

Supplementary figures

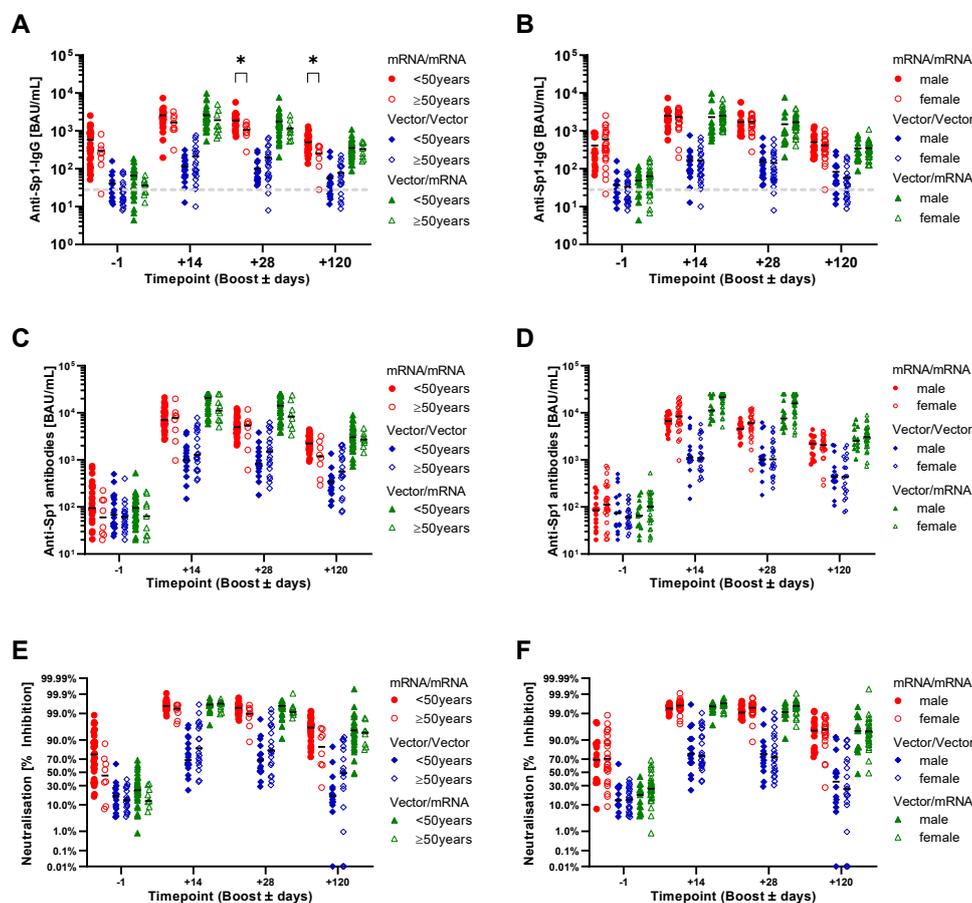


Figure S1: Analysis of anti-SARS-CoV-2-Sp1 antibodies in the different groups (red – mRNA/mRNA, blue – Vector/Vector, green mRNA/Vector) with respect to age and gender. (A, C, and E) Anti-SARS-CoV-2-Sp1-IgG (A), anti-SARS-CoV-2-Sp1 antibodies (C) and neutralizing antibodies (E) in individuals <50 years (filled symbols) and ≥50 years (open symbols). (B, D, and F) Anti-SARS-CoV-2-Sp1-IgG (B), anti-SARS-CoV-2-Sp1 antibodies (D) and neutralizing antibodies (F) in males (filled symbols) and females (open symbols). Statistical analyses by Mixed-effects analysis with Tukey’s multiple comparison test (A). * p<0.05

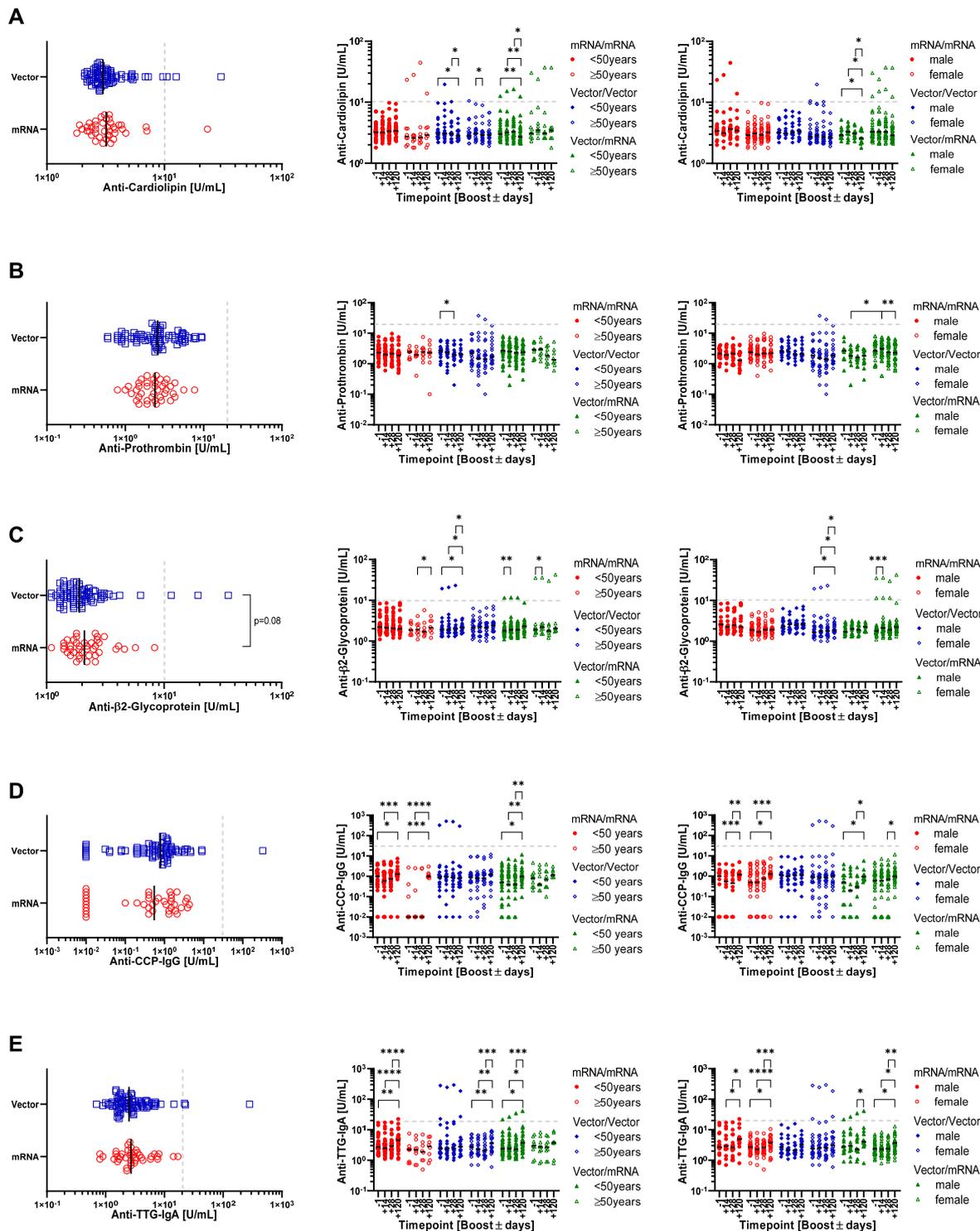


Figure S2: Analysis of autoantibodies based on prime vaccinations in serum samples 1 day before boost (blue – vector prime, red – mRNA prime) and in the different groups (red – mRNA/mRNA, blue – Vector/Vector, green mRNA/Vector) with respect to age and gender. (A) Anti-Cardiolipin antibodies: left, autoantibody levels before boost based on prime vaccinations; middle, analysis in individuals <50 years (filled symbols) and ≥50 years (open symbols) based on the study groups; right, analysis in males (filled symbols) and females (open symbols) based on the study groups. (B) Anti-Prothrombin antibodies: left, autoantibody levels before boost based on prime vaccinations; middle, analysis in

individuals <50 years (filled symbols) and ≥ 50 years (open symbols) based on the study groups; right, analysis in males (filled symbols) and females (open symbols) based on the study groups. **(C)** Anti- $\beta 2$ -Glycoprotein antibodies: left, autoantibody levels before boost based on prime vaccinations; middle, analysis in individuals <50 years (filled symbols) and ≥ 50 years (open symbols) based on the study groups; right, analysis in males (filled symbols) and females (open symbols) based on the study groups. **(D)** Anti-CCP antibodies: left, autoantibody levels before boost based on prime vaccinations; middle, analysis in individuals <50 years (filled symbols) and ≥ 50 years (open symbols) based on the study groups; right, analysis in males (filled symbols) and females (open symbols) based on the study groups. **(E)** Anti-TTG antibodies: left, autoantibody levels before boost based on prime vaccinations; middle, analysis in individuals <50 years (filled symbols) and ≥ 50 years (open symbols) based on the study groups; right, analysis in males (filled symbols) and females (open symbols) based on the study groups. Statistical analyses by Mixed-effects analysis with Tukey's multiple comparison test within and between groups **(A-C)**. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, **** $p < 0.001$

Table 1. Number of samples analyzed with the different methods at the different timepoints.

timepoint	mRNA/mRNA				Vector/Vector				Vector/mRNA			
	-1	14	28	120	-1	14	28	120	-1	14	28	120
anti-SARS-CoV-2-Sp1-IgG	41	41	40	39	37	37	37	34	42	42	42	41
anti-SARS-CoV-2-Sp1 antibodies	41	41	40	38	37	37	37	34	42	41	41	41
neutralizing antibodies	41	41	40	38	37	37	37	34	42	42	42	41
IFN- γ release assay				39				33				41
anti-Prothrombin	41	41	40	39	37	37	37	34	42	42	42	41
anti-Cardiolipin	41	41	40	39	37	37	37	34	42	42	42	41
anti- $\beta 2$ -Glycoprotein	41	41	40	39	37	37	37	34	42	42	42	41
anti-CCP	41	41	40	39	37	37	37	34	42	42	42	41
anti-TTG-IgA	41	41	40	39	37	37	37	34	42	42	42	41
ANA	41	41	40	39	37	37	37	34	42	42	42	41