

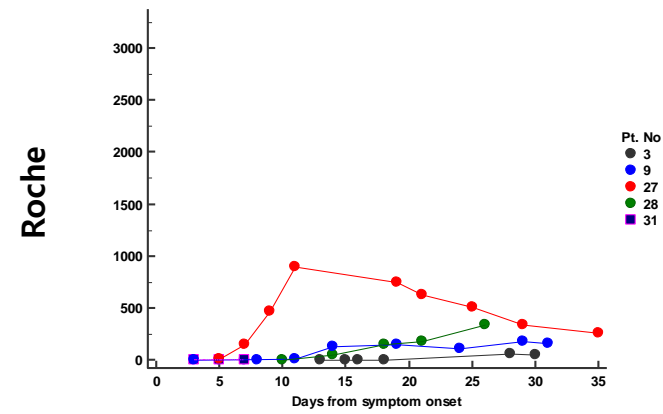
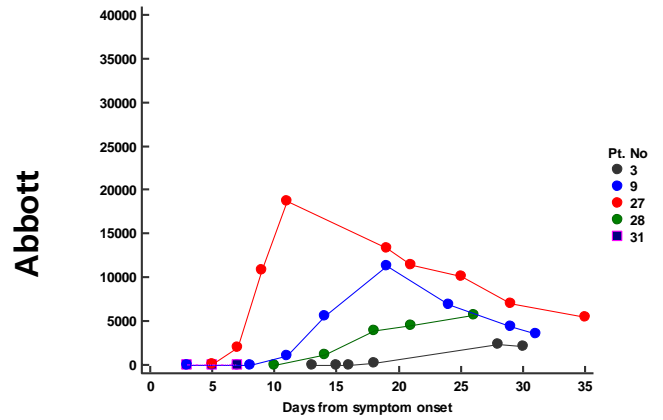
### Supplementary Materials

**Table S1.** Comparisons of SARS-CoV-2 S protein antibody levels by three chemiluminescent immunoassays (Abbott, Roche and Siemens) and the surrogate virus neutralization test (Genscript) in COVID-19 patients according to days after symptom onset and disease severity

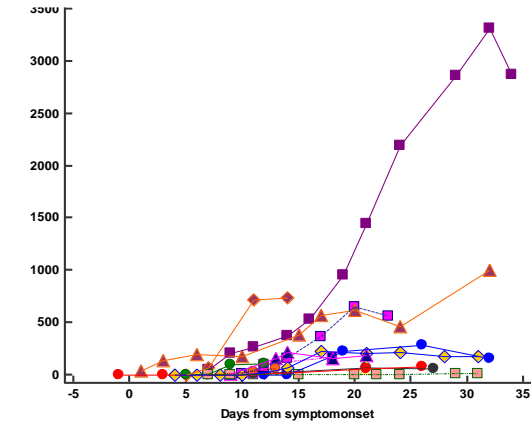
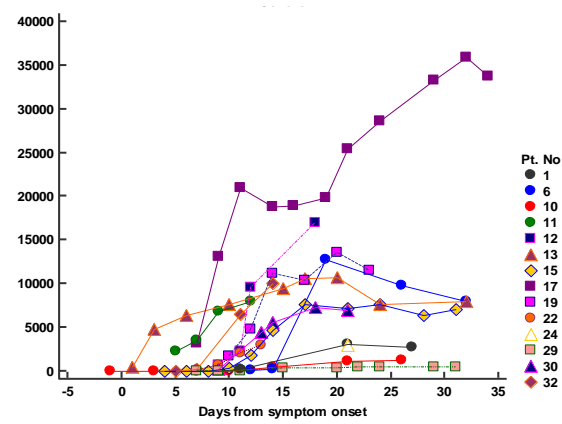
	Severity	Days after symptom onset					
		≤5	6-8	9-11	12-14	15-21	22≤
Abbot (AU/mL)	severe or critical	5.1† (1.7-231.1)	17.6 (3.9-2117.0)	1128.4 (256.4-6656.0)	4670.2* (1184.2-7892.3)	7621.6* (3900.6-11323.4)	6615.8* (3855.8-7856.7)
	mild	6.5 (0.9-87.3)	13.1 (3.7-128.4)	95.5 (25.5-722.7)	1247.6 (181.1-2628.1)	955.7 (162.7-3573.2)	3002.6 (309.0-6552.7)
Roche (U/mL)	severe or critical	0.4 (0.4-4.5)	0.4 (0.4-49.3)	11.7 (2.1-130.5)	72.9 (19.6-160.5)	184.0 (148.3-386.4)	199.5 (129.1-378.6)
	mild	0.4 (0.4-0.9)	0.5 (0.4-14.2)	4.1 (0.5-43.6)	62.6 (3.0-101.7)	64.7 (2.8-130.6)	89.7 (7.9-715.9)
Siemens (U/mL)	severe or critical	0.1 (0.0-1.6)	0.2 (0.0-12.5)	7.2* (1.9-45.2)	31.1* (9.4-53.5)	72.8* (36.9-95.5)	49.5* (34.7-95.7)
	mild	0.1 (0.0-0.9)	0.2 (0.0-0.8)	1.1 (0.1-4.9)	7.4 (1.1-22.5)	8.5 (0.9-22.8)	19.1 (1.7-61.2)
Genscript (%)	severe or critical	11.0 (3.0-42.5)	28.0 (7.4-78.5)	71.0 (47.8-87.3)	90.0 (65.3-93.0)	92.0 (86.9-95.0)	88.5 (85.0-95.0)
	mild	13.0 (8.2-19.8)	13.0 (2.5-59.4)	40.0 (17.3-80.1)	82.5 (31.5-90.1)	82.0 (36.1-92.2)	89.5 (47.2-94.8)

\*Severe or critical vs. mild ( $p < 0.05$ ). †Median (95% confidence interval)

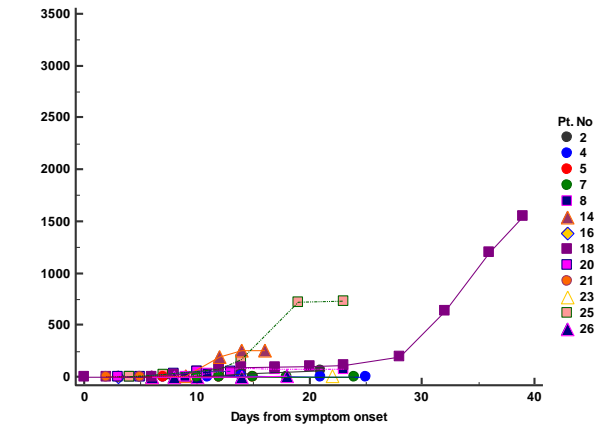
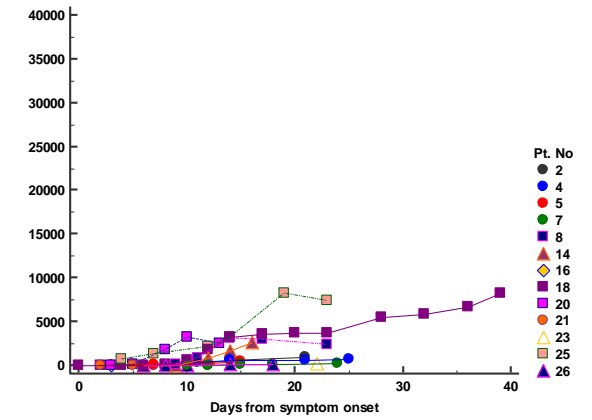
## Critical

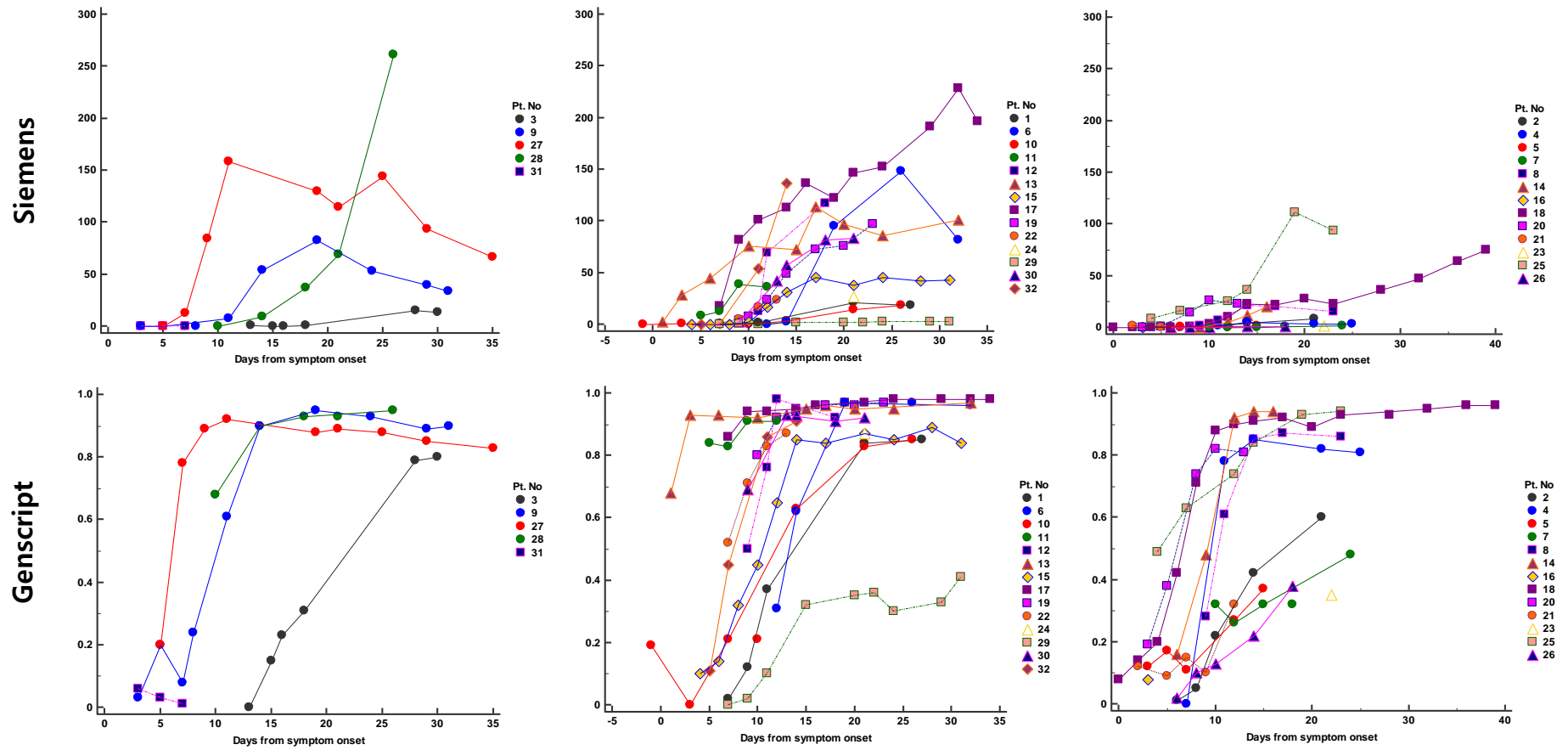


## Severe

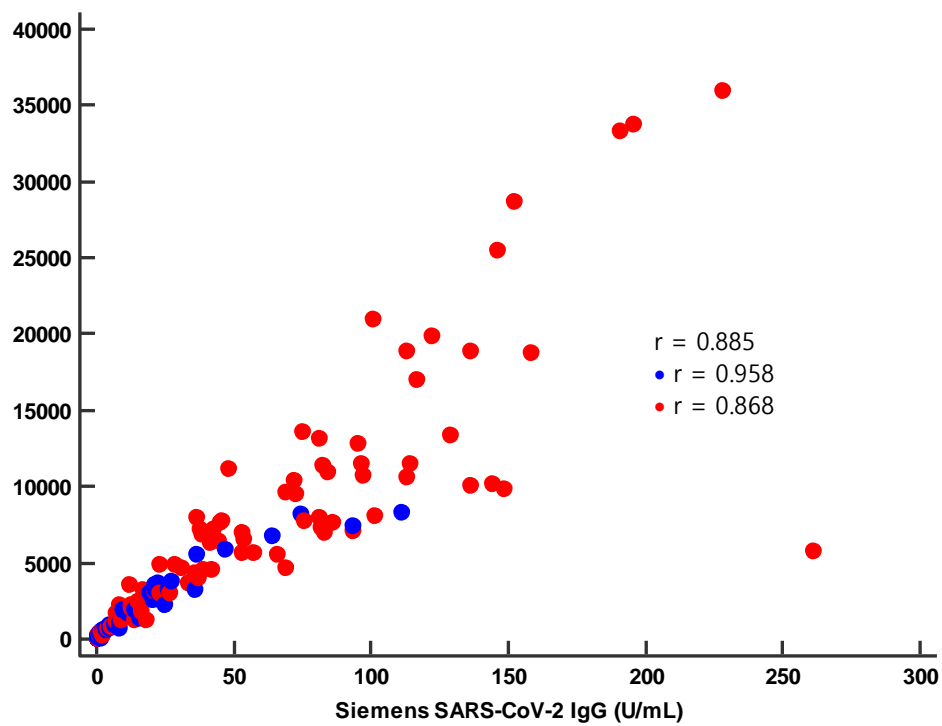
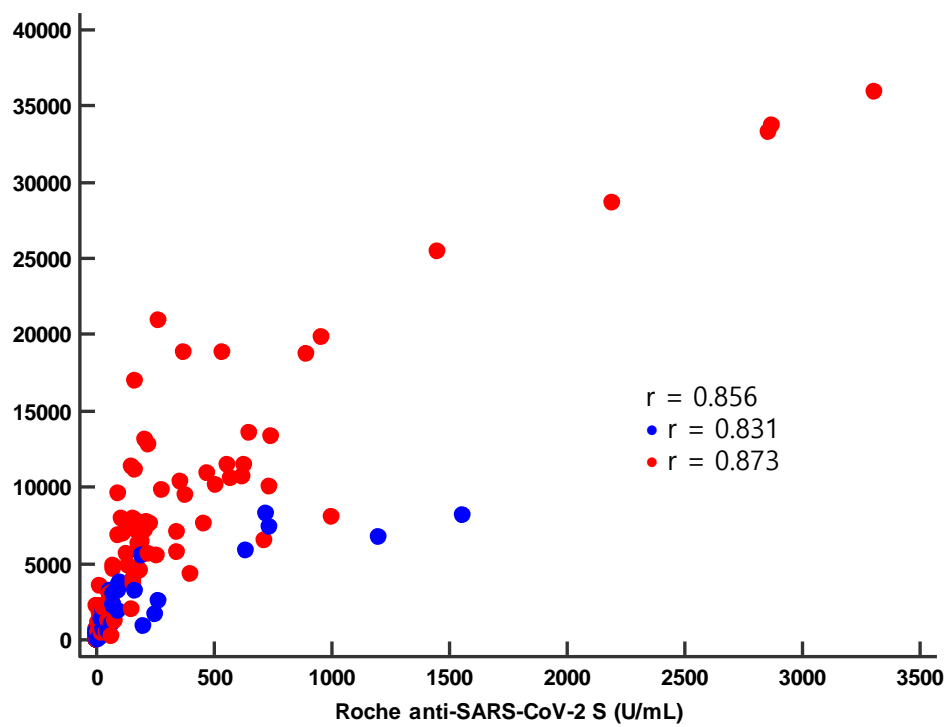


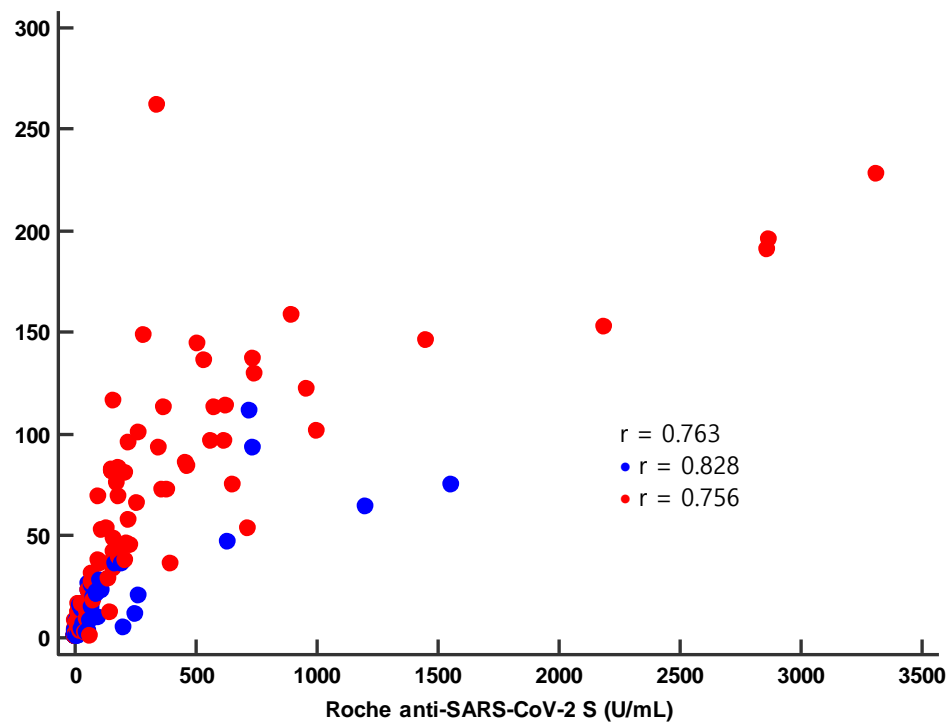
## Mild





**Figure S1.** SARS-CoV-2 S protein antibody levels measured by three chemiluminescent immunoassays and the surrogate virus neutralization test in 32 COVID-19 patients. Antibody levels are plotted according to days after symptom onset and disease course (critical, severe, or mild) in each assay.





**Figure S2.** Spearman rank correlation between SARS-CoV-2 S protein antibody levels from three chemiluminescent assays.