

Supplementary Table 1. Anti-spike 1 and anti-nucleocapsid antibody responses in immune-compromised patients

Group	Participants N	S1 IgG IU/ml (Mean \pm SD)	N IgG Positive N (%)
LT patients vaccinated with 3 rd or 4 th dose			
Infection naïve	37	4012 \pm 5246	0/37 (0)
PCR confirmed	10	9509 \pm 10506	7/10 (70.0) [*]
Infection suspected	12	18766 \pm 25494	8/12 (66.7)
KT patients vaccinated with 3 rd dose			
Infection naïve	12	1021 \pm 2630	0/12 (0)
PCR confirmed	5	1398 \pm 2744	2/5 (40.0) [†]
Infection suspected	1	112	0/1 (0)

P value of N protein IgG antibody positivity in PCR confirmed patients between LT^{*} and KT[†] patients was 0.329.

Abbreviation: LT, Liver transplant; KT, Kidney transplant

Supplementary Table 2. Comparisons of anti-spike 1 and anti-nucleocapsid antibody responses by vaccine types in vaccinated HCW

Group	Participants N	S1 IgG IU/ml (Mean \pm SD)	N IgG Positive N (%)
ChA/ChA/BNT	58		
Infection naïve	20	700 \pm 490	0/20 (0)
PCR confirmed	30	5295 \pm 3490	24/30 (80.0) [*]
Infection suspected	8	3272 \pm 1980	6/8 (75.0)
BNT162b2	42		
Infection naïve	23	765 \pm 1021	0/23 (0)
PCR confirmed	19	4956 \pm 3396	14/19 (73.7) [†]
Infection suspected	0		0/0
mRNA-1273	12		
Infection naïve	8	3096 \pm 2158	0/8 (0)
PCR confirmed	3	9657 \pm 969	1/3 (33.3) [‡]
Infection suspected	1	15264	0/1 (0)

P value of N protein IgG antibody positivity in PCR confirmed patients between ChA/ChA/BNT^{*} and mRNA-1273[‡] was 0.048 by Fisher's exact test.

N protein IgG antibody positivities in PCR confirmed patients between ChA/ChA/BNT^{*} and BNT162b2[†] and between BNT162b2[†] and mRNA-1273[‡] were not significant.

Abbreviation: ChA/ChA/BNT, ChAdOx1/ChAdOx1/BNT162b2