

Supplemental Data Table S1. Cross-reactivity and interference results of five SARS-CoV-2 antibody assays

Serum samples for cross-reactivity	Roche	Abbott	Siemens	SD Biosensor	LG Chem
Anti-SARS-CoV-1	0/5	0/5	0/5	0/5	0/5
Anti-MERS-CoV	0/5	0/5	0/5	0/5	0/5
Anti-hCoV-229E	0/7	0/7	0/7	0/7	0/7
Anti-hCoV-NL63	0/9	0/9	0/9	0/9	1/9
Anti-hCoV-OC43	0/6	0/6	0/6	0/6	0/6
Anti-hCoV-HKU1	0/6	0/6	0/6	0/6	0/6
Anti-adenovirus	0/2	0/2	0/2	0/2	0/2
Anti-influenza A virus	0/5	0/5	0/5	0/5	0/5
Anti-influenza B virus	0/4	0/4	0/4	0/4	0/4
Anti-metapneumovirus	0/5	0/5	0/5	0/5	0/5
Anti-parainfluenza virus type 1	0/5	0/5	0/5	0/5	0/5
Anti-parainfluenza virus type 2	0/2	0/2	0/2	0/2	0/2
Anti-parainfluenza virus type 3	0/4	0/4	0/4	0/4	0/4
Anti-parainfluenza virus type 4	0/1	0/1	0/1	0/1	0/1
Anti-RSV	0/2	0/2	0/2	0/2	0/2
Anti-rhinovirus	0/3	0/3	0/3	0/3	0/3
Anti- <i>M. pneumoniae</i> IgG	0/5	0/5	0/5	0/5	1/5
Anti- <i>M. pneumoniae</i> IgM	0/10	0/10	0/10	0/10	0/10
Anti- <i>C. pneumoniae</i> IgG	0/2	0/2	0/2	0/2	0/2
Anti-HAV IgG	0/1	0/1	0/1	0/1	0/1
Anti-HAV IgM	0/3	0/3	0/3	1/3	0/3
Anti-HBs IgG	0/10	0/10	0/10	1/10	0/10
Anti-HCV	0/10	0/10	0/10	0/10	0/10
Anti-EBV VCA IgG	0/8	0/8	0/8	0/8	0/8
Anti-EBV VCA IgM	0/3	0/3	0/3	1/3	0/3
Anti-CMV IgG	0/4	0/4	0/4	0/4	0/4
Anti-CMV IgM	0/5	0/5	0/5	0/5	0/5
Anti-HSV IgG	0/2	0/2	0/2	0/2	0/2
Anti-mumps IgG	0/1	0/1	0/1	0/1	0/1
Anti-VZV IgG	0/5	0/5	0/5	0/5	0/5
FANA	0/12	0/12	0/12	0/12	0/12
Rheumatoid factor	0/5	0/5	0/5	0/5	1/5
Monoclonal gammopathy	0/10	0/10	0/10	0/10	0/10
Hb (10 mg/mL)	0/1	0/1	0/1	0/1	0/1
Albumin (100 mg/mL)	0/1	0/1	0/1	0/1	0/1
Triglyceride mix (20 mg/mL)	0/1	0/1	0/1	0/1	0/1
Bilirubin (0.4 mg/mL)	0/1	0/1	0/1	0/1	0/1
Zanamivir (10 mg/mL)	0/1	0/1	0/1	0/1	0/1
Total	0/168 (0%)	0/168 (0%)	0/168 (0%)	3/168 (1.79%)	3/168 (1.79%)

Abbreviations: *C. pneumoniae*, *Chlamydia pneumoniae*; CMV, cytomegalovirus; EBV, Epstein-Barr virus; FANA, fluorescence anti-nuclear antibody; HAV, hepatitis A virus; HCV, hepatitis C virus; hCoV, human coronavirus; HSV, herpes simplex virus; MERS-CoV, Middle East respiratory syndrome coronavirus; *M. pneumoniae*, *Mycoplasma pneumoniae*; RSV, respiratory syncytial virus; SARS-CoV-1, severe acute respiratory syndrome coronavirus 1; VCA, viral capsid antigen; VZV, varicella zoster virus.

Supplemental Data Table S2. Discordant results among five SARS-CoV-2 antibody assays

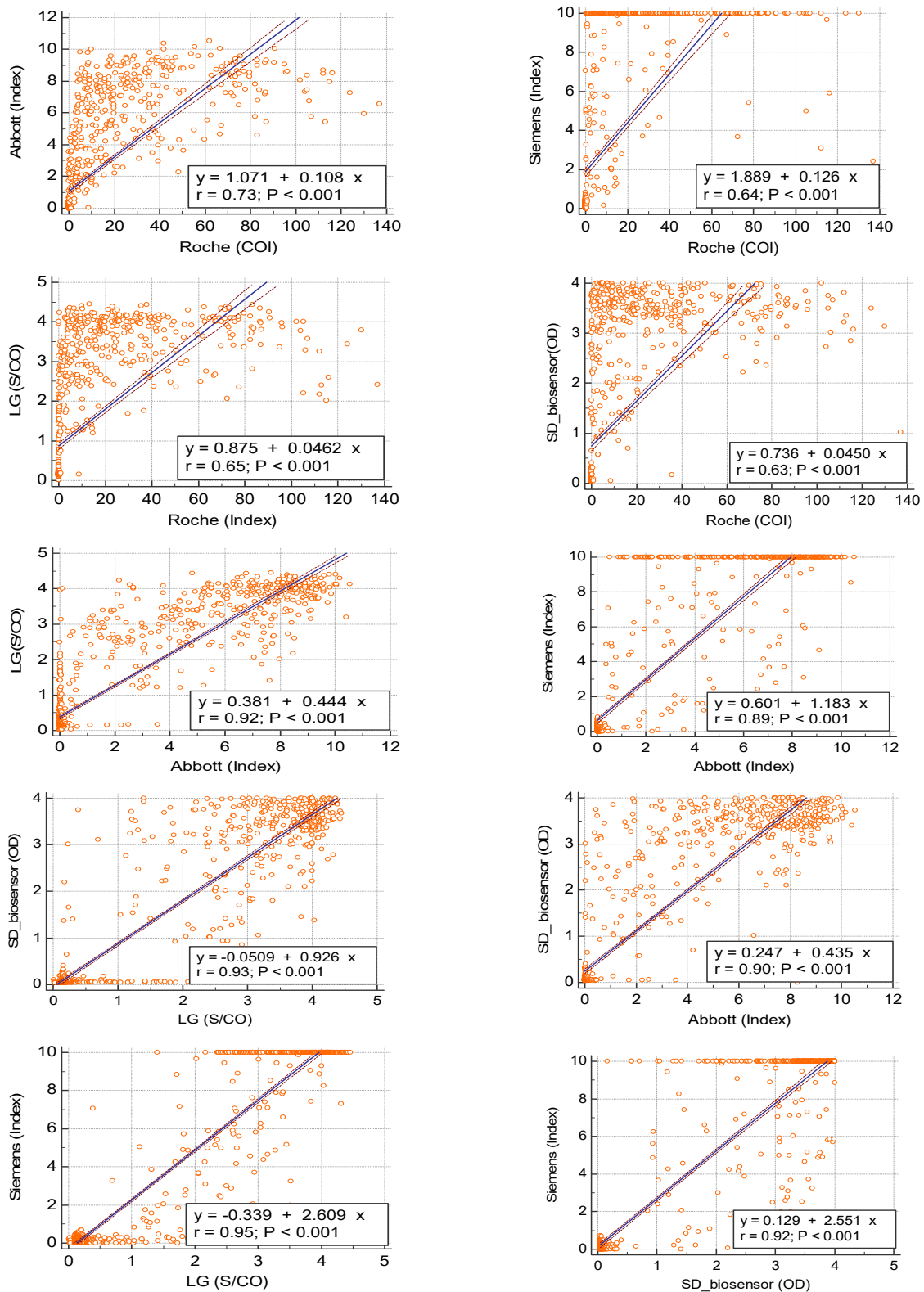
Case	Days after symptom onset	Roche (COI)	Abbott (index)	Siemens (index)	SD Biosensor (OD)	LG Chem (S/CO)
Case 1	0–6	N (0.084)	N (0.01)	N (0.15)	N (0.07)	P (2.50)
Case 2	0–6	N (0.10)	N (0.10)	N (0.44)	P (2.60)	P (1.51)
Case 3	0–6	N (0.11)	N (0.21)	N (0.21)	P (1.66)	N (0.24)
Case 4	0–6	N (0.08)	N (0.32)	N (0.45)	P (1.37)	N (0.16)
Case 5	7–13	N (0.29)	P (2.77)	P (4.90)	P (3.80)	P (1.81)
Case 6	7–13	N (0.43)	N (0.65)	P (3.26)	P (3.12)	N (0.69)
Case 7	7–13	N (0.19)	N (0.64)	P (1.83)	P (2.2)	P (1.74)
Case 8	7–13	N (0.44)	N (0.58)	P (5.04)	P (2.76)	P (1.13)
Case 9	7–13	P (1.14)	N (1.10)	P (> 10)	P (3.85)	P (2.89)
Case 10	7–13	N (0.42)	N (0.76)	P (2.51)	P (3.46)	P (1.85)
Case 11	7–13	N (0.09)	N (0.06)	N (0.59)	P (2.77)	P (3.14)
Case 12	7–13	N (0.11)	N (0.45)	P (7.06)	P (3.74)	N (0.39)
Case 13	7–13	N (0.09)	N (0.03)	N (< 0.05)	P (1.41)	N (0.30)
Case 14	7–13	P (10.60)	P (5.23)	N (0.83)	P (3.51)	P (1.27)
Case 15	7–13	P (3.24)	P (1.73)	N (0.67)	P (2.52)	P (1.77)
Case 16	7–13	N (0.31)	N (0.50)	P (> 10)	P (3.61)	P (2.79)
Case 17	7–13	N (0.19)	N (0.61)	P (2.57)	P (3.17)	P (1.54)
Case 18	≥28	N (0.64)	N (0.87)	P (> 10)	P (2.50)	P (2.91)
Case 19	≥28	P (1.15)	N (1.22)	P (> 10)	P (2.29)	P (3.24)
Case 20	≥28	P (1.12)	N (1.11)	P (> 10)	P (1.84)	P (3.09)
Case 21	≥28	N (0.36)	N (0.38)	P (4.99)	P (3.24)	P (2.66)
Case 22	Unknown	P (2.49)	N (0.37)	P (3.86)	P (1.32)	P (1.32)
Case 23	Unknown	P (4.40)	N (1.11)	P (> 10)	P (3.16)	P (3.16)
Case 24	Unknown	P (2.45)	N (0.60)	P (4.85)	P (1.89)	P (1.89)
Case 25	Unknown	N (0.66)	P (3.05)	P (5.14)	P (3.18)	P (2.32)
Case 26	Unknown	N (0.71)	N (1.24)	N (0.21)	P (1.29)	P (2.09)
Case 27	Unknown	P (6.24)	P (2.66)	N (0.94)	P (1.70)	P (1.27)
Case 28	Unknown	N (0.98)	N (0.49)	P (1.97)	P (3.09)	P (1.41)
Case 29	Unknown	P (1.42)	N (0.76)	P (4.25)	P (1.19)	P (2.15)
Control 1	Pre-pandemic	N (0.10)	N (0.02)	N (0.14)	N (0.28)	P (3.96)
Control 2	Pre-pandemic	N (0.09)	N (0.02)	N (0.08)	N (0.07)	P (2.17)
Control 3	Pre-pandemic	N (0.09)	N (0.02)	N (0.18)	N (0.06)	P (2.08)
Control 4	Pre-pandemic	N (0.09)	N (0.02)	N (< 0.05)	N (0.06)	P (1.73)
Control 5	Pre-pandemic	N (0.09)	N (0.03)	N (0.17)	N (0.08)	P (1.66)
Control 6	Pre-pandemic	N (0.09)	N (0.03)	N (0.84)	P (1.50)	P (1.04)
Control 7	Pre-pandemic	N (0.09)	P (2.25)	N (< 0.05)	N (0.06)	N (0.15)
Control 8	Pre-pandemic	N (0.09)	N (0.02)	N (0.17)	N (0.05)	P (1.16)
Control 9	Pre-pandemic	N (0.10)	N (0.03)	N (0.47)	N (0.08)	P (1.42)
Control 10	Pre-pandemic	N (0.10)	P (3.55)	N (0.09)	N (0.05)	N (0.17)
Control 11	Pre-pandemic	N (0.09)	N (0.02)	N (< 0.05)	P (0.33)	N (0.16)

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Supplemental Data Table S2. Continued

Case	Days after symptom onset	Roche (COI)	Abbott (index)	Siemens (index)	SD Biosensor (OD)	LG Chem (S/CO)
Control 12	Pre-pandemic	N (0.09)	N (0.03)	N (0.11)	N (0.05)	P (1.04)
Control 13	Pre-pandemic	N (0.10)	P (2.49)	N (0.08)	N (0.06)	N (0.17)
Control 14	Pre-pandemic	N (0.09)	N (0.02)	N (0.25)	N (0.05)	P (1.89)
Control 15	Pre-pandemic	N (0.09)	N (0.03)	N (0.20)	N (0.05)	P (1.16)
Control 16	Pre-pandemic	P (8.61)	N (0.02)	N (0.14)	N (0.05)	N (0.15)
Control 17	Pre-pandemic	N (0.09)	N (0.03)	N (0.08)	N (0.05)	P (1.63)
Control 18	Pre-pandemic	N (0.09)	N (0.03)	N (0.26)	N (0.06)	P (1.60)
Control 19	Pre-pandemic	N (0.09)	N (0.02)	N (0.49)	P (0.40)	N (0.16)
Control 20	Pre-pandemic	N (0.09)	P (1.73)	N (0.29)	N (0.05)	N (0.16)
Control 21	Pre-pandemic	N (0.09)	N (0.02)	N (0.34)	N (0.05)	P (1.81)
Control 22	Pre-pandemic	P (1.03)	N (0.01)	N (0.35)	N (0.05)	N (0.19)
Anti-CoV-NL63		N (0.08)	N (0.07)	N (<0.05)	N (0.05)	P (1.03)
Anti- <i>M. pneumoniae</i>		N (0.08)	N (0.06)	N (0.30)	N (0.05)	P (1.56)
Anti-HAV		N (0.53)	N (0.02)	N (0.07)	P (2.20)	N (0.18)
Anti-HBs		N (0.09)	N (0.03)	N (0.44)	P (3.01)	N (0.23)
Anti-EBV VCA IgM		N (0.09)	N (0.10)	N (0.14)	P (0.65)	N (0.21)
Rheumatoid factor		N (0.08)	N (0.05)	N (0.02)	N (0.08)	P (1.23)

Abbreviations: N, negative; P, positive; COI, cutoff index; EBV, Epstein-Barr virus; HAV, hepatitis A virus; *M. pneumoniae*, *Mycoplasma pneumoniae*; OD, optical density; SARS-CoV-2, severe acute respiratory syndrome coronavirus 2; S/CO, signal/cutoff; VCA, viral capsid antigen.



Supplemental Data Fig. S1. Correlations between the five SARS-CoV-2 antibody assays evaluated in this study. Abbreviations: COI, cutoff index; OD, optical density; S/CO, signal/cutoff; SARS-CoV-2, severe acute respiratory syndrome coronavirus 2.