

Supplementary Table S1. The seropositivity of anti-S1/S2 IgG and NAb in RMD patients and HC on day 60 and day 90.

	Seropositivity			
	anti-S1/S2 IgG, n (%)		NAb, n (%)	
	Day 60	Day 90	Day 60	Day 90
HC	103 (99.0)	81 (100.0)	93 (89.4)	77 (95.1)
RMD	252 (86.3)	223 (77.4)	158 (54.9)	155 (53.8)
<i>p</i> -value	<0.001	<0.001	<0.001	<0.001

Supplementary Table S2. The titres of anti-S1/S2 IgG or NAb in RMD patients in different kinds of diseases compared with HC on day 60.

HC (n=104)	anti-S1/S2 IgG titres (AU/mL)			HC (n=104)	NAb titres (AU/mL)		
	RMD (n=292)	<i>p</i> -value			RMD (n=292)	<i>p</i> -value	
345.5 (257.4-389.6)	RA (n=66)	107.9 (32.3-277.8)	<0.001	558.0 (82.5-887.8)	RA (n=66)	16.3 (6.3-339.8)	<0.001
	pSS (n=39)	232.5 (29.9-384.3)	0.015		pSS (n=39)	52.6 (6.5-860.5)	0.007
	SLE (n=129)	38.7 (11.8-258.0)	<0.001		SLE (n=129)	6.8 (4.6-65.4)	<0.001
	IIM (n=6)	184.8 (52.4-284.4)	0.047		IIM (n=6)	24.5 (5.2-504.5)	0.026
	Primary vasculitis (n=8)	358.6 (9.5-402.4)	0.735		Primary vasculitis (n=8)	337.6 (5.7-921.0)	0.363
	UCTD (n=18)	293.9 (76.8-338.1)	0.018		UCTD (n=18)	158.5 (24.4-489.0)	0.013
	Others (n=26)	339.5 (44.5-388.0)	0.576		Others (n=26)	284.0 (8.6-880.0)	0.280

Supplementary Table S3. The titres of anti-S1/S2 IgG or NAb among RMD patients with different therapy on day 60.

	anti-S1/S2 IgG titres (AU/mL)	NAb titres (AU/mL)
GC non-use (n=135)	226.0 (32.5-333.0)	66.0 (6.5-670.5)
GC pre-infection (n=129)	36.6 (11.5-236.8)	6.4 (4.6-52.1)
GC post-infection (n=28)	293.0 (73.9-405.6)	541.0 (17.4-918.3)
ISD non-use (n=142)	273.0 (40.4-372.9)	141.0 (7.2-841.0)
ISD pre-infection (n=136)	38.1 (12.0-193.6)	6.4 (4.8-31.9)
ISD post-infection (n=14)	232.6 (55.9-280.3)	37.7 (6.1-483.0)
b/tsDMARDs non-use (n=265)	142.0 (22.7-328.4)	25.9 (5.7-508.0)
b/tsDMARDs pre-infection (n=22)	22.5 (4.2-158.3)	5.6 (4.2-27.6)
b/tsDMARDs post-infection (n=5)	231.7 (53.4-346.6)	72.5 (18.9-611.0)
GC(-) (n=163)	242.8 (38.6-352.7)	68.2 (6.7-823.3)
GC<10mg/d (n=68)	36.2 (14.6-260.9)	6.3 (5.1-51.9)
GC≥10mg/d (n=61)	40.4 (5.17-234.6)	6.7 (4.2-59.2)

Supplementary Table S4. Multivariate analysis of the titres of anti-S1/S2 IgG or NAb (not analysis specific drugs) on day 60.

		Regression coefficient	Standard error	t-statistics	<i>p</i> -value	95% CI
anti-S1/S2 IgG titres (AU/mL)	Diseases	11.18	5.09	2.20	0.029	1.15, 21.20
	ISD pre-infection	-90.70	19.43	-4.67	<0.001	-128.95, -52.46
	GC pre-infection	-40.57	20.10	-2.02	0.044	-80.12, -1.01
NAb titres (AU/mL)	ISD pre-infection	-185.90	45.16	-4.12	<0.001	-274.80, -97.00
	GC pre-infection	-110.35	46.64	-2.37	0.019	-202.17, -18.54