

Supplemental information

Immunogenicity of standard and extended dosing intervals of BNT162b2 mRNA vaccine

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Table S1. Overview of assays performed and number of samples tested. Related to Figure 2-5.

	Total participants (n=589)						
	Naïve (n=334)			Previously infected (n=255)			
	2-dose +4 weeks	Unpaired timecourse	Paired timecourse	2-dose +4 weeks	Unpaired timecourse	Paired timecourse	Total
SARS-CoV-2 spike IFN-gamma ELISpot	37 short 188 long	47 short 229 long	0 short 26 long	20 short 124 long	26 short 139 long	0 short 26 long	83 short 368 long
SARS-CoV-2 spike antibody (MSD ^a)	41 short 151 long	51 short 183 long	0 short 29 long	19 short 169 long	29 short 199 long	0 short 29 long	80 short 382 long
Variant of Concern antibody (ELISpot)	0 short 40 long	0	0	0 short 42 long	0	0	0 short 82 long
Variant of Concern antibody (MSD ^a)	23 short 94 long	0	0	14 short 118 long	0	0	37 short 212 long
Variant of Concern antibody (Neutralisation)	19 short 20 long	25 short 20 long	0	0	0	0	25 short 20 long
SARS-CoV-2 spike T cell intracellular cytokine staining	23 short 30 long	0	0	14 short 19 long	0	0	37 short 49 long
SARS-CoV-2 spike IgG ELISpot	12 short 10 long	0 short 10 long	0	0	0	0	12 short 10 long

^aMSD = Mesoscale Discovery (MSD) binding assays

Table S2. Generalized linear models (GLM). Table shows three GLM models of T cell (naïve and previously infected individuals), antibody (naïve individuals) and antibody (previously infected individual) responses at 4 weeks after second dose. Variables include age, sex, previous infection, Ethnicity and vaccine dose interval. Variable references are Sex ; F (Female) versus M (Male), Previously infected; Yes versus No, Ethnicity; White versus Black/Asian/Mixed/Other, and Vaccine dose interval; Short versus Long. Related to Figure 3.

Coefficient	Spike T cell responses in naive and previously infected participants at dose-2 plus 4 weeks			Spike Antibody responses in naive participants at dose-2 plus 4 weeks			Spike Antibody responses in previously infected participants at dose-2 plus 4 weeks		
	Estimates	Conf. Int (95%)	P-Value	Estimates	Conf. Int (95%)	P-Value	Estimates	Conf. Int (95%)	P-Value
Intercept	2.38	2.03 – 2.73	<0.001	5.39	5.14 – 5.65	<0.001	5.53	5.22 – 5.85	<0.001
Age	-0.01	-0.01 – 0.00	0.060	-0.01	-0.01 – -0.00	0.051	0.00	-0.00 – 0.00	0.926
Sex (M)	-0.04	-0.20 – 0.13	0.683	-0.07	-0.19 – 0.05	0.232	0.05	-0.08 – 0.17	0.476
Previously infected (Yes)	0.36	0.19 – 0.52	<0.001						
Ethnicity (Black)	0.18	-0.55 – 0.91	0.623	0.05	-0.63 – 0.72	0.893	0.13	-0.19 – 0.46	0.416
Ethnicity (Asian)	-0.16	-0.42 – 0.09	0.203	0.05	-0.16 – 0.27	0.645	0.10	-0.08 – 0.28	0.258
Ethnicity (Mixed)	-0.16	-0.68 – 0.37	0.560	0.42	-0.25 – 1.10	0.223	-0.63	-1.23 – -0.03	0.043
Ethnicity (Other)	-0.05	-0.57 – 0.48	0.867	-0.18	-0.57 – 0.21	0.374	0.16	-0.16 – 0.49	0.326
Vaccine dose interval (Long)	-0.20	-0.42 – 0.01	0.060	0.19	0.05 – 0.32	0.007	-0.01	-0.24 – 0.22	0.908
Observations	277			143			139		
R ²	0.085			0.131			0.058		