Held *et al*. Reactogenicity correlates only weakly with humoral immunogenicity after COVID-19 vaccination with BNT162b2 mRNA.

Supplementary materials

Figure S1

Figure legend: Scatter plots of SARS-CoV-2 antibody results measured by three different assays. Pearson's correlation coefficient r is stated in the grey box.

Held *et al*. Reactogenicity correlates only weakly with humoral immunogenicity after COVID-19 vaccination with BNT162b2 mRNA.

Table S1a: Comparison of mean antibody levels of woman and men

	women	men	p-value
Vircell-IgG [AI] (IQR)	21.7 (11.4-35.6)	15.1 (9.2-28.0)	0.229
Diasorin-IgG [AU/ml] (IQR)	1025 (871-1310)	949 (778-1250)	0.378
Yhlo-Nab [AU/ml] (IQR)	2517 (1324-10000)	2196 (1250-3824)	0.473

Table legend: Median SARS-CoV-2 antibody levels of woman and men and comparison of means with the Mann-Whitney-U-test. AI, antibody index; AU, arbitrary units; IQR, interquartile range.

Table S1b: Median AUCs of adverse effects stratified after gender

		median AUC after prime dose (IQR)	p-value	median AUC after boost dose (IQR)	p-value
inability to work [d]	women	0 (0-0)	0.701	0 (0-1)	0.163
	men	0 (0-0)		0 (0-0)	
local injection site reactions					
pain	women	2 (0-8.5)	0.444	3 (0-11)	0.768
	men	4 (0-6.0)		4 (2-9)	
swelling	women	0 (0-0)	0.213	0 (0-0)	0.323
	men	0 (0-0)		0 (0-0)	
redness	women	0 (0-0)	0.656	0 (0-0)	0.433
	men	0 (0-0)		0 (0-0)	
local lymphadenopathy	women	---	---	0 (0-0)	0.531
	men	---	---	0 (0-0)	
systemic reactions					
chills	women	---	---	0 (0-0)	0.240
	men	---	---	0 (0-0)	
malaise	women	0 (0-0)	0.148	0 (0-4)	0.888
	men	0 (0-0)		0 (0-0)	
nausea	women	---	---	0 (0-0)	0.433
	men	---	---	0 (0-0)	
fatigue	women	0 (0-0)	0.709	5 (0-14)	0.053
	men	0 (0-0)		0 (0-5)	
headache	women	0 (0-0)	0.421	0 (0-5.5)	0.731
	men	0 (0-0)		0 (0-3)	
pain in the limbs	women	---	---	0 (0-4)	0.317
	men	---	---	0 (0-0)	
joint pain	women	---	---	0 (0-0)	0.647
	men	---	---	0 (0-0)	
muscle pain	women	---	---	0 (0-0)	0.636
	men	---	---	0 (0-0)	
elevated temperature	women	---	---	0 (0-0)	0.228
	men	---	---	0 (0-0)	

Table legend: Median area under the adverse effect curve (AUC) for each adverse effect after prime and boost vaccination stratified after gender. Adverse effects (AEs) that occurred in less than five subjects were excluded from the analysis. IQR, interquartile range.

Table S1c: Correlation of antibody levels with age and body mass index

		Pearson's correlation coefficient r	p-value
Vircell-IgG	age	0.062	0.584
	BMI	0.081	0.480
Diasorin-IgG	age	-0.153	0.182
	BMI	0.077	0.510
Yhlo-Nab	age	-0.066	0.562
	BMI	0.162	0.156

Table S1d: Correlation of adverse effects with age and body mass index

		Pearson's correlation coefficient r after prime dose	p-value	Pearson's correlation coefficient r after boost dose	p-value
inability to work [d]	age	-0.053	0.643	-0.052	0.645
	BMI	-0.014	0.904	-0.072	0.529
local injection site reactions					
pain	age	-0.003	0.978	0.000	0.996
	BMI	-0.016	0.889	-0.051	0.660
swelling	age	0.040	0.724	0.009	0.938
	BMI	0.084	0.464	0.190	0.095
redness	age	0.032	0.778	0.054	0.637
	BMI	0.102	0.374	0.132	0.251
local lymphadenopathy	age	---	---	-0.160	0.155
	BMI	---	---	-0.041	0.719
systemic reactions					
chills	age	---	---	0.066	0.559
	BMI	---	---	-0.061	0.596
malaise	age	-0.058	0.612	0.023	0.841
	BMI	0.101	0.381	-0.089	0.439
nausea	age	---	---	0.102	0.367
	BMI	---	---	-0.008	0.943
fatigue	age	-0.144	0.203	0.083	0.466
	BMI	0.037	0.750	-0.070	0.543
headache	age	-0.040	0.722	-0.006	0.956
	BMI	0.182	0.110	0.005	0.966
pain in the limbs	age	---	---	0.031	0.783
	BMI	---	---	-0.008	0.945
joint pain	age	---	---	0.075	0.508
	BMI	---	---	-0.066	0.565
muscle pain	age	---	---	0.235	0.036
	BMI	---	---	-0.066	0.567
elevated temperature	age	---	---	0.006	0.954
	BMI	---	---	-0.193	0.090

Table legend: Adverse effects (AEs) that occurred in less than five subjects were excluded from the analysis. Significant correlations are marked in orange. BMI, body mass index; r, Pearson's correlation coefficient.

Table S2a: Median AUCs stratified after taking anti-inflammatory medication

	anti-inflammatory med. after prime dose		p-value	anti-inflammatory med. after boost dose		p-value
	yes (n=2)	no (n=78)		yes (n=22)	no (n=58)	
inability to work [d]	---	0	---	1	0	<0.001
local injection site reaction after prime and boost dose, respectively [AUC]						
pain	25.5	2	0.016	12	2	<0.001
swelling	6	0	0.306	0	0	0.145
redness	6	0	0.292	0	0	0.258
local lymphadenopathy [AUC]	---	---	---	0	0	0.202
systemic reactions [AUC]						
chills	---	---	---	2	0	<0.001
malaise	10	0	0.306	4	0	<0.001
nausea	---	---	---	0	0	0.207
fatigue	25	0	0.006	10	0	<0.001
headache	16	0	0.320	7	0	<0.001
pain in the limbs	---	---	---	2	0	0.003
joint pain	---	---	---	0	0	0.090
muscle pain	---	---	---	0	0	0.070
elevated temperature	---	---	---	0	0	<0.001

Table legend: Median area under the adverse effect curve (AUC) for each adverse effect after prime and boost vaccination stratified after use of anti-inflammatory medication. Adverse effects (AEs) that occurred in less than five subjects were excluded from the analysis. Significant correlations are marked in orange.

Table S2b: Median SARS-CoV-2 antibody levels stratified after taking anti-inflammatory medication

	anti-inflammatory med. after prime dose		p-value	anti-inflammatory med. after boost dose		p-value
	yes (n=2)	no (n=78)		yes (n=22)	no (n=58)	
Vircell-IgG [AI] (IQR)	49.2 (31.0-67.3)	19.6 (10.9-32.7)	0.084	20. (14.6-31.0)	21.4 (10.2-34.8)	0.314
Diasorin-IgG [AU/ml] (IQR)	1297 (623-1970)	1016 (860-1290)	0.747	1020 (869-1330)	1011 (810-1270)	0.757
Yhlo-NAb [AU/ml] (IQR)	5229 (458-10000)	2489 (1293-9234)	0.820	2526 (1414-3976)	2395 (1237-10000)	0.583

Table legend: Median SARS-CoV-2 antibody levels stratified after taking anti-inflammatory medication and comparison of means with the Mann-Whitney-U-test. AI, antibody index; AU, arbitrary units; IQR, interquartile range.