

Supplementary Table 1. Comparison of neutralizing antibody titers (NT50) against SARS-CoV-2 original D614G, Omicron BA.4/5, and XBB.1.5 variants before and after bivalent vaccination

	Group A			Group B			Group C			p value	
	Omicron-infected, bivalent unvaccinated (n = 39)			Omicron-infected bivalent vaccinated (n = 23)			Infection-naïve bivalent vaccinated (n = 17)			A vs. B	B vs. C
	GMT (95% CI)	Median (IQR)	Median (IQR)	GMT (95% CI)	Median (IQR)	Median (IQR)	GMT (95% CI)	Median (IQR)	Median (IQR)	A vs. B	B vs. C
Original D614G											
Before bivalent	125.9 (75.68–209.5)	90 (30–270)	70.11 (43.66–112.6)	70.11 (43.66–112.6)	90 (30–135)	27.57 (15.55–48.87)	30 (10–90)	0.122	0.022	0.001	0.001
3 months after bivalent	70.09 (42.12–116.6)	90 (30–225)	177.7 (115.3–273.8)	177.7 (115.3–273.8)	270 (90–270)	224.8 (74.31–680.2)	180 (90–810)	0.010	0.671	0.052	0.052
6 months after bivalent	29.48 (4.733–183.6)	60 (23–90)	78.45 (48.94–125.8)	78.45 (48.94–125.8)	90 (30–90)	76.93 (22.38–264.4)	90 (30–90)	0.303	> 0.99	0.425	0.425
BA.4/5											
Before bivalent	160.7 (99.20–260.4)	270 (45–270)	94.16 (48.18–184.0)	94.16 (48.18–184.0)	90 (30–270)	15.01 (5.65–39.90)	10 (10–60)	0.231	0.001	< 0.001	< 0.001
3 months after bivalent	153.6 (89.81–262.6)	270 (30–270)	369.6 (258.2–529.0)	369.6 (258.2–529.0)	270 (270–810)	142.2 (63.10–320.7)	180 (90–270)	0.015	0.025	0.987	0.987
6 months after bivalent	24.98 (15.60–40.0)	30 (25–30)	118.4 (65.96–212.7)	118.4 (65.96–212.7)	90 (90–225)	56.20 (20.85–151.5)	90 (30–90)	0.001	0.212	0.127	0.127
XBB.1.5											
Before bivalent	45.99 (32.50–65.09)	30 (30–90)	31.54 (22.94–43.35)	31.54 (22.94–43.35)	30 (30–45)	13.91 (7.772–24.89)	10 (10–30)	0.265	0.012	< 0.001	< 0.001
3 months after bivalent	36.93 (27.44–49.70)	30 (30–30)	81.06 (49.28–133.3)	81.06 (49.28–133.3)	90 (30–270)	27.38 (17.17–43.65)	30 (15–30)	0.003	0.005	0.339	0.339
6 months after bivalent	14.42 (7.952–26.16)	10 (10–30)	32.13 (22.97–44.96)	32.13 (22.97–44.96)	30 (30–30)	18.73 (8.423–41.67)	10 (10–30)	0.021	0.114	0.837	0.837

GMT, geometric mean titer; CI, confidence interval; IQR, interquartile range.