441256014	0.007968
NSFL1C	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.441256014	0.007968
IL15RA	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.441125274	0.007989
APOE	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.441123474	0.007989
NMRK1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.441094382	0.007994
RRM2B	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.441094382	0.007994
ZFAND2B	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.441094382	0.007994

THSD1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.441034114	0.008003
CFB	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.440970852	0.008013
SCRN1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.44096363	0.008015
CDC26	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.44093275	0.00802
CKAP5	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.44093275	0.00802
PDIA4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.44093275	0.00802
TAFA3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.440822952	0.008037
STON1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.440771117	0.008045
UBOX5	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.440771117	0.008045
NHEJ1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.440771117	0.008045
PRDX5	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.440771117	0.008045
SCEL	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.440770411	0.008045
B4GAT1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.440753354	0.008048
PLCD1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.440753354	0.008048
RNASE4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.440753354	0.008048
MREG	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.440663251	0.008063
ERI2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.440659568	0.008063
PSMG1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.440659568	0.008063
ZFAND6	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.440609485	0.008071
BNIP3L	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.440609485	0.008071
APPL2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.440609485	0.008071
IFT20	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.440447853	0.008097
IFT22	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.440286266	0.008123
SLITRK1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.440286266	0.008123
CABYR	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.440286266	0.008123
DSPP	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.440286221	0.008123
CFAP410	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.440286221	0.008123
MAP4K5	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.440286221	0.008123
DTD1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.440286221	0.008123
ACE	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.440203028	0.008137
MAP3K3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.440124588	0.008149
BRAP	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.440124588	0.008149
TPBGL	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.44006375	0.008159
DPP6	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.440056111	0.00816

POLB	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.440031764	0.008164
PFKFB4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.439801324	0.008202
JPT2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.439801324	0.008202
CORO6	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.439732698	0.008213
CAMKK1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.439639692	0.008228
RAB6B	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.439639692	0.008228
GIPC3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.439639692	0.008228
CEP57L1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.439567763	0.00824
ARHGAP1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.439478059	0.008254
OTUD1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.439478059	0.008254
CC2D1A	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.439478059	0.008254
PECR	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.439478059	0.008254
TNIP1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.439478059	0.008254
PHYKPL	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.439454278	0.008258
SCGB1A1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.43939248	0.008268
CA14	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.439316427	0.008281
CDKN2D	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.439316427	0.008281
SCRIB	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.439154795	0.008307
CIPC	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.439135492	0.00831
LRPAP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.439123364	0.008312
CTIF	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.438993163	0.008334
PTRHD1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.438993163	0.008334
SAT1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.438765998	0.008371
SPDL1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.438675182	0.008386
MDM1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.438669898	0.008387
IGFBP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.438616832	0.008396
SPRR1B	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.438565556	0.008405
INS.CPEPTID	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.438541933	0.008409
GIMAP8	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.438461535	0.008422
ANKRD20A1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.438445027	0.008425
THAP10	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.438362138	0.008438
SNAP91	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.438185001	0.008468
RNF41	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.438185001	0.008468
WWP2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.438185001	0.008468

PLA2G12A	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.438185001	0.008468
ACIN1	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.438069937	0.008487
FAM83F	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.43806406	0.008488
IFIT1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.438023369	0.008495
PRKAG3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.438015163	0.008496
STX17	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.437861737	0.008522
TGFBR1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.437826593	0.008528
CBLN2	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.43774628	0.008541
ANKRD53	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.437700105	0.008549
CFDP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.437671803	0.008554
DHPS	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.437671803	0.008554
CD37	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.437521277	0.008579
FAM193A	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.437468792	0.008588
DLL4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.437441692	0.008593
EXOSC4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.437294253	0.008618
DDAH1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.437215208	0.008631
DDX1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.437215208	0.008631
LRFN3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.437212937	0.008632
LPP	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.437053576	0.008659
YARS1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.437053576	0.008659
CBLN2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.437024713	0.008664
SCN3B	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.436891944	0.008686
GH2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.436833943	0.008696
IL36B	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.43667073	0.008724
BRD3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.436599254	0.008736
NUDCD3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.436568679	0.008742
RAPGEF2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.436568679	0.008742
CEACAM16	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.436521247	0.00875
DNAH10	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	-0.436476049	0.008757
PFKFB2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.436437611	0.008764
PTPN11	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.436407047	0.008769
ARHGEF15	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.436333722	0.008782
RCOR1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.436333722	0.008782
DDI2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.436333722	0.008782

OTOR	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.436295934	0.008788
FSIP1	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.436289823	0.00879
CSNK1D	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.436245415	0.008797
CRLF1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.436233937	0.008799
VAX1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.436210155	0.008803
MTUS2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.436145135	0.008815
NAP1L4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.436083782	0.008825
RHOBTB1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.436009599	0.008838
TBC1D22B	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.43592215	0.008853
SEPTIN9	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.43592215	0.008853
CDK2AP2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.435869193	0.008862
OTOA	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.435869193	0.008862
EPHA3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.435830913	0.008869
SFTPA2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.435830913	0.008869
RGS12	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.435809042	0.008873
EFCAB2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.435760518	0.008881
DNAJC21	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.435760518	0.008881
SRC	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.435760518	0.008881
LCORL	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.435756942	0.008882
SH3D21	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.435756942	0.008882
LEKR1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.435756942	0.008882
HSD17B14	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.435650074	0.0089
FGF2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.435598886	0.008909
DUSP3	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.435318852	0.008958
TMOD2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	0.435275621	0.008966
SMS	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.435275621	0.008966
ELF5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.435220483	0.008976
DGKH	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.435180163	0.008983
DAB2IP	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.435180163	0.008983
UNC5D	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.435140578	0.00899
GOLGA6L4_(	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.435140578	0.00899
STAP2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.434992704	0.009016
TSPYL1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.434952357	0.009023
SYTL4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.434952357	0.009023

CEP85	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.434790724	0.009051
PARD3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.434790724	0.009051
DEFB4A_DE	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.434790724	0.009051
TGFBR3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.434790724	0.009051
DNAJC30	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.434680356	0.009071
WDCP	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.434629092	0.00908
INPP4B	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.434629092	0.00908
GBP4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.434603383	0.009084
PCOLCE	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.434603383	0.009084
TRAF3IP2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.434589987	0.009087
CA8	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.434509709	0.009101
AMFR	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.434305828	0.009137
PPP1R14A	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.434305828	0.009137
HIF1A	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.434204591	0.009155
IGF2BP3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.434144195	0.009166
MTIF3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.434144195	0.009166
NMI	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.434144195	0.009166
TIMP3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.434144195	0.009166
CLHC1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.434017662	0.009189
ENO1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.433982563	0.009195
GSTA1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.433982563	0.009195
ARMCX2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.433778871	0.009232
CDH2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.433754965	0.009236
MUC20	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.433737013	0.009239
PTTG1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.433659299	0.009253
EIF4B	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.433659299	0.009253
CDA	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.433608761	0.009262
KATNAL1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.433608761	0.009262
AHCY	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.433497666	0.009282
GUCA2A	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.433497666	0.009282
PDE1A	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.433449824	0.009291
STX5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.433299688	0.009318
SERPINE1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.433174402	0.009341
ADGRF2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.433153641	0.009345

TSC22D1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.43301277	0.00937
GALK2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.432928324	0.009386
ABRAXAS2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.432873045	0.009396
RFX2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.432873045	0.009396
SHMT2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.432873045	0.009396
FAM111B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.432839465	0.009402
LIMD1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.432758214	0.009417
SUSD5	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.432758214	0.009417
FAM3B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.432691155	0.009429
FKBP4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.432689505	0.009429
RAB37	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.432527873	0.009459
HOOK2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.432417996	0.009479
KIF20B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.432399584	0.009482
CCDC63	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.432379242	0.009486
C8orf34	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.432296265	0.009501
TCL1B	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.432296265	0.009501
IL2RB	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.432296265	0.009501
CCL5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.432296265	0.009501
DTX3L	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.432247886	0.00951
GATD3	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.432244109	0.009511
GOLGA8CP	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.432221752	0.009515
KIF26B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.432221752	0.009515
PRTN3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.432077777	0.009542
ERP29	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.432042976	0.009548
PARD6B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.43203938	0.009549
FXN	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.431881344	0.009578
GZMA	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.431843248	0.009585
DPF3	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.431758623	0.009601
PRR32	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.431719486	0.009608
POC1B	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.431567449	0.009636
MIIP	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.43155808	0.009638
TOM1L1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.43155808	0.009638
RECK	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.431434966	0.009661
SORCS3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.431411552	0.009666

PAGE3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.431309892	0.009685
MACROD2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.431234815	0.009699
OTOR	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.431181419	0.009709
ROR2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.43112752	0.009719
SUGT1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.431073183	0.009729
ANXA11	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.431073183	0.009729
IAH1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.431073183	0.009729
ZNF350	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.430998574	0.009743
FIGNL1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.430998574	0.009743
KLHL40	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.43094948	0.009752
PI16	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.430948787	0.009752
ATL3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.430762776	0.009787
THTPA	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.430749918	0.00979
PRCP	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.430716902	0.009796
ENDOD1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.430609672	0.009816
SEPTIN14	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.430594576	0.009819
ARHGAP25	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.430426654	0.009851
SH3GL1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.429941757	0.009944
IRAG2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.429941757	0.009944
TMED8	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.429941757	0.009944
YES1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.429941757	0.009944
MOCS2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.429941757	0.009944
AEBP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.429857762	0.00996
ZMYND11	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.429696246	0.009991
EZR	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.429526847	0.010023
RIPK3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.42945686	0.010037
METTL6	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.42945686	0.010037
SUGP1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.42945686	0.010037
KLF15	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.429238832	0.010079
NXPH3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.429008678	0.010124
RRN3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.429005911	0.010124
PRMT3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.428971964	0.010131
STK39	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.428971964	0.010131
MRPS18B	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.428845699	0.010155

RGCC	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.428810332	0.010162
CDAN1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.42869746	0.010184
LRBA	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.428648699	0.010194
ATP1B3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.428548368	0.010213
HMOX2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.428534104	0.010216
CRISP2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.42850548	0.010222
SF3B4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.428487067	0.010225
STX8	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.428487067	0.010225
SNX9	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.428487067	0.010225
SHD	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.428391939	0.010244
CA9	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.428318213	0.010259
CD22	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.428003561	0.010321
TST	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.42800217	0.010321
ARMCX2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.427995152	0.010322
VIL1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.427970419	0.010327
RHOC	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.427840538	0.010353
WFDC1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.427840538	0.010353
ANKRD34B	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.427825043	0.010356
PCDH12	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.427796158	0.010362
PLA2G2D	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.427786787	0.010364
BIRC7	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	0.427678906	0.010385
TOX	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.427678906	0.010385
NEK5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.42758623	0.010403
EIF2AK3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.427517274	0.010417
ERRFI1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.427484824	0.010424
UBOX5	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.427484824	0.010424
GSPT1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.427393639	0.010442
DOHH	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.427355641	0.010449
RGL2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.427355641	0.010449
SHROOM1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.427316792	0.010457
DDX60L	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	-0.427210447	0.010478
CEP350	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.427210447	0.010478
ELOA	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.427210447	0.010478
THOP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.427210447	0.010478

APLF	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.427194009	0.010482
ERF	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.427032377	0.010514
IQGAP2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.426974496	0.010526
CLC	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.426879532	0.010545
A1CF	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.426870745	0.010547
PARD6A	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.426816859	0.010557
HTR1A	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	-0.426816859	0.010557
MME	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.426634277	0.010594
HIP1R	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.426548618	0.010612
EPG5	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.42654748	0.010612
GPRASP3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.426539078	0.010613
BST1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.426486739	0.010624
RECK	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.4263998	0.010642
C12orf40	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.426294059	0.010663
RUNDC3A	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.42624008	0.010674
PTPMT1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.42624008	0.010674
GGT5	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.426123949	0.010698
MICALL2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.426062583	0.01071
ITGB1BP2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.426062583	0.01071
GPRASP3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.426060252	0.010711
CAMK4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.425981779	0.010727
NMRK1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.425937755	0.010736
VIT	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.425900951	0.010743
BCL7B	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.425739319	0.010776
PSG1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.425706013	0.010783
PGM2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.4256633	0.010792
SETBP1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.4256633	0.010792
AMMECR1L	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.425555875	0.010814
ADGRE2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.425475901	0.01083
A1BG	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.42539745	0.010847
ENO3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.42538011	0.01085
IL1RN	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.425224961	0.010882
SCN3A	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.425103293	0.010907
ACP6	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.42509279	0.01091

HNRNPK	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.424931158	0.010943
CEP152	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.424931158	0.010943
CCL25	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.42486589	0.010957
F9	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.42486589	0.010957
NDUFS6	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.42479604	0.010971
STX4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.424769526	0.010977
ECPAS	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.424635735	0.011005
GAS2L3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.424635735	0.011005
FHIP1B	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.424592965	0.011014
ZMYND15	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.424577884	0.011017
IL18	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.424563132	0.01102
CDIN1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.424555456	0.011021
IL13RA1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.424534666	0.011026
PFKFB4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.424509741	0.011031
PMS1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.424509741	0.011031
PRSS53	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.424509741	0.011031
IL2RG	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.424446261	0.011044
SRPX	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.424379754	0.011058
PDCD1LG2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.424377328	0.011059
SH3BP1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.424284629	0.011078
CACNA1C	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.424252746	0.011085
MASP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.424232217	0.011089
SCG3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.424122997	0.011112
TPBGL	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.423933342	0.011152
KLHDC4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.423799732	0.01118
MAGEB2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.423799732	0.01118
MYDGF	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.423799732	0.01118
TBCA	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.423799732	0.01118
MRPS27	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.42379369	0.011182
PSME2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.4236381	0.011214
CNTN3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.423575102	0.011228
KIF20B	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.423572309	0.011228
SSUH2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.423404899	0.011264
L3MBTL4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.423356182	0.011274

TSPAN8	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.423356182	0.011274
CENPJ	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.423356182	0.011274
UBL4A	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.423356182	0.011274
CD2AP	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.423356182	0.011274
CNST	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.423356182	0.011274
METTL2A	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.423343537	0.011277
PLB1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.423314835	0.011283
USP48	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.423239474	0.011299
PPP6R2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.42323209	0.011301
CNTNAP2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.42319228	0.011309
F10	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.423153203	0.011318
ADGRB1	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.42301988	0.011346
GOLGA3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.422991571	0.011352
KCTD2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.42290856	0.01137
IFI30	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.42290856	0.01137
GOT1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.42290856	0.01137
NFKBIE	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.422829939	0.011387
KANK2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.422779403	0.011398
FGFR2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	-0.422779403	0.011398
TOMM20	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.422779403	0.011398
KCTD5	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.422721762	0.01141
C4orf46	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.422714565	0.011412
TMA16	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.422577646	0.011441
CASP10	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.422577646	0.011441
OSTN	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.422506674	0.011457
PRND	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.422484454	0.011461
LCP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.422246731	0.011513
VSIG10	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.422211434	0.01152
IL17RB	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.422202623	0.011522
SEPTIN3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.422202623	0.011522
LIPF	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.422202623	0.011522
IGFBP6	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.422189929	0.011525
NSDHL	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.42218341	0.011526
ICAM4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.42218341	0.011526

ILKAP	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.422021777	0.011562
SPRED2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.422021777	0.011562
DNM1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.422021777	0.011562
RGS10	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.422021777	0.011562
ADAMTS13	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.421970651	0.011573
SMG7	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.421915817	0.011585
CLXN	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.42188708	0.011591
CRH	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.421826545	0.011604
ALPI	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.42179412	0.011611
EIF2S2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.421536881	0.011668
SFTPA2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.421388049	0.0117
BCAN	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.421375249	0.011703
GOPC	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.421375249	0.011703
SOD2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.421375249	0.011703
GSN	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.421375249	0.011703
CLC	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.421368898	0.011704
ADGRF4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	0.421323938	0.011714
GAMT	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.421279429	0.011724
RHPN1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.421253988	0.01173
SSH3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.421213616	0.011739
CA3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.421190778	0.011744
CTSE	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.421187579	0.011744
HBS1L	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.421051984	0.011774
CA6	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.421049064	0.011775
KIAA2013	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.421020669	0.011781
KIR2DL2_KI	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.420953257	0.011796
SRRT	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.420942411	0.011798
MFAP3L	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.420926722	0.011802
DUSP19	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.420890352	0.01181
STXBP3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.420890352	0.01181
EXOSC10	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.420767313	0.011837
PGLYRP2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.420767313	0.011837
LCN2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.42072872	0.011846
PNLIPRP2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.420726281	0.011846

NUFIP2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.420592159	0.011876
EFEMP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	-0.420592159	0.011876
NPTX1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.420586169	0.011878
KLF8	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.420567087	0.011882
TCHP	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.420567087	0.011882
SLC4A1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.420545375	0.011887
NRXN1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.420515924	0.011893
OCLN	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.42051034	0.011894
ITGAD	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.420492947	0.011898
EHMT1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.420472285	0.011903
REG4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.420405455	0.011918
NOS1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.420385699	0.011922
CASZ1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.4203662	0.011927
LHPP	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.420261245	0.01195
SGTA	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.420243823	0.011954
KIF28P	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.420185229	0.011967
HJV	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.420170122	0.01197
CREB3L1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.420118859	0.011982
NUMBL	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.420082191	0.01199
CEP170	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.420082191	0.01199
IQCN	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.420000012	0.012009
SLC27A4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.419920558	0.012026
ATG16L1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.419920558	0.012026
LTV1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.419895505	0.012032
TF	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.419895505	0.012032
TCP11	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	-0.419895505	0.012032
NCAN	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.419723117	0.012071
GBP2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.419599416	0.012099
C10orf90	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.419563975	0.012107
MMP3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.419455709	0.012131
STEAP4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.419435662	0.012136
VSTM1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.419435662	0.012136
OPHN1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.419435662	0.012136
SCPEP1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.419435662	0.012136

PLIN3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.419435662	0.012136
BCAM	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.419268502	0.012174
FBLN7	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.419162862	0.012198
UNC5D	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.418979356	0.01224
SDR16C5	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.418979356	0.01224
OTUB1	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.418974166	0.012241
WAS	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.418950765	0.012246
VASP	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.418950765	0.012246
ACP6	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.418937588	0.012249
TMPRSS4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.418809977	0.012278
UNKL	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.418809977	0.012278
CEBPA	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.418809977	0.012278
PDE4C	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.418809247	0.012279
ATP5PO	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.418809247	0.012279
PRKD2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.418789133	0.012283
HYAL1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.418789133	0.012283
PRDM11	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.418606673	0.012325
CD101	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.418606673	0.012325
RIPOR2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.418465868	0.012357
AAMDC	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.418465868	0.012357
OGA	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.418465868	0.012357
RWDD3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.418421554	0.012368
KCNC4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.418383491	0.012376
NCKAP5L	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.418304236	0.012395
MUC7	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.418191399	0.012421
GCAT	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.41816008	0.012428
MYH9	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.418142604	0.012432
CHCHD2P9	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.417980971	0.012469
DNAJB14	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.417980971	0.012469
BNIP3L	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.417944845	0.012478
CENPJ	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.417882227	0.012492
PPP1R1A	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.41781436	0.012508
NRCAM	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.417779588	0.012516
ST13	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.417657707	0.012545

C10orf95	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.417618481	0.012554
MAGIX	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.417558411	0.012568
SAMD14	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.417496075	0.012582
SEC31A	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.417496075	0.012582
PGD	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.417496075	0.012582
ATP2B4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.417422004	0.0126
ROBO4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.417329223	0.012621
C17orf50	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.417299997	0.012628
FAM186A	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.417267244	0.012636
LENG8	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.417108153	0.012673
ARVCF	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.41710403	0.012674
DIXDC1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.41710403	0.012674
TACC2	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.417032223	0.012691
CEP350	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.417011178	0.012696
GCLM	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.417011178	0.012696
VRK3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.416952101	0.01271
PUDP	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.416849546	0.012734
CD82	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.416767935	0.012753
TBC1D17	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.416723218	0.012764
TALDO1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.416687914	0.012772
WRN	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.416597825	0.012794
THPO	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.416597825	0.012794
IGFL3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.416597825	0.012794
BIN1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.416580315	0.012798
GGT1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.416427716	0.012834
TFF2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.416427716	0.012834
PSME1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.416364649	0.012849
GFRAL	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.416355384	0.012851
CEBPA	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.416290273	0.012867
CAPG	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.416290273	0.012867
PAM	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.416290273	0.012867
CBX4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.416251057	0.012876
RPH3AL	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.416251057	0.012876
OCLN	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.416203017	0.012888

MEOX1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.416154516	0.012899
APP	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.416146438	0.012901
CREG1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.416087497	0.012915
CCAR1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.416087497	0.012915
MCF2L	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.416041385	0.012926
ZFYVE19	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.416041385	0.012926
TOR1AIP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.416041336	0.012926
DNAH1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.416041336	0.012926
KIAA0753	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.415959358	0.012946
GPATCH4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.415917388	0.012956
DCTN1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.415879752	0.012965
THYN1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.41582457	0.012978
GAB4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.415811224	0.012981
GALNT2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.415747278	0.012997
ING1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.41571812	0.013004
LZTS3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.415715248	0.013004
NMNAT1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.415598763	0.013032
MANSC4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.415569658	0.013039
PSCA	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	-0.415569658	0.013039
GATA3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.415569658	0.013039
INCENP	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.415556488	0.013043
CA14	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.41542954	0.013073
HIPK3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.41540706	0.013079
ATP6V0D2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.41540706	0.013079
MFAP3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.415398083	0.013081
KIRREL3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.415314366	0.013101
TYRP1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.415314366	0.013101
CYB5R2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.41529753	0.013105
HSDL2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.41529753	0.013105
CD14	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.41523695	0.01312
SEMA7A	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.414992879	0.013179
USP42	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.414992879	0.013179
CAPRIN1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.414992879	0.013179
PHLDB3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.414992879	0.013179

HIF1A	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.414909959	0.013199
NECTIN1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.414896732	0.013202
SMPD1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.414896732	0.013202
GBP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.414890779	0.013204
CCL24	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.414766623	0.013234
ADD1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.414748327	0.013238
CLHC1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.414714035	0.013247
RRN3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.414660668	0.01326
BCL7B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.414635701	0.013266
GLYR1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.414635701	0.013266
TNNC1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.414556513	0.013285
DNAJC12	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.414425062	0.013318
C1orf167	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.414416099	0.01332
RAB38	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.414416099	0.01332
ZSWIM8	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.414416099	0.01332
DNAJC12	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.414416099	0.01332
MINDY1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.414416099	0.01332
MPIG6B	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.414416099	0.01332
TRIM41	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.41426343	0.013357
GLO1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.414101798	0.013397
TEDC2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.414046185	0.013411
DIS3L	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.41395748	0.013433
DNAJC30	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.41395748	0.013433
TMED10	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.413911277	0.013444
RIC8B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.413747839	0.013484
C1QTNF6	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.413710836	0.013494
IL17RB	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.413619803	0.013516
CHL1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.413616901	0.013517
PDE6B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.413569717	0.013529
NAA40	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.413510111	0.013543
AFAP1	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.413471995	0.013553
CCN1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.413455269	0.013557
CNPY4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.413455269	0.013557
STRN	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.413455269	0.013557

PYCR2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.413365747	0.013579
IL1R1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.413365747	0.013579
BANK1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.413322582	0.01359
CD3G	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.413279999	0.013601
IL7	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.41326254	0.013605
PPME1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.41326254	0.013605
STOML2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.41326254	0.013605
RNF208	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.413132004	0.013638
MOCS3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.413132004	0.013638
MEP1A	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.413132004	0.013638
ASAH2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.413025529	0.013664
THSD7A	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	-0.412981129	0.013675
LARP1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.412970372	0.013678
FABP5	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.412970372	0.013678
PYCR2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.412968307	0.013679
IGLON5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.412819777	0.013716
SLMAP	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.41280874	0.013719
STON1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.412685761	0.01375
NAGA	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.412685761	0.01375
CLTB	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.412685761	0.01375
NPC2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.412650215	0.013759
DNMBP	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.412647108	0.013759
LEPR	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.412647108	0.013759
SERPINA6	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.412647108	0.013759
DNAAF6	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.412589665	0.013774
DNAJC27	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.412485475	0.0138
ZC3H12A	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.412485475	0.0138
IL1RL1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.412437527	0.013812
EIF2D	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.412323843	0.013841
GDF15	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.412174982	0.013879
CD28	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.412166427	0.013881
TDRD3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.412162211	0.013882
DSPP	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.412108981	0.013896
TERF1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.412108981	0.013896

GUSB	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.412108981	0.013896
ITPR1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.412108981	0.013896
SEPTIN8	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.412108981	0.013896
SETD7	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.412108981	0.013896
THEGL	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.412108981	0.013896
CD40	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.412108981	0.013896
RUBCNL	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.412015538	0.013919
SPATA21	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.411906864	0.013947
KIAA1143	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.411838946	0.013964
AZI2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.411838946	0.013964
CXCL9	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.411796083	0.013975
CFHR2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.411742275	0.013989
FAM13A	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.411677314	0.014006
KAZN	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.411677314	0.014006
SHANK1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.41166922	0.014008
SMURF2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.411657472	0.014011
PRR11	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.411559703	0.014036
POLB	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.411532202	0.014043
GTPBP2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.411515682	0.014047
KIFC3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.411515682	0.014047
DHPS	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.411494544	0.014052
GNL3L	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.41135405	0.014089
PTGES2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.41135405	0.014089
TGFBI	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.41135405	0.014089
PTH1R	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.411341162	0.014092
PM20D1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.411341162	0.014092
LIN9	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.411208997	0.014126
APRT	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.411192417	0.01413
MIOX	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.411140606	0.014143
TOP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.411140606	0.014143
ST8SIA6	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.411066595	0.014163
CCDC85A	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.411030785	0.014172
GPATCH8	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.410984216	0.014184
ICAM5	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.410984216	0.014184

PLA2G4D	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	-0.410955422	0.014191
UBL4A	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.410869153	0.014214
PDZD4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.410826443	0.014225
GID8	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.410826443	0.014225
ZNF397	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.410664728	0.014267
C7orf50	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.410664728	0.014267
UHRF2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.410664728	0.014267
AMOT	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.410664728	0.014267
ARHGAP17	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.410545888	0.014298
CCDC28B	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.410545888	0.014298
HCLS1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.410545888	0.014298
SULT1A1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.410545888	0.014298
MRPL53	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.410503775	0.014308
EFCAB12	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.410407384	0.014334
ADRA2A	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.410384256	0.01434
IL6	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	0.410384256	0.01434
YJU2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.410384256	0.01434
CD109	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.410366133	0.014344
WBP2NL	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.410362196	0.014345
ID2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.410337106	0.014352
PDCD2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.410333814	0.014353
APEX1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.410333814	0.014353
OFD1	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.410235423	0.014379
CDK5RAP3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.410222624	0.014382
TRIP11	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.410222624	0.014382
PRSS22	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.410133669	0.014405
RGS6	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.410060992	0.014424
TFPI	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.410060992	0.014424
RBM48	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.409902451	0.014466
C2orf68	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.40989936	0.014467
PRORSD1P	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.409793451	0.014494
DCP1A	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.409737727	0.014509
NKRF	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.40970201	0.014519
CCL14	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.40970201	0.014519

NCF2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.409623341	0.014539
BAIAP2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.409576095	0.014552
ACOX1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.409536155	0.014562
CST6	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.409536155	0.014562
PNMA2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.409513473	0.014568
ATP6AP2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.409501568	0.014571
SHPK	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.409341071	0.014614
SULT1C2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.409335599	0.014615
SRY	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.409283123	0.014629
TSSC4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.409252831	0.014637
ALDH9A1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.409252831	0.014637
KANSL1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.409215359	0.014647
AKR1A1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	-0.409010157	0.014702
FOXG1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.409000782	0.014704
C12orf42	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.408940795	0.01472
KIAA1614	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.408940795	0.01472
MTFR1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.408936694	0.014722
DYNC2LI1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	-0.408936694	0.014722
CFAP20	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.408778966	0.014764
CHUK	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.408767934	0.014767
FGFBP2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.408767934	0.014767
LBP	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.408755049	0.01477
ITPRID2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.408606302	0.01481
TADA3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.408606302	0.01481
DSG2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.408574296	0.014818
SPN	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.408444669	0.014853
CA13	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.408444669	0.014853
CSF3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	0.408444669	0.014853
OTUB1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.408348328	0.014879
FUOM	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.408298921	0.014892
VPS54	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.408283037	0.014897
RABGAP1L	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.408283037	0.014897
DLG4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.408283037	0.014897
NUP50	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.40813226	0.014937

RALGAPA2	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.408131652	0.014938
IL31RA	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.407956556	0.014985
HIPK4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.407922248	0.014994
ZFAT	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.407783135	0.015032
PRKAR1B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.407783135	0.015032
SAFB2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.407783135	0.015032
ECM1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.407752138	0.01504
SPACA7	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.407752138	0.01504
GCNT1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.407686499	0.015058
ZFYVE9	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.407646166	0.015069
KIF1C	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.407636508	0.015072
IGBP1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.407474876	0.015116
NOL3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.40741192	0.015133
KIF26A	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.407330035	0.015155
EIF5	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.407313244	0.01516
UBE2B	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.407313244	0.01516
LMNB1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.407297104	0.015164
PDZD4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.407206355	0.015189
MYO9B	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.407151611	0.015204
IFNAR1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.40712782	0.015211
CA6	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.407096273	0.015219
SSH2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.407071701	0.015226
MCFD2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.406989979	0.015248
KLK13	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.406868349	0.015282
RAB33A	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.406828347	0.015293
DPY30	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.406731482	0.01532
FBXO40	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.406666715	0.015338
SEC13	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.406666715	0.015338
TXNDC9	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.406666715	0.015338
COMMD2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.406666715	0.015338
GZMH	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.406629576	0.015348
HNRNPUL1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.406629576	0.015348
MORC3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.406629576	0.015348
WDR46	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.406629576	0.015348

SERPINB4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.406629576	0.015348
SUPT20H	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.406561373	0.015367
ISL1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.406561373	0.015367
OGT	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.406513366	0.01538
RFX2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.406505082	0.015382
RBPMS2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.406505082	0.015382
COX5B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.406362842	0.015422
TNFRSF9	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.406362842	0.015422
PGM2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.406294508	0.015441
UBASH3A	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.406223345	0.01546
CDC27	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.406181818	0.015472
FOXJ3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.406181818	0.015472
PDXDC1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.406142549	0.015483
SCGB3A2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.406052796	0.015508
BTC	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.406052796	0.015508
ANKRD36BP	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.406051045	0.015508
XIRP2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.406015375	0.015518
MUC3A	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.405916436	0.015546
UBTD2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.405858554	0.015562
CCDC14	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.405710826	0.015603
MAD1L1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.405710826	0.015603
FRMD1	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.405704223	0.015605
SIGLEC5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.405588888	0.015637
TLR4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.405540717	0.015651
PRKG1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.405535289	0.015653
MAFB	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.405476016	0.015669
NAA40	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.405476016	0.015669
CIT	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.405476016	0.015669
CSNK1G2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.405476016	0.015669
LRCH4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.405373657	0.015698
ENO2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.405373657	0.015698
UBN2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.405370607	0.015699
OGA	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.405370607	0.015699
GAL	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.405370607	0.015699

CHCHD10	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.405370099	0.015699
VSTM2L	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.405350445	0.015705
DCN	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.405230689	0.015738
GPX4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.405212025	0.015744
NEXN	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.405212025	0.015744
ZBTB18	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.405162402	0.015758
GASK1A	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.404923358	0.015825
ZMYND11	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.404899237	0.015832
ITGB1BP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.404899237	0.015832
DUT	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.404899237	0.015832
SMCO2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.404891418	0.015834
TMCO5A	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.40488876	0.015835
CCDC134	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.40488876	0.015835
NEDD4L	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.40488876	0.015835
GALK2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.404865945	0.015841
BTBD8	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.404860279	0.015843
HAO1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.404727128	0.015881
S100Z	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.40470827	0.015886
FSIP2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.40469017	0.015891
EN1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.404683573	0.015893
TAP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.404522245	0.015939
PYY	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.404403863	0.015973
BBOF1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.404349951	0.015988
CTSO	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.404349951	0.015988
CLUL1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.404348095	0.015989
BRD2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.404322457	0.015996
BTC	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.404322457	0.015996
ARHGEF2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.404322457	0.015996
JAM3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.404322457	0.015996
CASC3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.404242231	0.016019
VSNL1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.404242231	0.016019
WDR25	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.404179842	0.016037
DNAJB13	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.404121132	0.016054
SYF2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.404080599	0.016066

KLK13	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	-0.404046441	0.016075
FAS	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.404046441	0.016075
B3GNT7	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.404009732	0.016086
FIG4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.403954085	0.016102
GPATCH4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.403920576	0.016111
CST5	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.403839623	0.016135
AKT3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.403757334	0.016159
TDGF1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.403715527	0.016171
INPP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.403715527	0.016171
WFDC2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.403669514	0.016184
ANGPT2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.403589341	0.016207
DNASE1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.403546215	0.016219
PVR	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.403499404	0.016233
BLZF1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.40343407	0.016252
WAPL	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.40343407	0.016252
STK26	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.403384612	0.016266
GP2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.403329295	0.016282
IMUP	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.403272438	0.016299
SERTAD2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.403168898	0.016329
GIMAP6	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.403168898	0.016329
SESTD1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.403168898	0.016329
AKT3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.403168898	0.016329
CXCL3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.403168898	0.016329
CIT	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.403159186	0.016332
TNC	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.4031551	0.016333
CPSF2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.403110805	0.016346
ACSL1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.403087447	0.016353
CYP24A1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.403087447	0.016353
BGN	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.403042224	0.016366
MAN2B2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.402989076	0.016381
AGBL2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.402949173	0.016393
ERP44	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.402949173	0.016393
CALCA	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.402818967	0.016431
CLIP2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.402787541	0.01644

FCGR2B	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.402648858	0.016481
ENSA	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.402625909	0.016488
PFDN2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.402625909	0.016488
YY1AP1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.402620314	0.016489
GC	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.402603481	0.016494
SIRT1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.402592119	0.016497
PSME2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.402592119	0.016497
NOS2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.402540867	0.016513
TPGS2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.402516681	0.01652
GAL	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.402478748	0.016531
INPP5D	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.402464276	0.016535
FTCD	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.402302644	0.016583
TCN1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.402302644	0.016583
MAP3K19	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.402176994	0.01662
CRTC1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.402141012	0.01663
LTK	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.402141012	0.01663
USO1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.402141012	0.01663
ACOX1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.402141012	0.01663
MYO18B	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.402138529	0.016631
MAMDC2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.402060955	0.016654
CD3E	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.402015339	0.016667
NOS1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	-0.402015339	0.016667
PPBP	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.402015339	0.016667
EVI5L	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.402015339	0.016667
KIF13B	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.40197938	0.016678
DIAPH3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.40197938	0.016678
ICOSLG	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.401878547	0.016708
FURIN	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.401850403	0.016716
EHD3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.401817748	0.016726
ITGA6	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.401730041	0.016752
TNFRSF12A	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.401730041	0.016752
WDR25	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.40154432	0.016807
MZT2B	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.401494483	0.016822
AKR1C4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.401458092	0.016833

ALPI	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.40143856	0.016839
IL6	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	-0.40143856	0.016839
TLE2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	-0.401399126	0.016851
SDCCAG8	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.401332851	0.016871
TCHHL1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.401313343	0.016876
LAMB1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.401287983	0.016884
NCOA1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.401287983	0.016884
ECM1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.401117873	0.016935
SERF1A_SEF	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.401084097	0.016945
CFAP74	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.401084097	0.016945
PFDN2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.401068212	0.01695
YP029	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.401009586	0.016967
ECI1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.401009586	0.016967
LAMA1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.400940104	0.016988
ZNF202	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.400897534	0.017001
TBX2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.40086178	0.017012
TPR	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.400853986	0.017014
PRR23A	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.400777655	0.017037
CCAR2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.400777655	0.017037
MAP1LC3B2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.400739634	0.017049
GATD3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.400737297	0.017049
PCBD1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.400737297	0.017049
POM121L1P	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.400699629	0.017061
NFATC3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.400686322	0.017065
OPTC	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.400623875	0.017084
UPK3A	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.400623875	0.017084
DECR1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.40052469	0.017114
CCER2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.40048171	0.017127
LAG3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.400469474	0.01713
FAM193B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.400406383	0.017149
BTLA	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.400406383	0.017149
SLA2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.400363057	0.017163
BTNL10P	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	-0.400285001	0.017186
MAP3K13	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.400285001	0.017186

AMDHD1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.400281269	0.017187
SLC12A2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.400281269	0.017187
ARR3	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.400202052	0.017211
RPAIN	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.400163652	0.017223
CTSZ	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.400097217	0.017243
SEZ6	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.400080827	0.017248
SUSD4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.400044561	0.017259
IQGAP2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.400039793	0.017261
PCDHB15	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	0.400039793	0.017261
SEMA7A	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.399927108	0.017295
SBDS	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.399878161	0.01731
KIAA0319	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.399779009	0.017341
AHNAK	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.399744554	0.017351
FNBP1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.399716528	0.01736
CNDP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.399618074	0.01739
CEMIP2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.399586889	0.017399
TRAK1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.399554896	0.017409
KCTD5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.399473318	0.017434
SMPD3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.399419831	0.017451
FBXO42	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.399419831	0.017451
TMX2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.39941678	0.017452
ABLIM3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.399393264	0.017459
MEX3C	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.399393264	0.017459
CENATAC	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.399231632	0.017509
CEP43	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.399231632	0.017509
FGF1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.399191587	0.017521
CRACR2B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.399088544	0.017553
RAP1A	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.399088544	0.017553
ISM1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.399076561	0.017557
ARL4C	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.399013095	0.017576
CFAP43	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.398908367	0.017609
UACA	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.398908367	0.017609
INSL4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.398843052	0.017629
NEDD9	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.398751811	0.017657

PDP1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.398746735	0.017659
KRT18	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.398746735	0.017659
TNFRSF14	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.398746735	0.017659
ALPP	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.39870611	0.017671
INS.CPEPTID	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.398628235	0.017696
DGKZ	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.398585103	0.017709
ADAM15	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.398554662	0.017718
NPR1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.398552873	0.017719
CINP	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.398423471	0.017759
COMMD9	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.398423471	0.017759
CD48	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.398423471	0.017759
DDX55	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.398420897	0.01776
SKOR1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.398420897	0.01776
FUS	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.398420897	0.01776
BDH2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.39839808	0.017767
GPR101	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.398338614	0.017786
LEKR1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.398338614	0.017786
PTPN14	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.398333993	0.017787
CDH4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.398322761	0.017791
WDR64	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.398266272	0.017809
EMG1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.398266272	0.017809
H1.1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.398266272	0.017809
APOD	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.398266272	0.017809
TP53BP2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.398261838	0.01781
HSDL2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.398261838	0.01781
RCOR1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.39809265	0.017863
RLN3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.398089983	0.017864
PTP4A3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.398089983	0.017864
APOA1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.397977882	0.017899
CCDC50	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.397938574	0.017911
PPP1R18	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.397776942	0.017962
TIGAR	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.397776942	0.017962
DAZ4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.397759068	0.017968
KEL	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.397759068	0.017968

PDZRN3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.397689493	0.01799
OSMR	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.397689493	0.01799
LSM12	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.397689493	0.01799
FKBP14	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.397615309	0.018013
LAMTOR1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.397545577	0.018035
MUC1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.397532113	0.018039
GBA3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.397502771	0.018049
SORD	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.397428154	0.018072
KLB	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.397375467	0.018089
DPP6	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.397331643	0.018103
PARD6A	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.397292045	0.018115
TIGD1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.397247305	0.01813
ECSCR	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.397206319	0.018143
NPTXR	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.397131173	0.018167
GSN.AS1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.397130413	0.018167
AP2B1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.397130413	0.018167
DNAJB2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.397130413	0.018167
NDUFS6	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.397112713	0.018172
TPMT	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.397112713	0.018172
CCAR1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.397112713	0.018172
CCAR2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.397112713	0.018172
UNG	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.397097239	0.018177
DOCK8.AS1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.397074208	0.018185
TMEM25	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.397059154	0.01819
FOXO3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.39696878	0.018218
DCTN6	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.39696878	0.018218
NBL1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.396786996	0.018276
SHOC1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.396766325	0.018283
APBB1IP	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.396766325	0.018283
COMMD9	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.396766325	0.018283
YBX2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.396730233	0.018294
IL13	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.396730233	0.018294
SUCLA2	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.396641824	0.018323
CFAP61	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.396632667	0.018326

NT5E	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	-0.396535934	0.018357
MAPKAP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.396535934	0.018357
KLK15	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.396535934	0.018357
PSIP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.396535934	0.018357
PYHIN1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.396535934	0.018357
C17orf50	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.396483884	0.018373
FSIP1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.396483884	0.018373
TARDBP	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.396483884	0.018373
AKAP7	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.396476831	0.018376
TYRP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.396299433	0.018433
MOSPD1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.39620618	0.018463
BOLA1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.396160619	0.018478
SCGN	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.396160619	0.018478
PTGDS	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.396160619	0.018478
C10orf67	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.396156338	0.018479
PTPRK	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.396112087	0.018493
DDX39A	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.396104496	0.018496
EFEMP2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	-0.396104496	0.018496
ANP32E	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.396021648	0.018522
ZBTB17	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.396014592	0.018525
ITGB3BP	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.395994509	0.018531
PMS1	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.395994509	0.018531
DDX60L	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.395959154	0.018543
EPN3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.395959154	0.018543
OSCAR	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.395959154	0.018543
NR1D2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	-0.395959154	0.018543
SIPA1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.395959154	0.018543
IFI30	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.395959154	0.018543
HSD17B3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.395959154	0.018543
IGSF22	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.39587156	0.018571
EP400P1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.395866376	0.018573
C16orf86	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.395837355	0.018582
FN1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.395779693	0.018601
SH3D21	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.395747343	0.018611

SUMF2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.39551409	0.018687
TRIM54	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.395509024	0.018689
REN	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.395470678	0.018701
PSMG3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.395382375	0.01873
EBI3_IL27	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.395353207	0.01874
DBN1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.395352458	0.01874
LIF	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.395334155	0.018746
GKN1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.395331314	0.018747
DNAJB3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.395331314	0.018747
BBX	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.395296651	0.018758
BUB1B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.395200226	0.01879
FAF2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.395190826	0.018793
RFC4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.395190826	0.018793
HOXB4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	-0.395111753	0.018818
TRIM41	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.395096095	0.018824
ATP6V0D2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.395069795	0.018832
SANBR	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.395023538	0.018847
DRGX	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.394945757	0.018873
SALL4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.394871091	0.018897
MYO5A	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.394867561	0.018899
MAP3K5	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.394867561	0.018899
DYNLT3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.394867561	0.018899
GPATCH1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.394805595	0.018919
AK1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.394805595	0.018919
CTSA	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.394805595	0.018919
DNAJC27	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.394805595	0.018919
FIGNL1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.394705929	0.018952
ICAM1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.394705929	0.018952
DCTN2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.394653718	0.018969
MTCL1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.394640979	0.018973
MELTF	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.394544297	0.019005
TIMP4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.394500233	0.01902
BAP18	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.394449925	0.019036
POLR2F	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.394449925	0.019036

OGN	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.394410868	0.019049
CCS	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.394382665	0.019059
HOOK1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.394288366	0.01909
CASKIN1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.394288366	0.01909
DIS3L	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.39426803	0.019097
PRKAR1B	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.394228815	0.01911
MLXIP	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.394228815	0.01911
PLXNA2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.394228815	0.01911
CETN1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.394228815	0.01911
GLRX5	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.394228815	0.01911
FARSA	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.394221032	0.019112
PRDX3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.394221032	0.019112
TRIM26	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.394221032	0.019112
EIF5A	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.393950645	0.019202
C16orf96	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.393923652	0.019211
KLK13	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.393867147	0.01923
CD248	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.393867147	0.01923
CTF1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.393736136	0.019274
EIF2AK1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.393720534	0.019279
VSTM1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.39364726	0.019303
SPESP1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.393633061	0.019308
CXCL3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.393574503	0.019328
HBQ1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.393564828	0.019331
PABPC4L	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.393522712	0.019345
PLS3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.393522712	0.019345
INSYN1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.393491643	0.019355
LCTL	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.393490423	0.019356
GP2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.393462952	0.019365
AAGAB	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.393412871	0.019382
SAV1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.393291087	0.019423
MFAP5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.393220773	0.019446
ENPEP	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.393121772	0.01948
ZBTB7C	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.393089607	0.019491
SOD1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.393089607	0.019491

MTSS1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.393075256	0.019496
TAX1BP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.393075256	0.019496
MIA3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.393075256	0.019496
TFDP3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	-0.393075256	0.019496
PNMA2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.392921302	0.019548
EIF5A	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.392864941	0.019567
AK7	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.392800089	0.019589
SH2D3C	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.392795353	0.01959
CCL27	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.392795353	0.01959
PDCD6	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.392795353	0.01959
DCP1A	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.392782515	0.019594
IRF2BP2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.392644208	0.019641
RAC3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.392644208	0.019641
CFAP20DC	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.392612405	0.019652
MDH1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.39260471	0.019655
ZNF815P	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.392498477	0.019691
ANKRD18B	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.392498477	0.019691
MARK3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.392498477	0.019691
ING2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.392498477	0.019691
SF3B3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.392498477	0.019691
CASQ2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.392498477	0.019691
SH3GL3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.392498477	0.019691
KDR	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.392498477	0.019691
PLP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	-0.392464438	0.019703
DAZ4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.392464058	0.019703
CDCA2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.392442296	0.01971
CANT1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.392389741	0.019728
SPTBN2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.392339866	0.019745
IGFL4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.392263617	0.019771
RAB3GAP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.392119422	0.01982
XRRA1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.392109754	0.019824
PSMA1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.392102077	0.019826
OVGP1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.392102077	0.019826
FCHSD2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.391958181	0.019875

HEATR4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.391953743	0.019877
CREBZF	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.391941313	0.019881
NADK	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.391931968	0.019884
LUC7L	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.391879643	0.019902
HEXIM1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.391796549	0.019931
GSTP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.391723589	0.019956
CNTF	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.391662293	0.019977
CEACAM1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.391649532	0.019981
ANAPC1	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.391625138	0.01999
PRC1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.391591749	0.020001
BTBD9	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.391463309	0.020046
SORBS1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.391344918	0.020087
CPB1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.391344918	0.020087
CYLD	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.391311652	0.020098
HAAO	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.391311652	0.020098
SSC5D	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.391301481	0.020102
ZNF830	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.391140781	0.020157
KIRREL2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.391033124	0.020195
BOLA2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.390988387	0.02021
PLG	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.390988387	0.02021
FAM171A2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.390959198	0.02022
EIF3G	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.390826755	0.020266
PAIP2B	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.390826755	0.020266
CEP250	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.390826755	0.020266
BCHE	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.390815995	0.02027
CYLC2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.390809866	0.020272
FOLR2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.390809866	0.020272
ZFX	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.390768138	0.020287
QPCT	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.390768138	0.020287
TRMT10C	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.390768138	0.020287
PRSS8	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.390768138	0.020287
CHST4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	-0.390768138	0.020287
CUEDC1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.390665123	0.020323
AKT1S1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.390665123	0.020323

CCL18	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.390661853	0.020324
NUCB2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.390571093	0.020356
ARHGEF2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.390503491	0.020379
ITGB5	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.390503491	0.020379
MINDY4B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.390483298	0.020386
CEP112	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.390483298	0.020386
CEACAM5	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.390459645	0.020395
COBLL1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.390458553	0.020395
FAM114A2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.390341859	0.020436
TOP2B	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.390341859	0.020436
SMOC2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.390341859	0.020436
BHLHA15	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.390315191	0.020445
ZC3H6	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.390230874	0.020475
PDE4D	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.390230874	0.020475
ERICH6	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	-0.390191359	0.020489
CERK	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.390180226	0.020493
GIMAP8	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.390180226	0.020493
ABCC8	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.390168681	0.020497
ADGRB3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.390112505	0.020517
TBC1D17	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.390038752	0.020543
AUNIP	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.389902969	0.02059
ENTHD1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.389902969	0.02059
IQCA1L	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.389902969	0.02059
PBLD	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.389856962	0.020607
SIL1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.389817123	0.020621
PLIN1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.389729065	0.020652
MAGEA4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	0.38969533	0.020664
DAPK2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.38969533	0.020664
JADE3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.38965788	0.020677
NETO2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.389614579	0.020693
NUBP1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.389614579	0.020693
CEP131	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.389614579	0.020693
DUS2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	-0.389486209	0.020738
PAG1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.389372065	0.020779

EID1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.389348418	0.020787
CEP57L1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.389348418	0.020787
SELL	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.389312841	0.0208
IL15RA	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.389224967	0.020831
BTLA	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.389210218	0.020836
CHRDL2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.389181949	0.020846
CTNNBL1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.389118307	0.020869
STEAP1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.389056556	0.020891
MAST4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.389048801	0.020894
UPF3B	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.389048801	0.020894
SPTLC1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.389040109	0.020897
GPX1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.389040109	0.020897
ZCCHC18	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.3890378	0.020898
IFNL4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.3890378	0.020898
BNC1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.388955906	0.020927
CTNND1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.388888195	0.020951
CDK19	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.388887168	0.020952
GPD1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.388887168	0.020952
BHLHA15	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.388878846	0.020955
SCG2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.388856115	0.020963
CCDC91	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.38869989	0.021019
GOLGA2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.388563904	0.021068
IDO1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.388529419	0.02108
TAF5L	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.388427973	0.021117
EXOC7	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.388402272	0.021126
FAM91A1	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.388388566	0.021131
TNF	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.388240639	0.021184
NFE2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.388240639	0.021184
NAA40	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.388197861	0.0212
TDGF1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.388197861	0.0212
CNTN2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	-0.38817263	0.021209
RASSF5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.388162552	0.021213
RAB44	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.388162552	0.021213
NDUFAF1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.388102932	0.021234

WDHD1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.388087717	0.02124
PNP	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.38796775	0.021283
TMF1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.387917375	0.021302
FCGR2B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.387909551	0.021304
GRIP2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.387831637	0.021333
AMY1_AMY	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.387767201	0.021356
TACC3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.387755743	0.02136
FGF5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.387737639	0.021367
FGF1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.387737639	0.021367
LMNTD2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.38770908	0.021377
QPCT	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.387675508	0.02139
RAMP3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.387653467	0.021398
TAP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.387595851	0.021419
TBC1D2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.387595851	0.021419
MUC1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.387595851	0.021419
LINC02906	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.387579424	0.021425
CTSS	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.387500723	0.021453
ADAMTSL2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.387500723	0.021453
STXBP4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.387432478	0.021478
PDE5A	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.387432478	0.021478
PPP3R2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.387350646	0.021508
ZNF746	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.387339015	0.021512
DNER	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.38730814	0.021524
MAGEB3	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.387255767	0.021543
BEND4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.387252584	0.021544
HYLS1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.387249959	0.021545
MAF1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.387175856	0.021572
EPB41L2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.387169808	0.021574
SMNDC1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.387169808	0.021574
CHAF1B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.387047305	0.021619
CD79A	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.387019071	0.02163
GSAP	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.387019071	0.02163
NELL2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.387019071	0.02163
PTPRF	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.387019071	0.02163

MYO10	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.387019071	0.02163
XRCC1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.387019071	0.02163
P3H4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.386998796	0.021637
STXBP1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.386947581	0.021656
SHOC1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.386873283	0.021684
APBB1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.386838894	0.021696
TDP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.386838894	0.021696
MICAL3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.386828687	0.0217
FGF23	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.386823472	0.021702
PI3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.386811112	0.021706
TPSD1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.386785949	0.021716
TEX11	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.386651261	0.021765
CIART	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.386624317	0.021775
CCL25	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.386608452	0.021781
GALK2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.386587082	0.021789
DDAH1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.38650798	0.021818
NCAM1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.38650626	0.021819
MOK	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.386488468	0.021826
ZRSR2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.386469356	0.021833
SIRT3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.386462685	0.021835
CEP55	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.386442292	0.021843
COPB2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.386442292	0.021843
IDI2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.386342005	0.02188
MYO1E	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.386301053	0.021895
ALYREF	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.386177065	0.021941
FCRL2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.386177065	0.021941
FAM171B	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.38613942	0.021955
TAB2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.38613942	0.021955
FAM104B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.386126859	0.02196
ACP3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.386081624	0.021977
INSL5	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.386049937	0.021989
LPA	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.386049937	0.021989
ZKSCAN3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.38597814	0.022016
CEP250	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.38597814	0.022016

DTX3L	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.385977788	0.022016
ENTR1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.385977788	0.022016
MERTK	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.385977788	0.022016
IGFBP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.385970498	0.022018
RRN3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.385865512	0.022058
GNPDA1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.385865512	0.022058
TNNT2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	-0.385865512	0.022058
SH3GLB2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.385865512	0.022058
FRMD4B	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.385865512	0.022058
FGFBP1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.385865512	0.022058
CD82	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.385849495	0.022064
CCAR2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.385846151	0.022065
MYH15	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.385808031	0.022079
CGN	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.385799309	0.022082
C10orf90	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.38571688	0.022113
CDH3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.385666636	0.022132
MRPL52	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.385666636	0.022132
SPAG9	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.385654524	0.022137
SPATA2L	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.385544012	0.022178
COL2A1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.385534508	0.022182
SHBG	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.385534508	0.022182
HBG2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.385515237	0.022189
DNPEP	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.385515237	0.022189
PRRT2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.385509407	0.022191
C5orf34	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.385492891	0.022197
RP2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.385492891	0.022197
ASB11	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.385436525	0.022218
TNFSF15	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.385436525	0.022218
ZC2HC1A	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.385331259	0.022258
NUPR1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.385288733	0.022274
CEP89	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.385288733	0.022274
GTF2F1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.385288733	0.022274
MAD1L1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.385288733	0.022274
SCLT1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.385288733	0.022274

LRRC71	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.385279252	0.022278
PAFAH2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.385184322	0.022313
GFRA3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.385169627	0.022319
DIPK2B	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.385169627	0.022319
SHROOM4	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.385151995	0.022326
RWDD3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.38510297	0.022344
VEGFB	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.385007995	0.02238
TP53BP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.384976302	0.022392
ATXN7L2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.384976302	0.022392
SCRIB	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.384853408	0.022439
SLC27A4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.384711953	0.022492
THPO	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.384711953	0.022492
IL1R1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.384711953	0.022492
SUSD1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.384711953	0.022492
MENT	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.38470203	0.022496
DRC1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.384691038	0.0225
ARHGAP10	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.384617265	0.022528
CABP7	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.384522494	0.022564
DACT1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.384522494	0.022564
ANP32E	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.384522494	0.022564
NBN	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.38451608	0.022567
IQCA1L	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.384358633	0.022627
MYO1E	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.384277047	0.022658
CXCL3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.384277047	0.022658
CTLA4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.384266049	0.022662
PAIP1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.384199833	0.022688
DDT	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.384199833	0.022688
ADA	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.384191579	0.022691
ITGB2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.384191579	0.022691
ZFAND4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.384135174	0.022712
MRPS16	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.384135174	0.022712
HBEGF	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.384135174	0.022712
DCP1A	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.384135174	0.022712
ANLN	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.384075532	0.022735

CDH6	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.384038201	0.02275
PHYKPL	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.384038201	0.02275
IMUP	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.383936828	0.022788
IDI2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.383891821	0.022806
MYO5B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.383860665	0.022818
OGG1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.383860665	0.022818
KIF7	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.383857367	0.022819
FILIP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.383838065	0.022826
IRGQ	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.383825746	0.022831
REG3G	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.383714937	0.022874
ATP2B4	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.383695538	0.022881
CHAMP1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.3834265	0.022985
ING2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.3834265	0.022985
CTNND1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.383391672	0.022999
SKOR1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.383346043	0.023016
EEPD1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.38325639	0.023051
DMD	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.38325639	0.023051
SCT	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.383243758	0.023056
TRIM40	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.383062711	0.023126
C4orf17	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.382985091	0.023156
LEP	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.382985091	0.023156
LRRC42	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.382981614	0.023158
CEP250	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.382981614	0.023158
DNAJC6	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.382981614	0.023158
NMI	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.382981614	0.023158
CCN2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.382981614	0.023158
ADGRB1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.382981614	0.023158
IGSF21	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.382981614	0.023158
PALM3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.382981614	0.023158
COX6B1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.382981614	0.023158
GSAP	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.382977704	0.023159
ERICH6	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	0.382906776	0.023187
DDC	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.382906776	0.023187
NELFCD	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.3829053	0.023187

SRP14	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.382867922	0.023202
IQCN	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	0.382745143	0.02325
SCGB3A1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	0.382745143	0.02325
CTNND1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.382697329	0.023269
TMOD2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.382661598	0.023283
NFATC4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.382583511	0.023313
MYO6	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.382583511	0.023313
NPY	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.382583511	0.023313
COLQ	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.382558605	0.023323
CFC1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.382558605	0.023323
FABP4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.382558605	0.023323
LUC7L	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.382537007	0.023331
ARG1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.382537007	0.023331
SH2D4B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.382445077	0.023367
GHRL	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.382445077	0.023367
TOMM34	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.382421879	0.023376
FZD8	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.382405844	0.023383
CAMSAP2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.382404835	0.023383
SEMA6D	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.382404835	0.023383
RGS4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	-0.382404835	0.023383
CCT5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.382404835	0.023383
PDGFC	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.382214966	0.023458
ERG	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.382206093	0.023461
FCAMR	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.382206093	0.023461
OPLAH	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.382095919	0.023505
PNMA2	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.382077252	0.023512
CIART	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.382069439	0.023515
SHMT1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.382065625	0.023517
RBPMS	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.381984855	0.023548
AMDHD1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.381936982	0.023567
PARP4	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.381915424	0.023576
PPP6R2	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.381915424	0.023576
DPH3P1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.381895516	0.023584
CWC15	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.381875179	0.023592

BTNL10P	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.381828055	0.02361
EPHA3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	-0.381828055	0.02361
PPL	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.381828055	0.02361
SRPK2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.381828055	0.02361
MFAP4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	-0.381828055	0.02361
FN1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.381828055	0.02361
FAT4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.381826929	0.023611
METTL2A	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.38177535	0.023631
SERPINC1	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.381753595	0.02364
ZBTB16	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.381721266	0.023653
C19orf12	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.381613718	0.023695
CRELD2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.381613718	0.023695
MAGIX	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.381591767	0.023704
NCS1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.381555297	0.023718
MYH7	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.381494509	0.023743
STK26	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.381385187	0.023786
CRIM1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.381366619	0.023793
RCC1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.381294521	0.023822
LRRFIP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.381277977	0.023829
CDH15	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.381268109	0.023833
CECR2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.381251276	0.023839
VMO1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.381251276	0.023839
PASK	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.381251276	0.023839
CADPS	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.381251276	0.023839
GOT1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.381215078	0.023854
FAM170B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	-0.38121335	0.023854
MED21	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.380967189	0.023953
PEPD	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.380967189	0.023953
VIPR1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.380962886	0.023955
RTKN2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.38090631	0.023977
DKKL1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.38090631	0.023977
CD58	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.380893099	0.023982
ATP6V1C2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	-0.380882435	0.023987
IQSEC1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.380882435	0.023987

SNRPB2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.380882435	0.023987
FGFR2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.380852658	0.023999
CASP10	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.380805556	0.024018
DDX43	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.38070475	0.024058
TNFRSF9	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.38070475	0.024058
NUTM1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.380692629	0.024063
AGXT	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.380674496	0.02407
MAP3K4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.380674496	0.02407
HPS5	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	-0.380674496	0.02407
XRN1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.380674496	0.02407
LY6K	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	0.380643924	0.024082
USP25	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.380643924	0.024082
COMMD7	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.380604187	0.024098
ISCA2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.380604187	0.024098
POM121L1P	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.380534641	0.024126
SPZ1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.380492159	0.024144
ABLIM1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.380492159	0.024144
SMARCA4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.380482292	0.024148
EBI3_IL27	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	0.380482292	0.024148
LMNTD2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.38043758	0.024166
TAFA5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.380426171	0.02417
PDE1A	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.380374075	0.024191
COL4A1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.380364531	0.024195
URAD	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.380291689	0.024224
ATXN7L2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.380245719	0.024243
ZFP57	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.380194422	0.024264
ARHGAP45	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.380194422	0.024264
WASF1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.380159027	0.024278
CTHRC1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.380143964	0.024284
LCTL	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.380135309	0.024288
PSMC3IP	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.380097717	0.024303
GRP	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.380097717	0.024303
RILP	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.380097717	0.024303
DEFB1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.380054365	0.02432

KLHDC7B	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.380024313	0.024333
WASF1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.380024313	0.024333
PCDH7	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.379973481	0.024353
IDUA	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.379889692	0.024387
MAST4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.379854203	0.024402
DPY30	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.379835763	0.024409
CYLC2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.379653252	0.024483
DNAH17	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.379635815	0.024491
NRXN1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	-0.379558778	0.024522
IL17A	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	-0.379520937	0.024537
TOP1MT	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.379520937	0.024537
ADAMTSL2	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.379487995	0.024551
ROBO4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.379480205	0.024554
ADGRA2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.37945363	0.024565
ITGAX	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.379435374	0.024572
NACC1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.379350866	0.024607
ATP5PO	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.379295226	0.02463
MYH4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.379232547	0.024655
TNFSF12	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.379232547	0.024655
TNFSF15	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	-0.379232547	0.024655
PARP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.379227864	0.024657
DEF8	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.379189234	0.024673
TES	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.379189234	0.024673
C8orf34	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.379173766	0.02468
ZRANB1	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.379002509	0.02475
MUC13	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.379002509	0.02475
SHROOM3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.378993407	0.024754
PCDH12	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.378970697	0.024763
ARHGEF10	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.37886597	0.024806
FGA	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.378834916	0.024819
AASDH	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.378833547	0.024819
ITIH5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.378720224	0.024866
DNAJC17	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.378704337	0.024873
XCL1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.378687928	0.02488

DYNLT1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.378663438	0.02489
FAM13A	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.378663438	0.02489
CCDC102A	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.378655768	0.024893
OSBPL2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.378655768	0.024893
MUC2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.378655768	0.024893
SCIN	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.378604761	0.024914
WDR46	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.378566035	0.02493
UBXN2A	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.378542705	0.02494
AASDH	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.378517024	0.02495
SLAMF8	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.378433167	0.024985
INTS13	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.378355195	0.025017
CDKL3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.378323219	0.025031
MATN3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.378323219	0.025031
THBS4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.378303073	0.025039
ATRX	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.378303073	0.025039
PRR25	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.378239626	0.025065
SWAP70	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.378219441	0.025074
CA13	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.37815311	0.025101
RALY	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.378078988	0.025132
TCERG1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.378078988	0.025132
ZBTB17	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.378078988	0.025132
SHROOM1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.378072962	0.025135
WDR54	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.378057254	0.025141
FST	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.378032285	0.025152
UBAP2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.377896176	0.025208
TEDC2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.377886048	0.025213
TH	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.377886048	0.025213
PAX4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.37786725	0.02522
ANKRD6	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.37784285	0.025231
CELA2A	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.377812891	0.025243
RNF214	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.377812891	0.025243
MYO3B	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.377790599	0.025252
MSANTD3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.377734544	0.025276
GCG	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.377734544	0.025276

NECTIN4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.377734544	0.025276
PRAME	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.377631402	0.025319
HSH2D	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.377612739	0.025327
MYCBPAP	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.377612739	0.025327
AMDHD2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.377612739	0.025327
SCLT1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.377572912	0.025344
SSNA1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.377572912	0.025344
CTSF	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.377572912	0.025344
SOX6	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.377502209	0.025373
GLYR1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.377502209	0.025373
CLTB	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.377472672	0.025386
TCL1B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.377453987	0.025393
KIR3DL3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.377447132	0.025396
GPA33	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.377440764	0.025399
STAM	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.377411279	0.025411
GGA2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.377249647	0.025479
UROD	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.377249647	0.025479
ENPP7	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.377246576	0.025481
RBM27	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.377242377	0.025482
APIP	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.377242377	0.025482
RFX5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.377223832	0.02549
DNM3	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.377222395	0.025491
FILIP1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.377213819	0.025494
CCNE1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.377213819	0.025494
IL3RA	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.377213819	0.025494
AFTPH	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.377152516	0.02552
ZNF831	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.377145394	0.025523
GUK1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.377132453	0.025529
FKBP10	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.377088015	0.025548
BIN1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.377014277	0.025579
RGS5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.377014277	0.025579
DNAAF6	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.376993677	0.025587
AREG	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.376925429	0.025616
KIFC1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.376925429	0.025616

HDGFL2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.376925429	0.025616
SATB1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.376925429	0.025616
CTTNBP2NL	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.376925429	0.025616
POLD4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	-0.376925429	0.025616
GOLM1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.376922405	0.025618
SERPINB5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.376922405	0.025618
HDGF	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.376911463	0.025622
KIF26B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.376883698	0.025634
SEZ6L	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.376883698	0.025634
PROK1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.376829637	0.025657
PRSS27	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.376829637	0.025657
PGLYRP4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.376763522	0.025685
ASXL2	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.37673691	0.025696
FCER2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.376715845	0.025705
NEXN.AS1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.376692293	0.025715
NOVA2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.37663704	0.025738
SLAMF7	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.376629196	0.025742
GPSM3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.376603118	0.025753
NUDT2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.376603118	0.025753
RNF40	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.376598278	0.025755
MBLAC1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.376580549	0.025762
C1GALT1C1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.376580549	0.025762
GPKOW	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.376580549	0.025762
NAGK	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.376580549	0.025762
SUMF1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.376533367	0.025783
CCDC121	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.37644435	0.02582
GRIK5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.37644435	0.02582
ABLIM1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.376441486	0.025822
LRRFIP1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.37639332	0.025842
CACTIN	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.37634865	0.025861
GGT5	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.37634865	0.025861
NCAPG	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.37634865	0.025861
TOX	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.37634865	0.025861
DTX3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.37634865	0.025861

PRDX6	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.37634865	0.025861
PDGFA	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.37634865	0.025861
NAA11	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.37634865	0.025861
ODAD4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	0.376279854	0.025891
IQCE	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.376279854	0.025891
NUDT10	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.376279854	0.025891
ALDH1A1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.376249634	0.025903
CRIP2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.376243794	0.025906
CCAR1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.376232071	0.025911
ZNF346	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.376161303	0.025941
RBM48	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.376161303	0.025941
AOC3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.376081817	0.025975
CLK3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.376073057	0.025979
GIMAP6	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.375941688	0.026035
SCGB2A2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.375941688	0.026035
NIT2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.37591872	0.026045
GRPEL1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.375881347	0.026061
APLP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.375881347	0.026061
USH1G	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.37577187	0.026108
EREG	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.37577187	0.026108
RNF168	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.37577187	0.026108
GPC1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.375771848	0.026108
RAB44	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.375771848	0.026108
SHC1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.375771579	0.026108
SNCAIP	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.375642124	0.026164
TNFAIP8	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.375633325	0.026168
GKN1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.375633325	0.026168
APOA4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.375633325	0.026168
CCER2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.375612748	0.026177
FAP	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.375612748	0.026177
DPP6	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.37560411	0.02618
RUBCNL	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.375587806	0.026187
SIRT1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.375587806	0.026187
CREG1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.375587806	0.026187

IL12RB1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.375541737	0.026207
BRPF1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.37543136	0.026255
DHRS7	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.375382593	0.026276
KCNRG	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.375311625	0.026307
GPRASP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.37530833	0.026308
MEX3D	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.37530833	0.026308
PPM1B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.37530833	0.026308
F12	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.37526125	0.026328
FEZ2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.37526125	0.026328
HBZ	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.375256891	0.02633
SAP18	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.375226107	0.026344
CCDC91	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.375195091	0.026357
RNF169	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.375195091	0.026357
SAMD8	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.375195091	0.026357
CPA4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.375195091	0.026357
HECW2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.375148428	0.026377
CCDC91	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.375118624	0.02639
DNAAF6	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.375081514	0.026406
N4BP2L2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.375081514	0.026406
VWC2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.375081514	0.026406
IL22	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.375079467	0.026407
HOOK1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.375025665	0.02643
STAR	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.375025665	0.02643
GANC	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.374922283	0.026475
TBC1D28	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.374921032	0.026476
REM2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.374878997	0.026494
TIMP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.374878997	0.026494
PNMA1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.374825164	0.026518
BST2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.374663531	0.026588
CANT1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.374621297	0.026606
ADAMTS1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.374621291	0.026606
IQCG	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.374621291	0.026606
GPATCH8	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.374618311	0.026608
NLGN1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.374618311	0.026608

VSTM2L	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.374618311	0.026608
ANKRD11	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.374618311	0.026608
CEP128	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.374618311	0.026608
LUC7L3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.374618311	0.026608
ARSB	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.374618311	0.026608
PPP3R1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.374618311	0.026608
NECAB3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.374618311	0.026608
TYMS	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.374592185	0.026619
CDC42BPB	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.374501899	0.026659
SEZ6L2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.374461973	0.026676
NKIRAS1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.374424341	0.026693
CREG2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.374410704	0.026698
THBS2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.374409813	0.026699
MNDA	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.374264148	0.026763
XRCC1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.374240594	0.026773
CASP8AP2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.3742239	0.02678
DCP1B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.374041532	0.02686
ST13	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.374041532	0.02686
TIMP3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.374041532	0.02686
NID2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.374041532	0.02686
VSIR	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.374041532	0.02686
PLEKHG4B	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.374023459	0.026868
ADAMTS4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.374001664	0.026878
ADGRE1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.373930957	0.026909
KLK7	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.373930957	0.026909
IL4R	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.373876647	0.026933
SCGB2A2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.37385537	0.026942
ARHGEF12	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.37385537	0.026942
ENPP6	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.37385537	0.026942
ZIC3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.373837117	0.026951
IFNB1	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.373823995	0.026956
CUZD1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.373622576	0.027045
NGDN	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.373602383	0.027054
EVI2B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.373602319	0.027054

ZC2HC1A	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.373602319	0.027054
ANGPTL4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.373541354	0.027081
NECAB3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.373532106	0.027085
MAP1LC3A	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.373532106	0.027085
PRR35	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.373470734	0.027113
HERVK.113_	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.373436004	0.027128
PRR5	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.373390047	0.027148
VTCN1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.373390047	0.027148
HNMT	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.373390047	0.027148
SPINK6	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.373390047	0.027148
ARSB	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.373370473	0.027157
SPEF1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	0.373208841	0.027229
ISCA2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.373175896	0.027244
CLEC1A	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.373081044	0.027286
C3orf70	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.373049829	0.0273
GOT1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.373047209	0.027301
SMC6	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.373014852	0.027315
ADGRG3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.373010512	0.027317
PCDH17	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.372940491	0.027348
KLF4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.372914088	0.02736
PCDHGB3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	-0.372914088	0.02736
FBXO46	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.372887972	0.027372
SAT2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.372887972	0.027372
DNAJB4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.372887972	0.027372
SCAMP2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.372887972	0.027372
PKN3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.372887972	0.027372
DCTN2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.372885577	0.027373
EXOC7	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.372879719	0.027376
DGKH	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.372834335	0.027396
SIN3B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.3727804	0.02742
VWF	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.3727804	0.02742
FARP2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.37274941	0.027434
ATXN3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.372723944	0.027445
DDX23	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.37270961	0.027452

CBLN4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.372620734	0.027492
MAD1L1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.372609576	0.027497
RNF212B	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.372562312	0.027518
GAB1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.372562312	0.027518
LHPP	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.372550289	0.027523
ANKRD20A1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.372539501	0.027528
EDA2R	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.372539501	0.027528
KALRN	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.372539501	0.027528
TOGARAM1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.372539501	0.027528
IFNL2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.372473357	0.027558
KLK11	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.37240068	0.02759
NT.proBNP	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.37239058	0.027595
DGKZ	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.372311193	0.027631
RANBP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.372311193	0.027631
DNAH5	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.372311193	0.027631
SPAG5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.372278662	0.027645
RFFL	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.372239048	0.027663
TMSB10	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.372239048	0.027663
C3orf70	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.372221348	0.027671
ASS1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.372219487	0.027672
S100A13	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.372199282	0.027681
CDK17	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.372077415	0.027736
L1RE1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.372077415	0.027736
L1CAM	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.371896436	0.027818
CRYBB2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.371859955	0.027834
EXPH5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.371859955	0.027834
BSND	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.371818605	0.027853
KIF3B	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.371754151	0.027882
SLIT2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	-0.371734413	0.027891
EGF	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.371734413	0.027891
VEGFC	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.371734413	0.027891
TRMO	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.371734413	0.027891
SAV1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.371734413	0.027891
TP73	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	-0.371734413	0.027891

APOB	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	-0.371734413	0.027891
UBXN2A	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.371720224	0.027898
PTX3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.371700115	0.027907
IL13RA2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.371688954	0.027912
KIF19	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.371630997	0.027938
PASK	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.371592519	0.027956
MICAL3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.371592519	0.027956
MYOM2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.371518845	0.027989
RAC3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.371446024	0.028022
ACSL1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.371446024	0.028022
HDAC9	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.371430886	0.028029
GPC5	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.371430886	0.028029
RTP4	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.371396567	0.028045
FLT3	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.371396567	0.028045
IL3	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.371396567	0.028045
CDK12	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.371348735	0.028067
SNU13	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.371285919	0.028095
FTO	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.371285919	0.028095
CYB5A	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.371269254	0.028103
GATD3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.371217281	0.028127
AARSD1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.371178626	0.028144
GMPR	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.371178626	0.028144
DPP10	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.371169621	0.028149
APOBR	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.371169621	0.028149
NEK5	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.371157634	0.028154
MYOM2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	-0.371157634	0.028154
LTBP3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.371127116	0.028168
DOK7	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.37107291	0.028193
NEK2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.371043463	0.028206
C5orf22	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.37100965	0.028222
ATP1B1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.37100965	0.028222
ITPRID2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.371008516	0.028222
CBY2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.371008516	0.028222
COQ7	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.371008516	0.028222

TECPR1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.370955005	0.028247
QDPR	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.370955005	0.028247
MARCO	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.37094599	0.028251
MICAL3	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.370911081	0.028267
C9orf40	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.370869244	0.028286
RBM27	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.370838407	0.0283
CTSL3P	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.370838407	0.0283
GASK1A	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.370709398	0.02836
FKBP1B	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.370668298	0.028379
NFATC3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.370628215	0.028397
RNF4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	-0.37062409	0.028399
NTHL1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.37062409	0.028399
BOLA1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.37062409	0.028399
NDUFA5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.37062409	0.028399
GFRA3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.370616976	0.028402
F12	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.370580854	0.028419
NFYA	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.370580854	0.028419
GOLGA8B	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	-0.370580854	0.028419
C1R	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.370425595	0.02849
CXADR	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.370328079	0.028535
CXorf51B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.370319186	0.02854
AGR3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.370319186	0.02854
RTBDN	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.370319186	0.02854
CALML4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.370293176	0.028552
PHF20	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.370292465	0.028552
BMP6	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.370249175	0.028572
KDM5A	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.370137829	0.028624
A1BG	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.370101938	0.02864
RFC1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.370004075	0.028686
SERPINE2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.370004075	0.028686
SNCA	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.370004075	0.028686
PSMD5	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	-0.370004075	0.028686
NR1D2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.36998786	0.028693
METTL15P1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.36998786	0.028693

PGM3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.36998786	0.028693
CTPS1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.369976196	0.028699
CCDC170	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.369962261	0.028705
ZNF217	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.369962261	0.028705
SUSD4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.369962261	0.028705
GVQW3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.369817751	0.028772
DNAJB2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.369817751	0.028772
RPRD1A	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.369788953	0.028786
F12	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.369778281	0.028791
PRDM2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.369715685	0.02882
PGA4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.369715685	0.02882
IL20RB	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.369715685	0.02882
MN1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.369715685	0.02882
ZFAND4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.369666776	0.028843
IL17RA	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.369628721	0.02886
FAM161A	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.369477532	0.028931
SPAG9	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.369477532	0.028931
PLXNB2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.369477532	0.028931
SLC4A1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.369439181	0.028949
PRR35	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.369427295	0.028954
PF4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.369427295	0.028954
JPH1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.369413309	0.028961
GFRAL	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.369398566	0.028968
GABARAP	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.369337516	0.028996
AKAP14	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.369337516	0.028996
CXCL8	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.369329667	0.029
ITPRIP	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.36932873	0.029001
IKZF2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.36932873	0.029001
XIRP2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.369300433	0.029014
TEX37	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.369265836	0.02903
POLR3F	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.36922432	0.02905
TFPI2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.36922432	0.02905
MTSS1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.369168035	0.029076
DUS2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.369138905	0.02909

NCAPH	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.369138905	0.02909
CSNK2A1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.369138905	0.02909
SPRR1B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.369121024	0.029098
MED6	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.369121024	0.029098
SEPTIN9	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.369098619	0.029109
CCL4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.369065366	0.029124
LTA4H	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.368969518	0.029169
CCDC88B	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.368967204	0.02917
SPRTN	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.368967204	0.02917
VAT1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.368911029	0.029197
ZCCHC14	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.368868507	0.029217
ISLR2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.368868507	0.029217
CDA	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.368868507	0.029217
POF1B	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.368844771	0.029228
POLD4	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.36880731	0.029246
COL6A6	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.368797095	0.029251
SMTN	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.368797095	0.029251
HOXD8	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.368664426	0.029313
MAP3K3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.368638604	0.029325
DEFB103A_I	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.368626985	0.029331
NEK5	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.368611544	0.029338
UBTD2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.368611544	0.029338
GPR15LG	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.368562126	0.029362
C6orf163	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.368562126	0.029362
CASP2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.368521506	0.029381
FCRL1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.368463955	0.029408
EPS8L2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.368456876	0.029411
EME1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.368422094	0.029428
MORF4L1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.368408285	0.029434
ULK2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.368408285	0.029434
GH2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.368391535	0.029442
TEX33	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.368391535	0.029442
PGLYRP4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.368359874	0.029457
CNBD1	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.368321824	0.029475

ACHE	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.36830769	0.029482
KYAT1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.36830769	0.029482
GBF1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.368273736	0.029498
PLA2G10	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.368198242	0.029534
ERVV.1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.368063015	0.029599
DRD2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.368058055	0.029601
KDR	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.368036609	0.029611
TCHH	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.368026791	0.029616
FAM131B	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.367985346	0.029636
MDC1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.367985346	0.029636
HSD17B3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.367985346	0.029636
BAP18	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.367985346	0.029636
ASB11	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.367985346	0.029636
ZWILCH	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.367985346	0.029636
EN1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.367985346	0.029636
STX16	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.367985346	0.029636
CBR3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.367985346	0.029636
MAP7	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.367976775	0.02964
NHSL2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.367976775	0.02964
STXBP5L	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.367948062	0.029653
PPL	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.367946548	0.029654
RNF213	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.367874977	0.029688
CCL1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.367844419	0.029703
TNFRSF10C	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.367645861	0.029798
C3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.367645861	0.029798
INSYN2B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.367631569	0.029805
CBLN2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.367609337	0.029815
CTDSPL2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.367606329	0.029817
MCEE	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.367551713	0.029843
PTH1R	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.367479675	0.029878
SOX8	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.36743622	0.029898
FHIP2A	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.367419312	0.029907
KNDC1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.367408567	0.029912
FIGN	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.367408567	0.029912

RFX5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.367408567	0.029912
JAKMIP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.367408567	0.029912
SART1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.367408567	0.029912
NPM1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.367408567	0.029912
IFNA2	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.36729566	0.029966
MANSC4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.36726611	0.02998
MERTK	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.367261135	0.029983
FGL1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.367261135	0.029983
CTRL	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.367257728	0.029984
RGMB	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.367228448	0.029998
CNTN1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.367208455	0.030008
SLC13A2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.367205082	0.03001
CLGN	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.367189024	0.030017
SLAMF6	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.367189024	0.030017
ACADM	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.367120177	0.030051
GAPDH	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.367096001	0.030062
DRD2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.367027616	0.030095
RALGPS2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.366984032	0.030116
RNASET2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.366984032	0.030116
CRACDL	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.366925892	0.030144
PLSCR3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.366831787	0.03019
SERPINF2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.366831787	0.03019
FBXO16	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.366817643	0.030197
MAGEB4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.366807572	0.030202
PRUNE2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.366778595	0.030216
VTN	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.366755782	0.030227
ENOPH1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.366755782	0.030227
SH2D3C	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.366743552	0.030233
CGN	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.366743552	0.030233
LMNB2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.366653118	0.030277
C10orf67	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.366636708	0.030285
CASP8AP2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.366636708	0.030285
NCS1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.366636708	0.030285
CEP170B	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.366585673	0.030309

CEP162	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.366585673	0.030309
CNOT10	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.366585673	0.030309
EIF4G1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.366585673	0.030309
GBP2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.366581919	0.030311
OGT	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.366567394	0.030318
TOGARAM1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.366567394	0.030318
ASAH2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.366543398	0.03033
SPG21	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.366420287	0.03039
NCF1C_NCF	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.366415564	0.030392
ZFAND3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.366352108	0.030423
MPST	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.366337282	0.03043
PNLIP	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.366337282	0.03043
MORF4L2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.366258655	0.030469
MCCC1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.366255008	0.03047
GPSM3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.366255008	0.03047
TEKT3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	-0.366255008	0.03047
HMBOX1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.366255008	0.03047
MNAT1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.366255008	0.03047
KPNA7	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.366255008	0.03047
DGKD	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.366255008	0.03047
TNFAIP6	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	-0.366255008	0.03047
CBLN2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.366255008	0.03047
SHC1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.366245454	0.030475
ANKRD35	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.366245454	0.030475
CACNB1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.366215974	0.030489
C4B	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.366206248	0.030494
GUCA1C	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.366203071	0.030496
REM2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.366176398	0.030509
PLCH1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.366107171	0.030542
UPK3A	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.366107171	0.030542
PNP	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.366097023	0.030547
SPTBN4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.366075345	0.030558
BAX	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.365991289	0.030599
AMPD3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.365991289	0.030599

EMID1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.36593539	0.030627
KIFAP3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.36593539	0.030627
DEFB121	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.365925622	0.030631
PPY	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.365925622	0.030631
DDX60	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.365905236	0.030641
ACVRL1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.365905236	0.030641
SNX9	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.365905236	0.030641
CD2	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.365894395	0.030647
TTLL4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.36587706	0.030655
USP9X	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.365805366	0.03069
DDX60	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.365773758	0.030706
UNC79	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.365773758	0.030706
IL31	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.365716088	0.030734
CAPRIN2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.365678228	0.030753
PARP10	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.365678228	0.030753
RINT1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.365678228	0.030753
TP53BP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.365678228	0.030753
ASPSCR1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.365678228	0.030753
HOOK2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.365678228	0.030753
NACC1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.365678228	0.030753
STX4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.365678228	0.030753
PSKH1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.365678228	0.030753
ZC3H15	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.365678228	0.030753
GSN.AS1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.365678228	0.030753
IFI30	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.365678228	0.030753
NEURL1B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	-0.365660375	0.030762
BAIAP2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.365660375	0.030762
TNF	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.365657375	0.030763
CCDC14	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.365612126	0.030785
SYNGAP1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.365612126	0.030785
BMP7	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.365499135	0.030841
BOC	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.365485933	0.030847
GOLM2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.365485933	0.030847
RCSD1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.365450494	0.030865

KIAA1958	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.365416837	0.030881
COL24A1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.365416837	0.030881
ENAH	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.365413748	0.030883
DBH	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.365413748	0.030883
ERICH3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.365394908	0.030892
APOM	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.365291211	0.030943
PLEKHF1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.365288861	0.030945
LAIR2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.365256435	0.030961
TBC1D32	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.365255779	0.030961
FBXL5	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.365204042	0.030987
JCHAIN	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.365127229	0.031025
STK24	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.365127229	0.031025
RTBDN	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.365101449	0.031037
MAP3K5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.365101449	0.031037
BHLHA15	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.365101449	0.031037
TRIM41	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.365101449	0.031037
PRTG	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.365101449	0.031037
UNG	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.365072648	0.031052
CNP	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.365054689	0.031061
FLT1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.365003601	0.031086
CTNNA2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	-0.364998546	0.031088
BICRAL	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.364998546	0.031088
RCSD1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.364998546	0.031088
CALML4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.364965597	0.031105
GRIK2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.364956614	0.031109
LAG3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.364926467	0.031124
PTH1R	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.364884579	0.031145
PECAM1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.364803965	0.031185
LY9	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.364761595	0.031206
RCC1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.364726503	0.031224
BPIFA2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.364602718	0.031285
TMED1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.364544361	0.031314
GADD45B	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.364524669	0.031324
ILF2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.364524669	0.031324

CDC25A	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.364524669	0.031324
ADD1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.364524669	0.031324
ANGPT1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.364524669	0.031324
BLMH	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.364524669	0.031324
SOD1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.364524669	0.031324
SPINK8	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.364524669	0.031324
MAP2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.364524669	0.031324
MAP2K6	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.364524669	0.031324
SPINK6	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.364524669	0.031324
MST1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.364524669	0.031324
TMOD2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	-0.364524669	0.031324
PTPRH	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.364374251	0.031399
SP7	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	-0.364336717	0.031418
NPPB	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	0.364319068	0.031427
PHLDA3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.364254084	0.031459
BTNL10P	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.364219675	0.031477
CYP3A4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.36421041	0.031481
TNFRSF6B	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.364201835	0.031486
MTIF2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.364157436	0.031508
BIRC7	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.364114281	0.031529
LBR	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.364005803	0.031584
DDT	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.364005803	0.031584
KIF13A	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.364001394	0.031586
CCDC138	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.36394789	0.031613
RIOK2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.36394789	0.031613
BRPF1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.36394789	0.031613
POTEC	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.36394789	0.031613
YY2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.36394789	0.031613
CNRIP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.36394789	0.031613
NOG	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.36394789	0.031613
SH3PXD2B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.36394789	0.031613
TMEM106A	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.36394789	0.031613
C2orf88	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.36394789	0.031613
DNAJB2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.36394789	0.031613

PDGFD	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.36394789	0.031613
GCSAM	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.36394789	0.031613
ADCYAP1R1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	-0.36394789	0.031613
MAP9	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.36394789	0.031613
CRNN	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.36394789	0.031613
CNTNAP2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.363874849	0.03165
MPST	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.363863923	0.031655
MZT2B	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.363863923	0.031655
NFE2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.363863923	0.031655
PHF20L1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.363834171	0.03167
FGFR4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.363834171	0.03167
GAPDH	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.363834171	0.03167
SPP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.363806057	0.031684
SLITRK1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.363800953	0.031687
RIBC1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.363793188	0.031691
ERBB2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.363693814	0.031741
S100A5	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.363693814	0.031741
SPEF1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.363674888	0.031751
PDCD5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.363674888	0.031751
NDUFA4L2	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.363628795	0.031774
CNOT10	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.363575946	0.031801
NLRP9	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.363523705	0.031827
BAG5	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.363523705	0.031827
STAU1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.363510907	0.031833
GPRASP3	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.363466967	0.031856
ROBO2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.363452204	0.031863
IL17RB	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.363353595	0.031913
EPO	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	0.363349275	0.031915
GZMB	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.363349275	0.031915
GFPT2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.363345835	0.031917
EPHA3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.363343974	0.031918
TCEANC2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.363343974	0.031918
NACA2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	-0.363343974	0.031918
ATP2B4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.363251734	0.031965

KIFAP3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.363102746	0.03204
PARP10	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.36302601	0.032079
CTDSPL2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.36301306	0.032086
ERI1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.36301306	0.032086
ADAMTS4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.363007072	0.032089
LYPD1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.362999188	0.032093
TMPRSS15	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.36295423	0.032116
EPCAM	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.362940215	0.032123
EFEMP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.362940215	0.032123
ELAVL3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.362920374	0.032133
YY1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.362864378	0.032162
NEB	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	0.362864378	0.032162
RPL14	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.362794331	0.032197
CCDC181	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	-0.362794331	0.032197
POM121L1P	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	-0.362794331	0.032197
DNAH6	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	-0.362794331	0.032197
DPPA4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.362794331	0.032197
AP2B1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.362794331	0.032197
DYNLT3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.362794331	0.032197
RENBP	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.362794331	0.032197
STX6	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.362794331	0.032197
ADAMTSL2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.362724075	0.032233
NCOR1P1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.362702746	0.032244
CCDC169	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.362682145	0.032255
CAMKK1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.362682145	0.032255
RANBP2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.362682145	0.032255
CASP8	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.362682145	0.032255
IL18RAP	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.362682145	0.032255
RPS10	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.362673158	0.032259
SERPINB9	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.362673158	0.032259
PBLD	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.362657824	0.032267
TDP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.362655501	0.032268
DEFA1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.362650324	0.032271
ENPP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.36255563	0.032319

SCLY	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.362541113	0.032327
ADM	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.362513728	0.032341
MORC3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.362503048	0.032346
SPATC1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.362449854	0.032374
PDXDC1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.362449854	0.032374
GLT8D2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.362379481	0.03241
SPN	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.362351231	0.032424
TRIAP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.362351231	0.032424
CLEC4G	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.362332939	0.032434
DNAJC6	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.362217849	0.032493
C5orf34	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.362217551	0.032493
IFIH1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.362217551	0.032493
RBMS3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.362217551	0.032493
KIF22	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.362217551	0.032493
HABP2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.362217551	0.032493
GPATCH11	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.362217551	0.032493
MICAL3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.362217551	0.032493
SRRT	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.362195278	0.032504
TNF	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.362195278	0.032504
TSPAN13	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.36216283	0.032521
FGF20	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.36216283	0.032521
ZBTB20	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.362056217	0.032576
ATXN10	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.362056217	0.032576
KIRREL2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.361996981	0.032607
EIF3M	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.36199272	0.032609
SAT2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.361965167	0.032623
ZBTB24	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.361929161	0.032642
CASP2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.361822611	0.032697
CHCHD6	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.361822611	0.032697
AMOT	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.361803456	0.032706
PDE2A	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.361732952	0.032743
PARD3B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.361660754	0.03278
MTUS1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.361660754	0.03278
ID2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.361647974	0.032787

TENT5A	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.361640771	0.032791
BEND4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.361640771	0.032791
CRIPT	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.361640771	0.032791
DTX3L	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.361640771	0.032791
MTHFD1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.361640771	0.032791
INTS8	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.361640771	0.032791
CELA3A	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.361640771	0.032791
HIVEP2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.361603177	0.03281
DHX8	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.361525024	0.032851
MGMT	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.361482392	0.032873
SNCA	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.361482392	0.032873
NFKB2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.361409688	0.032911
CD207	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.361402621	0.032914
ASCL1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.361395657	0.032918
TRMT13	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.361363195	0.032935
ALDH9A1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.361358488	0.032937
GALNT10	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.361358488	0.032937
SLC34A3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.361352382	0.03294
PRDX2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.361352382	0.03294
GOLGA8F_G	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.361352382	0.03294
NCAM1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.361343146	0.032945
CKAP2L	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.361343146	0.032945
TTN	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.361312283	0.032961
MYBPC1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.361312283	0.032961
EFCAB8	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.361274832	0.032981
PRRG1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.361274832	0.032981
SDHAF4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.361252527	0.032992
IZUMO1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	0.361248055	0.032995
PARPBP	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.361248055	0.032995
PRR14L	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.361202064	0.033019
ID4	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.361201367	0.033019
MEX3D	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.361195216	0.033022
RAD51AP1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.361142173	0.03305
TRAK1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.361142173	0.03305

AMOT	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.361086423	0.033079
EAF2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.361063992	0.033091
DKK1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.361063992	0.033091
ZKSCAN3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.361063992	0.033091
LAMA1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.361044721	0.033101
NOP56	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.361044721	0.033101
SPP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.361044721	0.033101
NET1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.360972064	0.033139
ATG13	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.360972064	0.033139
PDCL	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.360924791	0.033163
HIPK2	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.36087771	0.033188
IMUP	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.36087771	0.033188
IDO1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.36081461	0.033221
PRTG	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.360807781	0.033225
VPS41	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.360807781	0.033225
NR1D2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.360800951	0.033228
CA2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.360775602	0.033241
PHLDB2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.360763159	0.033248
ZCCHC8	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.360763159	0.033248
RAB2B	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.360763159	0.033248
EDN1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	0.360763159	0.033248
GAS2	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.360715881	0.033273
KHK	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.360601526	0.033333
POU2F3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.360584498	0.033342
SERPINA4	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.360498384	0.033387
AFP	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.360487212	0.033393
FOXO3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.360487212	0.033393
ITPA	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.360487212	0.033393
IQUB	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.360487212	0.033393
GAS2L1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.360487212	0.033393
UACA	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.360461736	0.033406
BMP2KL	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	0.360439894	0.033418
UBXN1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.360439894	0.033418
TACSTD2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.360399839	0.033439

STAG3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.360381294	0.033448
AGBL2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.360381294	0.033448
CUTC	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.360365745	0.033457
SCARB2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.360365745	0.033457
ELANE	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.360291627	0.033496
KATNAL1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.360278262	0.033503
CCT5	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.360278262	0.033503
KIF22	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.360230395	0.033528
MFAP3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.360198823	0.033545
EPC1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.360198823	0.033545
RNF212B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.360184793	0.033552
KANK2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.360184793	0.033552
SPRING1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.360121517	0.033585
FOLR1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.360121517	0.033585
ANKMY2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.36011663	0.033588
CPQ	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.36011663	0.033588
CEP89	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.359951408	0.033675
VTCN1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.359910433	0.033697
GMPR	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.359910433	0.033697
ASAP2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.359793365	0.033759
GPX1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.359793365	0.033759
NUTM1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.359781299	0.033766
KIF9	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.359781299	0.033766
SPECC1	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.35974491	0.033785
DAB2IP	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.359732062	0.033792
TWNK	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.359703916	0.033807
CNTRL	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.359703916	0.033807
EFHD2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.359703916	0.033807
INTS8	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.359664053	0.033828
CCL23	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.359643273	0.033839
LYG2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.359637677	0.033842
EVL	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.359622043	0.03385
GALNT7	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.359622043	0.03385
SHC3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	-0.359622043	0.03385

TNF	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.359591686	0.033866
ID4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.359591686	0.033866
RANBP2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.359528321	0.0339
FAM3D	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.35944108	0.033947
SHROOM1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.35944108	0.033947
RICTOR	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.359433942	0.03395
EFHD1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.359433942	0.03395
RADIL	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.359421253	0.033957
CD244	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.359391244	0.033973
RIGI	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.359373002	0.033983
PASK	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.359333653	0.034004
SDC3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.359333653	0.034004
MTF1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	-0.359333653	0.034004
SELENOP	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.359333653	0.034004
ITPRID2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.359333653	0.034004
MRPL53	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.359333653	0.034004
SOX30	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.359333653	0.034004
EFNB2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.359333653	0.034004
GH1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.359271752	0.034037
MYH9	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.359270971	0.034037
HOMER3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.35920383	0.034073
F11	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.359090561	0.034134
CHMP4C	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.359070409	0.034145
BLVRB	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.359045264	0.034158
ILKAP	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.359042087	0.03416
CDH6	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.359042087	0.03416
HLA.DRA	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.358985204	0.03419
MYOC	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.358973719	0.034196
LAYN	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.358973719	0.034196
VAMP4	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.358935767	0.034217
CRHBP	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.358841393	0.034267
DEFB121	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.358811442	0.034283
GDPD1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.358795387	0.034292
SEMA6D	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.35878992	0.034295

ENDOD1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.358756874	0.034313
KIF19	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.358756874	0.034313
HMOX2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.358743608	0.03432
DCAF12	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.358725817	0.034329
CCDC144CP	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	-0.358711173	0.034337
CD80	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.358711173	0.034337
GHR	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.358711173	0.034337
PLEKHG4B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.358675347	0.034357
LYPD3	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.35861211	0.034391
LILRA3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.358594831	0.0344
TF	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.358589479	0.034403
ANGPTL4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.358543445	0.034428
CEACAM6	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	0.358500307	0.034451
TRAPPC4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.358468484	0.034468
ARID4B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.358468484	0.034468
DDA1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.358468484	0.034468
ELOA	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.358468484	0.034468
SNAP25	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.358468484	0.034468
SIRPA	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.358468484	0.034468
HSP90B1	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.358450281	0.034478
CLEC4E	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.358394275	0.034508
SLC40A1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.358380259	0.034516
FGFR2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.358361073	0.034526
EIF5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.358283385	0.034568
STK39	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.358250314	0.034586
NDST1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.358250314	0.034586
MDGA1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.358177043	0.034626
MGAT2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.358177043	0.034626
STARD8	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.358053273	0.034693
CCDC66	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.358053273	0.034693
TTLL4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.358049344	0.034695
ARL2BP	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.358049344	0.034695
AIF1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.358015411	0.034713
MESD	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.358015411	0.034713

ILF2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.357993162	0.034725
DSG3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.357993162	0.034725
PRR4	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.357964795	0.034741
DPP4	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.357964795	0.034741
CRX	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.357910096	0.03477
CSRP3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.357910096	0.03477
ASH1L	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.357891704	0.03478
CARHSP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.357891704	0.03478
C7orf50	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.357891704	0.03478
ROBO2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.357891704	0.03478
ADGRB1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.357890823	0.034781
GPR158	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.357890823	0.034781
SLITRK1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.357839043	0.034809
RABEPK	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.357823162	0.034818
KRT20	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.357822374	0.034818
PSCA	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.357822374	0.034818
ZBED5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.357792606	0.034834
CHGB	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.357792606	0.034834
NCAN	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.357792606	0.034834
NPHS2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.357739986	0.034863
RNF10	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.357739986	0.034863
CAP2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.357739986	0.034863
CABYR	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	-0.35771843	0.034875
EPB41L5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.35771843	0.034875
CCAR1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.35771843	0.034875
PGA4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.357660668	0.034906
HS3ST3B1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.357638573	0.034918
PRR23A	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.357631585	0.034922
EP400P1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.357603315	0.034937
VWA5A	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	-0.357603315	0.034937
DMRTC1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.357593051	0.034943
NCLN	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.357593051	0.034943
ERG	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.357569877	0.034956
POGLUT1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.357569877	0.034956

PDIA4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.357569877	0.034956
MUC1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	0.357530514	0.034977
PRR20B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.357438103	0.035028
ANGPTL3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.357430513	0.035032
PDZK1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.357399768	0.035049
KDM5A	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.357395887	0.035051
ADAMTSL4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.357395887	0.035051
RASA1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.357391493	0.035053
CALCOCO1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.357368882	0.035066
PCBD1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.357368882	0.035066
CHRDL2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.357314925	0.035095
ERICH1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.357314925	0.035095
TCHP	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.357314925	0.035095
PAIP2B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.357314925	0.035095
TERF2IP	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.357314925	0.035095
ZHX2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.357314925	0.035095
RBM3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.357314925	0.035095
FAM3B	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.357314925	0.035095
DZIP3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.357237633	0.035137
EMC2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.357229658	0.035142
FZD9	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.357207249	0.035154
S100P	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.357132828	0.035195
BMP2KL	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.357059549	0.035235
DYNC1H1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.357059549	0.035235
ELN	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.357056601	0.035237
CEP44	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.357045617	0.035243
DIXDC1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.357026535	0.035253
CDK12	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.357026535	0.035253
FAM227A	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.357026535	0.035253
CCNE1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.35699038	0.035273
SH3BP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.35699038	0.035273
TARS3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.356902717	0.035321
CALB1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.356889439	0.035329
IRAK1BP1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.356785507	0.035386

CCNL1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.356738145	0.035412
DNAJC17	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.356738145	0.035412
SIGLEC10	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.356725687	0.035419
PAXX	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.356725687	0.035419
TPK1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.356725687	0.035419
ZNF202	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.356722353	0.035421
YJU2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.356672605	0.035448
SERTAD4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.356672605	0.035448
NRARP	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.356636222	0.035468
PIK3CD	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.356589267	0.035494
TGOLN2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.35656072	0.03551
ZFYVE28	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.356549221	0.035516
ENTPD2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.356549221	0.035516
TSC22D3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.356549221	0.035516
PTPRR	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.356542913	0.03552
ADGRA2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.356542913	0.03552
USHBP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.356537352	0.035523
PRTG	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.356509894	0.035538
VSTM4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	-0.356449756	0.035571
PXN	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.356442494	0.035575
RP2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.356442494	0.035575
ERICH1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.356399088	0.035599
LIMD1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.356399088	0.035599
PRKCQ	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.356399088	0.035599
USP42	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.356394772	0.035602
S100A3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.356394772	0.035602
TNFRSF4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.356394772	0.035602
PMS1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.356379111	0.035611
FIGN	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.356379111	0.035611
CCDC65	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.35634651	0.035629
TBR1	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.35634651	0.035629
CCDC80	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.356212383	0.035703
MRAP	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.356209002	0.035705
LPL	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.356209002	0.035705

UBA1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.356209002	0.035705
SH3D19	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.356184681	0.035718
KIF4B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.356161366	0.035731
ING1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.356161366	0.035731
KIF4A	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.356161366	0.035731
SPTBN2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.356161366	0.035731
GP1BA	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.356161366	0.035731
IFT43	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.356116427	0.035756
PCDH10	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.356116427	0.035756
TNFSF15	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.356116427	0.035756
FAM13C	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.356075824	0.035779
ATXN2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.356075824	0.035779
CPM	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.356075824	0.035779
DHPS	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.356063858	0.035786
IFNAR2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.356063858	0.035786
EEF1D	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.356038893	0.035799
FCER1A	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.356034812	0.035802
CCL25	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.356034812	0.035802
BICDL2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.355982271	0.035831
DAB2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.355914191	0.035869
LUZP2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.355872976	0.035892
TPPP2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.355834342	0.035913
PPY	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.355819429	0.035922
NOS1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.355783301	0.035942
MEX3B	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.355752559	0.035959
ARF6	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.355752559	0.035959
PRTN3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.35575216	0.035959
DLK1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.355732944	0.03597
IQCJ.SCHIP1	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.355699195	0.035989
TXLNB	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.355698674	0.035989
CALCOCO1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.355698674	0.035989
MYBPH	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.35568994	0.035994
HSPA12A	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.355584586	0.036053
ENTR1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.355584586	0.036053

MYT1L	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.355584586	0.036053
ST6GAL2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.355528565	0.036084
NRF1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.355528565	0.036084
POTEC	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.355522049	0.036088
SHPRH	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.355402029	0.036155
TEF	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.355402029	0.036155
FGF12	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.355385929	0.036164
GLYR1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.355358455	0.03618
GAS2L1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.355358455	0.03618
DGKB	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.355296197	0.036215
STX12	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.355291937	0.036217
SHD	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.355291937	0.036217
WIF1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.355291937	0.036217
RGS7BP	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.355267663	0.036231
PVALB	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.355267663	0.036231
PGF	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.355232932	0.03625
PTPMT1	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.35521371	0.036261
CAP2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.355188346	0.036275
MAPRE3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.355188346	0.036275
ARHGEF40	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.355181977	0.036279
FAM120C	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.355071115	0.036341
ARNT	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.355061826	0.036347
PSMD1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.355061826	0.036347
ORM1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.355061826	0.036347
NCCRP1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.355018236	0.036371
PRKAR2A	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.355018236	0.036371
STX4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.355018236	0.036371
SUOX	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.355018236	0.036371
TAX1BP1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.355018236	0.036371
CHAF1B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.355007807	0.036377
DCP1A	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.355007807	0.036377
SP3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.355007807	0.036377
TAFA3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.355007807	0.036377
CENPF	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.355007807	0.036377

PTPN9	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.355007807	0.036377
SUGP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.355007807	0.036377
TMF1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.355007807	0.036377
UNG	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.355007807	0.036377
UROD	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.355007807	0.036377
YES1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.355007807	0.036377
MFRP	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.354981536	0.036392
PLCD4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.354981536	0.036392
ERN1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.354944398	0.036413
TOMM34	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.354890053	0.036443
PPIF	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.354848127	0.036467
ARHGEF10	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.354848127	0.036467
ZBTB49	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.354848127	0.036467
HEXIM1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.354848127	0.036467
PXDC1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.354836967	0.036473
LRP2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.354836967	0.036473
C2orf16	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.354787918	0.036501
EGLN1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.354782766	0.036504
IL18	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.354782766	0.036504
ATP1B2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	-0.354740201	0.036528
GCAT	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.354728224	0.036535
CALCOCO2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.354678018	0.036563
TMF1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.354678018	0.036563
KRBA1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.354668655	0.036569
PRR5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.354601603	0.036607
CLEC4C	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.354583703	0.036617
BRD4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.354580653	0.036618
INCENP	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.35453126	0.036646
CTSV	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.35453126	0.036646
TRIM17	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.354431027	0.036703
MAP9	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.354431027	0.036703
SGF29	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.354431027	0.036703
CCL8	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.354431027	0.036703
NSFL1C	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.354431027	0.036703

POTEA	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	-0.354431027	0.036703
DYNLT1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.354431027	0.036703
ITPA	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.354431027	0.036703
CCBE1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	-0.354431027	0.036703
FHIP1B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.354409286	0.036716
GCFC2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.354409286	0.036716
CHAF1B	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.354404567	0.036718
FBP1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.354380212	0.036732
NADK	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.354371492	0.036737
CFAP45	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.354337799	0.036756
GPC1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.354337799	0.036756
CST3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.354337799	0.036756
PRR4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.354208345	0.03683
MTUS1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.35418259	0.036845
KCTD19	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.35416769	0.036853
TOGARAM2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.35416769	0.036853
DNAJB8	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.35414138	0.036868
TPD52L3	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.35408091	0.036903
PTGR1	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.35408091	0.036903
CABIN1	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.35408091	0.036903
ZHX2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.354078372	0.036904
ZFAND4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	-0.354078372	0.036904
WFDC1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.35399758	0.03695
KLK7	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.35399758	0.03695
C6orf132	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.353979329	0.036961
YP029	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.353854248	0.037032
EPHA10	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.353854248	0.037032
CNPY2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.353854248	0.037032
AZI2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.353854248	0.037032
SNX29	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.353854248	0.037032
NEXN	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.353854248	0.037032
GAB4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	-0.353854248	0.037032
SMAD1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.353854248	0.037032
NDUFB7	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.353854248	0.037032

PNLIP	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.353854248	0.037032
CBS	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.353827471	0.037047
DDA1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.353812972	0.037056
DNM3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.353812972	0.037056
PXDC1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.353781478	0.037074
SULT1E1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.353748035	0.037093
COQ6	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.353748035	0.037093
CSPP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.353747457	0.037093
COMMD2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.353747457	0.037093
ALPG	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.353681158	0.037131
IGFBP6	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.353681158	0.037131
C9orf43	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.353657362	0.037145
ZNRD2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.35365134	0.037148
MORN5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.353629172	0.037161
CDC37L1	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.353595424	0.03718
ENG	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.353557506	0.037202
BST1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.35351788	0.037225
TNIP1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.353487252	0.037242
TRMO	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.353451046	0.037263
TWNK	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.353451046	0.037263
CCDC40	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	-0.353416543	0.037283
DEFB116	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.353416543	0.037283
PLA2G7	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.353360737	0.037315
DDIT3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.353328076	0.037334
NUDT4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.353328076	0.037334
RALYL	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.353328076	0.037334
MPHOSPH8	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.353317143	0.03734
OTUD7B	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.353317143	0.03734
NPAT	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.353228232	0.037392
TTC16	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.353220935	0.037396
PIK3AP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.353220935	0.037396
ABO	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.353220935	0.037396
LEPR	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.353220935	0.037396
PRDX6	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.353179808	0.037419

ALDH1L1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.353177564	0.037421
ZC3H12D	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.353147034	0.037438
LAMTOR1	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.353109938	0.03746
SF3B4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.353085629	0.037474
ADM	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.353072283	0.037482
PPFIBP1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.353004811	0.037521
CHEK2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.352977123	0.037537
CDH4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.352977123	0.037537
TICRR	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.352976924	0.037537
NTF4	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.35294811	0.037553
PPA2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.352806815	0.037635
PAM	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.352806815	0.037635
GRK4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.352803403	0.037637
AJM1	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.352786281	0.037647
ACSM5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.352778696	0.037651
CSPG4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.352776681	0.037653
GPC4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.352760712	0.037662
TMOD4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.352760712	0.037662
IL25	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.352760712	0.037662
CASP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.352754714	0.037665
GFER	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.352754714	0.037665
SEMA7A	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.352754714	0.037665
EFCAB12	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	-0.35272539	0.037682
VCAN	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.352707539	0.037693
ZNF815P	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.352704533	0.037694
CRNN	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.352700689	0.037697
ADAMTSL5	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.352700689	0.037697
LSM12	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	-0.352700689	0.037697
NCOR1P1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.352700689	0.037697
CWF19L2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.352700689	0.037697
DBN1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.352700689	0.037697
EPPK1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.352700689	0.037697
MPP7	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.352700689	0.037697
UBXN2B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.352700689	0.037697

PDGFB	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.352700689	0.037697
TREML1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.352700689	0.037697
TCEA2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.352700689	0.037697
CEP85	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.352700689	0.037697
GCG	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.352700689	0.037697
PMVK	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.352700689	0.037697
PKD1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.352700689	0.037697
PTPRZ1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.352700689	0.037697
ABRAXAS2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.352681547	0.037708
SPN	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.352624453	0.037741
MUC1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.35257624	0.037769
BCL2L10	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.352530601	0.037796
SAMD12	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.352377583	0.037885
CRTAM	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.352367106	0.037891
HAND1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.352358282	0.037896
ELOB	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.352358282	0.037896
MEIS3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.352358282	0.037896
MPHOSPH9	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.35230049	0.03793
NOVA2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.352296487	0.037932
IZUMO1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.352278046	0.037943
BEND2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.352225881	0.037973
CRHR1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.35219665	0.03799
MFRP	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	0.35219665	0.03799
DNPH1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.35219665	0.03799
MEX3C	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.352136951	0.038025
HDDC3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.352123909	0.038033
EIF4E	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.352123909	0.038033
PHLDB1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.352123909	0.038033
PPP1R9B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.352123909	0.038033
TRIM21	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.352123909	0.038033
URAD	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	-0.352123909	0.038033
CABP2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.352123909	0.038033
R3HCC1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.352092886	0.038051
PFDN4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.352092886	0.038051

TET2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.352092886	0.038051
TCERG1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.352092886	0.038051
CPLX3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.352070378	0.038064
KITLG	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.352070378	0.038064
GTF3C2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.352025411	0.03809
VPS53	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.351956268	0.038131
ASAP3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.351873386	0.038179
POLR2F	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.351873386	0.038179
APOD	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.351873386	0.038179
KIF13A	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.351835519	0.038201
PDCD2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.351835519	0.038201
IL13	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.351786159	0.03823
VWA1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.351786159	0.03823
GLT8D2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.351775914	0.038236
L1TD1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.351774475	0.038237
RAB36	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	-0.351761971	0.038245
TGM2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.351761971	0.038245
MRPL24	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.351711753	0.038274
SEZ6	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.351676641	0.038295
ARHGAP24	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.351624471	0.038325
CD34	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.351624471	0.038325
HERC2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.351610155	0.038334
FILIP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.351610155	0.038334
GTF2F1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.351550121	0.038369
AMIGO2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.351550121	0.038369
EEF1AKMT2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.35154713	0.038371
ZKSCAN3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.35154713	0.038371
PRCP	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.35154713	0.038371
AKR1A1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.35154713	0.038371
ANKRD54	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.35154713	0.038371
PLG	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.35154713	0.038371
HOATZ	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.35154713	0.038371
GADD45B	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	-0.35154713	0.038371
ATP5IF1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.35154713	0.038371

ESYT1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.35154713	0.038371
PRSS2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.35154713	0.038371
GRIN2B	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.35144594	0.038431
JCHAIN	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.351430935	0.038439
LYPD1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.351430935	0.038439
RPH3AL	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.351430935	0.038439
OXT	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.351430935	0.038439
INSL5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.351425073	0.038443
BCAN	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.351424001	0.038444
INHBB	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.351424001	0.038444
HOOK2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.351388489	0.038464
LCN15	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.351374801	0.038473
LRRTM4	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.351329824	0.038499
ANG	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.351300432	0.038516
CLU	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.351299124	0.038517
DNAJB8	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.351226857	0.03856
ZRSR2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.351215372	0.038567
DOK7	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.351149933	0.038605
RBM25	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.351149933	0.038605
IL17D	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.351105721	0.038632
HS3ST3B1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.351105721	0.038632
SELENOP	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.351105721	0.038632
ITGAL	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.351105721	0.038632
P3H3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.351105721	0.038632
AFP	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.351100143	0.038635
BMP2KL	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.351066191	0.038655
RBKS	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.351065224	0.038656
HERVK.113_	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.351006167	0.038691
CTRC	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.351006167	0.038691
SERPINI1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.350998586	0.038695
TF	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.350973688	0.03871
GZMH	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.35097035	0.038712
BMI1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.35097035	0.038712
ARPP21	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.35097035	0.038712

TNFRSF8	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.350935612	0.038732
KIF6	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.350935612	0.038732
NMRK1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.350935612	0.038732
OPLAH	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.350935612	0.038732
PIWIL3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.350919821	0.038742
MUS81	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.350919821	0.038742
SEPTIN14	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.350822591	0.038799
GJA1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.350822591	0.038799
ZNF282	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.350817201	0.038803
NARS1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.350769228	0.038831
PGD	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.350769228	0.038831
KIF13A	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.350765502	0.038833
LCA5L	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.350765502	0.038833
TIGIT	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.350765502	0.038833
USP28	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.350765502	0.038833
SLC19A1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.350756022	0.038839
DAZ4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.35074196	0.038847
NDUFA5	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.35074196	0.038847
BCL7B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.35068971	0.038878
KLK7	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.35068971	0.038878
IL1RL1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.35068971	0.038878
SHOC1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.35068196	0.038883
GZMB	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.35068196	0.038883
SELL	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.35068196	0.038883
AAMDC	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.350595393	0.038935
ZNF350	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.350572575	0.038948
TPR	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.350572099	0.038948
PLEKHG1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.350525867	0.038976
NRXN1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.350519075	0.03898
TCP11	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.350459599	0.039016
ATP6V0D1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.350438314	0.039028
RPA4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.350418695	0.03904
KIAA1614	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.35039357	0.039055
IFT172	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.35039357	0.039055

FAM135B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.350372019	0.039068
CD101	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.350358853	0.039076
CD7	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.350358853	0.039076
BRD4	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.350358853	0.039076
AKAP14	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.350336703	0.039089
SCG2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.350295712	0.039113
ARNT	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.350295712	0.039113
DCLK3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	0.350257063	0.039137
GPR158	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.350257063	0.039137
SERPINB8	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.350255174	0.039138
USP37	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.350255174	0.039138
GSG1L	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.350229487	0.039153
HRH1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.350171463	0.039188
HRC	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.35011995	0.039219
FOXA3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.350095431	0.039233
FBP1	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.350035196	0.039269
CYP4B1	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.350035196	0.039269
CPB2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.349971959	0.039307
FCGR2B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.349970906	0.039308
PLEKHG4B	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.349933799	0.03933
CBY1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.349933799	0.03933
ATAD3B	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.349933799	0.03933
MPRIP	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.349933799	0.03933
CALB1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	0.349933799	0.03933
CASKIN2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.349914956	0.039342
TNFRSF10B	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.349914956	0.039342
CXorf51B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.349820241	0.039399
CNPY3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.349816791	0.039401
KHDRBS3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.349816791	0.039401
GAL	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.349816791	0.039401
MUC13	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.349816791	0.039401
RAB11FIP3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.349816791	0.039401
GPI	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.349776485	0.039425
CLSTN3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.349772166	0.039428

POTEM	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.349770062	0.039429
CT45A1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.349744846	0.039444
HMBS	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.349744846	0.039444
NPM1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.349744846	0.039444
SYCE1L	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.349635019	0.03951
CCDC172	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.349610534	0.039525
NFX1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.349610534	0.039525
CDIN1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.349607215	0.039527
DDX21	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.34955288	0.03956
TARS3	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.34954971	0.039562
ELAVL4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.349539153	0.039568
FOXG1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.349528401	0.039574
IL10RA	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.349528401	0.039574
OTOR	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.349528401	0.039574
DNAJB8	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.349528401	0.039574
CAT	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.349528401	0.039574
ALPK2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.349448902	0.039622
SLC13A1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.349445571	0.039624
ADAMTS1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.349424843	0.039637
STC1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.349424843	0.039637
CEACAM18	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.349404628	0.039649
FLT4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.349404628	0.039649
ZRANB1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.349375093	0.039667
PRC1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.349309042	0.039707
GOLM2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.349309042	0.039707
HSPA1A	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.34928727	0.03972
CFAP43	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.349240011	0.039749
CNDP1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.349240011	0.039749
NACC1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.349234518	0.039752
PFDN2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.349234518	0.039752
DNAI4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.349168738	0.039792
LEKR1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.349144938	0.039806
HNRNPA0	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.349125637	0.039818
KIF27	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.349114656	0.039825

RIMBP3C_RI	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	-0.349114656	0.039825
CFB	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.349064409	0.039855
SECISBP2L	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.348968124	0.039914
MAPKBP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.348951622	0.039924
BCAN	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.348914783	0.039946
CEACAM1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.348914783	0.039946
IQCA1L	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.348902396	0.039954
RSRP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.348848819	0.039986
ZSCAN31	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	0.348802373	0.040015
DTX2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.348783742	0.040026
TNFSF8	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.348767856	0.040036
CHAF1B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.348684628	0.040086
GSAP	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.348663232	0.040099
ANXA2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.348640741	0.040113
RTF2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.348618708	0.040127
PTX3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.348618708	0.040127
PLEKHG5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.348618708	0.040127
SENP8	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.348618708	0.040127
TSPAN7	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.348578738	0.040151
FCHO1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.348554081	0.040166
TNFRSF10C	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.348512982	0.040191
PPME1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.348479108	0.040212
GKN1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.348454473	0.040227
PYY	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	-0.348452828	0.040228
GGACT	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.348452828	0.040228
PLA2G15	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.348452828	0.040228
ANXA1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.348388596	0.040267
TPBGL	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.348388596	0.040267
RABGGTA	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.348383971	0.04027
AAGAB	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.348383971	0.04027
DDX55	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.348374842	0.040276
PRR14L	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.348374842	0.040276
PALLD	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.348374842	0.040276
FABP9	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.34833061	0.040303

ADGRB3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.348213862	0.040374
ADGRE1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.348213862	0.040374
SCN2B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.348182868	0.040393
ITPKA	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.348166532	0.040403
BAMBI	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.348166532	0.040403
C2orf83	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.348158485	0.040408
CCP110	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.348121913	0.040431
TANC1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	-0.348121913	0.040431
ANXA1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.348121913	0.040431
LPA	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.348121913	0.040431
PRUNE2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.348086452	0.040453
PTS	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.348043753	0.040479
IGFBP6	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.348043753	0.040479
GATD3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.34801601	0.040496
CCL3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.347994212	0.040509
CFC1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.347994163	0.040509
KBTBD7	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.347994163	0.040509
KIF1A	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.34796609	0.040527
COPB2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.34796609	0.040527
EPB41L5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.347928374	0.04055
CXorf51B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.347928374	0.04055
STAR	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.347873643	0.040584
EHD3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.347873643	0.040584
EIPR1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.34783258	0.040609
KIRREL2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.34783258	0.040609
ACTN2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	0.34783258	0.040609
GCK	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.347798063	0.04063
BMP2KL	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.347798063	0.04063
NUDT7	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.347798063	0.04063
MDC1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.347790999	0.040634
RHEX	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.347790999	0.040634
PAGR1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.347790999	0.040634
BCAM	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.347703534	0.040688
IL17RA	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.347703534	0.040688

BMI1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.347698262	0.040692
DEFB116	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.347670947	0.040709
GPKOW	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.347670947	0.040709
ITGAV	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.347670947	0.040709
ENAH	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.34761507	0.040743
ZBED4	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.347607767	0.040748
YH007	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.347607767	0.040748
PLXDC1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.347586692	0.040761
PRL	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.347564229	0.040775
ATP6V1D	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.347533854	0.040793
DDC	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.347533425	0.040794
AMMECR1L	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.347509673	0.040808
SNCAIP	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.347509673	0.040808
PGR	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.347509673	0.040808
STIP1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.347509315	0.040808
EAPP	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.347468151	0.040834
GPANK1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	-0.347460085	0.040839
SPATA7	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	-0.347460085	0.040839
MRPL28	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.347445938	0.040848
ACAN	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.34741875	0.040865
N4BP2L2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.34741875	0.040865
GIMAP6	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.347363673	0.040899
RSRP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.347363673	0.040899
PCNA	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.34728411	0.040948
RASSF7	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.34728411	0.040948
SH2D4B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.34723804	0.040977
EFEMP2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.34723804	0.040977
IZUMO1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.34723804	0.040977
BAP18	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.34723804	0.040977
CHAMP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.347221283	0.040987
NBN	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.347221283	0.040987
LHX2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.347221283	0.040987
SLC44A4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.347221283	0.040987
FAM114A1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.347193206	0.041004

SCP2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.347186051	0.041009
RSPH4A	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.347164325	0.041022
TIGD1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.34712917	0.041044
MECR	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.34712917	0.041044
DEFB121	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.347122281	0.041049
ESM1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.347073544	0.041079
CFAP161	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.347054006	0.041091
STK35	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.347024418	0.041109
RIMOC1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.347024418	0.041109
FCRL5	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.347024418	0.041109
TIPARP	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.347023097	0.04111
PPP1R9B	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.347023097	0.04111
LYSMD3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.347007928	0.04112
LTO1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.346932893	0.041166
H1.6	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.346862786	0.04121
CD2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.346852987	0.041216
TSSC4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.346852987	0.041216
LONP1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.346852987	0.041216
ANGPTL5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.34681319	0.041241
PAGR1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.346777817	0.041263
RFFL	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.346777817	0.041263
TSLP	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.346777817	0.041263
PCLAF	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.346763443	0.041272
SIM1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.346733718	0.041291
LHPP	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.346701154	0.041311
GNGT1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.346682878	0.041322
DNAJC6	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.346682878	0.041322
PRR3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.346644503	0.041346
DDX10	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.346644503	0.041346
FSD2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.346644503	0.041346
DDX23	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.346644503	0.041346
RYBP	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.346644503	0.041346
TGFB1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.346644503	0.041346
LRPAP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.346644503	0.041346

PECR	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.346644503	0.041346
ZBTB44	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.34641225	0.041492
MTMR7	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.34641225	0.041492
CLEC11A	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.346383079	0.04151
ZNF207	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.346360891	0.041524
GLTP	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	-0.346356114	0.041527
DUSP29	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.346342659	0.041536
ERP27	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.346342659	0.041536
GLIPR1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.346331485	0.041543
F3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.346307232	0.041558
CNTRL	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.346216257	0.041615
REG1B	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.34617255	0.041642
TTBK1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.346152924	0.041655
LY9	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.346152924	0.041655
PTPRN2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.346152924	0.041655
TPSAB1	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.34615131	0.041656
NDRG1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.346142146	0.041662
DDX23	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.346136427	0.041665
GBA1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.346136427	0.041665
FOLH1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.346067724	0.041708
CD14	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.346067724	0.041708
XCL1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	-0.346067724	0.041708
PDGFC	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.346067724	0.041708
FTO	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.346067724	0.041708
SMS	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.346067724	0.041708
FCN2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.346067724	0.041708
OMG	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.346035543	0.041729
KIF6	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.34601131	0.041744
ACADM	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.34601131	0.041744
MZT1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.34600244	0.04175
SEPTIN9	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.345959778	0.041776
APOF	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.345959774	0.041776
DNAJC9	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.345892993	0.041819
CEACAM16	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.345832331	0.041857

CRELD1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.345832331	0.041857
HSFX1_HSF2	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.345827653	0.04186
GID8	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.345827653	0.04186
KAT2B	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.345779334	0.04189
DCDC2B	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.345761236	0.041902
WDR64	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.345761236	0.041902
LRRC36	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.345761236	0.041902
ITIH3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.345761236	0.041902
L1RE1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.345759222	0.041903
LRCH1	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.345665824	0.041962
GCAT	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.34562726	0.041987
CCN3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.34562726	0.041987
PTPRA	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.34562726	0.041987
GRN	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.34559503	0.042007
DCP2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.345569728	0.042023
SLC51B	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.345569728	0.042023
PARP4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.345492112	0.042072
AHI1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.345492112	0.042072
HSFX1_HSF2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.345490944	0.042073
RBBP5	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.345490944	0.042073
SYNGAP1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.345490944	0.042073
GUCA1A	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.345490944	0.042073
RNF213	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.345490944	0.042073
SSH2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.345490944	0.042073
INPP5J	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.345490944	0.042073
HMBS	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.345490944	0.042073
PRKAR2A	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.345490944	0.042073
CD164	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.345490944	0.042073
FBXO40	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.345490944	0.042073
DEFB121	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.345490944	0.042073
DOC2B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.345474598	0.042083
MSRA	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.345474598	0.042083
C9	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	-0.345474598	0.042083
HNF1A	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.345454258	0.042096

PLAAT5	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.345408096	0.042126
NRTN	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.345397149	0.042133
NTPCR	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.345322003	0.04218
SDHB	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.345322003	0.04218
IL13RA2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.345246464	0.042228
GPSM3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.345232305	0.042237
MGA	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.345209429	0.042252
STX12	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.345167037	0.042279
EZR	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.345167037	0.042279
GLO1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.345157553	0.042285
TXLNGY	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.345157553	0.042285
GIPR	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.345151894	0.042288
DDIAS	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.345143684	0.042294
PSAP	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.345143684	0.042294
GFRA3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	-0.345143684	0.042294
NTPCR	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.345084831	0.042331
LYZL2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.345084831	0.042331
SIGLEC8	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.345084831	0.042331
KRT78	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.345027772	0.042368
CYSRT1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.34500215	0.042384
C14orf178	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.34500215	0.042384
DDX10	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.344956996	0.042413
TEX13A	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	0.344923199	0.042434
CEACAM5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.344914165	0.04244
YY1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.344914165	0.04244
AAMDC	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.344914165	0.04244
DCTN1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.344914165	0.04244
DCTN2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.344914165	0.04244
NAP1L4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.344914165	0.04244
YJU2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.344914165	0.04244
ATXN7L1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	-0.344914165	0.04244
KIF3B	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.344914165	0.04244
RABL2B	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.344914165	0.04244
USP9X	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.344914165	0.04244

PMM2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.344914165	0.04244
CD69	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.344914165	0.04244
EPDR1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.344914165	0.04244
MMP15	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.344914165	0.04244
PLEKHA4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	-0.34481277	0.042505
SOX13	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.344771995	0.042531
MTMR7	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.34475903	0.042539
YKT6	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.34475644	0.042541
GKAP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.344706815	0.042573
LZTS3	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.344694853	0.04258
CFAP97	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.344641565	0.042614
ANKRD45	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.344608019	0.042636
SCG2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.344601285	0.04264
HK2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.344601285	0.04264
KIF26B	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.344558588	0.042668
ABCB5	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.344558588	0.042668
ZP3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.344558588	0.042668
C14orf93	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.344533024	0.042684
HDGFL2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.344481855	0.042717
MAP3K13	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.344471456	0.042724
PHLDB1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.344471456	0.042724
COL5A1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.344438302	0.042745
ATP1B1	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.344371196	0.042788
SPRR1B	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.344371196	0.042788
CUL7	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.344337385	0.04281
MRI1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.344337385	0.04281
DPY30	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.344337385	0.04281
HOMER2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.344337385	0.04281
LAMA4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.344337385	0.04281
FAM104B	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.344337385	0.04281
FAM91A1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.344337385	0.04281
ZSCAN21	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	0.34427667	0.042849
EPHX2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.34427667	0.042849
PSKH1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.344246592	0.042868

CRLF2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.344246592	0.042868
PDCL2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.344207079	0.042894
GAS2L3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.344174798	0.042914
LRRC1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.344150941	0.04293
MIS18BP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.344150941	0.04293
DAPK2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.344150941	0.04293
IDS	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.344136053	0.042939
KLHL41	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.344131237	0.042943
CA9	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.344115038	0.042953
GDF2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.344081531	0.042975
PHF24	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.344016481	0.043017
BMPER	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.344016481	0.043017
L1CAM	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.344006609	0.043023
SULT1A1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.343961128	0.043052
KMT5B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	-0.343820026	0.043144
C1orf131	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.343820026	0.043144
NCF1C_NCF	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.343820026	0.043144
CLEC5A	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.343820026	0.043144
FGF12	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.343806139	0.043153
FGFBP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.343806139	0.043153
PRAM1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.343791019	0.043162
ANAPC4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.343760606	0.043182
EXOSC10	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.343760606	0.043182
RBM25	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.343760606	0.043182
NAPRT	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.343760606	0.043182
SAA4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.343760606	0.043182
BARGIN	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.343760606	0.043182
ALDH5A1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.343760606	0.043182
EML4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.343760606	0.043182
FKBPL	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.343760606	0.043182
HTD2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.343760606	0.043182
MCF2L	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.343760606	0.043182
WDR91	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.343760606	0.043182
IGFL3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.343760606	0.043182

CDK5RAP3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.343760606	0.043182
ACADM	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.343748311	0.04319
CCL4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.343748311	0.04319
RTP4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.343630141	0.043267
FAM20A	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.343621221	0.043272
CLMP	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.343621221	0.043272
S100A12	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.343620909	0.043273
CRHR1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.343620909	0.043273
RBP4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.343620909	0.043273
C3orf38	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.343605669	0.043282
FLAD1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.343588937	0.043293
RNASE9	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.343562053	0.043311
TTLL4	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.343562053	0.043311
CDR2L	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.343562053	0.043311
CFAP97	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.343489112	0.043358
RBPMS	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.343489112	0.043358
EPB41L3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.343468509	0.043372
CELA3A	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.3434508	0.043383
CTPS1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.343391066	0.043422
HNRNPA0	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.343326147	0.043464
MCM10	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.343326147	0.043464
NAPRT	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.343321825	0.043467
MED12	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.343306877	0.043477
F11R	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.343280691	0.043494
IGLON5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.343224193	0.043531
ENPP6	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.343160911	0.043572
CXCL9	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.343155499	0.043575
C5orf22	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.343151989	0.043578
AFAP1L2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.343110581	0.043605
ACE2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.343110581	0.043605
CNKSR1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.343041821	0.04365
SPTBN4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.342955058	0.043706
CAMSAP2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.342955058	0.043706
AMDHD2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.342955058	0.043706

C1S	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.342955058	0.043706
DCXR	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.342940472	0.043716
HMOX1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.342930756	0.043722
CRIP2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.342895338	0.043745
SKA1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.342865924	0.043765
SDHB	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.342865924	0.043765
COLEC12	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.342865924	0.043765
TACC2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.342827283	0.04379
IL18R1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.342827283	0.04379
VPS16	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.34282198	0.043793
CA4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.34282198	0.043793
FGD6	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.342754617	0.043838
CIAO2A	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.342750876	0.04384
MACF1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.342750876	0.04384
APOBR	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.342700601	0.043873
SUOX	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.342660348	0.043899
ZBTB16	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.342631041	0.043919
C12orf56	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.342607047	0.043934
CLNS1A	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.342607047	0.043934
PRR5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.342607047	0.043934
NFE2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.342607047	0.043934
AHSG	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.342607047	0.043934
LRRC37A2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.342607047	0.043934
ARHGAP45	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.342607047	0.043934
L3HYPDH	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.342607047	0.043934
MANF	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.342607047	0.043934
MLF1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.342607047	0.043934
ZBTB17	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.342607047	0.043934
CD80	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.342607047	0.043934
SPZ1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	-0.342607047	0.043934
CPLX3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.342600253	0.043939
MEF2C	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.342600253	0.043939
UBAC1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.342600253	0.043939
PPIB	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.342600253	0.043939

CIT	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.342591081	0.043945
GPRIN2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.342554175	0.043969
BDH2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.342498716	0.044006
INSL5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	-0.342496369	0.044007
MVK	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.342496369	0.044007
SSB	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.342496369	0.044007
PSTPIP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.342496369	0.044007
RTN4IP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.342496369	0.044007
KCNIP3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.342468851	0.044025
RBFA	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.342468851	0.044025
STK32C	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.342430144	0.044051
TRMT10C	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.342430144	0.044051
SPATS1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.342353734	0.044101
BRD2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.342337083	0.044112
OGFR	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.342337083	0.044112
EIF4EBP1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.342337083	0.044112
GPC4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	-0.342318657	0.044124
USP47	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.342267424	0.044158
CRB2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.342202379	0.044201
KLKB1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.342202379	0.044201
GIT1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.342198944	0.044203
SART1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.342165455	0.044225
CLEC12A	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.342165455	0.044225
KLK9	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.342042364	0.044307
PGLYRP4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.342030267	0.044315
IGSF9	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.342030267	0.044315
TAB2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.342030267	0.044315
CD226	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.342030267	0.044315
CXCL1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.342030267	0.044315
DTD1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.342030267	0.044315
TJAP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.342030267	0.044315
TRAF2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.342030267	0.044315
DTD1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.342030267	0.044315
VTI1A	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.342030267	0.044315

PAFAH1B3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.342010137	0.044328
LINC02872	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.341952851	0.044366
BST1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.341945478	0.044371
CRTAP	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.341852187	0.044432
ADA	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.341852187	0.044432
LACRT	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.341852187	0.044432
UNG	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.341852187	0.044432
ANKRD26P1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	-0.34183454	0.044444
ZBTB18	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	-0.34183454	0.044444
IGFBP4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.341801439	0.044466
FST	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.341781939	0.044479
INHBB	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.341779982	0.04448
GC	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.341779982	0.04448
CD300LF	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.341765217	0.04449
SOX2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.341765217	0.04449
HGFAC	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.341765217	0.04449
FGFR2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.341749706	0.0445
FZD9	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.341715367	0.044523
INSYN1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.341715367	0.044523
NRP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.341715367	0.044523
MTCL1	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.34162011	0.044586
CRYAA	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.341615878	0.044589
AKAP7	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.341615878	0.044589
CEP350	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.341615878	0.044589
GPNMB	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.341600969	0.044599
DGKH	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.341579597	0.044613
AKNAD1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.341547538	0.044635
TFEB	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.341528922	0.044647
HIP1R	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.341528922	0.044647
TFPI2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.341528922	0.044647
PI16	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.341528922	0.044647
FOXG1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	-0.341503626	0.044664
FAM13C	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.341503626	0.044664
PPP1R18	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.341503626	0.044664

RASSF7	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.341485256	0.044676
ZFP90	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.341485256	0.044676
ZBTB16	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.341477401	0.044681
CGB3_CGB5	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.341458281	0.044694
NEXN	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.341458281	0.044694
C1orf131	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.341453488	0.044697
YKT6	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.341453488	0.044697
PRKRA	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.341453488	0.044697
FKBP5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.341453488	0.044697
STIP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.341453488	0.044697
RALYL	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.341453488	0.044697
SLC12A2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.341453488	0.044697
SNAP29	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.341453488	0.044697
EPPK1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.341400472	0.044733
LRRFIP1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.341391198	0.044739
CEP290	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.341319672	0.044786
ANKIB1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.341255144	0.04483
VIPR1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.341255144	0.04483
IL3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.341255144	0.04483
RASGRF1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.341239378	0.04484
ITPRIP	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.3412181	0.044854
PTTG2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.3412181	0.044854
FSTL1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.341200028	0.044866
HEBP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.341189391	0.044873
NFYA	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.341172712	0.044885
RPA4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.341172712	0.044885
CWC22	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.341165098	0.04489
THBS2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.341165098	0.04489
DNAH1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.341089517	0.04494
SLITRK6	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.341089517	0.04494
MUC2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.341069269	0.044954
CHD2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.341069269	0.044954
PSMA2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	0.341044025	0.044971
ATP2B4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.341025033	0.044983

DUSP29	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.341025033	0.044983
LHB	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.341025033	0.044983
FAM13C	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.340999558	0.045
CPM	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.340945868	0.045036
GYPA	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.34089916	0.045068
ITGB7	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.34089916	0.045068
ERCC4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	0.340882393	0.045079
PINLYP	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.340882393	0.045079
CDY1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.340876708	0.045083
HEXIM1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.340876708	0.045083
SULT2A1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.340876708	0.045083
LMO4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.340876708	0.045083
ADAMTSL2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.340853356	0.045098
RBFA	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	-0.340841797	0.045106
NADK	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.340841797	0.045106
GLE1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.340799088	0.045135
LMOD1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.340752913	0.045166
IGFL3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.340745312	0.045171
EEIG2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.34072905	0.045182
INSYN2A	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.340629207	0.045249
TRIM47	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.340629207	0.045249
SIGLEC10	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.340588318	0.045276
KIAA1328	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.340588318	0.045276
NUDT10	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.340588318	0.045276
GPRASP2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.340588318	0.045276
TSNAXIP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.34056481	0.045292
CACNA1C	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.34056481	0.045292
CPA2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.340559129	0.045296
SNCA	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.340559129	0.045296
ANP32E	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.340558941	0.045296
ASB15	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.340549762	0.045302
HHEX	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.340510883	0.045329
TDRD3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.340510883	0.045329
YJU2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.340510883	0.045329

XPNPEP2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.340510883	0.045329
CCDC117	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.340488612	0.045344
CAMK1G	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.34048731	0.045344
CLIC3	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.34048731	0.045344
EDAR	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.34048731	0.045344
PRSS22	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.340399053	0.045404
FAM3D	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.340399053	0.045404
CXCL9	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.340397497	0.045405
XRRA1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.340388831	0.045411
COLEC11	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.340344199	0.045441
INTS13	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.340336417	0.045446
LAMTOR5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.340334699	0.045447
FAM161B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.340334699	0.045447
IL11RA	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.34030624	0.045467
SOX7	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.340299928	0.045471
CLPP	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.340299928	0.045471
OGA	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.340299928	0.045471
MYL6B	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.340299928	0.045471
NTF4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.340299928	0.045471
CTRC	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.340299928	0.045471
NAGPA	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.340299928	0.045471
TRERF1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.340299928	0.045471
GCAT	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	-0.340299928	0.045471
SEPTIN14	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.340235864	0.045514
FTO	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.340235864	0.045514
PPP1R32	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.340218722	0.045526
KLHDC4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.340179968	0.045552
HK2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.340179968	0.045552
CTSZ	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.340179968	0.045552
STAC3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.34014888	0.045573
TRAF3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.340123868	0.04559
ZBED4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.340104588	0.045603
PHOSPHO1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.340104588	0.045603
SEL1L	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.340104588	0.045603

CDIN1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.340104588	0.045603
KIFAP3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.340104588	0.045603
FCHO2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.340074232	0.045623
NCAM1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.340074232	0.045623
ZER1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.340048613	0.045641
GGACT	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.340011539	0.045666
CCL24	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.339997208	0.045676
WDR54	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.339948438	0.045709
TEX35	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.339948438	0.045709
MYH1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.339938743	0.045715
C12orf56	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.3399126	0.045733
FEZ2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.3399126	0.045733
SOSTDC1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.3399126	0.045733
ATP2B3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.339909931	0.045735
GPIHBP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.339909931	0.045735
CILP	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.339909931	0.045735
PLXNA4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.339878503	0.045756
TADA3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.339878503	0.045756
STAP2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.339874476	0.045759
CCDC65	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.339874476	0.045759
FABP5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.339849054	0.045776
NID1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.339796738	0.045812
CSF3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.339759124	0.045837
ZNG1B	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.339723149	0.045862
AK4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.339723149	0.045862
CCDC69	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	-0.339723149	0.045862
DHODH	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.339708394	0.045872
BECN1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.339708394	0.045872
CDNF	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.339708394	0.045872
GAK	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.339678167	0.045892
HPS5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.339644365	0.045915
BCL2L15	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.33951814	0.046001
DFFA	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.33951814	0.046001
DZIP1L	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.339483444	0.046025

AHSG	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.339483444	0.046025
CHGB	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.339483444	0.046025
LRRTM4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.339478433	0.046028
C1orf131	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.339434759	0.046058
CRYBG3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.339434759	0.046058
LENG8	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.339434759	0.046058
PCNA	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.339434759	0.046058
MNDA	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.339434759	0.046058
TIMM10	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.339434759	0.046058
TECTB	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.339427703	0.046063
OBI1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.339427703	0.046063
TSGA10IP	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.339395798	0.046085
ARHGAP42	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.339368175	0.046103
COL3A1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.339347115	0.046118
MAST1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.339341417	0.046122
SPA17	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.339266071	0.046173
GRP	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.339266071	0.046173
MFRP	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.339212008	0.04621
APLF	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.339198066	0.04622
KCTD5	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.339198066	0.04622
ESR1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.339195328	0.046222
GLRX	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.339187225	0.046227
KCTD20	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.339146369	0.046255
ZNF175	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.339146369	0.046255
EIF5A	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.339146369	0.046255
WDCP	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.339146369	0.046255
DSCAM	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.339146369	0.046255
TTR	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.339146369	0.046255
PARN	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.339140861	0.046259
INTS13	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.339104439	0.046284
NUBP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.339056957	0.046316
CHCHD6	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.339027957	0.046336
BMP10	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.339027957	0.046336
PRRT3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.339018123	0.046343

GDAP2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.338994858	0.046359
SPON2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.338994858	0.046359
PRR35	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.338954031	0.046387
NAAA	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.338942806	0.046395
MAGEA4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.33885798	0.046453
MNT	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.33885798	0.046453
PIK3CD	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.33885798	0.046453
SYNE3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.33885798	0.046453
BLNK	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.33885798	0.046453
CWC15	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.33885798	0.046453
EFHD2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.33885798	0.046453
GPIHBP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	-0.33885798	0.046453
GPKOW	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.33885798	0.046453
NPL	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.33885798	0.046453
DDT	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.33885798	0.046453
CAPRIN2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	-0.33885798	0.046453
PLA2G1B	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.33885798	0.046453
AHSG	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.338857847	0.046453
PHF20L1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.338856311	0.046454
PPFIBP2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.338856311	0.046454
NCAPG	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.338856311	0.046454
LSP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.338856311	0.046454
PLCB1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.338794388	0.046496
CCL7	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.338794388	0.046496
CA8	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.338787969	0.046501
ZRANB3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.338781174	0.046506
CA8	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.338781174	0.046506
EPHA1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.338781174	0.046506
SETD5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.338723919	0.046545
SEC13	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.338687738	0.04657
MCFD2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.338687738	0.04657
ZNF608	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.338619542	0.046617
CNTF	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.33856959	0.046651
GP2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.338545349	0.046668

CFC1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	-0.338525397	0.046682
AIF1L	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.338493808	0.046703
CD300C	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.338493808	0.046703
DKKL1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	0.33845791	0.046728
VIL1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.338347519	0.046804
RELB	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.338344908	0.046806
NTHL1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.3382812	0.04685
YH007	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.3382812	0.04685
NHP2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.3382812	0.04685
CCDC144CP	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.338263697	0.046862
PLA2G1B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.338263697	0.046862
YO027	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.338263697	0.046862
NLGN2	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.33822171	0.046891
CPLX3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.338203984	0.046904
CFAP92	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.338203984	0.046904
SLC51B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	-0.338194482	0.04691
CD302	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.338194482	0.04691
ENO3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.338194482	0.04691
LRFN2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.338192978	0.046911
NEURL1B	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.33817741	0.046922
C5	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.33817741	0.046922
STX5	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.338134645	0.046952
TAX1BP1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.338134645	0.046952
C6orf118	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.338033585	0.047022
TXNRD3NB	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.338033585	0.047022
SIL1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.338033585	0.047022
PIK3IP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.338033585	0.047022
CREB3L1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.338016482	0.047034
SSTR3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.3380073	0.04704
RPAP2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.33799281	0.04705
AARSD1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.33799281	0.04705
UNC79	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.33799281	0.04705
CTNND1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.337937523	0.047088
GOLGA2P5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.337937523	0.047088

MIA3	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.337898053	0.047116
STARD13	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.337867349	0.047137
ALPI	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.337867349	0.047137
SULT2A1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.337837191	0.047158
FGF7	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.337837191	0.047158
STARD10	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.337811381	0.047176
RGS8	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.337803474	0.047182
GET3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.337803474	0.047182
CTSD	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.337803474	0.047182
FEZ2	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.337736224	0.047228
PCNT	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.337728072	0.047234
NCOA1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.337704421	0.047251
C12orf42	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.337704421	0.047251
PDP1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.337704421	0.047251
IL20	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	-0.337704421	0.047251
PTPN11	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.337667082	0.047277
RPE	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.337649748	0.047289
ITPKA	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.337637194	0.047297
FOSB	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.337637194	0.047297
CD5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.337637194	0.047297
TRIM54	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.337591567	0.047329
LCP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.337573363	0.047342
SLC12A2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.337573363	0.047342
NEB	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.337573363	0.047342
RRP15	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.337532654	0.04737
CDA	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.337532654	0.04737
TFPI2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.337532654	0.04737
PRAM1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.337532654	0.04737
MRRF	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.337496972	0.047395
PRMT3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.337496972	0.047395
AMOTL2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.337488116	0.047401
ADAM9	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.337463298	0.047419
SLURP1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.337416031	0.047452
KIAA1549L	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	-0.337416031	0.047452

DNAH9	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.337416031	0.047452
PRKCQ	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.337416031	0.047452
STEAP4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.337416031	0.047452
DDX59	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.337388287	0.047471
ASAH1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.337366877	0.047486
SIK3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.337343251	0.047503
SOX4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.337342702	0.047503
NBEAL2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.337326484	0.047514
CD7	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.337326484	0.047514
PIWIL3	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.337250739	0.047567
KIAA1217	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.337176884	0.047619
FLRT2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.337176884	0.047619
RNF4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.337176884	0.047619
HADH	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.337135297	0.047648
IL31RA	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.337135297	0.047648
DRC3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.337127641	0.047653
ECD	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.337127641	0.047653
SPATA18	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.337127641	0.047653
FMNL1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.337127641	0.047653
TCOF1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.337127641	0.047653
MRPL46	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.337127641	0.047653
AKAP11	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.33711314	0.047664
GMNN	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.33711314	0.047664
QRICH2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.33711314	0.047664
SPATA7	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.33711314	0.047664
IL1RL1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.337023543	0.047727
CD207	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.337003219	0.047741
CSPG5	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	0.337003219	0.047741
CFHR5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.336990157	0.04775
CHRDL2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.336986644	0.047752
RNF38	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.336986644	0.047752
HELZ2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.336986644	0.047752
MTAP	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.33694673	0.04778
CR1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.336934741	0.047789

NUDT10	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.336883029	0.047825
RETN	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.336870825	0.047834
TIMM10	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.336841587	0.047854
NRIP3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	-0.336839251	0.047856
CELF5	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.336816535	0.047872
SNAP23	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.336816535	0.047872
FREM2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.336789687	0.047891
FAM166A	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.336741378	0.047925
NFIC	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.336734184	0.04793
MYO3B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.336734184	0.04793
SIGLEC5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.336716575	0.047942
CFHR5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.336716575	0.047942
DOP1B	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.336679955	0.047968
RAB3B	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.336679955	0.047968
DUT	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.336679955	0.047968
AK1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.336679955	0.047968
PTPN2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.336652917	0.047987
SMARCA1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.336646425	0.047992
CDK14	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.336603424	0.048022
FH	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.336550861	0.048059
LBR	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.336550861	0.048059
GP5	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.336550861	0.048059
ACAA1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.33653991	0.048067
EDF1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.33653991	0.048067
UROS	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.33653991	0.048067
SPAG5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.336533628	0.048071
FBN2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.336498037	0.048097
CFAP20	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.33648642	0.048105
VWA8	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.33648642	0.048105
PNMA1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.336476316	0.048112
EFHD2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.336476316	0.048112
GNPDA2	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.336441596	0.048136
ARID4B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.336422806	0.04815
PLCB1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.336422806	0.04815

CCAR1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.336306207	0.048232
B4GALT1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.336306207	0.048232
DNAJC28	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.336262472	0.048263
RRP1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.336218604	0.048294
ZFYVE16	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.336195058	0.048311
PCDH12	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.336159639	0.048336
NEB	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.336136097	0.048353
CCL8	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.336136097	0.048353
C5orf24	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.336136097	0.048353
CILK1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.336136097	0.048353
LSM1	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.336117939	0.048366
FCN2	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.336117939	0.048366
CSTL1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.336111683	0.04837
MUS81	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.336111683	0.04837
KDM3A	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.336111683	0.04837
NUPR1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.33607155	0.048398
IL1B	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.336033426	0.048426
CCL2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.336033426	0.048426
ERCC6L	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.335974082	0.048468
CFAP410	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.335974082	0.048468
ILKAP	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.335974082	0.048468
BCL7B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.335974082	0.048468
SH3BP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.335974082	0.048468
BDNF	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.335974082	0.048468
ITGB1BP2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.335974082	0.048468
CDC42BPG	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.335962583	0.048476
ITGAM	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.335962583	0.048476
BTBD8	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.335962583	0.048476
CDH12	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.335931959	0.048498
CAP2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.335931959	0.048498
ANKRD45	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.335871794	0.04854
TNS4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.335795955	0.048594
CENPJ	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.335795955	0.048594
USP25	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.335795879	0.048594

MARVELD3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.335739171	0.048635
PARD6A	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.335732472	0.04864
CYLC2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.335732472	0.04864
FGF16	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.335710162	0.048656
CLU	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.335709202	0.048656
XRCC1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.335685692	0.048673
OTUD1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.335685692	0.048673
F231L	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.335685692	0.048673
ADRM1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.335685692	0.048673
EIF3M	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.335645063	0.048702
IL9	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.335645063	0.048702
HBZ	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.335632453	0.048711
COLEC12	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.335586867	0.048744
DDX21	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.335570667	0.048755
SMURF1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.335548529	0.048771
FAM228A	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.335547167	0.048772
KIR3DL1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	-0.335547167	0.048772
CDO1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.33550236	0.048804
BDH2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.33545566	0.048837
TXNDC9	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.33545566	0.048837
PROC	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.33545566	0.048837
KMT2C	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.335397302	0.048879
GDAP2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.335397302	0.048879
AP1G2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.335397302	0.048879
MEX3C	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.335397302	0.048879
TOX3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.335397302	0.048879
CEP135	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.335397302	0.048879
GP2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.335397302	0.048879
TNFSF12	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.335397302	0.048879
WASHC3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.335397302	0.048879
DAAM1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.335397302	0.048879
UBR2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.335397302	0.048879
FRMD4B	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.335386897	0.048886
BCAT2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.335382195	0.04889

ZNF75D	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.335330289	0.048927
GTF2F1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.335330289	0.048927
PTPRA	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.335308796	0.048942
SOX9	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.335285551	0.048959
LGALS3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.335272249	0.048969
CCL4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.335225265	0.049002
FABP3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	0.335225265	0.049002
DNALI1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.335218577	0.049007
KNSTRN	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.335218577	0.049007
MED12	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.335218577	0.049007
ITIH1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.335218577	0.049007
GPC2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	0.335199823	0.04902
C6orf163	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	-0.335185927	0.04903
FAM204A	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	0.335146967	0.049058
ZNF252P.AS1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.335137847	0.049065
ST8SIA1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.335108913	0.049086
SSTR3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.335105491	0.049088
SHMT2	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.334945332	0.049203
PSTPIP1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.334945332	0.049203
EPAS1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.334902	0.049234
ASPG	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.334902	0.049234
ODAM	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.334902	0.049234
SV2A	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.334902	0.049234
AKAP2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.334885339	0.049246
ARHGAP27	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.334885339	0.049246
PILRA	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.334885339	0.049246
SMARCA4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.334820523	0.049293
TRPC5OS	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.334820523	0.049293
TRAK1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.334820523	0.049293
CALCOCO1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.334820523	0.049293
TRIP11	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.334820523	0.049293
PNP	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.334820523	0.049293
TSGA10	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.334820523	0.049293
INSL5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.334812026	0.049299

OMD	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.334812026	0.049299
ITGAL	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.33479209	0.049314
NFASC	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	-0.33479209	0.049314
RNF32	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.334775223	0.049326
RSRC1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.334740368	0.049351
IL17RB	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.334740368	0.049351
DACT1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.334652707	0.049414
HRAS	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.334605113	0.049448
UROD	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.334605113	0.049448
RASSF9	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.334584517	0.049463
CERK	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_1	0.334584517	0.049463
GALNT5	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.334581915	0.049465
PABIR2	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.334578736	0.049467
FBXL5	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.334578736	0.049467
ANKRD54	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.334578736	0.049467
PPA2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.334554424	0.049485
RALGPS1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.334554424	0.049485
ANGPTL5	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.334536523	0.049498
UGDH	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	0.334528064	0.049504
PARD3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.334528064	0.049504
GMEB2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.334470335	0.049546
ASAH2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.334470335	0.049546
INSYN2B	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	0.334435004	0.049571
SIAE	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.334435004	0.049571
MYL3	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	0.334417104	0.049584
CCDC13	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.334417104	0.049584
PSMG1	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.334417104	0.049584
MAP3K13	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	0.334415026	0.049586
GBP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.334365603	0.049622
MMP8	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Ruminococcus	0.334365603	0.049622
KIAA0232	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.334351804	0.049632
C16orf82	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	0.334351804	0.049632
GRN	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.334351804	0.049632
MTMR7	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.334337824	0.049642

OFD1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.334336082	0.049643
ATG101	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.334327507	0.049649
RPH3AL	d__Bacteria; p__Firmicutes; c__Clostridia; o__Christensenellales; f__Christensenellaceae; g__Christensenellaceae_R-7_g	-0.334327507	0.049649
ASAH1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.334267152	0.049693
BLM	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	-0.334264894	0.049695
SMAD1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.334264894	0.049695
DECR1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.334264894	0.049695
INPP5F	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.334255471	0.049701
BAG4	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.334255471	0.049701
BTBD7	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.334243743	0.04971
EPB41L4A	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.334243743	0.04971
TDGF1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.334243743	0.04971
NRP1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	-0.334243743	0.04971
VPS41	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.334243743	0.04971
FAM13B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.334243743	0.04971
PHOX2A	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	-0.334243743	0.04971
ATF2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.334243743	0.04971
GOLGA1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.334243743	0.04971
TET2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.334243743	0.04971
LRP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.334243743	0.04971
WASF3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.334243743	0.04971
EEF1D	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.334243743	0.04971
GLOD4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.334243743	0.04971
TYW1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.334243743	0.04971
MAVS	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.334243743	0.04971
PIN4	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.334243743	0.04971
STXBP1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_2	0.334243743	0.04971
FKBP4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.33422351	0.049725
AK4	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.334184871	0.049753
NSMCE2	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae_2	-0.334184871	0.049753
GOLGA6A	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.334175996	0.049759
MRPS27	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.334135641	0.049788
CREB3L1	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Muribaculaceae; g__Muribaculaceae	0.334122947	0.049798
TSR3	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.334121692	0.049798

HMBOX1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	-0.334121692	0.049798
KLF15	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Prevotellaceae; g__Prevotella_7	0.334094785	0.049818
HIVEP3	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.334094785	0.049818
PRKN	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Bacteroidaceae; g__Bacteroides	-0.334094785	0.049818
TRAF3IP1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Angelakisella	0.333955354	0.049919
CCL26	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	0.3339352	0.049934
CADPS	d__Bacteria; p__Bacteroidota; c__Bacteroidia; o__Bacteroidales; f__Rikenellaceae; g__Alistipes_1	-0.3339352	0.049934
NDUFB10	d__Bacteria; p__Firmicutes; c__Bacilli; o__Erysipelotrichales; f__Erysipelatoclostridiaceae; g__Erysipelatoclostridium	-0.333932207	0.049936
SDSL	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae; g__Anaerostipes	-0.333923219	0.049943
ATOX1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.33391598	0.049948
NMNAT1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.333914965	0.049949
PARN	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.333892595	0.049965
TOP2B	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Butyricicoccaceae; g__Butyricicoccus	0.333892595	0.049965
WARS1	d__Bacteria; p__Firmicutes; c__Clostridia; o__Lachnospirales; f__Lachnospiraceae_1	-0.333891581	0.049966
SHPK	d__Bacteria; p__Firmicutes; c__Clostridia; o__Oscillospirales; f__Ruminococcaceae; g__Faecalibacterium	0.333891581	0.049966
KLK7	d__Bacteria; p__Proteobacteria; c__Gammaproteobacteria; o__Enterobacterales; f__Pasteurellaceae; g__Haemophilus	-0.333852339	0.049994