Supplementary Table S1: STARD checklist

Section & Topic	No	Item	Reported on page #
TITLE OR ABSTRACT			
	1	Identification as a study of diagnostic accuracy using at least one measure of accuracy (such as sensitivity, specificity, predictive values, or AUC)	**2**
ABSTRACT			
	2	Structured summary of study design, methods, results, and conclusions (for specific guidance, see STARD for Abstracts)	**2**
INTRODUCTION			
	3	Scientific and clinical background, including the intended use and clinical role of the index test	**3**
	4	Study objectives and hypotheses	**4**
METHODS			
Study design	**5**	Whether data collection was planned before the index test and reference standard were performed (prospective study) or after (retrospective study)	**5**
Participants	**6**	Eligibility criteria	**5**
	7	On what basis potentially eligible participants were identified (such as symptoms, results from previous tests, inclusion in registry)	**5**
	8	Where and when potentially eligible participants were identified (setting, location and dates)	**5**
	9	Whether participants formed a consecutive, random or convenience series	**5**
Test methods	**10a**	Index test, in sufficient detail to allow replication	**5**
	10b	Reference standard, in sufficient detail to allow replication	**5**
	11	Rationale for choosing the reference standard (if alternatives exist)	**5**
	12a	Definition of and rationale for test positivity cut-offs or result categories of the index test, distinguishing pre-specified from exploratory	**5**
	12b	Definition of and rationale for test positivity cut-offs or result categories of the reference standard, distinguishing pre-specified from exploratory	**5**
	13a	Whether clinical information and reference standard results were available to the performers/readers of the index test	**5**
	13b	Whether clinical information and index test results were available to the assessors of the reference standard	**5**
Analysis	**14**	Methods for estimating or comparing measures of diagnostic accuracy	**6**
	15	How indeterminate index test or reference standard results were handled	**6**
	16	How missing data on the index test and reference standard were handled	**6**
	17	Any analyses of variability in diagnostic accuracy, distinguishing pre-specified from exploratory	**6**
	18	Intended sample size and how it was determined	**Not applicable**
RESULTS			
Participants	**19**	Flow of participants, using a diagram	**Not applicable**
	20	Baseline demographic and clinical characteristics of participants	**5**
	21a	Distribution of severity of disease in those with the target condition	**Not applicable**
	21b	Distribution of alternative diagnoses in those without the target condition	**Not applicable**
	22	Time interval and any clinical interventions between index test and reference standard	**Not applicable**
Test results	**23**	Cross tabulation of the index test results (or their distribution) by the results of the reference standard	**6**
	24	Estimates of diagnostic accuracy and their precision (such as 95% confidence intervals)	**Not applicable**

	25	Any adverse events from performing the index test or the reference standard	**Not applicable**
DISCUSSION			
	26	Study limitations, including sources of potential bias, statistical uncertainty, and generalisability	**14**
	27	Implications for practice, including the intended use and clinical role of the index test	**13**
OTHER INFORMATION			
	28	Registration number and name of registry	**6**
	29	Where the full study protocol can be accessed	**Not applicable**
	30	Sources of funding and other support; role of funders	**Not applicable**

Supplementary Table S2. Quantitative values of Roche total spike and Snibe neutralizing antibody responses after the first, second and third dose of inactivated virus or mRNA vaccine.

	Roche Total Spike Antibodies				Snibe Neutralizing Antibodies			
	Time Point	**n**	**Median (95% CI) (BAU/mL)**	**Range (BAU/mL)**	**Time Point**	**n**	**Median (95% CI) (μg/mL)**	**Range (μg/mL)**
Inactivated virus vaccine	10 days post dose 1	30	0.4 (0.4-0.4)	0.4 – 20.6	10 days post dose 1	15	0.02 (0.002-0.02)	0 – 0.07
	20 days post dose 2	30	98.0 (60.6-190)	0.4 – 641	20 days post dose 2	16	0.38 (0.19-0.61)	0 – 1.17
	20 days post dose 3	12	525 (81.4-1301)	15.2 – 4067	20 days post dose 3	10	0.89 (0.18-1.89)	0.08 – 5.14
mRNA vaccine	10 days post dose 1	73	2.48 (1.38-4.16)	0.39 – 677	10 days post dose 1	73	0.05 (0.03-0.10)	0 – 1.71
	20 days post dose 2	68	2174 (1649-2484)	146 – 10363	20 days post dose 2	66	3.48 (2.71-3.99)	0.51 – 30.0
	20 days post dose 3	29	15004 (10452-22114)	3803-82203	20 days post dose 3	23	19.8 (11.9-29.4)	1.41 – 185

Abbreviations: CI: Confidence interval.

Supplementary Table S3. Gender group comparison of spike and neutralizing antibody responses between mRNA/inactivated virus vaccinees.

		Sinovac vaccinees		Pfizer vaccinees	
Roche Total Spike Antibodies	Time Point	20 days post dose 2	20 days post dose 3	20 days post dose 2	20 days post dose 3
	Females	20	7	53	19
	Median (BAU/mL)	110	670	2415	15004
	Range (BAU/mL)	0.4-641	15.2-1379	146-10363	3803-82203
	Males	10	5	15	10
	Median (BAU/mL)	87.9	234	1706	16433
	Range (BAU/mL)	0.4-259	20.8-4067	208-2772	5554-50595
	Difference (95% CI, p)	34.1 (-49.9 to 129, p=0.37)	446 (-2747 to 1159, p=0.29)	723 (-74.7 to 1689, p=0.08)	1283 (-7951 to 9382, p=0.78)
Snibe Neutralizing Antibodies	Time Point	20 days post dose 2	20 days post dose 3	20 days post dose 2	20 days post dose 3
	Females	10	5	51	14
	Median (μg/mL)	0.34	1.73	3.74	17.9
	Range (μg/mL)	0-1.17	0.11-1.95	0.51-30.0	1.41-184.5
	Males	6	5	15	8
	Median (μg/mL)	0.46	0.73	2.72	21.4
	Range (μg/mL)	0.04-1.08	0.08-5.14	0.92-4.38	6.09-30.4
	Difference (95% CI, p)	0.09 (-0.29 to 0.47, p=0.51)	0.94 (-3.42 to 1.68, p=0.35)	1.10 (-0.05 to 2.99, p=0.06)	3.17 (-10.3 to 15.2, p=0.63)

Abbreviations: CI: Confidence Interval.