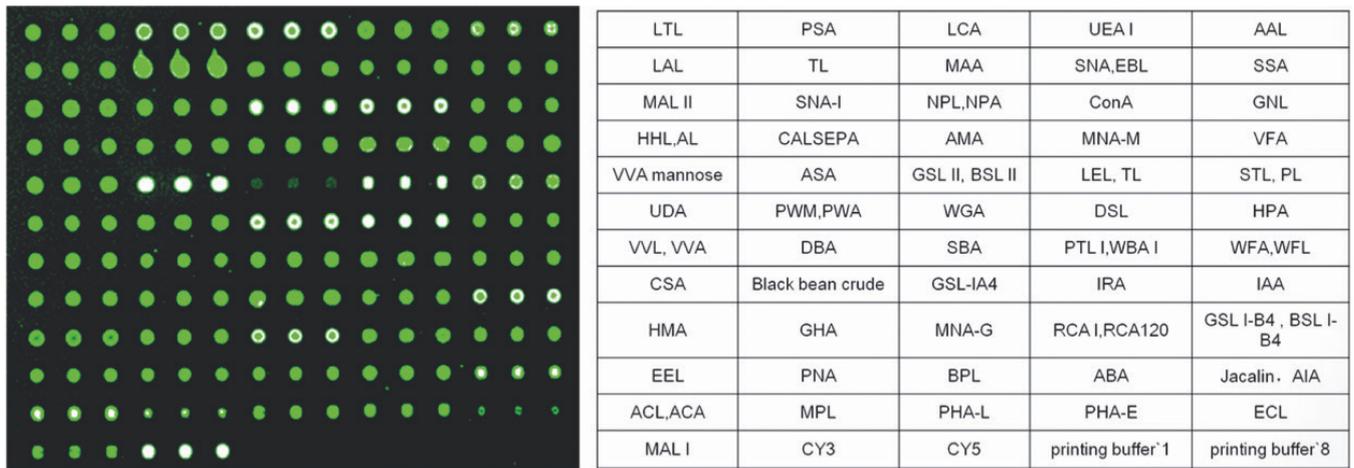


**Supplementary Table S1.** Data of lectin microarray and lectin blot displayed for serum IgG4 and purified IgG4 from a cohort in 16 subjects.

No.	concentration of serum IgG4 (µg/mL)	concentration of purified IgG4 (µg/mL)	HPA lectin signal values of serum IgG4	DSL lectin signal values of serum IgG4	ConA lectin signal values of serum IgG4	LTL lectin signal values of serum IgG4	VVA mannose lectin signal values of serum IgG4	MNA-M lectin signal values of serum IgG4	HPA lectin signal values of purified IgG4	DSL lectin signal values of purified IgG4	ConA lectin signal values of purified IgG4	LTL lectin signal values of purified IgG4	VVA mannose lectin signal values of purified IgG4	MNA-M lectin signal values of purified IgG4	HPA lectin signal values of purified IgG4	DSL lectin signal values of purified IgG4	ConA lectin signal values of purified IgG4
IgG4-RD-52	13400.00	45.00	4.83	2.71	3.87	2.51	2.90	3.73	8.97	4.77	5.38	3.79	2.94	5.29	0.90	0.90	1.78
IgG4-RD-53	18400.00	20.80	4.00	2.83	9.62	4.18	3.87	3.86	8.54	4.63	4.90	5.31	3.68	4.99	0.59	0.59	0.59
IgG4-RD-58	30900.00	106.82	4.08	2.61	5.25	3.49	3.73	4.20	7.54	4.27	5.34	3.83	3.81	5.24	1.34	1.34	0.54
IgG4-RD-60	13600.00	51.20	6.63	3.40	3.06	4.25	2.70	2.55	7.90	4.28	4.97	4.97	3.49	4.82	1.13	1.13	0.54
IgG4-RD-61	6710.00	56.20	4.78	2.39	3.36	1.63	2.39	2.77	8.52	4.58	4.94	3.95	2.97	4.80	0.71	0.71	0.54
IgG4-RD-239	26500.00	96.80	6.57	2.29	9.09	0.00	3.64	4.22	8.48	3.91	4.85	1.20	3.46	4.75	0.46	0.46	0.54
IgG4-RD-245	60300.00	132.60	4.12	2.99	10.05	2.70	4.28	5.01	7.63	4.89	5.01	2.69	3.98	4.88	0.66	0.66	0.32
IgG4-RD-250	18700.00	77.20	6.02	2.99	9.67	2.04	3.01	5.19	8.49	4.74	4.95	3.42	3.50	5.04	1.41	1.41	0.32
IgG4-RD-353	1490.00	88.81	2.82	2.87	4.01	3.46	3.34	2.67	6.58	4.74	5.11	3.46	2.99	4.64	0.73	0.73	0.32
IgG4-RD-354	1630.00	99.08	3.07	3.03	3.97	2.98	2.59	2.78	8.24	4.91	5.26	2.92	2.99	4.61	0.63	0.63	0.48
IgG4-RD-355	6960.00	99.70	3.16	1.75	5.36	3.22	2.42	2.51	6.58	4.62	5.12	3.06	3.33	4.81	0.43	0.43	0.48
IgG4-RD-356	9190.00	79.59	3.50	3.31	5.87	2.54	3.31	3.23	8.52	4.59	5.52	4.56	3.17	4.89	1.88	1.88	0.84
DC-289	358.00	41.88	4.87	4.17	1.43	2.71	2.57	1.88	8.97	5.13	5.37	3.66	3.59	4.85	1.88	1.88	1.16
DC-304	238.00	26.39	6.20	2.60	1.81	2.84	2.24	1.98	8.97	4.41	5.79	3.57	3.14	4.74	2.69	2.69	2.39
DC-372	1030.00	46.32	4.80	4.49	1.18	3.72	2.08	1.86	7.51	5.00	4.78	2.98	3.38	4.61	1.48	1.48	2.39
HC-16	200.00	45.69	4.50	4.07	3.50	3.33	2.25	2.75	7.20	4.76	4.50	3.95	3.57	4.82	2.26	2.26	3.33

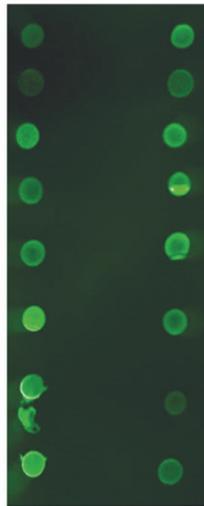


**Supplementary Fig. S1.** Lectin microarray analysis for serum IgG4 glycosylation. Layout of the lectin microarray containing 56 lectins in triplicate on the array slide.

**Spotting information**

**Purified IgG4 + Mouse-anti-IgG4 antibodies**

IgG4-RD-52	IgG4-RD-353
IgG4-RD-53	IgG4-RD-354
IgG4-RD-58	IgG4-RD-355
IgG4-RD-60	IgG4-RD-356
IgG4-RD-61	DC-289
IgG4-RD-239	DC-304
IgG4-RD-245	DC-372
IgG4-RD-250	HC-16



**Supplementary Fig. S2.** The purified IgG4 was detected by Dotblot analysis.