

Supplementary materials for ‘Immunity against conserved and non-conserved Spike epitopes after COVID-19 booster vaccination provides long-term protection against symptomatic Omicron infections’

Heiko Pfister*, Carsten Uhlig, Zsuzsanna Mayer, Eleni Polatoglou, Hannah Randeu, Silke Burglechner-Praun, Tabea Berchtold, Susanne Sernetz, Felicitas Heitzer, Andrea Strötges-Achatz, Ludwig Deml, Michaela Sander, Stefan Holdenrieder

Contents

Fig. S1 Study design and subject monitoring	2
Table S1 Peptide pools used in T cell stimulation assays.	3

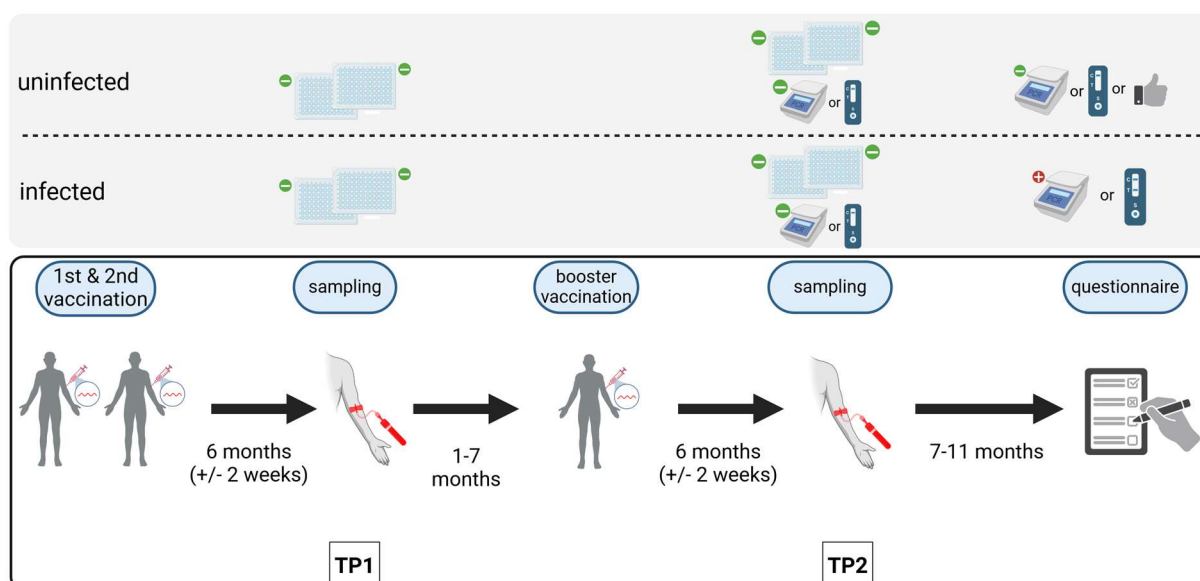


Fig. S1
Study design and subject monitoring.

Study participants received two initial doses of mRNA vaccine Comirnaty (Pfizer-BioNTech) followed by a single homologous booster immunization 7-13 months later. Six months following the administration of the vaccine, a blood sample was taken from each subject and analyzed for the presence of nucleocapsid antibodies, utilizing two distinct assay systems. Additionally, a standardized questionnaire was used to assess the health status of the subjects at 13-17 months following booster immunization. In the event of an infection, the method of diagnosis was documented, which could be either a PCR or an antigen test. Subjects who were negative on all tests and reported no signs of infection were classified as not infected. Individuals who reported a history of infection between TP2 and the final assessment in February 2023 were classified as infected. Previously infected subjects were defined as those who had been infected with the Omicron variant at any point prior to TP2 as determined in-house by variant PCR.

Created in BioRender.

Description	Variant	Manufacturer
Entire Spike: 158+157 15mers with 11 aa overlap	Wuhan (wild-type)	jpt
Entire Spike: 158+157 15mers with 11 aa overlap	B.1.1.7	jpt
Spike B.1.1.7 mutation sites: 34 mainly 15mers	B.1.1.7	MB
Spike B.1.1.7 mutation sites: 34 mainly 15mers	Wuhan (wild-type)	MB
Entire Spike: 158+157 15mers with 11 aa overlap	B.1.351	jpt
Entire Spike: 158+157 15mers with 11 aa overlap	P.1, B.1.1.28.1	jpt
Entire Spike: 158+157 15mers with 11 aa overlap	B.1.617.2	jpt
Spike B.1.617.2 mutation sites: 27 15mers	B.1.617.2	p&e
Spike B.1.617.2 mutation sites: 27 15mers	Wuhan (wild-type)	p&e
Entire Spike: 158+157 15mers with 11 aa overlap	BA.1	jpt
Spike B.1.1.529 mutation sites: 80 15mers	B.1.1.529	p&e
Spike B.1.1.529 mutation sites: 82 15mers	Wuhan (wild-type)	p&e
Entire Spike: 158+157 15mers with 11 aa overlap	BA.2	jpt

Table S1
Peptide pools used in T cell stimulation assays.

jpt: JPT Peptide Technologies, Germany; MB: Miltenyi Biotec, Germany; p&e: peptides&elephants, Germany