

COVID-19 Immunogenicity Analysis Report
mock Study

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Chapter 1

Tabular Description of Immunogenicity Data

1.1 Demographic and Clinical Characteristics at Baseline in the Baseline SARS-CoV-2 Negative Per-Protocol Cohort

Table 1. Demographic and Clinical Characteristics at Baseline in the Baseline SARS-CoV-2 Negative Per-Protocol Cohort

Characteristics	Vaccine (N = 729)	Placebo (N = 130)	Total (N = 859)
Age			
Age < 65	349 (47.9%)	63 (48.5%)	412 (48.0%)
Age ≥ 65	380 (52.1%)	67 (51.5%)	447 (52.0%)
Mean (Range)	58.2 (18.0, 85.0)	59.1 (18.0, 85.0)	58.3 (18.0, 85.0)
BMI			
Mean ± SD	30.2 ± 7.2	31.4 ± 7.5	30.4 ± 7.2
Risk for Severe Covid-19			
At-risk	386 (52.9%)	67 (51.5%)	453 (52.7%)
Not at-risk	343 (47.1%)	63 (48.5%)	406 (47.3%)
Age, Risk for Severe Covid-19			
Age < 65 At-risk	179 (24.6%)	32 (24.6%)	211 (24.6%)
Age < 65 Not at-risk	170 (23.3%)	31 (23.8%)	201 (23.4%)
Age ≥ 65	380 (52.1%)	67 (51.5%)	447 (52.0%)
Sex			
Female	406 (55.7%)	75 (57.7%)	481 (56.0%)
Male	323 (44.3%)	55 (42.3%)	378 (44.0%)
Hispanic or Latino ethnicity			
Hispanic or Latino	102 (14.0%)	24 (18.5%)	126 (14.7%)
Not Hispanic or Latino	600 (82.3%)	103 (79.2%)	703 (81.8%)
Not reported and unknown	27 (3.7%)	3 (2.3%)	30 (3.5%)
Race			
White Non-Hispanic	355 (48.7%)	64 (49.2%)	419 (48.8%)
Black or African American	179 (24.6%)	36 (27.7%)	215 (25.0%)

(continued)

Characteristics	Vaccine (N = 729)	Placebo (N = 130)	Total (N = 859)
Asian	65 (8.9%)	8 (6.2%)	73 (8.5%)
American Indian or Alaska Native	14 (1.9%)	2 (1.5%)	16 (1.9%)
Native Hawaiian or Other Pacific Islander	9 (1.2%)	3 (2.3%)	12 (1.4%)
Multiracial	54 (7.4%)	11 (8.5%)	65 (7.6%)
Other	20 (2.7%)	3 (2.3%)	23 (2.7%)
Not reported and unknown	3 (0.4%)	1 (0.8%)	4 (0.5%)
Communities of Color	374 (51.3%)	66 (50.8%)	440 (51.2%)

This table summarizes the random subcohort, which was randomly sampled from the per-protocol cohort. The sampling was stratified by 24 strata defined by enrollment characteristics: Assigned treatment arm × Baseline SARS-CoV-2 naïve vs. non-naïve status (defined by serostatus and NAAT testing) × Randomization strata (Age < 65 and at-risk, Age < 65 and not at-risk, Age ≥ 65) × Communities of color (Yes/No) defined by White Non-Hispanic vs. all others (following the primary COVE trial paper).

1.2 Demographic and Clinical Characteristics at Baseline in the Baseline SARS-CoV-2 Positive Per-Protocol Cohort

Table 2. Demographic and Clinical Characteristics at Baseline in the Baseline SARS-CoV-2 Positive Per-Protocol Cohort

Characteristics	Vaccine (N = 235)	Placebo (N = 221)	Total (N = 456)
Age			
Age < 65	120 (51.1%)	122 (55.2%)	242 (53.1%)
Age ≥ 65	115 (48.9%)	99 (44.8%)	214 (46.9%)
Mean (Range)	56.1 (18.0, 85.0)	57.7 (18.0, 85.0)	56.9 (18.0, 85.0)
BMI			
Mean ± SD	30.5 ± 7.6	29.7 ± 7.1	30.1 ± 7.3
Risk for Severe Covid-19			
At-risk	105 (44.7%)	90 (40.7%)	195 (42.8%)
Not at-risk	130 (55.3%)	131 (59.3%)	261 (57.2%)
Age, Risk for Severe Covid-19			
Age < 65 At-risk	57 (24.3%)	56 (25.3%)	113 (24.8%)
Age < 65 Not at-risk	63 (26.8%)	66 (29.9%)	129 (28.3%)
Age ≥ 65	115 (48.9%)	99 (44.8%)	214 (46.9%)
Sex			
Female	129 (54.9%)	117 (52.9%)	246 (53.9%)
Male	106 (45.1%)	104 (47.1%)	210 (46.1%)
Hispanic or Latino ethnicity			
Hispanic or Latino	27 (11.5%)	29 (13.1%)	56 (12.3%)
Not Hispanic or Latino	200 (85.1%)	184 (83.3%)	384 (84.2%)
Not reported and unknown	8 (3.4%)	8 (3.6%)	16 (3.5%)
Race			
White Non-Hispanic	121 (51.5%)	119 (53.8%)	240 (52.6%)
Black or African American	60 (25.5%)	46 (20.8%)	106 (23.2%)
Asian	21 (8.9%)	19 (8.6%)	40 (8.8%)
American Indian or Alaska Native	4 (1.7%)	5 (2.3%)	9 (2.0%)
Native Hawaiian or Other Pacific Islander	4 (1.7%)	4 (1.8%)	8 (1.8%)
Multiracial	11 (4.7%)	14 (6.3%)	25 (5.5%)
Other	4 (1.7%)	5 (2.3%)	9 (2.0%)
Not reported and unknown	3 (1.3%)	1 (0.5%)	4 (0.9%)
Communities of Color	114 (48.5%)	102 (46.2%)	216 (47.4%)

This table summarizes the random subcohort, which was randomly sampled from the per-protocol cohort. The sampling was stratified by 24 strata defined by enrollment characteristics: Assigned treatment arm × Baseline SARS-CoV-2 naïve vs. non-naïve status (defined by serostatus and NAAT testing) × Randomization strata (Age < 65 and at-risk, Age < 65 and not at-risk, Age ≥ 65) × Communities of color (Yes/No) defined by White Non-Hispanic vs. all others (following the primary COVE trial paper).

1.3 Sample Sizes of Random Subcohort Strata for Measuring Antibody Markers

Table 3. Sample Sizes of Random Subcohort Strata for Measuring Antibody Markers

Random Subcohort Sample Sizes (N=1315 Participants) (Moderna Trial)												
	Baseline SARS-CoV-2 Negative						Baseline SARS-CoV-2 Positive					
	1	2	3	4	5	6	1	2	3	4	5	6
Vaccine												
Observed	164	216	66	113	61	109	40	75	23	34	29	34
Estimated	769	1590	530	1332	2214	4761	76	158	73	117	205	513
Placebo												
Observed	28	39	12	20	15	16	39	60	16	40	26	40
Estimated	833	1873	623	1463	1988	4416	72	134	45	129	216	477

Demographic covariate strata:

- 1. Age \geq 65 Minority
- 2. Age \geq 65 Non-Minority
- 3. Age $<$ 65 At-risk Minority
- 4. Age $<$ 65 At-risk Non-Minority
- 5. Age $<$ 65 Not At-risk Minority
- 6. Age $<$ 65 Not At-risk Non-Minority

Minority includes Blacks or African Americans, Hispanics or Latinos, American Indians or Alaska Natives, Native Hawaiians, and other Pacific Islanders.

Non-Minority includes all other races with observed race (Asian, Multiracial, White, Other) and observed ethnicity Not Hispanic or Latino. Participants not classifiable as Minority or Non-Minority because of unknown, unreported or missing were not included.

Observed = Numbers of participants sampled into the subcohort within baseline covariate strata.

Estimated = Estimated numbers of participants in the whole per-protocol cohort within baseline covariate strata, calculated using inverse probability weighting.

1.4 Percentage of responders, and participants with concentrations $\geq 2 \times$ LLOQ or $\geq 4 \times$ LLOQ for binding antibody markers

Table 4a. Percentage of responders, and participants with concentrations $\geq 2 \times$ LLOQ or $\geq 4 \times$ LLOQ for binding antibody markers by All participants

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than $2 \times$ LLOQ	% Greater than $4 \times$ LLOQ
All participants								
	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	729	9844.7/11196 = 87.9% (84.0%, 91.0%)	8814.9/11196 = 78.7% (74.2%, 82.6%)	7311.6/11196 = 65.3% (60.3%, 70.0%)
	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	729	11196/11196 = 100.0% (100.0%, 100.0%)	11179.9/11196 = 99.9% (99.4%, 100.0%)	10953.4/11196 = 97.8% (95.5%, 99.0%)
	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	729	11196/11196 = 100.0% (100.0%, 100.0%)	11196/11196 = 100.0% (100.0%, 100.0%)	11179.9/11196 = 99.9% (99.4%, 100.0%)
	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	235	1092/1142 = 95.6% (92.2%, 97.6%)	1069/1142 = 93.6% (89.9%, 96.0%)	964.1/1142 = 84.4% (77.7%, 89.4%)
	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	235	1142/1142 = 100.0% (100.0%, 100.0%)	1138.6/1142 = 99.7% (97.9%, 100.0%)	1133.5/1142 = 99.3% (97.6%, 99.8%)
	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	235	1142/1142 = 100.0% (100.0%, 100.0%)	1142/1142 = 100.0% (100.0%, 100.0%)	1135.4/1142 = 99.4% (97.7%, 99.9%)
	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	130	0/11196 = 0.0% (0.0%, 0.0%)	0/11196 = 0.0% (0.0%, 0.0%)	0/11196 = 0.0% (0.0%, 0.0%)
	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	130	0/11196 = 0.0% (0.0%, 0.0%)	0/11196 = 0.0% (0.0%, 0.0%)	0/11196 = 0.0% (0.0%, 0.0%)
	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	130	0/11196 = 0.0% (0.0%, 0.0%)	0/11196 = 0.0% (0.0%, 0.0%)	0/11196 = 0.0% (0.0%, 0.0%)
	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	221	927.3/1073 = 86.4% (79.0%, 91.5%)	757.2/1073 = 70.6% (61.9%, 78.0%)	591.4/1073 = 55.1% (46.7%, 63.3%)
	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	221	1064.7/1073 = 99.2% (94.6%, 99.9%)	1064.7/1073 = 99.2% (94.6%, 99.9%)	1027.9/1073 = 95.8% (90.3%, 98.2%)
	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	221	1073/1073 = 100.0% (100.0%, 100.0%)	1073/1073 = 100.0% (100.0%, 100.0%)	1073/1073 = 100.0% (100.0%, 100.0%)
	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	729	10722/11196 = 95.8% (93.1%, 97.4%)	10127.5/11196 = 90.5% (86.9%, 93.1%)	9388.4/11196 = 83.9% (79.6%, 87.3%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	729	11196/11196 = 100.0% (100.0%, 100.0%)	11196/11196 = 100.0% (100.0%, 100.0%)	11159.7/11196 = 99.7% (97.7%, 100.0%)
	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	729	11196/11196 = 100.0% (100.0%, 100.0%)	11196/11196 = 100.0% (100.0%, 100.0%)	11196/11196 = 100.0% (100.0%, 100.0%)
	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	235	1115.7/1142 = 97.7% (94.6%, 99.0%)	1100.6/1142 = 96.4% (91.2%, 98.5%)	1071.1/1142 = 93.8% (88.7%, 96.7%)
	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	235	1142/1142 = 100.0% (100.0%, 100.0%)	1138.6/1142 = 99.7% (97.9%, 100.0%)	1138.6/1142 = 99.7% (97.9%, 100.0%)
	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	235	1142/1142 = 100.0% (100.0%, 100.0%)	1142/1142 = 100.0% (100.0%, 100.0%)	1142/1142 = 100.0% (100.0%, 100.0%)
	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	130	0/11196 = 0.0% (0.0%, 0.0%)	0/11196 = 0.0% (0.0%, 0.0%)	0/11196 = 0.0% (0.0%, 0.0%)
	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	130	0/11196 = 0.0% (0.0%, 0.0%)	0/11196 = 0.0% (0.0%, 0.0%)	0/11196 = 0.0% (0.0%, 0.0%)
	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	130	0/11196 = 0.0% (0.0%, 0.0%)	0/11196 = 0.0% (0.0%, 0.0%)	0/11196 = 0.0% (0.0%, 0.0%)
	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	221	1014.2/1073 = 94.5% (88.2%, 97.5%)	982/1073 = 91.5% (84.9%, 95.4%)	911.8/1073 = 85.0% (77.5%, 90.3%)
	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	221	1073/1073 = 100.0% (100.0%, 100.0%)	1073/1073 = 100.0% (100.0%, 100.0%)	1073/1073 = 100.0% (100.0%, 100.0%)
	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	221	1073/1073 = 100.0% (100.0%, 100.0%)	1073/1073 = 100.0% (100.0%, 100.0%)	1073/1073 = 100.0% (100.0%, 100.0%)

Binding Antibody Responders are defined as participants who had baseline values below the LLOQ with detectable antibody concentration above the assay LLOQ, or as participants with baseline values above the LLOQ with a 4-fold increase in antibody concentration.

Percentages are calculated for the whole per-protocol group/subgroup, using inverse probability weighting.

LLOQ = 4.49, 5.77, 1.80 IU/ml for N, RBD, Spike, respectively.

Table 4b. Percentage of responders, and participants with concentrations $\geq 2 \times$ LLOQ or $\geq 4 \times$ LLOQ for binding antibody markers by Age

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than $2 \times$ LLOQ	% Greater than $4 \times$ LLOQ
Age								
Age < 65	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	349	7582.8/8837 = 85.8% (80.9%, 89.6%)	6654.7/8837 = 75.3% (69.7%, 80.2%)	5352.2/8837 = 60.6% (54.4%, 66.4%)
Age < 65	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	349	8837/8837 = 100.0% (100.0%, 100.0%)	8820.9/8837 = 99.8% (99.3%, 100.0%)	8599.1/8837 = 97.3% (94.4%, 98.7%)
Age < 65	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	349	8837/8837 = 100.0% (100.0%, 100.0%)	8837/8837 = 100.0% (100.0%, 100.0%)	8820.9/8837 = 99.8% (99.3%, 100.0%)
Age < 65	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	120	860.1/908 = 94.7% (90.4%, 97.2%)	843.2/908 = 92.9% (88.2%, 95.8%)	742.6/908 = 81.8% (73.4%, 88.0%)
Age < 65	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	120	908/908 = 100.0% (100.0%, 100.0%)	904.6/908 = 99.6% (97.3%, 99.9%)	901.4/908 = 99.3% (97.1%, 99.8%)
Age < 65	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	120	908/908 = 100.0% (100.0%, 100.0%)	908/908 = 100.0% (100.0%, 100.0%)	901.4/908 = 99.3% (97.1%, 99.8%)
Age < 65	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	63	0/8490 = 0.0% (0.0%, 0.0%)	0/8490 = 0.0% (0.0%, 0.0%)	0/8490 = 0.0% (0.0%, 0.0%)
Age < 65	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	63	0/8490 = 0.0% (0.0%, 0.0%)	0/8490 = 0.0% (0.0%, 0.0%)	0/8490 = 0.0% (0.0%, 0.0%)
Age < 65	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	63	0/8490 = 0.0% (0.0%, 0.0%)	0/8490 = 0.0% (0.0%, 0.0%)	0/8490 = 0.0% (0.0%, 0.0%)
Age < 65	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	122	729.9/867 = 84.2% (75.0%, 90.4%)	576.8/867 = 66.5% (56.0%, 75.6%)	425.1/867 = 49.0% (39.0%, 59.1%)
Age < 65	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	122	858.7/867 = 99.0% (93.3%, 99.9%)	858.7/867 = 99.0% (93.3%, 99.9%)	821.9/867 = 94.8% (88.0%, 97.8%)
Age < 65	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	122	867/867 = 100.0% (100.0%, 100.0%)	867/867 = 100.0% (100.0%, 100.0%)	867/867 = 100.0% (100.0%, 100.0%)
Age < 65	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	349	8387.1/8837 = 94.9% (91.5%, 97.0%)	7848.2/8837 = 88.8% (84.3%, 92.1%)	7164.6/8837 = 81.1% (75.8%, 85.4%)
Age < 65	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	349	8837/8837 = 100.0% (100.0%, 100.0%)	8837/8837 = 100.0% (100.0%, 100.0%)	8800.7/8837 = 99.6% (97.1%, 99.9%)
Age < 65	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	349	8837/8837 = 100.0% (100.0%, 100.0%)	8837/8837 = 100.0% (100.0%, 100.0%)	8837/8837 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
Age < 65	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	120	883.8/908 = 97.3% (93.3%, 99.0%)	868.7/908 = 95.7% (89.1%, 98.4%)	841.1/908 = 92.6% (86.2%, 96.2%)
Age < 65	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	120	908/908 = 100.0% (100.0%, 100.0%)	904.6/908 = 99.6% (97.3%, 99.9%)	904.6/908 = 99.6% (97.3%, 99.9%)
Age < 65	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	120	908/908 = 100.0% (100.0%, 100.0%)	908/908 = 100.0% (100.0%, 100.0%)	908/908 = 100.0% (100.0%, 100.0%)
Age < 65	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	63	0/8490 = 0.0% (0.0%, 0.0%)	0/8490 = 0.0% (0.0%, 0.0%)	0/8490 = 0.0% (0.0%, 0.0%)
Age < 65	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	63	0/8490 = 0.0% (0.0%, 0.0%)	0/8490 = 0.0% (0.0%, 0.0%)	0/8490 = 0.0% (0.0%, 0.0%)
Age < 65	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	63	0/8490 = 0.0% (0.0%, 0.0%)	0/8490 = 0.0% (0.0%, 0.0%)	0/8490 = 0.0% (0.0%, 0.0%)
Age < 65	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	122	808.2/867 = 93.2% (85.4%, 97.0%)	778.3/867 = 89.8% (81.5%, 94.6%)	722.1/867 = 83.3% (74.0%, 89.7%)
Age < 65	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	122	867/867 = 100.0% (100.0%, 100.0%)	867/867 = 100.0% (100.0%, 100.0%)	867/867 = 100.0% (100.0%, 100.0%)
Age < 65	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	122	867/867 = 100.0% (100.0%, 100.0%)	867/867 = 100.0% (100.0%, 100.0%)	867/867 = 100.0% (100.0%, 100.0%)
Age ≥ 65	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	380	2261.9/2359 = 95.9% (93.2%, 97.5%)	2160.2/2359 = 91.6% (88.2%, 94.1%)	1959.4/2359 = 83.1% (78.8%, 86.6%)
Age ≥ 65	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	380	2359/2359 = 100.0% (100.0%, 100.0%)	2359/2359 = 100.0% (100.0%, 100.0%)	2354.3/2359 = 99.8% (98.6%, 100.0%)
Age ≥ 65	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	380	2359/2359 = 100.0% (100.0%, 100.0%)	2359/2359 = 100.0% (100.0%, 100.0%)	2359/2359 = 100.0% (100.0%, 100.0%)
Age ≥ 65	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	115	231.9/234 = 99.1% (93.7%, 99.9%)	225.8/234 = 96.5% (90.9%, 98.7%)	221.6/234 = 94.7% (88.6%, 97.6%)
Age ≥ 65	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	115	234/234 = 100.0% (100.0%, 100.0%)	234/234 = 100.0% (100.0%, 100.0%)	232.1/234 = 99.2% (94.3%, 99.9%)
Age ≥ 65	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	115	234/234 = 100.0% (100.0%, 100.0%)	234/234 = 100.0% (100.0%, 100.0%)	234/234 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
Age ≥ 65	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	67	0/2706 = 0.0% (0.0%, 0.0%)	0/2706 = 0.0% (0.0%, 0.0%)	0/2706 = 0.0% (0.0%, 0.0%)
Age ≥ 65	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	67	0/2706 = 0.0% (0.0%, 0.0%)	0/2706 = 0.0% (0.0%, 0.0%)	0/2706 = 0.0% (0.0%, 0.0%)
Age ≥ 65	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	67	0/2706 = 0.0% (0.0%, 0.0%)	0/2706 = 0.0% (0.0%, 0.0%)	0/2706 = 0.0% (0.0%, 0.0%)
Age ≥ 65	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	99	197.5/206 = 95.9% (89.3%, 98.5%)	180.4/206 = 87.6% (79.2%, 92.9%)	166.3/206 = 80.7% (71.5%, 87.5%)
Age ≥ 65	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	99	206/206 = 100.0% (100.0%, 100.0%)	206/206 = 100.0% (100.0%, 100.0%)	206/206 = 100.0% (100.0%, 100.0%)
Age ≥ 65	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	99	206/206 = 100.0% (100.0%, 100.0%)	206/206 = 100.0% (100.0%, 100.0%)	206/206 = 100.0% (100.0%, 100.0%)
Age ≥ 65	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	380	2334.9/2359 = 99.0% (97.2%, 99.6%)	2279.3/2359 = 96.6% (94.2%, 98.1%)	2223.8/2359 = 94.3% (91.4%, 96.2%)
Age ≥ 65	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	380	2359/2359 = 100.0% (100.0%, 100.0%)	2359/2359 = 100.0% (100.0%, 100.0%)	2359/2359 = 100.0% (100.0%, 100.0%)
Age ≥ 65	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	380	2359/2359 = 100.0% (100.0%, 100.0%)	2359/2359 = 100.0% (100.0%, 100.0%)	2359/2359 = 100.0% (100.0%, 100.0%)
Age ≥ 65	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	115	231.9/234 = 99.1% (93.7%, 99.9%)	231.9/234 = 99.1% (93.7%, 99.9%)	230/234 = 98.3% (93.3%, 99.6%)
Age ≥ 65	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	115	234/234 = 100.0% (100.0%, 100.0%)	234/234 = 100.0% (100.0%, 100.0%)	234/234 = 100.0% (100.0%, 100.0%)
Age ≥ 65	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	115	234/234 = 100.0% (100.0%, 100.0%)	234/234 = 100.0% (100.0%, 100.0%)	234/234 = 100.0% (100.0%, 100.0%)
Age ≥ 65	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	67	0/2706 = 0.0% (0.0%, 0.0%)	0/2706 = 0.0% (0.0%, 0.0%)	0/2706 = 0.0% (0.0%, 0.0%)
Age ≥ 65	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	67	0/2706 = 0.0% (0.0%, 0.0%)	0/2706 = 0.0% (0.0%, 0.0%)	0/2706 = 0.0% (0.0%, 0.0%)
Age ≥ 65	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	67	0/2706 = 0.0% (0.0%, 0.0%)	0/2706 = 0.0% (0.0%, 0.0%)	0/2706 = 0.0% (0.0%, 0.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
Age ≥ 65	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	99	206/206 = 100.0% (100.0%, 100.0%)	203.8/206 = 98.9% (92.5%, 99.9%)	189.7/206 = 92.1% (84.7%, 96.1%)
Age ≥ 65	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	99	206/206 = 100.0% (100.0%, 100.0%)	206/206 = 100.0% (100.0%, 100.0%)	206/206 = 100.0% (100.0%, 100.0%)
Age ≥ 65	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	99	206/206 = 100.0% (100.0%, 100.0%)	206/206 = 100.0% (100.0%, 100.0%)	206/206 = 100.0% (100.0%, 100.0%)

Binding Antibody Responders are defined as participants who had baseline values below the LLOQ with detectable antibody concentration above the assay LLOQ, or as participants with baseline values above the LLOQ with a 4-fold increase in antibody concentration.

Percentages are calculated for the whole per-protocol group/subgroup, using inverse probability weighting.

LLOQ = 4.49, 5.77, 1.80 IU/ml for N, RBD, Spike, respectively.

Table 4c. Percentage of responders, and participants with concentrations $\geq 2 \times$ LLOQ or $\geq 4 \times$ LLOQ for binding antibody markers by Risk for Severe Covid-19

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than $2 \times$ LLOQ	% Greater than $4 \times$ LLOQ
Risk for Severe Covid-19								
At-risk	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	386	2819.4/3139.9 = 89.8% (86.0%, 92.6%)	2464.1/3139.9 = 78.5% (73.7%, 82.6%)	2090.1/3139.9 = 66.6% (61.4%, 71.3%)
At-risk	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	386	3139.9/3139.9 = 100.0% (100.0%, 100.0%)	3123.9/3139.9 = 99.5% (98.0%, 99.9%)	3072/3139.9 = 97.8% (95.4%, 99.0%)
At-risk	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	386	3139.9/3139.9 = 100.0% (100.0%, 100.0%)	3139.9/3139.9 = 100.0% (100.0%, 100.0%)	3123.9/3139.9 = 99.5% (98.0%, 99.9%)
At-risk	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	105	259.6/288.4 = 90.0% (81.7%, 94.8%)	245.6/288.4 = 85.1% (76.2%, 91.1%)	230.5/288.4 = 79.9% (70.5%, 86.9%)
At-risk	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	105	288.4/288.4 = 100.0% (100.0%, 100.0%)	285/288.4 = 98.8% (91.8%, 99.8%)	279.9/288.4 = 97.0% (90.8%, 99.1%)
At-risk	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	105	288.4/288.4 = 100.0% (100.0%, 100.0%)	288.4/288.4 = 100.0% (100.0%, 100.0%)	281.8/288.4 = 97.7% (91.0%, 99.4%)
At-risk	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	67	0/3474.5 = 0.0% (0.0%, 0.0%)	0/3474.5 = 0.0% (0.0%, 0.0%)	0/3474.5 = 0.0% (0.0%, 0.0%)
At-risk	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	67	0/3474.5 = 0.0% (0.0%, 0.0%)	0/3474.5 = 0.0% (0.0%, 0.0%)	0/3474.5 = 0.0% (0.0%, 0.0%)
At-risk	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	67	0/3474.5 = 0.0% (0.0%, 0.0%)	0/3474.5 = 0.0% (0.0%, 0.0%)	0/3474.5 = 0.0% (0.0%, 0.0%)
At-risk	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	90	231.5/247.2 = 93.6% (85.4%, 97.4%)	210.1/247.2 = 85.0% (75.5%, 91.2%)	176/247.2 = 71.2% (60.5%, 79.9%)
At-risk	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	90	247.2/247.2 = 100.0% (100.0%, 100.0%)	247.2/247.2 = 100.0% (100.0%, 100.0%)	234.3/247.2 = 94.8% (86.8%, 98.0%)
At-risk	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	90	247.2/247.2 = 100.0% (100.0%, 100.0%)	247.2/247.2 = 100.0% (100.0%, 100.0%)	247.2/247.2 = 100.0% (100.0%, 100.0%)
At-risk	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	386	2993.2/3139.9 = 95.3% (92.4%, 97.2%)	2859/3139.9 = 91.1% (87.5%, 93.7%)	2636.6/3139.9 = 84.0% (79.6%, 87.5%)
At-risk	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	386	3139.9/3139.9 = 100.0% (100.0%, 100.0%)	3139.9/3139.9 = 100.0% (100.0%, 100.0%)	3139.9/3139.9 = 100.0% (100.0%, 100.0%)
At-risk	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	386	3139.9/3139.9 = 100.0% (100.0%, 100.0%)	3139.9/3139.9 = 100.0% (100.0%, 100.0%)	3139.9/3139.9 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
At-risk	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	105	278.4/288.4 = 96.5% (89.5%, 98.9%)	278.4/288.4 = 96.5% (89.5%, 98.9%)	263/288.4 = 91.2% (83.1%, 95.6%)
At-risk	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	105	288.4/288.4 = 100.0% (100.0%, 100.0%)	285/288.4 = 98.8% (91.8%, 99.8%)	285/288.4 = 98.8% (91.8%, 99.8%)
At-risk	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	105	288.4/288.4 = 100.0% (100.0%, 100.0%)	288.4/288.4 = 100.0% (100.0%, 100.0%)	288.4/288.4 = 100.0% (100.0%, 100.0%)
At-risk	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	67	0/3474.5 = 0.0% (0.0%, 0.0%)	0/3474.5 = 0.0% (0.0%, 0.0%)	0/3474.5 = 0.0% (0.0%, 0.0%)
At-risk	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	67	0/3474.5 = 0.0% (0.0%, 0.0%)	0/3474.5 = 0.0% (0.0%, 0.0%)	0/3474.5 = 0.0% (0.0%, 0.0%)
At-risk	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	67	0/3474.5 = 0.0% (0.0%, 0.0%)	0/3474.5 = 0.0% (0.0%, 0.0%)	0/3474.5 = 0.0% (0.0%, 0.0%)
At-risk	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	90	240.8/247.2 = 97.4% (90.0%, 99.4%)	231.1/247.2 = 93.5% (85.2%, 97.3%)	214.6/247.2 = 86.8% (77.4%, 92.6%)
At-risk	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	90	247.2/247.2 = 100.0% (100.0%, 100.0%)	247.2/247.2 = 100.0% (100.0%, 100.0%)	247.2/247.2 = 100.0% (100.0%, 100.0%)
At-risk	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	90	247.2/247.2 = 100.0% (100.0%, 100.0%)	247.2/247.2 = 100.0% (100.0%, 100.0%)	247.2/247.2 = 100.0% (100.0%, 100.0%)
Not at-risk	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	343	7025.3/8056.1 = 87.2% (81.8%, 91.2%)	6350.8/8056.1 = 78.8% (72.7%, 83.9%)	5221.5/8056.1 = 64.8% (58.2%, 70.9%)
Not at-risk	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	343	8056.1/8056.1 = 100.0% (100.0%, 100.0%)	8056.1/8056.1 = 100.0% (100.0%, 100.0%)	7881.4/8056.1 = 97.8% (94.4%, 99.2%)
Not at-risk	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	343	8056.1/8056.1 = 100.0% (100.0%, 100.0%)	8056.1/8056.1 = 100.0% (100.0%, 100.0%)	8056.1/8056.1 = 100.0% (100.0%, 100.0%)
Not at-risk	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	130	832.4/853.6 = 97.5% (92.7%, 99.2%)	823.4/853.6 = 96.5% (91.6%, 98.6%)	733.6/853.6 = 85.9% (76.9%, 91.8%)
Not at-risk	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	130	853.6/853.6 = 100.0% (100.0%, 100.0%)	853.6/853.6 = 100.0% (100.0%, 100.0%)	853.6/853.6 = 100.0% (100.0%, 100.0%)
Not at-risk	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	130	853.6/853.6 = 100.0% (100.0%, 100.0%)	853.6/853.6 = 100.0% (100.0%, 100.0%)	853.6/853.6 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
Not at-risk	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	63	0/7721.5 = 0.0% (0.0%, 0.0%)	0/7721.5 = 0.0% (0.0%, 0.0%)	0/7721.5 = 0.0% (0.0%, 0.0%)
Not at-risk	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	63	0/7721.5 = 0.0% (0.0%, 0.0%)	0/7721.5 = 0.0% (0.0%, 0.0%)	0/7721.5 = 0.0% (0.0%, 0.0%)
Not at-risk	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	63	0/7721.5 = 0.0% (0.0%, 0.0%)	0/7721.5 = 0.0% (0.0%, 0.0%)	0/7721.5 = 0.0% (0.0%, 0.0%)
Not at-risk	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	131	695.8/825.8 = 84.3% (74.7%, 90.7%)	547.1/825.8 = 66.3% (55.3%, 75.7%)	415.4/825.8 = 50.3% (39.9%, 60.7%)
Not at-risk	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	131	817.5/825.8 = 99.0% (93.0%, 99.9%)	817.5/825.8 = 99.0% (93.0%, 99.9%)	793.6/825.8 = 96.1% (88.2%, 98.8%)
Not at-risk	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	131	825.8/825.8 = 100.0% (100.0%, 100.0%)	825.8/825.8 = 100.0% (100.0%, 100.0%)	825.8/825.8 = 100.0% (100.0%, 100.0%)
Not at-risk	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	343	7728.8/8056.1 = 95.9% (92.0%, 98.0%)	7268.5/8056.1 = 90.2% (85.3%, 93.6%)	6751.8/8056.1 = 83.8% (78.0%, 88.3%)
Not at-risk	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	343	8056.1/8056.1 = 100.0% (100.0%, 100.0%)	8056.1/8056.1 = 100.0% (100.0%, 100.0%)	8019.8/8056.1 = 99.5% (96.8%, 99.9%)
Not at-risk	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	343	8056.1/8056.1 = 100.0% (100.0%, 100.0%)	8056.1/8056.1 = 100.0% (100.0%, 100.0%)	8056.1/8056.1 = 100.0% (100.0%, 100.0%)
Not at-risk	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	130	837.3/853.6 = 98.1% (93.7%, 99.4%)	822.2/853.6 = 96.3% (88.9%, 98.9%)	808.1/853.6 = 94.7% (87.5%, 97.8%)
Not at-risk	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	130	853.6/853.6 = 100.0% (100.0%, 100.0%)	853.6/853.6 = 100.0% (100.0%, 100.0%)	853.6/853.6 = 100.0% (100.0%, 100.0%)
Not at-risk	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	130	853.6/853.6 = 100.0% (100.0%, 100.0%)	853.6/853.6 = 100.0% (100.0%, 100.0%)	853.6/853.6 = 100.0% (100.0%, 100.0%)
Not at-risk	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	63	0/7721.5 = 0.0% (0.0%, 0.0%)	0/7721.5 = 0.0% (0.0%, 0.0%)	0/7721.5 = 0.0% (0.0%, 0.0%)
Not at-risk	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	63	0/7721.5 = 0.0% (0.0%, 0.0%)	0/7721.5 = 0.0% (0.0%, 0.0%)	0/7721.5 = 0.0% (0.0%, 0.0%)
Not at-risk	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	63	0/7721.5 = 0.0% (0.0%, 0.0%)	0/7721.5 = 0.0% (0.0%, 0.0%)	0/7721.5 = 0.0% (0.0%, 0.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
Not at-risk	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	131	773.4/825.8 = 93.7% (85.3%, 97.4%)	750.9/825.8 = 90.9% (82.1%, 95.6%)	697.2/825.8 = 84.4% (74.7%, 90.9%)
Not at-risk	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	131	825.8/825.8 = 100.0% (100.0%, 100.0%)	825.8/825.8 = 100.0% (100.0%, 100.0%)	825.8/825.8 = 100.0% (100.0%, 100.0%)
Not at-risk	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	131	825.8/825.8 = 100.0% (100.0%, 100.0%)	825.8/825.8 = 100.0% (100.0%, 100.0%)	825.8/825.8 = 100.0% (100.0%, 100.0%)

Binding Antibody Responders are defined as participants who had baseline values below the LLOQ with detectable antibody concentration above the assay LLOQ, or as participants with baseline values above the LLOQ with a 4-fold increase in antibody concentration.

Percentages are calculated for the whole per-protocol group/subgroup, using inverse probability weighting.

LLOQ = 4.49, 5.77, 1.80 IU/ml for N, RBD, Spike, respectively.

Table 4d. Percentage of responders, and participants with concentrations $\geq 2 \times$ LLOQ or $\geq 4 \times$ LLOQ for binding antibody markers by Age, Risk for Severe Covid-19

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than $2 \times$ LLOQ	% Greater than $4 \times$ LLOQ
Age, Risk for Severe Covid-19								
Age < 65 At-risk	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	179	1604.4/1862 = 86.2% (80.3%, 90.5%)	1316.7/1862 = 70.7% (63.4%, 77.1%)	1039.7/1862 = 55.8% (48.3%, 63.1%)
Age < 65 At-risk	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	179	1862/1862 = 100.0% (100.0%, 100.0%)	1845.9/1862 = 99.1% (96.6%, 99.8%)	1798.8/1862 = 96.6% (92.5%, 98.5%)
Age < 65 At-risk	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	179	1862/1862 = 100.0% (100.0%, 100.0%)	1862/1862 = 100.0% (100.0%, 100.0%)	1845.9/1862 = 99.1% (96.6%, 99.8%)
Age < 65 At-risk	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	57	163.3/190 = 85.9% (73.8%, 93.0%)	153.5/190 = 80.8% (68.0%, 89.3%)	140.5/190 = 74.0% (60.8%, 83.9%)
Age < 65 At-risk	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	57	190/190 = 100.0% (100.0%, 100.0%)	186.6/190 = 98.2% (87.6%, 99.8%)	183.4/190 = 96.5% (86.5%, 99.2%)
Age < 65 At-risk	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	57	190/190 = 100.0% (100.0%, 100.0%)	190/190 = 100.0% (100.0%, 100.0%)	183.4/190 = 96.5% (86.5%, 99.2%)
Age < 65 At-risk	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	32	0/2086 = 0.0% (0.0%, 0.0%)	0/2086 = 0.0% (0.0%, 0.0%)	0/2086 = 0.0% (0.0%, 0.0%)
Age < 65 At-risk	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	32	0/2086 = 0.0% (0.0%, 0.0%)	0/2086 = 0.0% (0.0%, 0.0%)	0/2086 = 0.0% (0.0%, 0.0%)
Age < 65 At-risk	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	32	0/2086 = 0.0% (0.0%, 0.0%)	0/2086 = 0.0% (0.0%, 0.0%)	0/2086 = 0.0% (0.0%, 0.0%)
Age < 65 At-risk	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	56	158.3/174 = 91.0% (79.6%, 96.3%)	145.8/174 = 83.8% (71.2%, 91.5%)	118/174 = 67.8% (54.1%, 79.0%)
Age < 65 At-risk	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	56	174/174 = 100.0% (100.0%, 100.0%)	174/174 = 100.0% (100.0%, 100.0%)	161.1/174 = 92.6% (81.5%, 97.2%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
Age < 65 At-risk	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	56	174/174 = 100.0% (100.0%, 100.0%)	174/174 = 100.0% (100.0%, 100.0%)	174/174 = 100.0% (100.0%, 100.0%)
Age < 65 At-risk	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	179	1739.3/1862 = 93.4% (88.6%, 96.3%)	1644/1862 = 88.3% (82.7%, 92.3%)	1462.4/1862 = 78.5% (71.8%, 84.0%)
Age < 65 At-risk	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	179	1862/1862 = 100.0% (100.0%, 100.0%)	1862/1862 = 100.0% (100.0%, 100.0%)	1862/1862 = 100.0% (100.0%, 100.0%)
Age < 65 At-risk	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	179	1862/1862 = 100.0% (100.0%, 100.0%)	1862/1862 = 100.0% (100.0%, 100.0%)	1862/1862 = 100.0% (100.0%, 100.0%)
Age < 65 At-risk	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	57	179.9/190 = 94.7% (84.3%, 98.4%)	179.9/190 = 94.7% (84.3%, 98.4%)	166.4/190 = 87.6% (75.7%, 94.1%)
Age < 65 At-risk	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	57	190/190 = 100.0% (100.0%, 100.0%)	186.6/190 = 98.2% (87.6%, 99.8%)	186.6/190 = 98.2% (87.6%, 99.8%)
Age < 65 At-risk	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	57	190/190 = 100.0% (100.0%, 100.0%)	190/190 = 100.0% (100.0%, 100.0%)	190/190 = 100.0% (100.0%, 100.0%)
Age < 65 At-risk	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	32	0/2086 = 0.0% (0.0%, 0.0%)	0/2086 = 0.0% (0.0%, 0.0%)	0/2086 = 0.0% (0.0%, 0.0%)
Age < 65 At-risk	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	32	0/2086 = 0.0% (0.0%, 0.0%)	0/2086 = 0.0% (0.0%, 0.0%)	0/2086 = 0.0% (0.0%, 0.0%)
Age < 65 At-risk	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	32	0/2086 = 0.0% (0.0%, 0.0%)	0/2086 = 0.0% (0.0%, 0.0%)	0/2086 = 0.0% (0.0%, 0.0%)
Age < 65 At-risk	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	56	167.6/174 = 96.3% (85.9%, 99.1%)	157.9/174 = 90.7% (79.3%, 96.2%)	145.8/174 = 83.8% (71.2%, 91.5%)
Age < 65 At-risk	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	56	174/174 = 100.0% (100.0%, 100.0%)	174/174 = 100.0% (100.0%, 100.0%)	174/174 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
Age < 65 At-risk	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	56	174/174 = 100.0% (100.0%, 100.0%)	174/174 = 100.0% (100.0%, 100.0%)	174/174 = 100.0% (100.0%, 100.0%)
Age < 65 Not at-risk	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	170	5978.4/6975 = 85.7% (79.5%, 90.3%)	5338/6975 = 76.5% (69.5%, 82.4%)	4312.5/6975 = 61.8% (54.2%, 68.9%)
Age < 65 Not at-risk	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	170	6975/6975 = 100.0% (100.0%, 100.0%)	6975/6975 = 100.0% (100.0%, 100.0%)	6800.3/6975 = 97.5% (93.5%, 99.1%)
Age < 65 Not at-risk	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	170	6975/6975 = 100.0% (100.0%, 100.0%)	6975/6975 = 100.0% (100.0%, 100.0%)	6975/6975 = 100.0% (100.0%, 100.0%)
Age < 65 Not at-risk	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	63	696.8/718 = 97.0% (91.2%, 99.0%)	689.7/718 = 96.1% (90.1%, 98.5%)	602/718 = 83.9% (73.1%, 90.8%)
Age < 65 Not at-risk	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	63	718/718 = 100.0% (100.0%, 100.0%)	718/718 = 100.0% (100.0%, 100.0%)	718/718 = 100.0% (100.0%, 100.0%)
Age < 65 Not at-risk	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	63	718/718 = 100.0% (100.0%, 100.0%)	718/718 = 100.0% (100.0%, 100.0%)	718/718 = 100.0% (100.0%, 100.0%)
Age < 65 Not at-risk	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	31	0/6404 = 0.0% (0.0%, 0.0%)	0/6404 = 0.0% (0.0%, 0.0%)	0/6404 = 0.0% (0.0%, 0.0%)
Age < 65 Not at-risk	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	31	0/6404 = 0.0% (0.0%, 0.0%)	0/6404 = 0.0% (0.0%, 0.0%)	0/6404 = 0.0% (0.0%, 0.0%)
Age < 65 Not at-risk	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	31	0/6404 = 0.0% (0.0%, 0.0%)	0/6404 = 0.0% (0.0%, 0.0%)	0/6404 = 0.0% (0.0%, 0.0%)
Age < 65 Not at-risk	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	66	571.6/693 = 82.5% (71.0%, 90.1%)	431/693 = 62.2% (49.4%, 73.5%)	307.1/693 = 44.3% (32.5%, 56.8%)
Age < 65 Not at-risk	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	66	684.7/693 = 98.8% (91.6%, 99.8%)	684.7/693 = 98.8% (91.6%, 99.8%)	660.8/693 = 95.4% (86.0%, 98.6%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
Age < 65 Not at-risk	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	66	693/693 = 100.0% (100.0%, 100.0%)	693/693 = 100.0% (100.0%, 100.0%)	693/693 = 100.0% (100.0%, 100.0%)
Age < 65 Not at-risk	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	170	6647.7/6975 = 95.3% (90.8%, 97.7%)	6204.2/6975 = 88.9% (83.2%, 92.9%)	5702.2/6975 = 81.8% (75.1%, 86.9%)
Age < 65 Not at-risk	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	170	6975/6975 = 100.0% (100.0%, 100.0%)	6975/6975 = 100.0% (100.0%, 100.0%)	6938.7/6975 = 99.5% (96.3%, 99.9%)
Age < 65 Not at-risk	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	170	6975/6975 = 100.0% (100.0%, 100.0%)	6975/6975 = 100.0% (100.0%, 100.0%)	6975/6975 = 100.0% (100.0%, 100.0%)
Age < 65 Not at-risk	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	63	703.9/718 = 98.0% (92.3%, 99.5%)	688.8/718 = 95.9% (86.7%, 98.8%)	674.6/718 = 94.0% (85.3%, 97.7%)
Age < 65 Not at-risk	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	63	718/718 = 100.0% (100.0%, 100.0%)	718/718 = 100.0% (100.0%, 100.0%)	718/718 = 100.0% (100.0%, 100.0%)
Age < 65 Not at-risk	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	63	718/718 = 100.0% (100.0%, 100.0%)	718/718 = 100.0% (100.0%, 100.0%)	718/718 = 100.0% (100.0%, 100.0%)
Age < 65 Not at-risk	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	31	0/6404 = 0.0% (0.0%, 0.0%)	0/6404 = 0.0% (0.0%, 0.0%)	0/6404 = 0.0% (0.0%, 0.0%)
Age < 65 Not at-risk	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	31	0/6404 = 0.0% (0.0%, 0.0%)	0/6404 = 0.0% (0.0%, 0.0%)	0/6404 = 0.0% (0.0%, 0.0%)
Age < 65 Not at-risk	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	31	0/6404 = 0.0% (0.0%, 0.0%)	0/6404 = 0.0% (0.0%, 0.0%)	0/6404 = 0.0% (0.0%, 0.0%)
Age < 65 Not at-risk	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	66	640.6/693 = 92.4% (82.5%, 96.9%)	620.4/693 = 89.5% (79.0%, 95.1%)	576.3/693 = 83.2% (71.5%, 90.7%)
Age < 65 Not at-risk	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	66	693/693 = 100.0% (100.0%, 100.0%)	693/693 = 100.0% (100.0%, 100.0%)	693/693 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
Age < 65 Not at-risk	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	66	693/693 = 100.0% (100.0%, 100.0%)	693/693 = 100.0% (100.0%, 100.0%)	693/693 = 100.0% (100.0%, 100.0%)
Age ≥ 65 At-risk	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	207	1215/1277.9 = 95.1% (90.9%, 97.4%)	1147.4/1277.9 = 89.8% (84.7%, 93.3%)	1050.3/1277.9 = 82.2% (76.1%, 87.0%)
Age ≥ 65 At-risk	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	207	1277.9/1277.9 = 100.0% (100.0%, 100.0%)	1277.9/1277.9 = 100.0% (100.0%, 100.0%)	1273.2/1277.9 = 99.6% (97.4%, 99.9%)
Age ≥ 65 At-risk	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	207	1277.9/1277.9 = 100.0% (100.0%, 100.0%)	1277.9/1277.9 = 100.0% (100.0%, 100.0%)	1277.9/1277.9 = 100.0% (100.0%, 100.0%)
Age ≥ 65 At-risk	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	48	96.3/98.4 = 97.9% (85.6%, 99.7%)	92.1/98.4 = 93.6% (81.4%, 98.0%)	90/98.4 = 91.4% (78.9%, 96.8%)
Age ≥ 65 At-risk	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	48	98.4/98.4 = 100.0% (100.0%, 100.0%)	98.4/98.4 = 100.0% (100.0%, 100.0%)	96.5/98.4 = 98.1% (86.9%, 99.7%)
Age ≥ 65 At-risk	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	48	98.4/98.4 = 100.0% (100.0%, 100.0%)	98.4/98.4 = 100.0% (100.0%, 100.0%)	98.4/98.4 = 100.0% (100.0%, 100.0%)
Age ≥ 65 At-risk	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	35	0/1388.5 = 0.0% (0.0%, 0.0%)	0/1388.5 = 0.0% (0.0%, 0.0%)	0/1388.5 = 0.0% (0.0%, 0.0%)
Age ≥ 65 At-risk	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	35	0/1388.5 = 0.0% (0.0%, 0.0%)	0/1388.5 = 0.0% (0.0%, 0.0%)	0/1388.5 = 0.0% (0.0%, 0.0%)
Age ≥ 65 At-risk	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	35	0/1388.5 = 0.0% (0.0%, 0.0%)	0/1388.5 = 0.0% (0.0%, 0.0%)	0/1388.5 = 0.0% (0.0%, 0.0%)
Age ≥ 65 At-risk	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	34	73.2/73.2 = 100.0% (100.0%, 100.0%)	64.3/73.2 = 87.8% (70.8%, 95.5%)	58/73.2 = 79.2% (61.4%, 90.1%)
Age ≥ 65 At-risk	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	34	73.2/73.2 = 100.0% (100.0%, 100.0%)	73.2/73.2 = 100.0% (100.0%, 100.0%)	73.2/73.2 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
Age ≥ 65 At-risk	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	34	73.2/73.2 = 100.0% (100.0%, 100.0%)	73.2/73.2 = 100.0% (100.0%, 100.0%)	73.2/73.2 = 100.0% (100.0%, 100.0%)
Age ≥ 65 At-risk	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	207	1253.8/1277.9 = 98.1% (94.9%, 99.3%)	1215/1277.9 = 95.1% (90.9%, 97.4%)	1174.2/1277.9 = 91.9% (87.1%, 95.0%)
Age ≥ 65 At-risk	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	207	1277.9/1277.9 = 100.0% (100.0%, 100.0%)	1277.9/1277.9 = 100.0% (100.0%, 100.0%)	1277.9/1277.9 = 100.0% (100.0%, 100.0%)
Age ≥ 65 At-risk	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	207	1277.9/1277.9 = 100.0% (100.0%, 100.0%)	1277.9/1277.9 = 100.0% (100.0%, 100.0%)	1277.9/1277.9 = 100.0% (100.0%, 100.0%)
Age ≥ 65 At-risk	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	48	98.4/98.4 = 100.0% (100.0%, 100.0%)	98.4/98.4 = 100.0% (100.0%, 100.0%)	96.5/98.4 = 98.1% (86.9%, 99.7%)
Age ≥ 65 At-risk	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	48	98.4/98.4 = 100.0% (100.0%, 100.0%)	98.4/98.4 = 100.0% (100.0%, 100.0%)	98.4/98.4 = 100.0% (100.0%, 100.0%)
Age ≥ 65 At-risk	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	48	98.4/98.4 = 100.0% (100.0%, 100.0%)	98.4/98.4 = 100.0% (100.0%, 100.0%)	98.4/98.4 = 100.0% (100.0%, 100.0%)
Age ≥ 65 At-risk	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	35	0/1388.5 = 0.0% (0.0%, 0.0%)	0/1388.5 = 0.0% (0.0%, 0.0%)	0/1388.5 = 0.0% (0.0%, 0.0%)
Age ≥ 65 At-risk	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	35	0/1388.5 = 0.0% (0.0%, 0.0%)	0/1388.5 = 0.0% (0.0%, 0.0%)	0/1388.5 = 0.0% (0.0%, 0.0%)
Age ≥ 65 At-risk	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	35	0/1388.5 = 0.0% (0.0%, 0.0%)	0/1388.5 = 0.0% (0.0%, 0.0%)	0/1388.5 = 0.0% (0.0%, 0.0%)
Age ≥ 65 At-risk	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	34	73.2/73.2 = 100.0% (100.0%, 100.0%)	73.2/73.2 = 100.0% (100.0%, 100.0%)	68.8/73.2 = 93.9% (77.6%, 98.6%)
Age ≥ 65 At-risk	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	34	73.2/73.2 = 100.0% (100.0%, 100.0%)	73.2/73.2 = 100.0% (100.0%, 100.0%)	73.2/73.2 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
Age ≥ 65 At-risk	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	34	73.2/73.2 = 100.0% (100.0%, 100.0%)	73.2/73.2 = 100.0% (100.0%, 100.0%)	73.2/73.2 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Not at-risk	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	173	1046.9/1081.1 = 96.8% (92.5%, 98.7%)	1012.8/1081.1 = 93.7% (88.5%, 96.6%)	909.1/1081.1 = 84.1% (77.6%, 89.0%)
Age ≥ 65 Not at-risk	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	173	1081.1/1081.1 = 100.0% (100.0%, 100.0%)	1081.1/1081.1 = 100.0% (100.0%, 100.0%)	1081.1/1081.1 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Not at-risk	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	173	1081.1/1081.1 = 100.0% (100.0%, 100.0%)	1081.1/1081.1 = 100.0% (100.0%, 100.0%)	1081.1/1081.1 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Not at-risk	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	67	135.6/135.6 = 100.0% (100.0%, 100.0%)	133.7/135.6 = 98.6% (90.3%, 99.8%)	131.6/135.6 = 97.0% (88.6%, 99.3%)
Age ≥ 65 Not at-risk	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	67	135.6/135.6 = 100.0% (100.0%, 100.0%)	135.6/135.6 = 100.0% (100.0%, 100.0%)	135.6/135.6 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Not at-risk	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	67	135.6/135.6 = 100.0% (100.0%, 100.0%)	135.6/135.6 = 100.0% (100.0%, 100.0%)	135.6/135.6 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Not at-risk	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	32	0/1317.5 = 0.0% (0.0%, 0.0%)	0/1317.5 = 0.0% (0.0%, 0.0%)	0/1317.5 = 0.0% (0.0%, 0.0%)
Age ≥ 65 Not at-risk	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	32	0/1317.5 = 0.0% (0.0%, 0.0%)	0/1317.5 = 0.0% (0.0%, 0.0%)	0/1317.5 = 0.0% (0.0%, 0.0%)
Age ≥ 65 Not at-risk	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	32	0/1317.5 = 0.0% (0.0%, 0.0%)	0/1317.5 = 0.0% (0.0%, 0.0%)	0/1317.5 = 0.0% (0.0%, 0.0%)
Age ≥ 65 Not at-risk	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	65	124.2/132.8 = 93.6% (83.7%, 97.6%)	116.1/132.8 = 87.4% (76.5%, 93.7%)	108.3/132.8 = 81.6% (69.9%, 89.4%)
Age ≥ 65 Not at-risk	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	65	132.8/132.8 = 100.0% (100.0%, 100.0%)	132.8/132.8 = 100.0% (100.0%, 100.0%)	132.8/132.8 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
Age ≥ 65 Not at-risk	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	65	132.8/132.8 = 100.0% (100.0%, 100.0%)	132.8/132.8 = 100.0% (100.0%, 100.0%)	132.8/132.8 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Not at-risk	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	173	1081.1/1081.1 = 100.0% (100.0%, 100.0%)	1064.3/1081.1 = 98.5% (95.1%, 99.5%)	1049.6/1081.1 = 97.1% (93.0%, 98.8%)
Age ≥ 65 Not at-risk	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	173	1081.1/1081.1 = 100.0% (100.0%, 100.0%)	1081.1/1081.1 = 100.0% (100.0%, 100.0%)	1081.1/1081.1 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Not at-risk	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	173	1081.1/1081.1 = 100.0% (100.0%, 100.0%)	1081.1/1081.1 = 100.0% (100.0%, 100.0%)	1081.1/1081.1 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Not at-risk	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	67	133.5/135.6 = 98.4% (89.4%, 99.8%)	133.5/135.6 = 98.4% (89.4%, 99.8%)	133.5/135.6 = 98.4% (89.4%, 99.8%)
Age ≥ 65 Not at-risk	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	67	135.6/135.6 = 100.0% (100.0%, 100.0%)	135.6/135.6 = 100.0% (100.0%, 100.0%)	135.6/135.6 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Not at-risk	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	67	135.6/135.6 = 100.0% (100.0%, 100.0%)	135.6/135.6 = 100.0% (100.0%, 100.0%)	135.6/135.6 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Not at-risk	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	32	0/1317.5 = 0.0% (0.0%, 0.0%)	0/1317.5 = 0.0% (0.0%, 0.0%)	0/1317.5 = 0.0% (0.0%, 0.0%)
Age ≥ 65 Not at-risk	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	32	0/1317.5 = 0.0% (0.0%, 0.0%)	0/1317.5 = 0.0% (0.0%, 0.0%)	0/1317.5 = 0.0% (0.0%, 0.0%)
Age ≥ 65 Not at-risk	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	32	0/1317.5 = 0.0% (0.0%, 0.0%)	0/1317.5 = 0.0% (0.0%, 0.0%)	0/1317.5 = 0.0% (0.0%, 0.0%)
Age ≥ 65 Not at-risk	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	65	132.8/132.8 = 100.0% (100.0%, 100.0%)	130.5/132.8 = 98.3% (88.6%, 99.8%)	120.9/132.8 = 91.1% (81.2%, 96.0%)
Age ≥ 65 Not at-risk	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	65	132.8/132.8 = 100.0% (100.0%, 100.0%)	132.8/132.8 = 100.0% (100.0%, 100.0%)	132.8/132.8 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
Age ≥ 65 Not at-risk	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	65	132.8/132.8 = 100.0% (100.0%, 100.0%)	132.8/132.8 = 100.0% (100.0%, 100.0%)	132.8/132.8 = 100.0% (100.0%, 100.0%)

Binding Antibody Responders are defined as participants who had baseline values below the LLOQ with detectable antibody concentration above the assay LLOQ, or as participants with baseline values above the LLOQ with a 4-fold increase in antibody concentration.

Percentages are calculated for the whole per-protocol group/subgroup, using inverse probability weighting.

LLOQ = 4.49, 5.77, 1.80 IU/ml for N, RBD, Spike, respectively.

Table 4e. Percentage of responders, and participants with concentrations $\geq 2 \times$ LLOQ or $\geq 4 \times$ LLOQ for binding antibody markers by Sex

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than $2 \times$ LLOQ	% Greater than $4 \times$ LLOQ
Sex								
Male	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	323	4351.6/5194.9 = 83.8% (77.0%, 88.8%)	3895.4/5194.9 = 75.0% (67.6%, 81.1%)	3237.9/5194.9 = 62.3% (54.7%, 69.4%)
Male	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	323	5194.9/5194.9 = 100.0% (100.0%, 100.0%)	5186.9/5194.9 = 99.8% (98.9%, 100.0%)	5087.8/5194.9 = 97.9% (93.6%, 99.4%)
Male	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	323	5194.9/5194.9 = 100.0% (100.0%, 100.0%)	5194.9/5194.9 = 100.0% (100.0%, 100.0%)	5186.9/5194.9 = 99.8% (98.9%, 100.0%)
Male	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	106	517/546.7 = 94.6% (88.2%, 97.6%)	498.2/546.7 = 91.1% (84.1%, 95.2%)	458.8/546.7 = 83.9% (73.8%, 90.6%)
Male	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	106	546.7/546.7 = 100.0% (100.0%, 100.0%)	546.7/546.7 = 100.0% (100.0%, 100.0%)	541.7/546.7 = 99.1% (96.1%, 99.8%)
Male	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	106	546.7/546.7 = 100.0% (100.0%, 100.0%)	546.7/546.7 = 100.0% (100.0%, 100.0%)	546.7/546.7 = 100.0% (100.0%, 100.0%)
Male	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	55	0/4633.7 = 0.0% (0.0%, 0.0%)	0/4633.7 = 0.0% (0.0%, 0.0%)	0/4633.7 = 0.0% (0.0%, 0.0%)
Male	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	55	0/4633.7 = 0.0% (0.0%, 0.0%)	0/4633.7 = 0.0% (0.0%, 0.0%)	0/4633.7 = 0.0% (0.0%, 0.0%)
Male	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	55	0/4633.7 = 0.0% (0.0%, 0.0%)	0/4633.7 = 0.0% (0.0%, 0.0%)	0/4633.7 = 0.0% (0.0%, 0.0%)
Male	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	104	394.5/452.3 = 87.2% (74.7%, 94.0%)	316.4/452.3 = 69.9% (56.8%, 80.5%)	240.5/452.3 = 53.2% (41.0%, 65.0%)
Male	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	104	444/452.3 = 98.2% (87.7%, 99.8%)	444/452.3 = 98.2% (87.7%, 99.8%)	434.3/452.3 = 96.0% (88.6%, 98.7%)
Male	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	104	452.3/452.3 = 100.0% (100.0%, 100.0%)	452.3/452.3 = 100.0% (100.0%, 100.0%)	452.3/452.3 = 100.0% (100.0%, 100.0%)
Male	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	323	4945/5194.9 = 95.2% (90.1%, 97.7%)	4695/5194.9 = 90.4% (84.6%, 94.1%)	4341.2/5194.9 = 83.6% (76.9%, 88.6%)
Male	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	323	5194.9/5194.9 = 100.0% (100.0%, 100.0%)	5194.9/5194.9 = 100.0% (100.0%, 100.0%)	5158.6/5194.9 = 99.3% (95.2%, 99.9%)
Male	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	323	5194.9/5194.9 = 100.0% (100.0%, 100.0%)	5194.9/5194.9 = 100.0% (100.0%, 100.0%)	5194.9/5194.9 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
Male	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	106	536.2/546.7 = 98.1% (91.9%, 99.6%)	521.1/546.7 = 95.3% (83.9%, 98.8%)	505.3/546.7 = 92.4% (82.3%, 97.0%)
Male	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	106	546.7/546.7 = 100.0% (100.0%, 100.0%)	546.7/546.7 = 100.0% (100.0%, 100.0%)	546.7/546.7 = 100.0% (100.0%, 100.0%)
Male	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	106	546.7/546.7 = 100.0% (100.0%, 100.0%)	546.7/546.7 = 100.0% (100.0%, 100.0%)	546.7/546.7 = 100.0% (100.0%, 100.0%)
Male	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	55	0/4633.7 = 0.0% (0.0%, 0.0%)	0/4633.7 = 0.0% (0.0%, 0.0%)	0/4633.7 = 0.0% (0.0%, 0.0%)
Male	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	55	0/4633.7 = 0.0% (0.0%, 0.0%)	0/4633.7 = 0.0% (0.0%, 0.0%)	0/4633.7 = 0.0% (0.0%, 0.0%)
Male	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	55	0/4633.7 = 0.0% (0.0%, 0.0%)	0/4633.7 = 0.0% (0.0%, 0.0%)	0/4633.7 = 0.0% (0.0%, 0.0%)
Male	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	104	405/452.3 = 89.5% (76.3%, 95.8%)	398.5/452.3 = 88.1% (75.4%, 94.7%)	360.3/452.3 = 79.7% (66.8%, 88.4%)
Male	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	104	452.3/452.3 = 100.0% (100.0%, 100.0%)	452.3/452.3 = 100.0% (100.0%, 100.0%)	452.3/452.3 = 100.0% (100.0%, 100.0%)
Male	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	104	452.3/452.3 = 100.0% (100.0%, 100.0%)	452.3/452.3 = 100.0% (100.0%, 100.0%)	452.3/452.3 = 100.0% (100.0%, 100.0%)
Female	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	406	5493.1/6001.1 = 91.5% (86.7%, 94.7%)	4919.4/6001.1 = 82.0% (76.2%, 86.6%)	4073.7/6001.1 = 67.9% (61.2%, 73.9%)
Female	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	406	6001.1/6001.1 = 100.0% (100.0%, 100.0%)	5993/6001.1 = 99.9% (99.0%, 100.0%)	5865.6/6001.1 = 97.7% (94.3%, 99.1%)
Female	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	406	6001.1/6001.1 = 100.0% (100.0%, 100.0%)	6001.1/6001.1 = 100.0% (100.0%, 100.0%)	5993/6001.1 = 99.9% (99.0%, 100.0%)
Female	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	129	575/595.3 = 96.6% (91.5%, 98.7%)	570.7/595.3 = 95.9% (90.9%, 98.2%)	505.4/595.3 = 84.9% (74.4%, 91.6%)
Female	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	129	595.3/595.3 = 100.0% (100.0%, 100.0%)	591.8/595.3 = 99.4% (95.9%, 99.9%)	591.8/595.3 = 99.4% (95.9%, 99.9%)
Female	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	129	595.3/595.3 = 100.0% (100.0%, 100.0%)	595.3/595.3 = 100.0% (100.0%, 100.0%)	588.6/595.3 = 98.9% (95.6%, 99.7%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
Female	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	75	0/6562.3 = 0.0% (0.0%, 0.0%)	0/6562.3 = 0.0% (0.0%, 0.0%)	0/6562.3 = 0.0% (0.0%, 0.0%)
Female	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	75	0/6562.3 = 0.0% (0.0%, 0.0%)	0/6562.3 = 0.0% (0.0%, 0.0%)	0/6562.3 = 0.0% (0.0%, 0.0%)
Female	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	75	0/6562.3 = 0.0% (0.0%, 0.0%)	0/6562.3 = 0.0% (0.0%, 0.0%)	0/6562.3 = 0.0% (0.0%, 0.0%)
Female	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	117	532.9/620.7 = 85.8% (75.4%, 92.3%)	440.9/620.7 = 71.0% (58.8%, 80.8%)	350.9/620.7 = 56.5% (44.6%, 67.7%)
Female	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	117	620.7/620.7 = 100.0% (100.0%, 100.0%)	620.7/620.7 = 100.0% (100.0%, 100.0%)	593.6/620.7 = 95.6% (85.8%, 98.8%)
Female	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	117	620.7/620.7 = 100.0% (100.0%, 100.0%)	620.7/620.7 = 100.0% (100.0%, 100.0%)	620.7/620.7 = 100.0% (100.0%, 100.0%)
Female	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	406	5777/6001.1 = 96.3% (92.9%, 98.1%)	5432.5/6001.1 = 90.5% (85.5%, 93.9%)	5047.1/6001.1 = 84.1% (78.3%, 88.6%)
Female	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	406	6001.1/6001.1 = 100.0% (100.0%, 100.0%)	6001.1/6001.1 = 100.0% (100.0%, 100.0%)	6001.1/6001.1 = 100.0% (100.0%, 100.0%)
Female	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	406	6001.1/6001.1 = 100.0% (100.0%, 100.0%)	6001.1/6001.1 = 100.0% (100.0%, 100.0%)	6001.1/6001.1 = 100.0% (100.0%, 100.0%)
Female	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	129	579.5/595.3 = 97.3% (92.3%, 99.1%)	579.5/595.3 = 97.3% (92.3%, 99.1%)	565.8/595.3 = 95.0% (89.2%, 97.8%)
Female	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	129	595.3/595.3 = 100.0% (100.0%, 100.0%)	591.8/595.3 = 99.4% (95.9%, 99.9%)	591.8/595.3 = 99.4% (95.9%, 99.9%)
Female	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	129	595.3/595.3 = 100.0% (100.0%, 100.0%)	595.3/595.3 = 100.0% (100.0%, 100.0%)	595.3/595.3 = 100.0% (100.0%, 100.0%)
Female	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	75	0/6562.3 = 0.0% (0.0%, 0.0%)	0/6562.3 = 0.0% (0.0%, 0.0%)	0/6562.3 = 0.0% (0.0%, 0.0%)
Female	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	75	0/6562.3 = 0.0% (0.0%, 0.0%)	0/6562.3 = 0.0% (0.0%, 0.0%)	0/6562.3 = 0.0% (0.0%, 0.0%)
Female	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	75	0/6562.3 = 0.0% (0.0%, 0.0%)	0/6562.3 = 0.0% (0.0%, 0.0%)	0/6562.3 = 0.0% (0.0%, 0.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
Female	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	117	609.2/620.7 = 98.1% (91.8%, 99.6%)	583.5/620.7 = 94.0% (85.6%, 97.6%)	551.5/620.7 = 88.8% (78.9%, 94.4%)
Female	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	117	620.7/620.7 = 100.0% (100.0%, 100.0%)	620.7/620.7 = 100.0% (100.0%, 100.0%)	620.7/620.7 = 100.0% (100.0%, 100.0%)
Female	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	117	620.7/620.7 = 100.0% (100.0%, 100.0%)	620.7/620.7 = 100.0% (100.0%, 100.0%)	620.7/620.7 = 100.0% (100.0%, 100.0%)

Binding Antibody Responders are defined as participants who had baseline values below the LLOQ with detectable antibody concentration above the assay LLOQ, or as participants with baseline values above the LLOQ with a 4-fold increase in antibody concentration.

Percentages are calculated for the whole per-protocol group/subgroup, using inverse probability weighting.

LLOQ = 4.49, 5.77, 1.80 IU/ml for N, RBD, Spike, respectively.

Table 4f. Percentage of responders, and participants with concentrations $\geq 2 \times$ LLOQ or $\geq 4 \times$ LLOQ for binding antibody markers by Age, sex

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than $2 \times$ LLOQ	% Greater than $4 \times$ LLOQ
Age, sex								
Age < 65 Female	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	193	4239.2/4708.4 = 90.0% (83.8%, 94.0%)	3759.9/4708.4 = 79.9% (72.5%, 85.6%)	3034.7/4708.4 = 64.5% (56.1%, 72.0%)
Age < 65 Female	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	193	4708.4/4708.4 = 100.0% (100.0%, 100.0%)	4700.3/4708.4 = 99.8% (98.8%, 100.0%)	4577.6/4708.4 = 97.2% (92.8%, 99.0%)
Age < 65 Female	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	193	4708.4/4708.4 = 100.0% (100.0%, 100.0%)	4708.4/4708.4 = 100.0% (100.0%, 100.0%)	4700.3/4708.4 = 99.8% (98.8%, 100.0%)
Age < 65 Female	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	60	435.4/455.7 = 95.5% (88.8%, 98.3%)	435.4/455.7 = 95.5% (88.8%, 98.3%)	374.2/455.7 = 82.1% (68.4%, 90.7%)
Age < 65 Female	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	60	455.7/455.7 = 100.0% (100.0%, 100.0%)	452.2/455.7 = 99.2% (94.6%, 99.9%)	452.2/455.7 = 99.2% (94.6%, 99.9%)
Age < 65 Female	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	60	455.7/455.7 = 100.0% (100.0%, 100.0%)	455.7/455.7 = 100.0% (100.0%, 100.0%)	449.1/455.7 = 98.5% (94.1%, 99.7%)
Age < 65 Female	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	39	0/5144.1 = 0.0% (0.0%, 0.0%)	0/5144.1 = 0.0% (0.0%, 0.0%)	0/5144.1 = 0.0% (0.0%, 0.0%)
Age < 65 Female	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	39	0/5144.1 = 0.0% (0.0%, 0.0%)	0/5144.1 = 0.0% (0.0%, 0.0%)	0/5144.1 = 0.0% (0.0%, 0.0%)
Age < 65 Female	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	39	0/5144.1 = 0.0% (0.0%, 0.0%)	0/5144.1 = 0.0% (0.0%, 0.0%)	0/5144.1 = 0.0% (0.0%, 0.0%)
Age < 65 Female	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	62	423.8/507.6 = 83.5% (70.8%, 91.3%)	340.3/507.6 = 67.1% (52.4%, 79.0%)	254.4/507.6 = 50.1% (36.3%, 63.9%)
Age < 65 Female	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	62	507.6/507.6 = 100.0% (100.0%, 100.0%)	507.6/507.6 = 100.0% (100.0%, 100.0%)	480.5/507.6 = 94.7% (82.7%, 98.5%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
Age < 65 Female	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	62	507.6/507.6 = 100.0% (100.0%, 100.0%)	507.6/507.6 = 100.0% (100.0%, 100.0%)	507.6/507.6 = 100.0% (100.0%, 100.0%)
Age < 65 Female	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	193	4501/4708.4 = 95.6% (91.3%, 97.8%)	4185.3/4708.4 = 88.9% (82.5%, 93.1%)	3831.4/4708.4 = 81.4% (74.0%, 87.0%)
Age < 65 Female	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	193	4708.4/4708.4 = 100.0% (100.0%, 100.0%)	4708.4/4708.4 = 100.0% (100.0%, 100.0%)	4708.4/4708.4 = 100.0% (100.0%, 100.0%)
Age < 65 Female	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	193	4708.4/4708.4 = 100.0% (100.0%, 100.0%)	4708.4/4708.4 = 100.0% (100.0%, 100.0%)	4708.4/4708.4 = 100.0% (100.0%, 100.0%)
Age < 65 Female	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	60	442/455.7 = 97.0% (90.0%, 99.1%)	442/455.7 = 97.0% (90.0%, 99.1%)	428.3/455.7 = 94.0% (86.2%, 97.5%)
Age < 65 Female	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	60	455.7/455.7 = 100.0% (100.0%, 100.0%)	452.2/455.7 = 99.2% (94.6%, 99.9%)	452.2/455.7 = 99.2% (94.6%, 99.9%)
Age < 65 Female	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	60	455.7/455.7 = 100.0% (100.0%, 100.0%)	455.7/455.7 = 100.0% (100.0%, 100.0%)	455.7/455.7 = 100.0% (100.0%, 100.0%)
Age < 65 Female	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	39	0/5144.1 = 0.0% (0.0%, 0.0%)	0/5144.1 = 0.0% (0.0%, 0.0%)	0/5144.1 = 0.0% (0.0%, 0.0%)
Age < 65 Female	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	39	0/5144.1 = 0.0% (0.0%, 0.0%)	0/5144.1 = 0.0% (0.0%, 0.0%)	0/5144.1 = 0.0% (0.0%, 0.0%)
Age < 65 Female	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	39	0/5144.1 = 0.0% (0.0%, 0.0%)	0/5144.1 = 0.0% (0.0%, 0.0%)	0/5144.1 = 0.0% (0.0%, 0.0%)
Age < 65 Female	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	62	496/507.6 = 97.7% (89.9%, 99.5%)	472.6/507.6 = 93.1% (82.7%, 97.4%)	448.7/507.6 = 88.4% (75.9%, 94.9%)
Age < 65 Female	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	62	507.6/507.6 = 100.0% (100.0%, 100.0%)	507.6/507.6 = 100.0% (100.0%, 100.0%)	507.6/507.6 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
Age < 65 Female	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	62	507.6/507.6 = 100.0% (100.0%, 100.0%)	507.6/507.6 = 100.0% (100.0%, 100.0%)	507.6/507.6 = 100.0% (100.0%, 100.0%)
Age < 65 Male	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	156	3343.5/4128.6 = 81.0% (72.6%, 87.3%)	2894.7/4128.6 = 70.1% (61.0%, 77.8%)	2317.5/4128.6 = 56.1% (46.9%, 65.0%)
Age < 65 Male	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	156	4128.6/4128.6 = 100.0% (100.0%, 100.0%)	4120.6/4128.6 = 99.8% (98.6%, 100.0%)	4021.5/4128.6 = 97.4% (92.0%, 99.2%)
Age < 65 Male	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	156	4128.6/4128.6 = 100.0% (100.0%, 100.0%)	4128.6/4128.6 = 100.0% (100.0%, 100.0%)	4120.6/4128.6 = 99.8% (98.6%, 100.0%)
Age < 65 Male	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	60	424.7/452.3 = 93.9% (86.0%, 97.5%)	407.8/452.3 = 90.2% (81.6%, 95.0%)	368.4/452.3 = 81.4% (69.2%, 89.6%)
Age < 65 Male	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	60	452.3/452.3 = 100.0% (100.0%, 100.0%)	452.3/452.3 = 100.0% (100.0%, 100.0%)	449.1/452.3 = 99.3% (94.9%, 99.9%)
Age < 65 Male	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	60	452.3/452.3 = 100.0% (100.0%, 100.0%)	452.3/452.3 = 100.0% (100.0%, 100.0%)	452.3/452.3 = 100.0% (100.0%, 100.0%)
Age < 65 Male	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	24	0/3345.9 = 0.0% (0.0%, 0.0%)	0/3345.9 = 0.0% (0.0%, 0.0%)	0/3345.9 = 0.0% (0.0%, 0.0%)
Age < 65 Male	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	24	0/3345.9 = 0.0% (0.0%, 0.0%)	0/3345.9 = 0.0% (0.0%, 0.0%)	0/3345.9 = 0.0% (0.0%, 0.0%)
Age < 65 Male	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	24	0/3345.9 = 0.0% (0.0%, 0.0%)	0/3345.9 = 0.0% (0.0%, 0.0%)	0/3345.9 = 0.0% (0.0%, 0.0%)
Age < 65 Male	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	60	306.1/359.4 = 85.2% (69.5%, 93.5%)	236.5/359.4 = 65.8% (49.8%, 78.8%)	170.7/359.4 = 47.5% (33.3%, 62.1%)
Age < 65 Male	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	60	351.1/359.4 = 97.7% (84.6%, 99.7%)	351.1/359.4 = 97.7% (84.6%, 99.7%)	341.5/359.4 = 95.0% (85.6%, 98.4%)
Age < 65 Male	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	60	359.4/359.4 = 100.0% (100.0%, 100.0%)	359.4/359.4 = 100.0% (100.0%, 100.0%)	359.4/359.4 = 100.0% (100.0%, 100.0%)
Age < 65 Male	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	156	3886/4128.6 = 94.1% (87.7%, 97.3%)	3662.9/4128.6 = 88.7% (81.5%, 93.4%)	3333.2/4128.6 = 80.7% (72.4%, 87.0%)
Age < 65 Male	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	156	4128.6/4128.6 = 100.0% (100.0%, 100.0%)	4128.6/4128.6 = 100.0% (100.0%, 100.0%)	4092.3/4128.6 = 99.1% (93.9%, 99.9%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
Age < 65 Male	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	156	4128.6/4128.6 = 100.0% (100.0%, 100.0%)	4128.6/4128.6 = 100.0% (100.0%, 100.0%)	4128.6/4128.6 = 100.0% (100.0%, 100.0%)
Age < 65 Male	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	60	441.8/452.3 = 97.7% (90.1%, 99.5%)	426.7/452.3 = 94.3% (80.6%, 98.5%)	412.8/452.3 = 91.3% (78.9%, 96.7%)
Age < 65 Male	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	60	452.3/452.3 = 100.0% (100.0%, 100.0%)	452.3/452.3 = 100.0% (100.0%, 100.0%)	452.3/452.3 = 100.0% (100.0%, 100.0%)
Age < 65 Male	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	60	452.3/452.3 = 100.0% (100.0%, 100.0%)	452.3/452.3 = 100.0% (100.0%, 100.0%)	452.3/452.3 = 100.0% (100.0%, 100.0%)
Age < 65 Male	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	24	0/3345.9 = 0.0% (0.0%, 0.0%)	0/3345.9 = 0.0% (0.0%, 0.0%)	0/3345.9 = 0.0% (0.0%, 0.0%)
Age < 65 Male	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	24	0/3345.9 = 0.0% (0.0%, 0.0%)	0/3345.9 = 0.0% (0.0%, 0.0%)	0/3345.9 = 0.0% (0.0%, 0.0%)
Age < 65 Male	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	24	0/3345.9 = 0.0% (0.0%, 0.0%)	0/3345.9 = 0.0% (0.0%, 0.0%)	0/3345.9 = 0.0% (0.0%, 0.0%)
Age < 65 Male	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	60	312.1/359.4 = 86.8% (70.7%, 94.7%)	305.7/359.4 = 85.0% (69.4%, 93.4%)	273.4/359.4 = 76.1% (60.3%, 86.9%)
Age < 65 Male	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	60	359.4/359.4 = 100.0% (100.0%, 100.0%)	359.4/359.4 = 100.0% (100.0%, 100.0%)	359.4/359.4 = 100.0% (100.0%, 100.0%)
Age < 65 Male	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	60	359.4/359.4 = 100.0% (100.0%, 100.0%)	359.4/359.4 = 100.0% (100.0%, 100.0%)	359.4/359.4 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Male	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	167	1008.1/1066.3 = 94.5% (89.7%, 97.2%)	1000.7/1066.3 = 93.8% (88.8%, 96.7%)	920.4/1066.3 = 86.3% (79.9%, 90.9%)
Age ≥ 65 Male	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	167	1066.3/1066.3 = 100.0% (100.0%, 100.0%)	1066.3/1066.3 = 100.0% (100.0%, 100.0%)	1066.3/1066.3 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Male	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	167	1066.3/1066.3 = 100.0% (100.0%, 100.0%)	1066.3/1066.3 = 100.0% (100.0%, 100.0%)	1066.3/1066.3 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Male	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	46	92.3/94.4 = 97.8% (85.0%, 99.7%)	90.4/94.4 = 95.8% (83.9%, 99.0%)	90.4/94.4 = 95.8% (83.9%, 99.0%)
Age ≥ 65 Male	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	46	94.4/94.4 = 100.0% (100.0%, 100.0%)	94.4/94.4 = 100.0% (100.0%, 100.0%)	92.5/94.4 = 98.0% (86.4%, 99.7%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
Age ≥ 65 Male	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	46	94.4/94.4 = 100.0% (100.0%, 100.0%)	94.4/94.4 = 100.0% (100.0%, 100.0%)	94.4/94.4 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Male	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	31	0/1287.8 = 0.0% (0.0%, 0.0%)	0/1287.8 = 0.0% (0.0%, 0.0%)	0/1287.8 = 0.0% (0.0%, 0.0%)
Age ≥ 65 Male	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	31	0/1287.8 = 0.0% (0.0%, 0.0%)	0/1287.8 = 0.0% (0.0%, 0.0%)	0/1287.8 = 0.0% (0.0%, 0.0%)
Age ≥ 65 Male	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	31	0/1287.8 = 0.0% (0.0%, 0.0%)	0/1287.8 = 0.0% (0.0%, 0.0%)	0/1287.8 = 0.0% (0.0%, 0.0%)
Age ≥ 65 Male	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	44	88.4/92.8 = 95.2% (82.1%, 98.8%)	79.8/92.8 = 86.0% (71.5%, 93.7%)	69.8/92.8 = 75.2% (59.9%, 86.0%)
Age ≥ 65 Male	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	44	92.8/92.8 = 100.0% (100.0%, 100.0%)	92.8/92.8 = 100.0% (100.0%, 100.0%)	92.8/92.8 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Male	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	44	92.8/92.8 = 100.0% (100.0%, 100.0%)	92.8/92.8 = 100.0% (100.0%, 100.0%)	92.8/92.8 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Male	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	167	1058.9/1066.3 = 99.3% (95.2%, 99.9%)	1032.2/1066.3 = 96.8% (92.4%, 98.7%)	1008.1/1066.3 = 94.5% (89.7%, 97.2%)
Age ≥ 65 Male	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	167	1066.3/1066.3 = 100.0% (100.0%, 100.0%)	1066.3/1066.3 = 100.0% (100.0%, 100.0%)	1066.3/1066.3 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Male	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	167	1066.3/1066.3 = 100.0% (100.0%, 100.0%)	1066.3/1066.3 = 100.0% (100.0%, 100.0%)	1066.3/1066.3 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Male	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	46	94.4/94.4 = 100.0% (100.0%, 100.0%)	94.4/94.4 = 100.0% (100.0%, 100.0%)	92.5/94.4 = 98.0% (86.4%, 99.7%)
Age ≥ 65 Male	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	46	94.4/94.4 = 100.0% (100.0%, 100.0%)	94.4/94.4 = 100.0% (100.0%, 100.0%)	94.4/94.4 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Male	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	46	94.4/94.4 = 100.0% (100.0%, 100.0%)	94.4/94.4 = 100.0% (100.0%, 100.0%)	94.4/94.4 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Male	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	31	0/1287.8 = 0.0% (0.0%, 0.0%)	0/1287.8 = 0.0% (0.0%, 0.0%)	0/1287.8 = 0.0% (0.0%, 0.0%)
Age ≥ 65 Male	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	31	0/1287.8 = 0.0% (0.0%, 0.0%)	0/1287.8 = 0.0% (0.0%, 0.0%)	0/1287.8 = 0.0% (0.0%, 0.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
Age ≥ 65 Male	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	31	0/1287.8 = 0.0% (0.0%, 0.0%)	0/1287.8 = 0.0% (0.0%, 0.0%)	0/1287.8 = 0.0% (0.0%, 0.0%)
Age ≥ 65 Male	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	44	92.8/92.8 = 100.0% (100.0%, 100.0%)	92.8/92.8 = 100.0% (100.0%, 100.0%)	86.9/92.8 = 93.6% (81.3%, 98.0%)
Age ≥ 65 Male	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	44	92.8/92.8 = 100.0% (100.0%, 100.0%)	92.8/92.8 = 100.0% (100.0%, 100.0%)	92.8/92.8 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Male	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	44	92.8/92.8 = 100.0% (100.0%, 100.0%)	92.8/92.8 = 100.0% (100.0%, 100.0%)	92.8/92.8 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Female	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	213	1253.9/1292.7 = 97.0% (93.4%, 98.7%)	1159.5/1292.7 = 89.7% (84.6%, 93.3%)	1039/1292.7 = 80.4% (74.2%, 85.3%)
Age ≥ 65 Female	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	213	1292.7/1292.7 = 100.0% (100.0%, 100.0%)	1292.7/1292.7 = 100.0% (100.0%, 100.0%)	1288/1292.7 = 99.6% (97.4%, 99.9%)
Age ≥ 65 Female	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	213	1292.7/1292.7 = 100.0% (100.0%, 100.0%)	1292.7/1292.7 = 100.0% (100.0%, 100.0%)	1292.7/1292.7 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Female	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	69	139.6/139.6 = 100.0% (100.0%, 100.0%)	135.4/139.6 = 97.0% (88.5%, 99.3%)	131.1/139.6 = 94.0% (84.8%, 97.7%)
Age ≥ 65 Female	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	69	139.6/139.6 = 100.0% (100.0%, 100.0%)	139.6/139.6 = 100.0% (100.0%, 100.0%)	139.6/139.6 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Female	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	69	139.6/139.6 = 100.0% (100.0%, 100.0%)	139.6/139.6 = 100.0% (100.0%, 100.0%)	139.6/139.6 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Female	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	36	0/1418.2 = 0.0% (0.0%, 0.0%)	0/1418.2 = 0.0% (0.0%, 0.0%)	0/1418.2 = 0.0% (0.0%, 0.0%)
Age ≥ 65 Female	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	36	0/1418.2 = 0.0% (0.0%, 0.0%)	0/1418.2 = 0.0% (0.0%, 0.0%)	0/1418.2 = 0.0% (0.0%, 0.0%)
Age ≥ 65 Female	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	36	0/1418.2 = 0.0% (0.0%, 0.0%)	0/1418.2 = 0.0% (0.0%, 0.0%)	0/1418.2 = 0.0% (0.0%, 0.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
Age ≥ 65 Female	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	55	109.1/113.2 = 96.4% (86.1%, 99.1%)	100.5/113.2 = 88.8% (76.9%, 95.0%)	96.4/113.2 = 85.2% (72.7%, 92.6%)
Age ≥ 65 Female	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	55	113.2/113.2 = 100.0% (100.0%, 100.0%)	113.2/113.2 = 100.0% (100.0%, 100.0%)	113.2/113.2 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Female	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	55	113.2/113.2 = 100.0% (100.0%, 100.0%)	113.2/113.2 = 100.0% (100.0%, 100.0%)	113.2/113.2 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Female	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	213	1276/1292.7 = 98.7% (95.9%, 99.6%)	1247.2/1292.7 = 96.5% (93.0%, 98.3%)	1215.7/1292.7 = 94.0% (89.8%, 96.6%)
Age ≥ 65 Female	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	213	1292.7/1292.7 = 100.0% (100.0%, 100.0%)	1292.7/1292.7 = 100.0% (100.0%, 100.0%)	1292.7/1292.7 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Female	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	213	1292.7/1292.7 = 100.0% (100.0%, 100.0%)	1292.7/1292.7 = 100.0% (100.0%, 100.0%)	1292.7/1292.7 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Female	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	69	137.5/139.6 = 98.5% (89.7%, 99.8%)	137.5/139.6 = 98.5% (89.7%, 99.8%)	137.5/139.6 = 98.5% (89.7%, 99.8%)
Age ≥ 65 Female	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	69	139.6/139.6 = 100.0% (100.0%, 100.0%)	139.6/139.6 = 100.0% (100.0%, 100.0%)	139.6/139.6 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Female	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	69	139.6/139.6 = 100.0% (100.0%, 100.0%)	139.6/139.6 = 100.0% (100.0%, 100.0%)	139.6/139.6 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Female	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	36	0/1418.2 = 0.0% (0.0%, 0.0%)	0/1418.2 = 0.0% (0.0%, 0.0%)	0/1418.2 = 0.0% (0.0%, 0.0%)
Age ≥ 65 Female	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	36	0/1418.2 = 0.0% (0.0%, 0.0%)	0/1418.2 = 0.0% (0.0%, 0.0%)	0/1418.2 = 0.0% (0.0%, 0.0%)
Age ≥ 65 Female	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	36	0/1418.2 = 0.0% (0.0%, 0.0%)	0/1418.2 = 0.0% (0.0%, 0.0%)	0/1418.2 = 0.0% (0.0%, 0.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
Age ≥ 65 Female	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	55	113.2/113.2 = 100.0% (100.0%, 100.0%)	110.9/113.2 = 98.0% (86.7%, 99.7%)	102.8/113.2 = 90.8% (79.3%, 96.2%)
Age ≥ 65 Female	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	55	113.2/113.2 = 100.0% (100.0%, 100.0%)	113.2/113.2 = 100.0% (100.0%, 100.0%)	113.2/113.2 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Female	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	55	113.2/113.2 = 100.0% (100.0%, 100.0%)	113.2/113.2 = 100.0% (100.0%, 100.0%)	113.2/113.2 = 100.0% (100.0%, 100.0%)

Binding Antibody Responders are defined as participants who had baseline values below the LLOQ with detectable antibody concentration above the assay LLOQ, or as participants with baseline values above the LLOQ with a 4-fold increase in antibody concentration.

Percentages are calculated for the whole per-protocol group/subgroup, using inverse probability weighting.

LLOQ = 4.49, 5.77, 1.80 IU/ml for N, RBD, Spike, respectively.

Table 4g. Percentage of responders, and participants with concentrations $\geq 2 \times$ LLOQ or $\geq 4 \times$ LLOQ for binding antibody markers by Hispanic or Latino ethnicity

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than $2 \times$ LLOQ	% Greater than $4 \times$ LLOQ
Hispanic or Latino ethnicity								
Hispanic or Latino	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	102	1075.2/1225.5 = 87.7% (74.1%, 94.7%)	1037/1225.5 = 84.6% (71.7%, 92.3%)	890/1225.5 = 72.6% (58.1%, 83.5%)
Hispanic or Latino	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	102	1225.5/1225.5 = 100.0% (100.0%, 100.0%)	1225.5/1225.5 = 100.0% (100.0%, 100.0%)	1225.5/1225.5 = 100.0% (100.0%, 100.0%)
Hispanic or Latino	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	102	1225.5/1225.5 = 100.0% (100.0%, 100.0%)	1225.5/1225.5 = 100.0% (100.0%, 100.0%)	1225.5/1225.5 = 100.0% (100.0%, 100.0%)
Hispanic or Latino	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	27	93.2/96.4 = 96.7% (77.9%, 99.6%)	90.1/96.4 = 93.4% (75.7%, 98.5%)	86.9/96.4 = 90.1% (72.2%, 97.0%)
Hispanic or Latino	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	27	96.4/96.4 = 100.0% (100.0%, 100.0%)	96.4/96.4 = 100.0% (100.0%, 100.0%)	94.5/96.4 = 98.0% (85.7%, 99.8%)
Hispanic or Latino	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	27	96.4/96.4 = 100.0% (100.0%, 100.0%)	96.4/96.4 = 100.0% (100.0%, 100.0%)	96.4/96.4 = 100.0% (100.0%, 100.0%)
Hispanic or Latino	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	24	0/1647.1 = 0.0% (0.0%, 0.0%)	0/1647.1 = 0.0% (0.0%, 0.0%)	0/1647.1 = 0.0% (0.0%, 0.0%)
Hispanic or Latino	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	24	0/1647.1 = 0.0% (0.0%, 0.0%)	0/1647.1 = 0.0% (0.0%, 0.0%)	0/1647.1 = 0.0% (0.0%, 0.0%)
Hispanic or Latino	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	24	0/1647.1 = 0.0% (0.0%, 0.0%)	0/1647.1 = 0.0% (0.0%, 0.0%)	0/1647.1 = 0.0% (0.0%, 0.0%)
Hispanic or Latino	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	29	93.5/106.5 = 87.8% (60.9%, 97.1%)	75.1/106.5 = 70.5% (43.9%, 87.9%)	64/106.5 = 60.0% (35.5%, 80.4%)
Hispanic or Latino	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	29	106.5/106.5 = 100.0% (100.0%, 100.0%)	106.5/106.5 = 100.0% (100.0%, 100.0%)	106.5/106.5 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
Hispanic or Latino	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	29	106.5/106.5 = 100.0% (100.0%, 100.0%)	106.5/106.5 = 100.0% (100.0%, 100.0%)	106.5/106.5 = 100.0% (100.0%, 100.0%)
Hispanic or Latino	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	102	1176.5/1225.5 = 96.0% (83.5%, 99.1%)	1098.7/1225.5 = 89.7% (77.6%, 95.6%)	973.8/1225.5 = 79.5% (64.9%, 89.0%)
Hispanic or Latino	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	102	1225.5/1225.5 = 100.0% (100.0%, 100.0%)	1225.5/1225.5 = 100.0% (100.0%, 100.0%)	1225.5/1225.5 = 100.0% (100.0%, 100.0%)
Hispanic or Latino	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	102	1225.5/1225.5 = 100.0% (100.0%, 100.0%)	1225.5/1225.5 = 100.0% (100.0%, 100.0%)	1225.5/1225.5 = 100.0% (100.0%, 100.0%)
Hispanic or Latino	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	27	96.4/96.4 = 100.0% (100.0%, 100.0%)	96.4/96.4 = 100.0% (100.0%, 100.0%)	94.5/96.4 = 98.0% (85.7%, 99.8%)
Hispanic or Latino	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	27	96.4/96.4 = 100.0% (100.0%, 100.0%)	96.4/96.4 = 100.0% (100.0%, 100.0%)	96.4/96.4 = 100.0% (100.0%, 100.0%)
Hispanic or Latino	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	27	96.4/96.4 = 100.0% (100.0%, 100.0%)	96.4/96.4 = 100.0% (100.0%, 100.0%)	96.4/96.4 = 100.0% (100.0%, 100.0%)
Hispanic or Latino	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	24	0/1647.1 = 0.0% (0.0%, 0.0%)	0/1647.1 = 0.0% (0.0%, 0.0%)	0/1647.1 = 0.0% (0.0%, 0.0%)
Hispanic or Latino	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	24	0/1647.1 = 0.0% (0.0%, 0.0%)	0/1647.1 = 0.0% (0.0%, 0.0%)	0/1647.1 = 0.0% (0.0%, 0.0%)
Hispanic or Latino	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	24	0/1647.1 = 0.0% (0.0%, 0.0%)	0/1647.1 = 0.0% (0.0%, 0.0%)	0/1647.1 = 0.0% (0.0%, 0.0%)
Hispanic or Latino	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	29	106.5/106.5 = 100.0% (100.0%, 100.0%)	98.2/106.5 = 92.2% (58.3%, 99.0%)	91.7/106.5 = 86.1% (60.7%, 96.1%)
Hispanic or Latino	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	29	106.5/106.5 = 100.0% (100.0%, 100.0%)	106.5/106.5 = 100.0% (100.0%, 100.0%)	106.5/106.5 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
Hispanic or Latino	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	29	106.5/106.5 = 100.0% (100.0%, 100.0%)	106.5/106.5 = 100.0% (100.0%, 100.0%)	106.5/106.5 = 100.0% (100.0%, 100.0%)
Not Hispanic or Latino	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	600	8405/9605.9 = 87.5% (83.1%, 90.8%)	7449.6/9605.9 = 77.6% (72.5%, 81.9%)	6114.1/9605.9 = 63.6% (58.2%, 68.8%)
Not Hispanic or Latino	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	600	9605.9/9605.9 = 100.0% (100.0%, 100.0%)	9589.8/9605.9 = 99.8% (99.3%, 100.0%)	9363.3/9605.9 = 97.5% (94.8%, 98.8%)
Not Hispanic or Latino	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	600	9605.9/9605.9 = 100.0% (100.0%, 100.0%)	9605.9/9605.9 = 100.0% (100.0%, 100.0%)	9589.8/9605.9 = 99.8% (99.3%, 100.0%)
Not Hispanic or Latino	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	200	975.8/1022.7 = 95.4% (91.6%, 97.5%)	956/1022.7 = 93.5% (89.4%, 96.1%)	857.5/1022.7 = 83.8% (76.5%, 89.2%)
Not Hispanic or Latino	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	200	1022.7/1022.7 = 100.0% (100.0%, 100.0%)	1019.2/1022.7 = 99.7% (97.6%, 100.0%)	1016.1/1022.7 = 99.4% (97.4%, 99.8%)
Not Hispanic or Latino	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	200	1022.7/1022.7 = 100.0% (100.0%, 100.0%)	1022.7/1022.7 = 100.0% (100.0%, 100.0%)	1016.1/1022.7 = 99.4% (97.4%, 99.8%)
Not Hispanic or Latino	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	103	0/9415.3 = 0.0% (0.0%, 0.0%)	0/9415.3 = 0.0% (0.0%, 0.0%)	0/9415.3 = 0.0% (0.0%, 0.0%)
Not Hispanic or Latino	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	103	0/9415.3 = 0.0% (0.0%, 0.0%)	0/9415.3 = 0.0% (0.0%, 0.0%)	0/9415.3 = 0.0% (0.0%, 0.0%)
Not Hispanic or Latino	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	103	0/9415.3 = 0.0% (0.0%, 0.0%)	0/9415.3 = 0.0% (0.0%, 0.0%)	0/9415.3 = 0.0% (0.0%, 0.0%)
Not Hispanic or Latino	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	184	794.1/918.5 = 86.5% (78.1%, 92.0%)	642.4/918.5 = 69.9% (60.3%, 78.1%)	496/918.5 = 54.0% (44.8%, 63.0%)
Not Hispanic or Latino	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	184	910.1/918.5 = 99.1% (93.8%, 99.9%)	910.1/918.5 = 99.1% (93.8%, 99.9%)	873.4/918.5 = 95.1% (88.7%, 97.9%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
Not Hispanic or Latino	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	184	918.5/918.5 = 100.0% (100.0%, 100.0%)	918.5/918.5 = 100.0% (100.0%, 100.0%)	918.5/918.5 = 100.0% (100.0%, 100.0%)
Not Hispanic or Latino	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	600	9180.9/9605.9 = 95.6% (92.6%, 97.4%)	8708.6/9605.9 = 90.7% (86.7%, 93.5%)	8094.3/9605.9 = 84.3% (79.7%, 88.0%)
Not Hispanic or Latino	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	600	9605.9/9605.9 = 100.0% (100.0%, 100.0%)	9605.9/9605.9 = 100.0% (100.0%, 100.0%)	9569.6/9605.9 = 99.6% (97.4%, 99.9%)
Not Hispanic or Latino	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	600	9605.9/9605.9 = 100.0% (100.0%, 100.0%)	9605.9/9605.9 = 100.0% (100.0%, 100.0%)	9605.9/9605.9 = 100.0% (100.0%, 100.0%)
Not Hispanic or Latino	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	200	996.4/1022.7 = 97.4% (94.0%, 98.9%)	981.3/1022.7 = 96.0% (90.2%, 98.4%)	953.7/1022.7 = 93.3% (87.6%, 96.4%)
Not Hispanic or Latino	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	200	1022.7/1022.7 = 100.0% (100.0%, 100.0%)	1019.2/1022.7 = 99.7% (97.6%, 100.0%)	1019.2/1022.7 = 99.7% (97.6%, 100.0%)
Not Hispanic or Latino	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	200	1022.7/1022.7 = 100.0% (100.0%, 100.0%)	1022.7/1022.7 = 100.0% (100.0%, 100.0%)	1022.7/1022.7 = 100.0% (100.0%, 100.0%)
Not Hispanic or Latino	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	103	0/9415.3 = 0.0% (0.0%, 0.0%)	0/9415.3 = 0.0% (0.0%, 0.0%)	0/9415.3 = 0.0% (0.0%, 0.0%)
Not Hispanic or Latino	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	103	0/9415.3 = 0.0% (0.0%, 0.0%)	0/9415.3 = 0.0% (0.0%, 0.0%)	0/9415.3 = 0.0% (0.0%, 0.0%)
Not Hispanic or Latino	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	103	0/9415.3 = 0.0% (0.0%, 0.0%)	0/9415.3 = 0.0% (0.0%, 0.0%)	0/9415.3 = 0.0% (0.0%, 0.0%)
Not Hispanic or Latino	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	184	859.6/918.5 = 93.6% (86.3%, 97.1%)	835.8/918.5 = 91.0% (83.5%, 95.3%)	772/918.5 = 84.1% (75.6%, 90.0%)
Not Hispanic or Latino	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	184	918.5/918.5 = 100.0% (100.0%, 100.0%)	918.5/918.5 = 100.0% (100.0%, 100.0%)	918.5/918.5 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
Not Hispanic or Latino	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	184	918.5/918.5 = 100.0% (100.0%, 100.0%)	918.5/918.5 = 100.0% (100.0%, 100.0%)	918.5/918.5 = 100.0% (100.0%, 100.0%)
Not reported and unknown	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	27	364.6/364.6 = 100.0% (100.0%, 100.0%)	328.3/364.6 = 90.0% (51.1%, 98.7%)	307.5/364.6 = 84.4% (53.9%, 96.1%)
Not reported and unknown	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	27	364.6/364.6 = 100.0% (100.0%, 100.0%)	364.6/364.6 = 100.0% (100.0%, 100.0%)	364.6/364.6 = 100.0% (100.0%, 100.0%)
Not reported and unknown	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	27	364.6/364.6 = 100.0% (100.0%, 100.0%)	364.6/364.6 = 100.0% (100.0%, 100.0%)	364.6/364.6 = 100.0% (100.0%, 100.0%)
Not reported and unknown	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	8	22.9/22.9 = 100.0% (100.0%, 100.0%)	22.9/22.9 = 100.0% (100.0%, 100.0%)	19.7/22.9 = 86.2% (26.9%, 99.1%)
Not reported and unknown	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	8	22.9/22.9 = 100.0% (100.0%, 100.0%)	22.9/22.9 = 100.0% (100.0%, 100.0%)	22.9/22.9 = 100.0% (100.0%, 100.0%)
Not reported and unknown	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	8	22.9/22.9 = 100.0% (100.0%, 100.0%)	22.9/22.9 = 100.0% (100.0%, 100.0%)	22.9/22.9 = 100.0% (100.0%, 100.0%)
Not reported and unknown	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	3	0/133.6 = 0.0%	0/133.6 = 0.0%	0/133.6 = 0.0%
Not reported and unknown	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	3	0/133.6 = 0.0%	0/133.6 = 0.0%	0/133.6 = 0.0%
Not reported and unknown	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	3	0/133.6 = 0.0%	0/133.6 = 0.0%	0/133.6 = 0.0%
Not reported and unknown	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	8	39.7/48 = 82.7% (21.8%, 98.8%)	39.7/48 = 82.7% (21.8%, 98.8%)	31.4/48 = 65.4% (17.0%, 94.6%)
Not reported and unknown	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	8	48/48 = 100.0% (100.0%, 100.0%)	48/48 = 100.0% (100.0%, 100.0%)	48/48 = 100.0% (100.0%, 100.0%)
Not reported and unknown	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	8	48/48 = 100.0% (100.0%, 100.0%)	48/48 = 100.0% (100.0%, 100.0%)	48/48 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
Not reported and unknown	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	27	364.6/364.6 = 100.0% (100.0%, 100.0%)	320.2/364.6 = 87.8% (53.3%, 97.9%)	320.2/364.6 = 87.8% (53.3%, 97.9%)
Not reported and unknown	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	27	364.6/364.6 = 100.0% (100.0%, 100.0%)	364.6/364.6 = 100.0% (100.0%, 100.0%)	364.6/364.6 = 100.0% (100.0%, 100.0%)
Not reported and unknown	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	27	364.6/364.6 = 100.0% (100.0%, 100.0%)	364.6/364.6 = 100.0% (100.0%, 100.0%)	364.6/364.6 = 100.0% (100.0%, 100.0%)
Not reported and unknown	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	8	22.9/22.9 = 100.0% (100.0%, 100.0%)	22.9/22.9 = 100.0% (100.0%, 100.0%)	22.9/22.9 = 100.0% (100.0%, 100.0%)
Not reported and unknown	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	8	22.9/22.9 = 100.0% (100.0%, 100.0%)	22.9/22.9 = 100.0% (100.0%, 100.0%)	22.9/22.9 = 100.0% (100.0%, 100.0%)
Not reported and unknown	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	8	22.9/22.9 = 100.0% (100.0%, 100.0%)	22.9/22.9 = 100.0% (100.0%, 100.0%)	22.9/22.9 = 100.0% (100.0%, 100.0%)
Not reported and unknown	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	3	0/133.6 = 0.0%	0/133.6 = 0.0%	0/133.6 = 0.0%
Not reported and unknown	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	3	0/133.6 = 0.0%	0/133.6 = 0.0%	0/133.6 = 0.0%
Not reported and unknown	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	3	0/133.6 = 0.0%	0/133.6 = 0.0%	0/133.6 = 0.0%
Not reported and unknown	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	8	48/48 = 100.0% (100.0%, 100.0%)	48/48 = 100.0% (100.0%, 100.0%)	48/48 = 100.0% (100.0%, 100.0%)
Not reported and unknown	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	8	48/48 = 100.0% (100.0%, 100.0%)	48/48 = 100.0% (100.0%, 100.0%)	48/48 = 100.0% (100.0%, 100.0%)
Not reported and unknown	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	8	48/48 = 100.0% (100.0%, 100.0%)	48/48 = 100.0% (100.0%, 100.0%)	48/48 = 100.0% (100.0%, 100.0%)

Binding Antibody Responders are defined as participants who had baseline values below the LLOQ with detectable antibody concentration above the assay LLOQ, or as participants with baseline values above the LLOQ with a 4-fold increase in antibody concentration.

Percentages are calculated for the whole per-protocol group/subgroup, using inverse probability weighting.

LLOQ = 4.49, 5.77, 1.80 IU/ml for N, RBD, Spike, respectively.

Table 4h. Percentage of responders, and participants with concentrations $\geq 2 \times$ LLOQ or $\geq 4 \times$ LLOQ for binding antibody markers by Race

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than $2 \times$ LLOQ	% Greater than $4 \times$ LLOQ
Race								
White Non-Hispanic	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	355	5491.9/6280.2 = 87.4% (81.7%, 91.6%)	4775.7/6280.2 = 76.0% (69.4%, 81.6%)	4024.3/6280.2 = 64.1% (57.1%, 70.5%)
White Non-Hispanic	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	355	6280.2/6280.2 = 100.0% (100.0%, 100.0%)	6280.2/6280.2 = 100.0% (100.0%, 100.0%)	6070.1/6280.2 = 96.7% (92.5%, 98.5%)
White Non-Hispanic	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	355	6280.2/6280.2 = 100.0% (100.0%, 100.0%)	6280.2/6280.2 = 100.0% (100.0%, 100.0%)	6280.2/6280.2 = 100.0% (100.0%, 100.0%)
White Non-Hispanic	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	121	641.2/657.1 = 97.6% (94.3%, 99.0%)	639.1/657.1 = 97.3% (94.0%, 98.8%)	588.3/657.1 = 89.5% (78.6%, 95.2%)
White Non-Hispanic	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	121	657.1/657.1 = 100.0% (100.0%, 100.0%)	653.7/657.1 = 99.5% (96.3%, 99.9%)	653.7/657.1 = 99.5% (96.3%, 99.9%)
White Non-Hispanic	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	121	657.1/657.1 = 100.0% (100.0%, 100.0%)	657.1/657.1 = 100.0% (100.0%, 100.0%)	653.7/657.1 = 99.5% (96.3%, 99.9%)
White Non-Hispanic	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	64	0/7123.2 = 0.0% (0.0%, 0.0%)	0/7123.2 = 0.0% (0.0%, 0.0%)	0/7123.2 = 0.0% (0.0%, 0.0%)
White Non-Hispanic	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	64	0/7123.2 = 0.0% (0.0%, 0.0%)	0/7123.2 = 0.0% (0.0%, 0.0%)	0/7123.2 = 0.0% (0.0%, 0.0%)
White Non-Hispanic	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	64	0/7123.2 = 0.0% (0.0%, 0.0%)	0/7123.2 = 0.0% (0.0%, 0.0%)	0/7123.2 = 0.0% (0.0%, 0.0%)
White Non-Hispanic	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	119	552.3/625 = 88.4% (77.5%, 94.4%)	436/625 = 69.8% (57.5%, 79.7%)	351.3/625 = 56.2% (44.4%, 67.3%)
White Non-Hispanic	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	119	625/625 = 100.0% (100.0%, 100.0%)	625/625 = 100.0% (100.0%, 100.0%)	591.5/625 = 94.6% (85.6%, 98.1%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
White Non-Hispanic	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	119	625/625 = 100.0% (100.0%, 100.0%)	625/625 = 100.0% (100.0%, 100.0%)	625/625 = 100.0% (100.0%, 100.0%)
White Non-Hispanic	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	355	5976.3/6280.2 = 95.2% (90.9%, 97.5%)	5681.3/6280.2 = 90.5% (85.2%, 94.0%)	5288.2/6280.2 = 84.2% (78.2%, 88.8%)
White Non-Hispanic	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	355	6280.2/6280.2 = 100.0% (100.0%, 100.0%)	6280.2/6280.2 = 100.0% (100.0%, 100.0%)	6280.2/6280.2 = 100.0% (100.0%, 100.0%)
White Non-Hispanic	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	355	6280.2/6280.2 = 100.0% (100.0%, 100.0%)	6280.2/6280.2 = 100.0% (100.0%, 100.0%)	6280.2/6280.2 = 100.0% (100.0%, 100.0%)
White Non-Hispanic	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	121	648.1/657.1 = 98.6% (95.7%, 99.6%)	648.1/657.1 = 98.6% (95.7%, 99.6%)	641.2/657.1 = 97.6% (94.3%, 99.0%)
White Non-Hispanic	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	121	657.1/657.1 = 100.0% (100.0%, 100.0%)	653.7/657.1 = 99.5% (96.3%, 99.9%)	653.7/657.1 = 99.5% (96.3%, 99.9%)
White Non-Hispanic	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	121	657.1/657.1 = 100.0% (100.0%, 100.0%)	657.1/657.1 = 100.0% (100.0%, 100.0%)	657.1/657.1 = 100.0% (100.0%, 100.0%)
White Non-Hispanic	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	64	0/7123.2 = 0.0% (0.0%, 0.0%)	0/7123.2 = 0.0% (0.0%, 0.0%)	0/7123.2 = 0.0% (0.0%, 0.0%)
White Non-Hispanic	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	64	0/7123.2 = 0.0% (0.0%, 0.0%)	0/7123.2 = 0.0% (0.0%, 0.0%)	0/7123.2 = 0.0% (0.0%, 0.0%)
White Non-Hispanic	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	64	0/7123.2 = 0.0% (0.0%, 0.0%)	0/7123.2 = 0.0% (0.0%, 0.0%)	0/7123.2 = 0.0% (0.0%, 0.0%)
White Non-Hispanic	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	119	586/625 = 93.8% (83.4%, 97.8%)	565.4/625 = 90.5% (80.1%, 95.7%)	519.7/625 = 83.2% (71.7%, 90.6%)
White Non-Hispanic	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	119	625/625 = 100.0% (100.0%, 100.0%)	625/625 = 100.0% (100.0%, 100.0%)	625/625 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
White Non-Hispanic	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	119	625/625 = 100.0% (100.0%, 100.0%)	625/625 = 100.0% (100.0%, 100.0%)	625/625 = 100.0% (100.0%, 100.0%)
Black or African American	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	179	1890.7/2114.1 = 89.4% (80.5%, 94.5%)	1775.2/2114.1 = 84.0% (74.3%, 90.5%)	1495.3/2114.1 = 70.7% (60.0%, 79.6%)
Black or African American	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	179	2114.1/2114.1 = 100.0% (100.0%, 100.0%)	2106.1/2114.1 = 99.6% (97.3%, 99.9%)	2106.1/2114.1 = 99.6% (97.3%, 99.9%)
Black or African American	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	179	2114.1/2114.1 = 100.0% (100.0%, 100.0%)	2114.1/2114.1 = 100.0% (100.0%, 100.0%)	2098.1/2114.1 = 99.2% (97.0%, 99.8%)
Black or African American	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	60	225.1/245.6 = 91.7% (78.0%, 97.1%)	214.8/245.6 = 87.5% (73.2%, 94.7%)	166.1/245.6 = 67.6% (51.8%, 80.2%)
Black or African American	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	60	245.6/245.6 = 100.0% (100.0%, 100.0%)	245.6/245.6 = 100.0% (100.0%, 100.0%)	240.5/245.6 = 97.9% (91.5%, 99.5%)
Black or African American	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	60	245.6/245.6 = 100.0% (100.0%, 100.0%)	245.6/245.6 = 100.0% (100.0%, 100.0%)	242.4/245.6 = 98.7% (91.0%, 99.8%)
Black or African American	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	36	0/2356.8 = 0.0% (0.0%, 0.0%)	0/2356.8 = 0.0% (0.0%, 0.0%)	0/2356.8 = 0.0% (0.0%, 0.0%)
Black or African American	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	36	0/2356.8 = 0.0% (0.0%, 0.0%)	0/2356.8 = 0.0% (0.0%, 0.0%)	0/2356.8 = 0.0% (0.0%, 0.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
Black or African American	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	36	0/2356.8 = 0.0% (0.0%, 0.0%)	0/2356.8 = 0.0% (0.0%, 0.0%)	0/2356.8 = 0.0% (0.0%, 0.0%)
Black or African American	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	46	154.5/196 = 78.8% (58.2%, 90.9%)	144.3/196 = 73.6% (53.4%, 87.2%)	123/196 = 62.8% (43.7%, 78.6%)
Black or African American	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	46	187.7/196 = 95.8% (73.8%, 99.5%)	187.7/196 = 95.8% (73.8%, 99.5%)	187.7/196 = 95.8% (73.8%, 99.5%)
Black or African American	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	46	196/196 = 100.0% (100.0%, 100.0%)	196/196 = 100.0% (100.0%, 100.0%)	196/196 = 100.0% (100.0%, 100.0%)
Black or African American	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	179	2004.7/2114.1 = 94.8% (87.0%, 98.0%)	1834.1/2114.1 = 86.8% (76.7%, 92.9%)	1787.9/2114.1 = 84.6% (74.8%, 91.0%)
Black or African American	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	179	2114.1/2114.1 = 100.0% (100.0%, 100.0%)	2114.1/2114.1 = 100.0% (100.0%, 100.0%)	2077.9/2114.1 = 98.3% (88.6%, 99.8%)
Black or African American	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	179	2114.1/2114.1 = 100.0% (100.0%, 100.0%)	2114.1/2114.1 = 100.0% (100.0%, 100.0%)	2114.1/2114.1 = 100.0% (100.0%, 100.0%)
Black or African American	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	60	235.3/245.6 = 95.8% (82.7%, 99.1%)	235.3/245.6 = 95.8% (82.7%, 99.1%)	216.1/245.6 = 88.0% (73.7%, 95.1%)
Black or African American	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	60	245.6/245.6 = 100.0% (100.0%, 100.0%)	245.6/245.6 = 100.0% (100.0%, 100.0%)	245.6/245.6 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
Black or African American	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	60	245.6/245.6 = 100.0% (100.0%, 100.0%)	245.6/245.6 = 100.0% (100.0%, 100.0%)	245.6/245.6 = 100.0% (100.0%, 100.0%)
Black or African American	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	36	0/2356.8 = 0.0% (0.0%, 0.0%)	0/2356.8 = 0.0% (0.0%, 0.0%)	0/2356.8 = 0.0% (0.0%, 0.0%)
Black or African American	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	36	0/2356.8 = 0.0% (0.0%, 0.0%)	0/2356.8 = 0.0% (0.0%, 0.0%)	0/2356.8 = 0.0% (0.0%, 0.0%)
Black or African American	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	36	0/2356.8 = 0.0% (0.0%, 0.0%)	0/2356.8 = 0.0% (0.0%, 0.0%)	0/2356.8 = 0.0% (0.0%, 0.0%)
Black or African American	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	46	179.4/196 = 91.5% (70.8%, 98.0%)	179.4/196 = 91.5% (70.8%, 98.0%)	175.7/196 = 89.6% (70.8%, 96.9%)
Black or African American	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	46	196/196 = 100.0% (100.0%, 100.0%)	196/196 = 100.0% (100.0%, 100.0%)	196/196 = 100.0% (100.0%, 100.0%)
Black or African American	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	46	196/196 = 100.0% (100.0%, 100.0%)	196/196 = 100.0% (100.0%, 100.0%)	196/196 = 100.0% (100.0%, 100.0%)
Asian	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	65	896.9/1066.3 = 84.1% (66.4%, 93.4%)	803.2/1066.3 = 75.3% (58.0%, 87.1%)	542.1/1066.3 = 50.8% (35.0%, 66.5%)
Asian	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	65	1066.3/1066.3 = 100.0% (100.0%, 100.0%)	1066.3/1066.3 = 100.0% (100.0%, 100.0%)	1066.3/1066.3 = 100.0% (100.0%, 100.0%)
Asian	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	65	1066.3/1066.3 = 100.0% (100.0%, 100.0%)	1066.3/1066.3 = 100.0% (100.0%, 100.0%)	1066.3/1066.3 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
Asian	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	21	125.4/128.8 = 97.3% (80.3%, 99.7%)	119.8/128.8 = 93.0% (77.0%, 98.1%)	117.7/128.8 = 91.4% (75.3%, 97.4%)
Asian	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	21	128.8/128.8 = 100.0% (100.0%, 100.0%)	128.8/128.8 = 100.0% (100.0%, 100.0%)	128.8/128.8 = 100.0% (100.0%, 100.0%)
Asian	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	21	128.8/128.8 = 100.0% (100.0%, 100.0%)	128.8/128.8 = 100.0% (100.0%, 100.0%)	128.8/128.8 = 100.0% (100.0%, 100.0%)
Asian	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	8	0/441.3 = 0.0% (0.0%, 0.0%)	0/441.3 = 0.0% (0.0%, 0.0%)	0/441.3 = 0.0% (0.0%, 0.0%)
Asian	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	8	0/441.3 = 0.0% (0.0%, 0.0%)	0/441.3 = 0.0% (0.0%, 0.0%)	0/441.3 = 0.0% (0.0%, 0.0%)
Asian	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	8	0/441.3 = 0.0% (0.0%, 0.0%)	0/441.3 = 0.0% (0.0%, 0.0%)	0/441.3 = 0.0% (0.0%, 0.0%)
Asian	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	19	81.1/98.1 = 82.7% (45.9%, 96.4%)	66.9/98.1 = 68.2% (34.5%, 89.8%)	18.2/98.1 = 18.6% (7.2%, 40.3%)
Asian	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	19	98.1/98.1 = 100.0% (100.0%, 100.0%)	98.1/98.1 = 100.0% (100.0%, 100.0%)	94.8/98.1 = 96.7% (76.1%, 99.6%)
Asian	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	19	98.1/98.1 = 100.0% (100.0%, 100.0%)	98.1/98.1 = 100.0% (100.0%, 100.0%)	98.1/98.1 = 100.0% (100.0%, 100.0%)
Asian	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	65	1066.3/1066.3 = 100.0% (100.0%, 100.0%)	986.3/1066.3 = 92.5% (74.0%, 98.2%)	839.1/1066.3 = 78.7% (60.2%, 90.0%)
Asian	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	65	1066.3/1066.3 = 100.0% (100.0%, 100.0%)	1066.3/1066.3 = 100.0% (100.0%, 100.0%)	1066.3/1066.3 = 100.0% (100.0%, 100.0%)
Asian	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	65	1066.3/1066.3 = 100.0% (100.0%, 100.0%)	1066.3/1066.3 = 100.0% (100.0%, 100.0%)	1066.3/1066.3 = 100.0% (100.0%, 100.0%)
Asian	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	21	128.8/128.8 = 100.0% (100.0%, 100.0%)	113.7/128.8 = 88.3% (44.9%, 98.6%)	110.3/128.8 = 85.6% (47.0%, 97.6%)
Asian	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	21	128.8/128.8 = 100.0% (100.0%, 100.0%)	128.8/128.8 = 100.0% (100.0%, 100.0%)	128.8/128.8 = 100.0% (100.0%, 100.0%)
Asian	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	21	128.8/128.8 = 100.0% (100.0%, 100.0%)	128.8/128.8 = 100.0% (100.0%, 100.0%)	128.8/128.8 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
Asian	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	8	0/441.3 = 0.0% (0.0%, 0.0%)	0/441.3 = 0.0% (0.0%, 0.0%)	0/441.3 = 0.0% (0.0%, 0.0%)
Asian	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	8	0/441.3 = 0.0% (0.0%, 0.0%)	0/441.3 = 0.0% (0.0%, 0.0%)	0/441.3 = 0.0% (0.0%, 0.0%)
Asian	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	8	0/441.3 = 0.0% (0.0%, 0.0%)	0/441.3 = 0.0% (0.0%, 0.0%)	0/441.3 = 0.0% (0.0%, 0.0%)
Asian	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	19	94.8/98.1 = 96.7% (76.1%, 99.6%)	94.8/98.1 = 96.7% (76.1%, 99.6%)	89.8/98.1 = 91.5% (72.4%, 97.8%)
Asian	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	19	98.1/98.1 = 100.0% (100.0%, 100.0%)	98.1/98.1 = 100.0% (100.0%, 100.0%)	98.1/98.1 = 100.0% (100.0%, 100.0%)
Asian	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	19	98.1/98.1 = 100.0% (100.0%, 100.0%)	98.1/98.1 = 100.0% (100.0%, 100.0%)	98.1/98.1 = 100.0% (100.0%, 100.0%)
American Indian or Alaska Native	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	14	170.5/170.5 = 100.0% (100.0%, 100.0%)	162.5/170.5 = 95.3% (65.4%, 99.5%)	126.2/170.5 = 74.0% (26.1%, 95.8%)
American Indian or Alaska Native	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	14	170.5/170.5 = 100.0% (100.0%, 100.0%)	170.5/170.5 = 100.0% (100.0%, 100.0%)	165.8/170.5 = 97.2% (76.9%, 99.7%)
American Indian or Alaska Native	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	14	170.5/170.5 = 100.0% (100.0%, 100.0%)	170.5/170.5 = 100.0% (100.0%, 100.0%)	170.5/170.5 = 100.0% (100.0%, 100.0%)
American Indian or Alaska Native	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	4	8.9/8.9 = 100.0% (100.0%, 100.0%)	7/8.9 = 78.6% (2.3%, 99.8%)	7/8.9 = 78.6% (2.3%, 99.8%)
American Indian or Alaska Native	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	4	8.9/8.9 = 100.0% (100.0%, 100.0%)	8.9/8.9 = 100.0% (100.0%, 100.0%)	8.9/8.9 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
American Indian or Alaska Native	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	4	8.9/8.9 = 100.0% (100.0%, 100.0%)	8.9/8.9 = 100.0% (100.0%, 100.0%)	8.9/8.9 = 100.0% (100.0%, 100.0%)
American Indian or Alaska Native	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	2	0/59.5 = 0.0%	0/59.5 = 0.0%	0/59.5 = 0.0%
American Indian or Alaska Native	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	2	0/59.5 = 0.0%	0/59.5 = 0.0%	0/59.5 = 0.0%
American Indian or Alaska Native	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	2	0/59.5 = 0.0%	0/59.5 = 0.0%	0/59.5 = 0.0%
American Indian or Alaska Native	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	5	29.6/29.6 = 100.0% (100.0%, 100.0%)	18.5/29.6 = 62.4% (1.9%, 99.3%)	18.5/29.6 = 62.4% (1.9%, 99.3%)
American Indian or Alaska Native	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	5	29.6/29.6 = 100.0% (100.0%, 100.0%)	29.6/29.6 = 100.0% (100.0%, 100.0%)	29.6/29.6 = 100.0% (100.0%, 100.0%)
American Indian or Alaska Native	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	5	29.6/29.6 = 100.0% (100.0%, 100.0%)	29.6/29.6 = 100.0% (100.0%, 100.0%)	29.6/29.6 = 100.0% (100.0%, 100.0%)
American Indian or Alaska Native	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	14	162.5/170.5 = 95.3% (65.4%, 99.5%)	162.5/170.5 = 95.3% (65.4%, 99.5%)	157.8/170.5 = 92.5% (66.2%, 98.7%)
American Indian or Alaska Native	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	14	170.5/170.5 = 100.0% (100.0%, 100.0%)	170.5/170.5 = 100.0% (100.0%, 100.0%)	170.5/170.5 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
American Indian or Alaska Native	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	14	170.5/170.5 = 100.0% (100.0%, 100.0%)	170.5/170.5 = 100.0% (100.0%, 100.0%)	170.5/170.5 = 100.0% (100.0%, 100.0%)
American Indian or Alaska Native	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	4	8.9/8.9 = 100.0% (100.0%, 100.0%)	8.9/8.9 = 100.0% (100.0%, 100.0%)	8.9/8.9 = 100.0% (100.0%, 100.0%)
American Indian or Alaska Native	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	4	8.9/8.9 = 100.0% (100.0%, 100.0%)	8.9/8.9 = 100.0% (100.0%, 100.0%)	8.9/8.9 = 100.0% (100.0%, 100.0%)
American Indian or Alaska Native	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	4	8.9/8.9 = 100.0% (100.0%, 100.0%)	8.9/8.9 = 100.0% (100.0%, 100.0%)	8.9/8.9 = 100.0% (100.0%, 100.0%)
American Indian or Alaska Native	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	2	0/59.5 = 0.0%	0/59.5 = 0.0%	0/59.5 = 0.0%
American Indian or Alaska Native	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	2	0/59.5 = 0.0%	0/59.5 = 0.0%	0/59.5 = 0.0%
American Indian or Alaska Native	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	2	0/59.5 = 0.0%	0/59.5 = 0.0%	0/59.5 = 0.0%
American Indian or Alaska Native	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	5	29.6/29.6 = 100.0% (100.0%, 100.0%)	29.6/29.6 = 100.0% (100.0%, 100.0%)	18.5/29.6 = 62.4% (1.9%, 99.3%)
American Indian or Alaska Native	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	5	29.6/29.6 = 100.0% (100.0%, 100.0%)	29.6/29.6 = 100.0% (100.0%, 100.0%)	29.6/29.6 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
American Indian or Alaska Native	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	5	29.6/29.6 = 100.0% (100.0%, 100.0%)	29.6/29.6 = 100.0% (100.0%, 100.0%)	29.6/29.6 = 100.0% (100.0%, 100.0%)
Native Hawaiian or Other Pacific Islander	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	9	135.7/143.7 = 94.4% (53.2%, 99.6%)	135.7/143.7 = 94.4% (53.2%, 99.6%)	118.3/143.7 = 82.3% (43.5%, 96.6%)
Native Hawaiian or Other Pacific Islander	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	9	143.7/143.7 = 100.0% (100.0%, 100.0%)	135.7/143.7 = 94.4% (53.2%, 99.6%)	135.7/143.7 = 94.4% (53.2%, 99.6%)
Native Hawaiian or Other Pacific Islander	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	9	143.7/143.7 = 100.0% (100.0%, 100.0%)	143.7/143.7 = 100.0% (100.0%, 100.0%)	143.7/143.7 = 100.0% (100.0%, 100.0%)
Native Hawaiian or Other Pacific Islander	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	4	7/14 = 49.7%	7/14 = 49.7%	7/14 = 49.7%
Native Hawaiian or Other Pacific Islander	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	4	14/14 = 100.0%	14/14 = 100.0%	14/14 = 100.0%
Native Hawaiian or Other Pacific Islander	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	4	14/14 = 100.0%	14/14 = 100.0%	14/14 = 100.0%

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
Native Hawaiian or Other Pacific Islander	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	3	0/133.6 = 0.0%	0/133.6 = 0.0%	0/133.6 = 0.0%
Native Hawaiian or Other Pacific Islander	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	3	0/133.6 = 0.0%	0/133.6 = 0.0%	0/133.6 = 0.0%
Native Hawaiian or Other Pacific Islander	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	3	0/133.6 = 0.0%	0/133.6 = 0.0%	0/133.6 = 0.0%
Native Hawaiian or Other Pacific Islander	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	4	8.4/8.4 = 100.0% (100.0%, 100.0%)	8.4/8.4 = 100.0% (100.0%, 100.0%)	8.4/8.4 = 100.0% (100.0%, 100.0%)
Native Hawaiian or Other Pacific Islander	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	4	8.4/8.4 = 100.0% (100.0%, 100.0%)	8.4/8.4 = 100.0% (100.0%, 100.0%)	8.4/8.4 = 100.0% (100.0%, 100.0%)
Native Hawaiian or Other Pacific Islander	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	4	8.4/8.4 = 100.0% (100.0%, 100.0%)	8.4/8.4 = 100.0% (100.0%, 100.0%)	8.4/8.4 = 100.0% (100.0%, 100.0%)
Native Hawaiian or Other Pacific Islander	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	9	143.7/143.7 = 100.0% (100.0%, 100.0%)	143.7/143.7 = 100.0% (100.0%, 100.0%)	143.7/143.7 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
Native Hawaiian or Other Pacific Islander	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	9	143.7/143.7 = 100.0% (100.0%, 100.0%)	143.7/143.7 = 100.0% (100.0%, 100.0%)	143.7/143.7 = 100.0% (100.0%, 100.0%)
Native Hawaiian or Other Pacific Islander	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	9	143.7/143.7 = 100.0% (100.0%, 100.0%)	143.7/143.7 = 100.0% (100.0%, 100.0%)	143.7/143.7 = 100.0% (100.0%, 100.0%)
Native Hawaiian or Other Pacific Islander	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	4	7/14 = 49.7%	7/14 = 49.7%	7/14 = 49.7%
Native Hawaiian or Other Pacific Islander	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	4	14/14 = 100.0%	14/14 = 100.0%	14/14 = 100.0%
Native Hawaiian or Other Pacific Islander	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	4	14/14 = 100.0%	14/14 = 100.0%	14/14 = 100.0%
Native Hawaiian or Other Pacific Islander	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	3	0/133.6 = 0.0%	0/133.6 = 0.0%	0/133.6 = 0.0%
Native Hawaiian or Other Pacific Islander	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	3	0/133.6 = 0.0%	0/133.6 = 0.0%	0/133.6 = 0.0%

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
Native Hawaiian or Other Pacific Islander	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	3	0/133.6 = 0.0%	0/133.6 = 0.0%	0/133.6 = 0.0%
Native Hawaiian or Other Pacific Islander	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	4	8.4/8.4 = 100.0% (100.0%, 100.0%)	8.4/8.4 = 100.0% (100.0%, 100.0%)	8.4/8.4 = 100.0% (100.0%, 100.0%)
Native Hawaiian or Other Pacific Islander	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	4	8.4/8.4 = 100.0% (100.0%, 100.0%)	8.4/8.4 = 100.0% (100.0%, 100.0%)	8.4/8.4 = 100.0% (100.0%, 100.0%)
Native Hawaiian or Other Pacific Islander	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	4	8.4/8.4 = 100.0% (100.0%, 100.0%)	8.4/8.4 = 100.0% (100.0%, 100.0%)	8.4/8.4 = 100.0% (100.0%, 100.0%)
Multiracial	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	54	686.5/779.8 = 88.0% (68.7%, 96.1%)	613.6/779.8 = 78.7% (58.6%, 90.6%)	492.6/779.8 = 63.2% (42.8%, 79.7%)
Multiracial	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	54	779.8/779.8 = 100.0% (100.0%, 100.0%)	779.8/779.8 = 100.0% (100.0%, 100.0%)	779.8/779.8 = 100.0% (100.0%, 100.0%)
Multiracial	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	54	779.8/779.8 = 100.0% (100.0%, 100.0%)	779.8/779.8 = 100.0% (100.0%, 100.0%)	779.8/779.8 = 100.0% (100.0%, 100.0%)
Multiracial	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	11	39.2/39.2 = 100.0% (100.0%, 100.0%)	36/39.2 = 91.9% (47.6%, 99.3%)	36/39.2 = 91.9% (47.6%, 99.3%)
Multiracial	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	11	39.2/39.2 = 100.0% (100.0%, 100.0%)	39.2/39.2 = 100.0% (100.0%, 100.0%)	39.2/39.2 = 100.0% (100.0%, 100.0%)
Multiracial	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	11	39.2/39.2 = 100.0% (100.0%, 100.0%)	39.2/39.2 = 100.0% (100.0%, 100.0%)	39.2/39.2 = 100.0% (100.0%, 100.0%)
Multiracial	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	11	0/712.6 = 0.0% (0.0%, 0.0%)	0/712.6 = 0.0% (0.0%, 0.0%)	0/712.6 = 0.0% (0.0%, 0.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
Multiracial	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	11	0/712.6 = 0.0% (0.0%, 0.0%)	0/712.6 = 0.0% (0.0%, 0.0%)	0/712.6 = 0.0% (0.0%, 0.0%)
Multiracial	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	11	0/712.6 = 0.0% (0.0%, 0.0%)	0/712.6 = 0.0% (0.0%, 0.0%)	0/712.6 = 0.0% (0.0%, 0.0%)
Multiracial	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	14	48.5/62.8 = 77.2% (38.5%, 94.8%)	31.9/62.8 = 50.7% (19.7%, 81.2%)	29.1/62.8 = 46.3% (17.1%, 78.2%)
Multiracial	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	14	62.8/62.8 = 100.0% (100.0%, 100.0%)	62.8/62.8 = 100.0% (100.0%, 100.0%)	62.8/62.8 = 100.0% (100.0%, 100.0%)
Multiracial	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	14	62.8/62.8 = 100.0% (100.0%, 100.0%)	62.8/62.8 = 100.0% (100.0%, 100.0%)	62.8/62.8 = 100.0% (100.0%, 100.0%)
Multiracial	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	54	779.8/779.8 = 100.0% (100.0%, 100.0%)	754.4/779.8 = 96.7% (90.7%, 98.9%)	618.3/779.8 = 79.3% (59.0%, 91.1%)
Multiracial	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	54	779.8/779.8 = 100.0% (100.0%, 100.0%)	779.8/779.8 = 100.0% (100.0%, 100.0%)	779.8/779.8 = 100.0% (100.0%, 100.0%)
Multiracial	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	54	779.8/779.8 = 100.0% (100.0%, 100.0%)	779.8/779.8 = 100.0% (100.0%, 100.0%)	779.8/779.8 = 100.0% (100.0%, 100.0%)
Multiracial	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	11	39.2/39.2 = 100.0% (100.0%, 100.0%)	39.2/39.2 = 100.0% (100.0%, 100.0%)	39.2/39.2 = 100.0% (100.0%, 100.0%)
Multiracial	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	11	39.2/39.2 = 100.0% (100.0%, 100.0%)	39.2/39.2 = 100.0% (100.0%, 100.0%)	39.2/39.2 = 100.0% (100.0%, 100.0%)
Multiracial	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	11	39.2/39.2 = 100.0% (100.0%, 100.0%)	39.2/39.2 = 100.0% (100.0%, 100.0%)	39.2/39.2 = 100.0% (100.0%, 100.0%)
Multiracial	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	11	0/712.6 = 0.0% (0.0%, 0.0%)	0/712.6 = 0.0% (0.0%, 0.0%)	0/712.6 = 0.0% (0.0%, 0.0%)
Multiracial	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	11	0/712.6 = 0.0% (0.0%, 0.0%)	0/712.6 = 0.0% (0.0%, 0.0%)	0/712.6 = 0.0% (0.0%, 0.0%)
Multiracial	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	11	0/712.6 = 0.0% (0.0%, 0.0%)	0/712.6 = 0.0% (0.0%, 0.0%)	0/712.6 = 0.0% (0.0%, 0.0%)
Multiracial	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	14	62.8/62.8 = 100.0% (100.0%, 100.0%)	51.3/62.8 = 81.6% (39.5%, 96.8%)	46.7/62.8 = 74.2% (37.3%, 93.3%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
Multiracial	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	14	62.8/62.8 = 100.0% (100.0%, 100.0%)	62.8/62.8 = 100.0% (100.0%, 100.0%)	62.8/62.8 = 100.0% (100.0%, 100.0%)
Multiracial	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	14	62.8/62.8 = 100.0% (100.0%, 100.0%)	62.8/62.8 = 100.0% (100.0%, 100.0%)	62.8/62.8 = 100.0% (100.0%, 100.0%)
Other	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	20	222.2/270.3 = 82.2% (41.8%, 96.7%)	198.6/270.3 = 73.5% (38.5%, 92.5%)	191.3/270.3 = 70.8% (36.9%, 90.9%)
Other	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	20	270.3/270.3 = 100.0% (100.0%, 100.0%)	270.3/270.3 = 100.0% (100.0%, 100.0%)	258.5/270.3 = 95.6% (69.6%, 99.5%)
Other	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	20	270.3/270.3 = 100.0% (100.0%, 100.0%)	270.3/270.3 = 100.0% (100.0%, 100.0%)	270.3/270.3 = 100.0% (100.0%, 100.0%)
Other	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	4	15.3/15.3 = 100.0%	15.3/15.3 = 100.0%	15.3/15.3 = 100.0%
Other	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	4	15.3/15.3 = 100.0%	15.3/15.3 = 100.0%	15.3/15.3 = 100.0%
Other	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	4	15.3/15.3 = 100.0%	15.3/15.3 = 100.0%	15.3/15.3 = 100.0%
Other	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	3	0/154.8 = 0.0%	0/154.8 = 0.0%	0/154.8 = 0.0%
Other	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	3	0/154.8 = 0.0%	0/154.8 = 0.0%	0/154.8 = 0.0%
Other	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	3	0/154.8 = 0.0%	0/154.8 = 0.0%	0/154.8 = 0.0%
Other	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	5	21.6/21.6 = 100.0%	21.6/21.6 = 100.0%	21.6/21.6 = 100.0%
Other	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	5	21.6/21.6 = 100.0%	21.6/21.6 = 100.0%	21.6/21.6 = 100.0%
Other	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	5	21.6/21.6 = 100.0%	21.6/21.6 = 100.0%	21.6/21.6 = 100.0%
Other	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	20	217.5/270.3 = 80.5% (42.0%, 95.9%)	210.2/270.3 = 77.8% (41.3%, 94.5%)	198.4/270.3 = 73.4% (38.8%, 92.3%)
Other	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	20	270.3/270.3 = 100.0% (100.0%, 100.0%)	270.3/270.3 = 100.0% (100.0%, 100.0%)	270.3/270.3 = 100.0% (100.0%, 100.0%)
Other	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	20	270.3/270.3 = 100.0% (100.0%, 100.0%)	270.3/270.3 = 100.0% (100.0%, 100.0%)	270.3/270.3 = 100.0% (100.0%, 100.0%)
Other	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	4	15.3/15.3 = 100.0%	15.3/15.3 = 100.0%	15.3/15.3 = 100.0%
Other	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	4	15.3/15.3 = 100.0%	15.3/15.3 = 100.0%	15.3/15.3 = 100.0%
Other	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	4	15.3/15.3 = 100.0%	15.3/15.3 = 100.0%	15.3/15.3 = 100.0%
Other	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	3	0/154.8 = 0.0%	0/154.8 = 0.0%	0/154.8 = 0.0%
Other	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	3	0/154.8 = 0.0%	0/154.8 = 0.0%	0/154.8 = 0.0%
Other	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	3	0/154.8 = 0.0%	0/154.8 = 0.0%	0/154.8 = 0.0%

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
Other	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	5	21.6/21.6 = 100.0%	21.6/21.6 = 100.0%	21.6/21.6 = 100.0%
Other	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	5	21.6/21.6 = 100.0%	21.6/21.6 = 100.0%	21.6/21.6 = 100.0%
Other	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	5	21.6/21.6 = 100.0%	21.6/21.6 = 100.0%	21.6/21.6 = 100.0%
Not reported and unknown	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	3	9.4/17.4 = 53.9%	9.4/17.4 = 53.9%	9.4/17.4 = 53.9%
Not reported and unknown	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	3	17.4/17.4 = 100.0%	17.4/17.4 = 100.0%	17.4/17.4 = 100.0%
Not reported and unknown	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	3	17.4/17.4 = 100.0%	17.4/17.4 = 100.0%	17.4/17.4 = 100.0%
Not reported and unknown	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	3	7/7 = 100.0%	7/7 = 100.0%	3.8/7 = 54.5%
Not reported and unknown	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	3	7/7 = 100.0%	7/7 = 100.0%	7/7 = 100.0%
Not reported and unknown	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	3	7/7 = 100.0%	7/7 = 100.0%	7/7 = 100.0%
Not reported and unknown	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	1	0/29.8 = 0.0%	0/29.8 = 0.0%	0/29.8 = 0.0%
Not reported and unknown	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	1	0/29.8 = 0.0%	0/29.8 = 0.0%	0/29.8 = 0.0%
Not reported and unknown	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	1	0/29.8 = 0.0%	0/29.8 = 0.0%	0/29.8 = 0.0%
Not reported and unknown	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	1	1.8/1.8 = 100.0%	0/1.8 = 0.0%	0/1.8 = 0.0%
Not reported and unknown	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	1	1.8/1.8 = 100.0%	1.8/1.8 = 100.0%	1.8/1.8 = 100.0%
Not reported and unknown	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	1	1.8/1.8 = 100.0%	1.8/1.8 = 100.0%	1.8/1.8 = 100.0%
Not reported and unknown	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	3	17.4/17.4 = 100.0%	17.4/17.4 = 100.0%	17.4/17.4 = 100.0%
Not reported and unknown	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	3	17.4/17.4 = 100.0%	17.4/17.4 = 100.0%	17.4/17.4 = 100.0%

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
Not reported and unknown	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	3	17.4/17.4 = 100.0%	17.4/17.4 = 100.0%	17.4/17.4 = 100.0%
Not reported and unknown	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	3	7/7 = 100.0%	7/7 = 100.0%	7/7 = 100.0%
Not reported and unknown	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	3	7/7 = 100.0%	7/7 = 100.0%	7/7 = 100.0%
Not reported and unknown	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	3	7/7 = 100.0%	7/7 = 100.0%	7/7 = 100.0%
Not reported and unknown	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	1	0/29.8 = 0.0%	0/29.8 = 0.0%	0/29.8 = 0.0%
Not reported and unknown	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	1	0/29.8 = 0.0%	0/29.8 = 0.0%	0/29.8 = 0.0%
Not reported and unknown	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	1	0/29.8 = 0.0%	0/29.8 = 0.0%	0/29.8 = 0.0%
Not reported and unknown	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	1	1.8/1.8 = 100.0%	1.8/1.8 = 100.0%	1.8/1.8 = 100.0%
Not reported and unknown	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	1	1.8/1.8 = 100.0%	1.8/1.8 = 100.0%	1.8/1.8 = 100.0%
Not reported and unknown	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	1	1.8/1.8 = 100.0%	1.8/1.8 = 100.0%	1.8/1.8 = 100.0%

Binding Antibody Responders are defined as participants who had baseline values below the LLOQ with detectable antibody concentration above the assay LLOQ, or as participants with baseline values above the LLOQ with a 4-fold increase in antibody concentration.

Percentages are calculated for the whole per-protocol group/subgroup, using inverse probability weighting.

LLOQ = 4.49, 5.77, 1.80 IU/ml for N, RBD, Spike, respectively.

Table 4i. Percentage of responders, and participants with concentrations $\geq 2 \times$ LLOQ or $\geq 4 \times$ LLOQ for binding antibody markers by Communities of color

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than $2 \times$ LLOQ	% Greater than $4 \times$ LLOQ
Communities of color								
Communities of Color	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	374	4352.8/4915.8 = 88.5% (82.8%, 92.6%)	4039.1/4915.8 = 82.2% (75.8%, 87.1%)	3287.3/4915.8 = 66.9% (59.6%, 73.4%)
Communities of Color	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	374	4915.8/4915.8 = 100.0% (100.0%, 100.0%)	4899.8/4915.8 = 99.7% (98.7%, 99.9%)	4883.3/4915.8 = 99.3% (98.2%, 99.8%)
Communities of Color	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	374	4915.8/4915.8 = 100.0% (100.0%, 100.0%)	4915.8/4915.8 = 100.0% (100.0%, 100.0%)	4899.8/4915.8 = 99.7% (98.7%, 99.9%)
Communities of Color	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	114	450.7/484.9 = 93.0% (85.0%, 96.8%)	429.9/484.9 = 88.7% (80.2%, 93.8%)	375.8/484.9 = 77.5% (67.3%, 85.2%)
Communities of Color	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	114	484.9/484.9 = 100.0% (100.0%, 100.0%)	484.9/484.9 = 100.0% (100.0%, 100.0%)	479.8/484.9 = 99.0% (95.6%, 99.8%)
Communities of Color	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	114	484.9/484.9 = 100.0% (100.0%, 100.0%)	484.9/484.9 = 100.0% (100.0%, 100.0%)	481.7/484.9 = 99.3% (95.4%, 99.9%)
Communities of Color	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	66	0/4072.8 = 0.0% (0.0%, 0.0%)	0/4072.8 = 0.0% (0.0%, 0.0%)	0/4072.8 = 0.0% (0.0%, 0.0%)
Communities of Color	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	66	0/4072.8 = 0.0% (0.0%, 0.0%)	0/4072.8 = 0.0% (0.0%, 0.0%)	0/4072.8 = 0.0% (0.0%, 0.0%)
Communities of Color	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	66	0/4072.8 = 0.0% (0.0%, 0.0%)	0/4072.8 = 0.0% (0.0%, 0.0%)	0/4072.8 = 0.0% (0.0%, 0.0%)
Communities of Color	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	102	375.1/448 = 83.7% (71.6%, 91.3%)	321.2/448 = 71.7% (58.8%, 81.8%)	240.1/448 = 53.6% (41.3%, 65.5%)
Communities of Color	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	102	439.7/448 = 98.1% (87.5%, 99.8%)	439.7/448 = 98.1% (87.5%, 99.8%)	436.4/448 = 97.4% (88.7%, 99.5%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
Communities of Color	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	102	448/448 = 100.0% (100.0%, 100.0%)	448/448 = 100.0% (100.0%, 100.0%)	448/448 = 100.0% (100.0%, 100.0%)
Communities of Color	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	374	4745.6/4915.8 = 96.5% (92.7%, 98.4%)	4446.2/4915.8 = 90.4% (85.0%, 94.0%)	4100.2/4915.8 = 83.4% (77.0%, 88.3%)
Communities of Color	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	374	4915.8/4915.8 = 100.0% (100.0%, 100.0%)	4915.8/4915.8 = 100.0% (100.0%, 100.0%)	4879.5/4915.8 = 99.3% (94.9%, 99.9%)
Communities of Color	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	374	4915.8/4915.8 = 100.0% (100.0%, 100.0%)	4915.8/4915.8 = 100.0% (100.0%, 100.0%)	4915.8/4915.8 = 100.0% (100.0%, 100.0%)
Communities of Color	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	114	467.6/484.9 = 96.4% (88.7%, 98.9%)	452.5/484.9 = 93.3% (81.4%, 97.8%)	429.9/484.9 = 88.6% (77.4%, 94.7%)
Communities of Color	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	114	484.9/484.9 = 100.0% (100.0%, 100.0%)	484.9/484.9 = 100.0% (100.0%, 100.0%)	484.9/484.9 = 100.0% (100.0%, 100.0%)
Communities of Color	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	114	484.9/484.9 = 100.0% (100.0%, 100.0%)	484.9/484.9 = 100.0% (100.0%, 100.0%)	484.9/484.9 = 100.0% (100.0%, 100.0%)
Communities of Color	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	66	0/4072.8 = 0.0% (0.0%, 0.0%)	0/4072.8 = 0.0% (0.0%, 0.0%)	0/4072.8 = 0.0% (0.0%, 0.0%)
Communities of Color	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	66	0/4072.8 = 0.0% (0.0%, 0.0%)	0/4072.8 = 0.0% (0.0%, 0.0%)	0/4072.8 = 0.0% (0.0%, 0.0%)
Communities of Color	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	66	0/4072.8 = 0.0% (0.0%, 0.0%)	0/4072.8 = 0.0% (0.0%, 0.0%)	0/4072.8 = 0.0% (0.0%, 0.0%)
Communities of Color	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	102	428.1/448 = 95.6% (86.0%, 98.7%)	416.6/448 = 93.0% (83.1%, 97.3%)	392.1/448 = 87.5% (77.5%, 93.4%)
Communities of Color	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	102	448/448 = 100.0% (100.0%, 100.0%)	448/448 = 100.0% (100.0%, 100.0%)	448/448 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
Communities of Color	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	102	448/448 = 100.0% (100.0%, 100.0%)	448/448 = 100.0% (100.0%, 100.0%)	448/448 = 100.0% (100.0%, 100.0%)
White Non-Hispanic	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	355	5491.9/6280.2 = 87.4% (81.7%, 91.6%)	4775.7/6280.2 = 76.0% (69.4%, 81.6%)	4024.3/6280.2 = 64.1% (57.1%, 70.5%)
White Non-Hispanic	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	355	6280.2/6280.2 = 100.0% (100.0%, 100.0%)	6280.2/6280.2 = 100.0% (100.0%, 100.0%)	6070.1/6280.2 = 96.7% (92.5%, 98.5%)
White Non-Hispanic	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	355	6280.2/6280.2 = 100.0% (100.0%, 100.0%)	6280.2/6280.2 = 100.0% (100.0%, 100.0%)	6280.2/6280.2 = 100.0% (100.0%, 100.0%)
White Non-Hispanic	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	121	641.2/657.1 = 97.6% (94.3%, 99.0%)	639.1/657.1 = 97.3% (94.0%, 98.8%)	588.3/657.1 = 89.5% (78.6%, 95.2%)
White Non-Hispanic	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	121	657.1/657.1 = 100.0% (100.0%, 100.0%)	653.7/657.1 = 99.5% (96.3%, 99.9%)	653.7/657.1 = 99.5% (96.3%, 99.9%)
White Non-Hispanic	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	121	657.1/657.1 = 100.0% (100.0%, 100.0%)	657.1/657.1 = 100.0% (100.0%, 100.0%)	653.7/657.1 = 99.5% (96.3%, 99.9%)
White Non-Hispanic	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	64	0/7123.2 = 0.0% (0.0%, 0.0%)	0/7123.2 = 0.0% (0.0%, 0.0%)	0/7123.2 = 0.0% (0.0%, 0.0%)
White Non-Hispanic	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	64	0/7123.2 = 0.0% (0.0%, 0.0%)	0/7123.2 = 0.0% (0.0%, 0.0%)	0/7123.2 = 0.0% (0.0%, 0.0%)
White Non-Hispanic	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	64	0/7123.2 = 0.0% (0.0%, 0.0%)	0/7123.2 = 0.0% (0.0%, 0.0%)	0/7123.2 = 0.0% (0.0%, 0.0%)
White Non-Hispanic	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	119	552.3/625 = 88.4% (77.5%, 94.4%)	436/625 = 69.8% (57.5%, 79.7%)	351.3/625 = 56.2% (44.4%, 67.3%)
White Non-Hispanic	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	119	625/625 = 100.0% (100.0%, 100.0%)	625/625 = 100.0% (100.0%, 100.0%)	591.5/625 = 94.6% (85.6%, 98.1%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
White Non-Hispanic	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	119	625/625 = 100.0% (100.0%, 100.0%)	625/625 = 100.0% (100.0%, 100.0%)	625/625 = 100.0% (100.0%, 100.0%)
White Non-Hispanic	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	355	5976.3/6280.2 = 95.2% (90.9%, 97.5%)	5681.3/6280.2 = 90.5% (85.2%, 94.0%)	5288.2/6280.2 = 84.2% (78.2%, 88.8%)
White Non-Hispanic	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	355	6280.2/6280.2 = 100.0% (100.0%, 100.0%)	6280.2/6280.2 = 100.0% (100.0%, 100.0%)	6280.2/6280.2 = 100.0% (100.0%, 100.0%)
White Non-Hispanic	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	355	6280.2/6280.2 = 100.0% (100.0%, 100.0%)	6280.2/6280.2 = 100.0% (100.0%, 100.0%)	6280.2/6280.2 = 100.0% (100.0%, 100.0%)
White Non-Hispanic	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	121	648.1/657.1 = 98.6% (95.7%, 99.6%)	648.1/657.1 = 98.6% (95.7%, 99.6%)	641.2/657.1 = 97.6% (94.3%, 99.0%)
White Non-Hispanic	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	121	657.1/657.1 = 100.0% (100.0%, 100.0%)	653.7/657.1 = 99.5% (96.3%, 99.9%)	653.7/657.1 = 99.5% (96.3%, 99.9%)
White Non-Hispanic	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	121	657.1/657.1 = 100.0% (100.0%, 100.0%)	657.1/657.1 = 100.0% (100.0%, 100.0%)	657.1/657.1 = 100.0% (100.0%, 100.0%)
White Non-Hispanic	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	64	0/7123.2 = 0.0% (0.0%, 0.0%)	0/7123.2 = 0.0% (0.0%, 0.0%)	0/7123.2 = 0.0% (0.0%, 0.0%)
White Non-Hispanic	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	64	0/7123.2 = 0.0% (0.0%, 0.0%)	0/7123.2 = 0.0% (0.0%, 0.0%)	0/7123.2 = 0.0% (0.0%, 0.0%)
White Non-Hispanic	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	64	0/7123.2 = 0.0% (0.0%, 0.0%)	0/7123.2 = 0.0% (0.0%, 0.0%)	0/7123.2 = 0.0% (0.0%, 0.0%)
White Non-Hispanic	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	119	586/625 = 93.8% (83.4%, 97.8%)	565.4/625 = 90.5% (80.1%, 95.7%)	519.7/625 = 83.2% (71.7%, 90.6%)
White Non-Hispanic	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	119	625/625 = 100.0% (100.0%, 100.0%)	625/625 = 100.0% (100.0%, 100.0%)	625/625 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
White Non-Hispanic	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	119	625/625 = 100.0% (100.0%, 100.0%)	625/625 = 100.0% (100.0%, 100.0%)	625/625 = 100.0% (100.0%, 100.0%)

Binding Antibody Responders are defined as participants who had baseline values below the LLOQ with detectable antibody concentration above the assay LLOQ, or as participants with baseline values above the LLOQ with a 4-fold increase in antibody concentration.

Percentages are calculated for the whole per-protocol group/subgroup, using inverse probability weighting.

LLOQ = 4.49, 5.77, 1.80 IU/ml for N, RBD, Spike, respectively.

Table 4j. Percentage of responders, and participants with concentrations $\geq 2 \times$ LLOQ or $\geq 4 \times$ LLOQ for binding antibody markers by Age, Communities of color

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than $2 \times$ LLOQ	% Greater than $4 \times$ LLOQ
Age, Communities of color								
Age < 65 Communities of Color	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	169	3320.2/3845 = 86.3% (79.0%, 91.4%)	3049.3/3845 = 79.3% (71.3%, 85.5%)	2380.6/3845 = 61.9% (52.9%, 70.2%)
Age < 65 Communities of Color	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	169	3845/3845 = 100.0% (100.0%, 100.0%)	3829/3845 = 99.6% (98.3%, 99.9%)	3817.2/3845 = 99.3% (97.7%, 99.8%)
Age < 65 Communities of Color	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	169	3845/3845 = 100.0% (100.0%, 100.0%)	3845/3845 = 100.0% (100.0%, 100.0%)	3829/3845 = 99.6% (98.3%, 99.9%)
Age < 65 Communities of Color	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	63	351.6/385.7 = 91.1% (81.1%, 96.1%)	334.7/385.7 = 86.8% (76.1%, 93.1%)	282.8/385.7 = 73.3% (60.4%, 83.2%)
Age < 65 Communities of Color	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	63	385.7/385.7 = 100.0% (100.0%, 100.0%)	385.7/385.7 = 100.0% (100.0%, 100.0%)	382.6/385.7 = 99.2% (94.1%, 99.9%)
Age < 65 Communities of Color	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	63	385.7/385.7 = 100.0% (100.0%, 100.0%)	385.7/385.7 = 100.0% (100.0%, 100.0%)	382.6/385.7 = 99.2% (94.1%, 99.9%)
Age < 65 Communities of Color	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	31	0/2903.6 = 0.0% (0.0%, 0.0%)	0/2903.6 = 0.0% (0.0%, 0.0%)	0/2903.6 = 0.0% (0.0%, 0.0%)
Age < 65 Communities of Color	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	31	0/2903.6 = 0.0% (0.0%, 0.0%)	0/2903.6 = 0.0% (0.0%, 0.0%)	0/2903.6 = 0.0% (0.0%, 0.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
Age < 65 Communities of Color	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	31	0/2903.6 = 0.0% (0.0%, 0.0%)	0/2903.6 = 0.0% (0.0%, 0.0%)	0/2903.6 = 0.0% (0.0%, 0.0%)
Age < 65 Communities of Color	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	58	293.8/364.8 = 80.5% (65.8%, 89.9%)	245.8/364.8 = 67.4% (52.0%, 79.8%)	172.1/364.8 = 47.2% (33.2%, 61.6%)
Age < 65 Communities of Color	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	58	356.5/364.8 = 97.7% (84.6%, 99.7%)	356.5/364.8 = 97.7% (84.6%, 99.7%)	353.3/364.8 = 96.8% (86.1%, 99.3%)
Age < 65 Communities of Color	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	58	364.8/364.8 = 100.0% (100.0%, 100.0%)	364.8/364.8 = 100.0% (100.0%, 100.0%)	364.8/364.8 = 100.0% (100.0%, 100.0%)
Age < 65 Communities of Color	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	169	3684.2/3845 = 95.8% (90.8%, 98.2%)	3410.9/3845 = 88.7% (81.8%, 93.2%)	3083.6/3845 = 80.2% (72.1%, 86.4%)
Age < 65 Communities of Color	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	169	3845/3845 = 100.0% (100.0%, 100.0%)	3845/3845 = 100.0% (100.0%, 100.0%)	3808.7/3845 = 99.1% (93.5%, 99.9%)
Age < 65 Communities of Color	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	169	3845/3845 = 100.0% (100.0%, 100.0%)	3845/3845 = 100.0% (100.0%, 100.0%)	3845/3845 = 100.0% (100.0%, 100.0%)
Age < 65 Communities of Color	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	63	368.4/385.7 = 95.5% (85.8%, 98.7%)	353.3/385.7 = 91.6% (76.9%, 97.3%)	332.6/385.7 = 86.2% (72.3%, 93.8%)
Age < 65 Communities of Color	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	63	385.7/385.7 = 100.0% (100.0%, 100.0%)	385.7/385.7 = 100.0% (100.0%, 100.0%)	385.7/385.7 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
Age < 65 Communities of Color	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	63	385.7/385.7 = 100.0% (100.0%, 100.0%)	385.7/385.7 = 100.0% (100.0%, 100.0%)	385.7/385.7 = 100.0% (100.0%, 100.0%)
Age < 65 Communities of Color	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	31	0/2903.6 = 0.0% (0.0%, 0.0%)	0/2903.6 = 0.0% (0.0%, 0.0%)	0/2903.6 = 0.0% (0.0%, 0.0%)
Age < 65 Communities of Color	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	31	0/2903.6 = 0.0% (0.0%, 0.0%)	0/2903.6 = 0.0% (0.0%, 0.0%)	0/2903.6 = 0.0% (0.0%, 0.0%)
Age < 65 Communities of Color	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	31	0/2903.6 = 0.0% (0.0%, 0.0%)	0/2903.6 = 0.0% (0.0%, 0.0%)	0/2903.6 = 0.0% (0.0%, 0.0%)
Age < 65 Communities of Color	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	58	345/364.8 = 94.6% (82.8%, 98.4%)	333.4/364.8 = 91.4% (79.3%, 96.7%)	316.3/364.8 = 86.7% (74.2%, 93.7%)
Age < 65 Communities of Color	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	58	364.8/364.8 = 100.0% (100.0%, 100.0%)	364.8/364.8 = 100.0% (100.0%, 100.0%)	364.8/364.8 = 100.0% (100.0%, 100.0%)
Age < 65 Communities of Color	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	58	364.8/364.8 = 100.0% (100.0%, 100.0%)	364.8/364.8 = 100.0% (100.0%, 100.0%)	364.8/364.8 = 100.0% (100.0%, 100.0%)
Age < 65 White Non-Hispanic	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	180	4262.6/4992 = 85.4% (78.2%, 90.5%)	3605.3/4992 = 72.2% (64.0%, 79.2%)	2971.6/4992 = 59.5% (51.0%, 67.5%)
Age < 65 White Non-Hispanic	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	180	4992/4992 = 100.0% (100.0%, 100.0%)	4992/4992 = 100.0% (100.0%, 100.0%)	4781.9/4992 = 95.8% (90.6%, 98.2%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
Age < 65 White Non-Hispanic	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	180	4992/4992 = 100.0% (100.0%, 100.0%)	4992/4992 = 100.0% (100.0%, 100.0%)	4992/4992 = 100.0% (100.0%, 100.0%)
Age < 65 White Non-Hispanic	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	57	508.5/522.3 = 97.4% (93.2%, 99.0%)	508.5/522.3 = 97.4% (93.2%, 99.0%)	459.8/522.3 = 88.0% (74.0%, 95.0%)
Age < 65 White Non-Hispanic	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	57	522.3/522.3 = 100.0% (100.0%, 100.0%)	518.8/522.3 = 99.3% (95.2%, 99.9%)	518.8/522.3 = 99.3% (95.2%, 99.9%)
Age < 65 White Non-Hispanic	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	57	522.3/522.3 = 100.0% (100.0%, 100.0%)	522.3/522.3 = 100.0% (100.0%, 100.0%)	518.8/522.3 = 99.3% (95.2%, 99.9%)
Age < 65 White Non-Hispanic	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	32	0/5586.4 = 0.0% (0.0%, 0.0%)	0/5586.4 = 0.0% (0.0%, 0.0%)	0/5586.4 = 0.0% (0.0%, 0.0%)
Age < 65 White Non-Hispanic	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	32	0/5586.4 = 0.0% (0.0%, 0.0%)	0/5586.4 = 0.0% (0.0%, 0.0%)	0/5586.4 = 0.0% (0.0%, 0.0%)
Age < 65 White Non-Hispanic	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	32	0/5586.4 = 0.0% (0.0%, 0.0%)	0/5586.4 = 0.0% (0.0%, 0.0%)	0/5586.4 = 0.0% (0.0%, 0.0%)
Age < 65 White Non-Hispanic	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	64	436.1/502.2 = 86.8% (73.2%, 94.1%)	331/502.2 = 65.9% (51.0%, 78.2%)	253.1/502.2 = 50.4% (36.4%, 64.3%)
Age < 65 White Non-Hispanic	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	64	502.2/502.2 = 100.0% (100.0%, 100.0%)	502.2/502.2 = 100.0% (100.0%, 100.0%)	468.7/502.2 = 93.3% (82.1%, 97.7%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
Age < 65 White Non-Hispanic	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	64	502.2/502.2 = 100.0% (100.0%, 100.0%)	502.2/502.2 = 100.0% (100.0%, 100.0%)	502.2/502.2 = 100.0% (100.0%, 100.0%)
Age < 65 White Non-Hispanic	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	180	4702.9/4992 = 94.2% (88.8%, 97.1%)	4437.3/4992 = 88.9% (82.3%, 93.2%)	4080.9/4992 = 81.7% (74.3%, 87.4%)
Age < 65 White Non-Hispanic	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	180	4992/4992 = 100.0% (100.0%, 100.0%)	4992/4992 = 100.0% (100.0%, 100.0%)	4992/4992 = 100.0% (100.0%, 100.0%)
Age < 65 White Non-Hispanic	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	180	4992/4992 = 100.0% (100.0%, 100.0%)	4992/4992 = 100.0% (100.0%, 100.0%)	4992/4992 = 100.0% (100.0%, 100.0%)
Age < 65 White Non-Hispanic	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	57	515.4/522.3 = 98.7% (94.8%, 99.7%)	515.4/522.3 = 98.7% (94.8%, 99.7%)	508.5/522.3 = 97.4% (93.2%, 99.0%)
Age < 65 White Non-Hispanic	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	57	522.3/522.3 = 100.0% (100.0%, 100.0%)	518.8/522.3 = 99.3% (95.2%, 99.9%)	518.8/522.3 = 99.3% (95.2%, 99.9%)
Age < 65 White Non-Hispanic	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	57	522.3/522.3 = 100.0% (100.0%, 100.0%)	522.3/522.3 = 100.0% (100.0%, 100.0%)	522.3/522.3 = 100.0% (100.0%, 100.0%)
Age < 65 White Non-Hispanic	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	32	0/5586.4 = 0.0% (0.0%, 0.0%)	0/5586.4 = 0.0% (0.0%, 0.0%)	0/5586.4 = 0.0% (0.0%, 0.0%)
Age < 65 White Non-Hispanic	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	32	0/5586.4 = 0.0% (0.0%, 0.0%)	0/5586.4 = 0.0% (0.0%, 0.0%)	0/5586.4 = 0.0% (0.0%, 0.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
Age < 65 White Non-Hispanic	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	32	0/5586.4 = 0.0% (0.0%, 0.0%)	0/5586.4 = 0.0% (0.0%, 0.0%)	0/5586.4 = 0.0% (0.0%, 0.0%)
Age < 65 White Non-Hispanic	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	64	463.2/502.2 = 92.2% (79.4%, 97.3%)	444.8/502.2 = 88.6% (75.6%, 95.1%)	405.8/502.2 = 80.8% (66.6%, 89.9%)
Age < 65 White Non-Hispanic	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	64	502.2/502.2 = 100.0% (100.0%, 100.0%)	502.2/502.2 = 100.0% (100.0%, 100.0%)	502.2/502.2 = 100.0% (100.0%, 100.0%)
Age < 65 White Non-Hispanic	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	64	502.2/502.2 = 100.0% (100.0%, 100.0%)	502.2/502.2 = 100.0% (100.0%, 100.0%)	502.2/502.2 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Communities of Color	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	205	1032.6/1070.8 = 96.4% (92.6%, 98.3%)	989.8/1070.8 = 92.4% (87.7%, 95.5%)	906.7/1070.8 = 84.7% (78.9%, 89.1%)
Age ≥ 65 Communities of Color	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	205	1070.8/1070.8 = 100.0% (100.0%, 100.0%)	1070.8/1070.8 = 100.0% (100.0%, 100.0%)	1066.1/1070.8 = 99.6% (96.9%, 99.9%)
Age ≥ 65 Communities of Color	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	205	1070.8/1070.8 = 100.0% (100.0%, 100.0%)	1070.8/1070.8 = 100.0% (100.0%, 100.0%)	1070.8/1070.8 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Communities of Color	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	51	99.2/99.2 = 100.0% (100.0%, 100.0%)	95.2/99.2 = 96.0% (84.7%, 99.0%)	93.1/99.2 = 93.8% (82.2%, 98.0%)
Age ≥ 65 Communities of Color	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	51	99.2/99.2 = 100.0% (100.0%, 100.0%)	99.2/99.2 = 100.0% (100.0%, 100.0%)	97.3/99.2 = 98.1% (86.9%, 99.7%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
Age ≥ 65 Communities of Color	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	51	99.2/99.2 = 100.0% (100.0%, 100.0%)	99.2/99.2 = 100.0% (100.0%, 100.0%)	99.2/99.2 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Communities of Color	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	35	0/1169.2 = 0.0% (0.0%, 0.0%)	0/1169.2 = 0.0% (0.0%, 0.0%)	0/1169.2 = 0.0% (0.0%, 0.0%)
Age ≥ 65 Communities of Color	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	35	0/1169.2 = 0.0% (0.0%, 0.0%)	0/1169.2 = 0.0% (0.0%, 0.0%)	0/1169.2 = 0.0% (0.0%, 0.0%)
Age ≥ 65 Communities of Color	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	35	0/1169.2 = 0.0% (0.0%, 0.0%)	0/1169.2 = 0.0% (0.0%, 0.0%)	0/1169.2 = 0.0% (0.0%, 0.0%)
Age ≥ 65 Communities of Color	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	44	81.3/83.2 = 97.8% (85.0%, 99.7%)	75.4/83.2 = 90.7% (76.9%, 96.6%)	68/83.2 = 81.8% (67.0%, 90.9%)
Age ≥ 65 Communities of Color	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	44	83.2/83.2 = 100.0% (100.0%, 100.0%)	83.2/83.2 = 100.0% (100.0%, 100.0%)	83.2/83.2 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Communities of Color	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	44	83.2/83.2 = 100.0% (100.0%, 100.0%)	83.2/83.2 = 100.0% (100.0%, 100.0%)	83.2/83.2 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Communities of Color	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	205	1061.4/1070.8 = 99.1% (96.5%, 99.8%)	1035.3/1070.8 = 96.7% (93.1%, 98.4%)	1016.6/1070.8 = 94.9% (91.0%, 97.2%)
Age ≥ 65 Communities of Color	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	205	1070.8/1070.8 = 100.0% (100.0%, 100.0%)	1070.8/1070.8 = 100.0% (100.0%, 100.0%)	1070.8/1070.8 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
Age ≥ 65 Communities of Color	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	205	1070.8/1070.8 = 100.0% (100.0%, 100.0%)	1070.8/1070.8 = 100.0% (100.0%, 100.0%)	1070.8/1070.8 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Communities of Color	Day 57	Vaccine	Positive	Anti N IgG (IU/ml) Anti RBD IgG (IU/ml)	51	99.2/99.2 = 100.0% (100.0%, 100.0%)	99.2/99.2 = 100.0% (100.0%, 100.0%)	97.3/99.2 = 98.1% (86.9%, 99.7%)
Age ≥ 65 Communities of Color	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	51	99.2/99.2 = 100.0% (100.0%, 100.0%)	99.2/99.2 = 100.0% (100.0%, 100.0%)	99.2/99.2 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Communities of Color	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	51	99.2/99.2 = 100.0% (100.0%, 100.0%)	99.2/99.2 = 100.0% (100.0%, 100.0%)	99.2/99.2 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Communities of Color	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	35	0/1169.2 = 0.0% (0.0%, 0.0%)	0/1169.2 = 0.0% (0.0%, 0.0%)	0/1169.2 = 0.0% (0.0%, 0.0%)
Age ≥ 65 Communities of Color	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	35	0/1169.2 = 0.0% (0.0%, 0.0%)	0/1169.2 = 0.0% (0.0%, 0.0%)	0/1169.2 = 0.0% (0.0%, 0.0%)
Age ≥ 65 Communities of Color	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	35	0/1169.2 = 0.0% (0.0%, 0.0%)	0/1169.2 = 0.0% (0.0%, 0.0%)	0/1169.2 = 0.0% (0.0%, 0.0%)
Age ≥ 65 Communities of Color	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	44	83.2/83.2 = 100.0% (100.0%, 100.0%)	83.2/83.2 = 100.0% (100.0%, 100.0%)	75.8/83.2 = 91.1% (78.0%, 96.7%)
Age ≥ 65 Communities of Color	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	44	83.2/83.2 = 100.0% (100.0%, 100.0%)	83.2/83.2 = 100.0% (100.0%, 100.0%)	83.2/83.2 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
Age ≥ 65 Communities of Color	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	44	83.2/83.2 = 100.0% (100.0%, 100.0%)	83.2/83.2 = 100.0% (100.0%, 100.0%)	83.2/83.2 = 100.0% (100.0%, 100.0%)
Age ≥ 65 White Non-Hispanic	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	175	1229.3/1288.2 = 95.4% (91.1%, 97.7%)	1170.4/1288.2 = 90.9% (85.5%, 94.3%)	1052.6/1288.2 = 81.7% (75.2%, 86.8%)
Age ≥ 65 White Non-Hispanic	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	175	1288.2/1288.2 = 100.0% (100.0%, 100.0%)	1288.2/1288.2 = 100.0% (100.0%, 100.0%)	1288.2/1288.2 = 100.0% (100.0%, 100.0%)
Age ≥ 65 White Non-Hispanic	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	175	1288.2/1288.2 = 100.0% (100.0%, 100.0%)	1288.2/1288.2 = 100.0% (100.0%, 100.0%)	1288.2/1288.2 = 100.0% (100.0%, 100.0%)
Age ≥ 65 White Non-Hispanic	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	64	132.7/134.8 = 98.4% (89.3%, 99.8%)	130.6/134.8 = 96.9% (88.0%, 99.2%)	128.5/134.8 = 95.3% (86.1%, 98.5%)
Age ≥ 65 White Non-Hispanic	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	64	134.8/134.8 = 100.0% (100.0%, 100.0%)	134.8/134.8 = 100.0% (100.0%, 100.0%)	134.8/134.8 = 100.0% (100.0%, 100.0%)
Age ≥ 65 White Non-Hispanic	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	64	134.8/134.8 = 100.0% (100.0%, 100.0%)	134.8/134.8 = 100.0% (100.0%, 100.0%)	134.8/134.8 = 100.0% (100.0%, 100.0%)
Age ≥ 65 White Non-Hispanic	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	32	0/1536.8 = 0.0% (0.0%, 0.0%)	0/1536.8 = 0.0% (0.0%, 0.0%)	0/1536.8 = 0.0% (0.0%, 0.0%)
Age ≥ 65 White Non-Hispanic	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	32	0/1536.8 = 0.0% (0.0%, 0.0%)	0/1536.8 = 0.0% (0.0%, 0.0%)	0/1536.8 = 0.0% (0.0%, 0.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
Age ≥ 65 White Non-Hispanic	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	32	0/1536.8 = 0.0% (0.0%, 0.0%)	0/1536.8 = 0.0% (0.0%, 0.0%)	0/1536.8 = 0.0% (0.0%, 0.0%)
Age ≥ 65 White Non-Hispanic	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	55	116.1/122.8 = 94.5% (84.0%, 98.3%)	105/122.8 = 85.5% (73.1%, 92.7%)	98.3/122.8 = 80.0% (67.0%, 88.7%)
Age ≥ 65 White Non-Hispanic	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	55	122.8/122.8 = 100.0% (100.0%, 100.0%)	122.8/122.8 = 100.0% (100.0%, 100.0%)	122.8/122.8 = 100.0% (100.0%, 100.0%)
Age ≥ 65 White Non-Hispanic	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	55	122.8/122.8 = 100.0% (100.0%, 100.0%)	122.8/122.8 = 100.0% (100.0%, 100.0%)	122.8/122.8 = 100.0% (100.0%, 100.0%)
Age ≥ 65 White Non-Hispanic	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	175	1273.5/1288.2 = 98.9% (95.5%, 99.7%)	1244/1288.2 = 96.6% (92.5%, 98.5%)	1207.2/1288.2 = 93.7% (89.0%, 96.5%)
Age ≥ 65 White Non-Hispanic	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	175	1288.2/1288.2 = 100.0% (100.0%, 100.0%)	1288.2/1288.2 = 100.0% (100.0%, 100.0%)	1288.2/1288.2 = 100.0% (100.0%, 100.0%)
Age ≥ 65 White Non-Hispanic	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	175	1288.2/1288.2 = 100.0% (100.0%, 100.0%)	1288.2/1288.2 = 100.0% (100.0%, 100.0%)	1288.2/1288.2 = 100.0% (100.0%, 100.0%)
Age ≥ 65 White Non-Hispanic	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	64	132.7/134.8 = 98.4% (89.3%, 99.8%)	132.7/134.8 = 98.4% (89.3%, 99.8%)	132.7/134.8 = 98.4% (89.3%, 99.8%)
Age ≥ 65 White Non-Hispanic	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	64	134.8/134.8 = 100.0% (100.0%, 100.0%)	134.8/134.8 = 100.0% (100.0%, 100.0%)	134.8/134.8 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% Greater than 2 × LLOQ	% Greater than 4 × LLOQ
Age ≥ 65 White Non-Hispanic	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	64	134.8/134.8 = 100.0% (100.0%, 100.0%)	134.8/134.8 = 100.0% (100.0%, 100.0%)	134.8/134.8 = 100.0% (100.0%, 100.0%)
Age ≥ 65 White Non-Hispanic	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	32	0/1536.8 = 0.0% (0.0%, 0.0%)	0/1536.8 = 0.0% (0.0%, 0.0%)	0/1536.8 = 0.0% (0.0%, 0.0%)
Age ≥ 65 White Non-Hispanic	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	32	0/1536.8 = 0.0% (0.0%, 0.0%)	0/1536.8 = 0.0% (0.0%, 0.0%)	0/1536.8 = 0.0% (0.0%, 0.0%)
Age ≥ 65 White Non-Hispanic	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	32	0/1536.8 = 0.0% (0.0%, 0.0%)	0/1536.8 = 0.0% (0.0%, 0.0%)	0/1536.8 = 0.0% (0.0%, 0.0%)
Age ≥ 65 White Non-Hispanic	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	55	122.8/122.8 = 100.0% (100.0%, 100.0%)	120.6/122.8 = 98.2% (87.6%, 99.8%)	113.9/122.8 = 92.7% (81.8%, 97.3%)
Age ≥ 65 White Non-Hispanic	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	55	122.8/122.8 = 100.0% (100.0%, 100.0%)	122.8/122.8 = 100.0% (100.0%, 100.0%)	122.8/122.8 = 100.0% (100.0%, 100.0%)
Age ≥ 65 White Non-Hispanic	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	55	122.8/122.8 = 100.0% (100.0%, 100.0%)	122.8/122.8 = 100.0% (100.0%, 100.0%)	122.8/122.8 = 100.0% (100.0%, 100.0%)

Binding Antibody Responders are defined as participants who had baseline values below the LLOQ with detectable antibody concentration above the assay LLOQ, or as participants with baseline values above the LLOQ with a 4-fold increase in antibody concentration.

Percentages are calculated for the whole per-protocol group/subgroup, using inverse probability weighting.

LLOQ = 4.49, 5.77, 1.80 IU/ml for N, RBD, Spike, respectively.

1.5 Percentage of responders, and participants with 2-fold rise, and participants with 4-fold rise for binding antibody markers

Table 5a. Percentage of responders, and participants with 2-fold rise, and participants with 4-fold rise for binding antibody markers by All participants

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
All participants								
	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	729	9844.7/11196 = 87.9% (84.0%, 91.0%)	9844.7/11196 = 87.9% (84.0%, 91.0%)	8814.9/11196 = 78.7% (74.2%, 82.6%)
	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	729	11196/11196 = 100.0% (100.0%, 100.0%)	11196/11196 = 100.0% (100.0%, 100.0%)	11179.9/11196 = 99.9% (99.4%, 100.0%)
	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	729	11196/11196 = 100.0% (100.0%, 100.0%)	11196/11196 = 100.0% (100.0%, 100.0%)	11196/11196 = 100.0% (100.0%, 100.0%)
	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	235	1092/1142 = 95.6% (92.2%, 97.6%)	1092/1142 = 95.6% (92.2%, 97.6%)	1069/1142 = 93.6% (89.9%, 96.0%)
	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	235	1142/1142 = 100.0% (100.0%, 100.0%)	1142/1142 = 100.0% (100.0%, 100.0%)	1138.6/1142 = 99.7% (97.9%, 100.0%)
	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	235	1142/1142 = 100.0% (100.0%, 100.0%)	1142/1142 = 100.0% (100.0%, 100.0%)	1142/1142 = 100.0% (100.0%, 100.0%)
	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	130	0/11196 = 0.0% (0.0%, 0.0%)	0/11196 = 0.0% (0.0%, 0.0%)	0/11196 = 0.0% (0.0%, 0.0%)
	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	130	0/11196 = 0.0% (0.0%, 0.0%)	0/11196 = 0.0% (0.0%, 0.0%)	0/11196 = 0.0% (0.0%, 0.0%)
	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	130	0/11196 = 0.0% (0.0%, 0.0%)	0/11196 = 0.0% (0.0%, 0.0%)	0/11196 = 0.0% (0.0%, 0.0%)
	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	221	927.3/1073 = 86.4% (79.0%, 91.5%)	927.3/1073 = 86.4% (79.0%, 91.5%)	757.2/1073 = 70.6% (61.9%, 78.0%)
	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	221	1064.7/1073 = 99.2% (94.6%, 99.9%)	1064.7/1073 = 99.2% (94.6%, 99.9%)	1064.7/1073 = 99.2% (94.6%, 99.9%)
	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	221	1073/1073 = 100.0% (100.0%, 100.0%)	1073/1073 = 100.0% (100.0%, 100.0%)	1073/1073 = 100.0% (100.0%, 100.0%)
	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	729	10722/11196 = 95.8% (93.1%, 97.4%)	10722/11196 = 95.8% (93.1%, 97.4%)	10127.5/11196 = 90.5% (86.9%, 93.1%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	729	11196/11196 = 100.0% (100.0%, 100.0%)	11196/11196 = 100.0% (100.0%, 100.0%)	11196/11196 = 100.0% (100.0%, 100.0%)
	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	729	11196/11196 = 100.0% (100.0%, 100.0%)	11196/11196 = 100.0% (100.0%, 100.0%)	11196/11196 = 100.0% (100.0%, 100.0%)
	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	235	1115.7/1142 = 97.7% (94.6%, 99.0%)	1115.7/1142 = 97.7% (94.6%, 99.0%)	1100.6/1142 = 96.4% (91.2%, 98.5%)
	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	235	1142/1142 = 100.0% (100.0%, 100.0%)	1142/1142 = 100.0% (100.0%, 100.0%)	1138.6/1142 = 99.7% (97.9%, 100.0%)
	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	235	1142/1142 = 100.0% (100.0%, 100.0%)	1142/1142 = 100.0% (100.0%, 100.0%)	1142/1142 = 100.0% (100.0%, 100.0%)
	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	130	0/11196 = 0.0% (0.0%, 0.0%)	0/11196 = 0.0% (0.0%, 0.0%)	0/11196 = 0.0% (0.0%, 0.0%)
	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	130	0/11196 = 0.0% (0.0%, 0.0%)	0/11196 = 0.0% (0.0%, 0.0%)	0/11196 = 0.0% (0.0%, 0.0%)
	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	130	0/11196 = 0.0% (0.0%, 0.0%)	0/11196 = 0.0% (0.0%, 0.0%)	0/11196 = 0.0% (0.0%, 0.0%)
	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	221	1014.2/1073 = 94.5% (88.2%, 97.5%)	1014.2/1073 = 94.5% (88.2%, 97.5%)	982/1073 = 91.5% (84.9%, 95.4%)
	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	221	1073/1073 = 100.0% (100.0%, 100.0%)	1073/1073 = 100.0% (100.0%, 100.0%)	1073/1073 = 100.0% (100.0%, 100.0%)
	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	221	1073/1073 = 100.0% (100.0%, 100.0%)	1073/1073 = 100.0% (100.0%, 100.0%)	1073/1073 = 100.0% (100.0%, 100.0%)

Binding Antibody Responders are defined as participants who had baseline values below the LLOQ with detectable antibody concentration above the assay LLOQ, or as participants with baseline values above the LLOQ with a 4-fold increase in antibody concentration.

Percentages are calculated for the whole per-protocol group/subgroup, using inverse probability weighting.

LLOQ = 4.49, 5.77, 1.80 IU/ml for N, RBD, Spike, respectively.

Table 5b. Percentage of responders, and participants with 2-fold rise, and participants with 4-fold rise for binding antibody markers by Age

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Age								
Age < 65	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	349	7582.8/8837 = 85.8% (80.9%, 89.6%)	7582.8/8837 = 85.8% (80.9%, 89.6%)	6654.7/8837 = 75.3% (69.7%, 80.2%)
Age < 65	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	349	8837/8837 = 100.0% (100.0%, 100.0%)	8837/8837 = 100.0% (100.0%, 100.0%)	8820.9/8837 = 99.8% (99.3%, 100.0%)
Age < 65	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	349	8837/8837 = 100.0% (100.0%, 100.0%)	8837/8837 = 100.0% (100.0%, 100.0%)	8837/8837 = 100.0% (100.0%, 100.0%)
Age < 65	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	120	860.1/908 = 94.7% (90.4%, 97.2%)	860.1/908 = 94.7% (90.4%, 97.2%)	843.2/908 = 92.9% (88.2%, 95.8%)
Age < 65	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	120	908/908 = 100.0% (100.0%, 100.0%)	908/908 = 100.0% (100.0%, 100.0%)	904.6/908 = 99.6% (97.3%, 99.9%)
Age < 65	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	120	908/908 = 100.0% (100.0%, 100.0%)	908/908 = 100.0% (100.0%, 100.0%)	908/908 = 100.0% (100.0%, 100.0%)
Age < 65	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	63	0/8490 = 0.0% (0.0%, 0.0%)	0/8490 = 0.0% (0.0%, 0.0%)	0/8490 = 0.0% (0.0%, 0.0%)
Age < 65	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	63	0/8490 = 0.0% (0.0%, 0.0%)	0/8490 = 0.0% (0.0%, 0.0%)	0/8490 = 0.0% (0.0%, 0.0%)
Age < 65	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	63	0/8490 = 0.0% (0.0%, 0.0%)	0/8490 = 0.0% (0.0%, 0.0%)	0/8490 = 0.0% (0.0%, 0.0%)
Age < 65	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	122	729.9/867 = 84.2% (75.0%, 90.4%)	729.9/867 = 84.2% (75.0%, 90.4%)	576.8/867 = 66.5% (56.0%, 75.6%)
Age < 65	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	122	858.7/867 = 99.0% (93.3%, 99.9%)	858.7/867 = 99.0% (93.3%, 99.9%)	858.7/867 = 99.0% (93.3%, 99.9%)
Age < 65	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	122	867/867 = 100.0% (100.0%, 100.0%)	867/867 = 100.0% (100.0%, 100.0%)	867/867 = 100.0% (100.0%, 100.0%)
Age < 65	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	349	8387.1/8837 = 94.9% (91.5%, 97.0%)	8387.1/8837 = 94.9% (91.5%, 97.0%)	7848.2/8837 = 88.8% (84.3%, 92.1%)
Age < 65	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	349	8837/8837 = 100.0% (100.0%, 100.0%)	8837/8837 = 100.0% (100.0%, 100.0%)	8837/8837 = 100.0% (100.0%, 100.0%)
Age < 65	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	349	8837/8837 = 100.0% (100.0%, 100.0%)	8837/8837 = 100.0% (100.0%, 100.0%)	8837/8837 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Age < 65	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	120	883.8/908 = 97.3% (93.3%, 99.0%)	883.8/908 = 97.3% (93.3%, 99.0%)	868.7/908 = 95.7% (89.1%, 98.4%)
Age < 65	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	120	908/908 = 100.0% (100.0%, 100.0%)	908/908 = 100.0% (100.0%, 100.0%)	904.6/908 = 99.6% (97.3%, 99.9%)
Age < 65	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	120	908/908 = 100.0% (100.0%, 100.0%)	908/908 = 100.0% (100.0%, 100.0%)	908/908 = 100.0% (100.0%, 100.0%)
Age < 65	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	63	0/8490 = 0.0% (0.0%, 0.0%)	0/8490 = 0.0% (0.0%, 0.0%)	0/8490 = 0.0% (0.0%, 0.0%)
Age < 65	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	63	0/8490 = 0.0% (0.0%, 0.0%)	0/8490 = 0.0% (0.0%, 0.0%)	0/8490 = 0.0% (0.0%, 0.0%)
Age < 65	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	63	0/8490 = 0.0% (0.0%, 0.0%)	0/8490 = 0.0% (0.0%, 0.0%)	0/8490 = 0.0% (0.0%, 0.0%)
Age < 65	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	122	808.2/867 = 93.2% (85.4%, 97.0%)	808.2/867 = 93.2% (85.4%, 97.0%)	778.3/867 = 89.8% (81.5%, 94.6%)
Age < 65	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	122	867/867 = 100.0% (100.0%, 100.0%)	867/867 = 100.0% (100.0%, 100.0%)	867/867 = 100.0% (100.0%, 100.0%)
Age < 65	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	122	867/867 = 100.0% (100.0%, 100.0%)	867/867 = 100.0% (100.0%, 100.0%)	867/867 = 100.0% (100.0%, 100.0%)
Age ≥ 65	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	380	2261.9/2359 = 95.9% (93.2%, 97.5%)	2261.9/2359 = 95.9% (93.2%, 97.5%)	2160.2/2359 = 91.6% (88.2%, 94.1%)
Age ≥ 65	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	380	2359/2359 = 100.0% (100.0%, 100.0%)	2359/2359 = 100.0% (100.0%, 100.0%)	2359/2359 = 100.0% (100.0%, 100.0%)
Age ≥ 65	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	380	2359/2359 = 100.0% (100.0%, 100.0%)	2359/2359 = 100.0% (100.0%, 100.0%)	2359/2359 = 100.0% (100.0%, 100.0%)
Age ≥ 65	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	115	231.9/234 = 99.1% (93.7%, 99.9%)	231.9/234 = 99.1% (93.7%, 99.9%)	225.8/234 = 96.5% (90.9%, 98.7%)
Age ≥ 65	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	115	234/234 = 100.0% (100.0%, 100.0%)	234/234 = 100.0% (100.0%, 100.0%)	234/234 = 100.0% (100.0%, 100.0%)
Age ≥ 65	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	115	234/234 = 100.0% (100.0%, 100.0%)	234/234 = 100.0% (100.0%, 100.0%)	234/234 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Age \geq 65	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	67	0/2706 = 0.0% (0.0%, 0.0%)	0/2706 = 0.0% (0.0%, 0.0%)	0/2706 = 0.0% (0.0%, 0.0%)
Age \geq 65	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	67	0/2706 = 0.0% (0.0%, 0.0%)	0/2706 = 0.0% (0.0%, 0.0%)	0/2706 = 0.0% (0.0%, 0.0%)
Age \geq 65	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	67	0/2706 = 0.0% (0.0%, 0.0%)	0/2706 = 0.0% (0.0%, 0.0%)	0/2706 = 0.0% (0.0%, 0.0%)
Age \geq 65	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	99	197.5/206 = 95.9% (89.3%, 98.5%)	197.5/206 = 95.9% (89.3%, 98.5%)	180.4/206 = 87.6% (79.2%, 92.9%)
Age \geq 65	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	99	206/206 = 100.0% (100.0%, 100.0%)	206/206 = 100.0% (100.0%, 100.0%)	206/206 = 100.0% (100.0%, 100.0%)
Age \geq 65	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	99	206/206 = 100.0% (100.0%, 100.0%)	206/206 = 100.0% (100.0%, 100.0%)	206/206 = 100.0% (100.0%, 100.0%)
Age \geq 65	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	380	2334.9/2359 = 99.0% (97.2%, 99.6%)	2334.9/2359 = 99.0% (97.2%, 99.6%)	2279.3/2359 = 96.6% (94.2%, 98.1%)
Age \geq 65	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	380	2359/2359 = 100.0% (100.0%, 100.0%)	2359/2359 = 100.0% (100.0%, 100.0%)	2359/2359 = 100.0% (100.0%, 100.0%)
Age \geq 65	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	380	2359/2359 = 100.0% (100.0%, 100.0%)	2359/2359 = 100.0% (100.0%, 100.0%)	2359/2359 = 100.0% (100.0%, 100.0%)
Age \geq 65	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	115	231.9/234 = 99.1% (93.7%, 99.9%)	231.9/234 = 99.1% (93.7%, 99.9%)	231.9/234 = 99.1% (93.7%, 99.9%)
Age \geq 65	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	115	234/234 = 100.0% (100.0%, 100.0%)	234/234 = 100.0% (100.0%, 100.0%)	234/234 = 100.0% (100.0%, 100.0%)
Age \geq 65	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	115	234/234 = 100.0% (100.0%, 100.0%)	234/234 = 100.0% (100.0%, 100.0%)	234/234 = 100.0% (100.0%, 100.0%)
Age \geq 65	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	67	0/2706 = 0.0% (0.0%, 0.0%)	0/2706 = 0.0% (0.0%, 0.0%)	0/2706 = 0.0% (0.0%, 0.0%)
Age \geq 65	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	67	0/2706 = 0.0% (0.0%, 0.0%)	0/2706 = 0.0% (0.0%, 0.0%)	0/2706 = 0.0% (0.0%, 0.0%)
Age \geq 65	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	67	0/2706 = 0.0% (0.0%, 0.0%)	0/2706 = 0.0% (0.0%, 0.0%)	0/2706 = 0.0% (0.0%, 0.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Age \geq 65	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	99	206/206 = 100.0% (100.0%, 100.0%)	206/206 = 100.0% (100.0%, 100.0%)	203.8/206 = 98.9% (92.5%, 99.9%)
Age \geq 65	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	99	206/206 = 100.0% (100.0%, 100.0%)	206/206 = 100.0% (100.0%, 100.0%)	206/206 = 100.0% (100.0%, 100.0%)
Age \geq 65	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	99	206/206 = 100.0% (100.0%, 100.0%)	206/206 = 100.0% (100.0%, 100.0%)	206/206 = 100.0% (100.0%, 100.0%)

Binding Antibody Responders are defined as participants who had baseline values below the LLOQ with detectable antibody concentration above the assay LLOQ, or as participants with baseline values above the LLOQ with a 4-fold increase in antibody concentration.

Percentages are calculated for the whole per-protocol group/subgroup, using inverse probability weighting.

LLOQ = 4.49, 5.77, 1.80 IU/ml for N, RBD, Spike, respectively.

Table 5c. Percentage of responders, and participants with 2-fold rise, and participants with 4-fold rise for binding antibody markers by Risk for Severe Covid-19

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Risk for Severe Covid-19								
At-risk	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	386	2819.4/3139.9 = 89.8% (86.0%, 92.6%)	2819.4/3139.9 = 89.8% (86.0%, 92.6%)	2464.1/3139.9 = 78.5% (73.7%, 82.6%)
At-risk	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	386	3139.9/3139.9 = 100.0% (100.0%, 100.0%)	3139.9/3139.9 = 100.0% (100.0%, 100.0%)	3123.9/3139.9 = 99.5% (98.0%, 99.9%)
At-risk	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	386	3139.9/3139.9 = 100.0% (100.0%, 100.0%)	3139.9/3139.9 = 100.0% (100.0%, 100.0%)	3139.9/3139.9 = 100.0% (100.0%, 100.0%)
At-risk	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	105	259.6/288.4 = 90.0% (81.7%, 94.8%)	259.6/288.4 = 90.0% (81.7%, 94.8%)	245.6/288.4 = 85.1% (76.2%, 91.1%)
At-risk	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	105	288.4/288.4 = 100.0% (100.0%, 100.0%)	288.4/288.4 = 100.0% (100.0%, 100.0%)	285/288.4 = 98.8% (91.8%, 99.8%)
At-risk	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	105	288.4/288.4 = 100.0% (100.0%, 100.0%)	288.4/288.4 = 100.0% (100.0%, 100.0%)	288.4/288.4 = 100.0% (100.0%, 100.0%)
At-risk	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	67	0/3474.5 = 0.0% (0.0%, 0.0%)	0/3474.5 = 0.0% (0.0%, 0.0%)	0/3474.5 = 0.0% (0.0%, 0.0%)
At-risk	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	67	0/3474.5 = 0.0% (0.0%, 0.0%)	0/3474.5 = 0.0% (0.0%, 0.0%)	0/3474.5 = 0.0% (0.0%, 0.0%)
At-risk	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	67	0/3474.5 = 0.0% (0.0%, 0.0%)	0/3474.5 = 0.0% (0.0%, 0.0%)	0/3474.5 = 0.0% (0.0%, 0.0%)
At-risk	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	90	231.5/247.2 = 93.6% (85.4%, 97.4%)	231.5/247.2 = 93.6% (85.4%, 97.4%)	210.1/247.2 = 85.0% (75.5%, 91.2%)
At-risk	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	90	247.2/247.2 = 100.0% (100.0%, 100.0%)	247.2/247.2 = 100.0% (100.0%, 100.0%)	247.2/247.2 = 100.0% (100.0%, 100.0%)
At-risk	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	90	247.2/247.2 = 100.0% (100.0%, 100.0%)	247.2/247.2 = 100.0% (100.0%, 100.0%)	247.2/247.2 = 100.0% (100.0%, 100.0%)
At-risk	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	386	2993.2/3139.9 = 95.3% (92.4%, 97.2%)	2993.2/3139.9 = 95.3% (92.4%, 97.2%)	2859/3139.9 = 91.1% (87.5%, 93.7%)
At-risk	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	386	3139.9/3139.9 = 100.0% (100.0%, 100.0%)	3139.9/3139.9 = 100.0% (100.0%, 100.0%)	3139.9/3139.9 = 100.0% (100.0%, 100.0%)
At-risk	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	386	3139.9/3139.9 = 100.0% (100.0%, 100.0%)	3139.9/3139.9 = 100.0% (100.0%, 100.0%)	3139.9/3139.9 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
At-risk	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	105	278.4/288.4 = 96.5% (89.5%, 98.9%)	278.4/288.4 = 96.5% (89.5%, 98.9%)	278.4/288.4 = 96.5% (89.5%, 98.9%)
At-risk	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	105	288.4/288.4 = 100.0% (100.0%, 100.0%)	288.4/288.4 = 100.0% (100.0%, 100.0%)	285/288.4 = 98.8% (91.8%, 99.8%)
At-risk	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	105	288.4/288.4 = 100.0% (100.0%, 100.0%)	288.4/288.4 = 100.0% (100.0%, 100.0%)	288.4/288.4 = 100.0% (100.0%, 100.0%)
At-risk	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	67	0/3474.5 = 0.0% (0.0%, 0.0%)	0/3474.5 = 0.0% (0.0%, 0.0%)	0/3474.5 = 0.0% (0.0%, 0.0%)
At-risk	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	67	0/3474.5 = 0.0% (0.0%, 0.0%)	0/3474.5 = 0.0% (0.0%, 0.0%)	0/3474.5 = 0.0% (0.0%, 0.0%)
At-risk	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	67	0/3474.5 = 0.0% (0.0%, 0.0%)	0/3474.5 = 0.0% (0.0%, 0.0%)	0/3474.5 = 0.0% (0.0%, 0.0%)
At-risk	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	90	240.8/247.2 = 97.4% (90.0%, 99.4%)	240.8/247.2 = 97.4% (90.0%, 99.4%)	231.1/247.2 = 93.5% (85.2%, 97.3%)
At-risk	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	90	247.2/247.2 = 100.0% (100.0%, 100.0%)	247.2/247.2 = 100.0% (100.0%, 100.0%)	247.2/247.2 = 100.0% (100.0%, 100.0%)
At-risk	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	90	247.2/247.2 = 100.0% (100.0%, 100.0%)	247.2/247.2 = 100.0% (100.0%, 100.0%)	247.2/247.2 = 100.0% (100.0%, 100.0%)
Not at-risk	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	343	7025.3/8056.1 = 87.2% (81.8%, 91.2%)	7025.3/8056.1 = 87.2% (81.8%, 91.2%)	6350.8/8056.1 = 78.8% (72.7%, 83.9%)
Not at-risk	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	343	8056.1/8056.1 = 100.0% (100.0%, 100.0%)	8056.1/8056.1 = 100.0% (100.0%, 100.0%)	8056.1/8056.1 = 100.0% (100.0%, 100.0%)
Not at-risk	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	343	8056.1/8056.1 = 100.0% (100.0%, 100.0%)	8056.1/8056.1 = 100.0% (100.0%, 100.0%)	8056.1/8056.1 = 100.0% (100.0%, 100.0%)
Not at-risk	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	130	832.4/853.6 = 97.5% (92.7%, 99.2%)	832.4/853.6 = 97.5% (92.7%, 99.2%)	823.4/853.6 = 96.5% (91.6%, 98.6%)
Not at-risk	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	130	853.6/853.6 = 100.0% (100.0%, 100.0%)	853.6/853.6 = 100.0% (100.0%, 100.0%)	853.6/853.6 = 100.0% (100.0%, 100.0%)
Not at-risk	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	130	853.6/853.6 = 100.0% (100.0%, 100.0%)	853.6/853.6 = 100.0% (100.0%, 100.0%)	853.6/853.6 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Not at-risk	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	63	0/7721.5 = 0.0% (0.0%, 0.0%)	0/7721.5 = 0.0% (0.0%, 0.0%)	0/7721.5 = 0.0% (0.0%, 0.0%)
Not at-risk	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	63	0/7721.5 = 0.0% (0.0%, 0.0%)	0/7721.5 = 0.0% (0.0%, 0.0%)	0/7721.5 = 0.0% (0.0%, 0.0%)
Not at-risk	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	63	0/7721.5 = 0.0% (0.0%, 0.0%)	0/7721.5 = 0.0% (0.0%, 0.0%)	0/7721.5 = 0.0% (0.0%, 0.0%)
Not at-risk	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	131	695.8/825.8 = 84.3% (74.7%, 90.7%)	695.8/825.8 = 84.3% (74.7%, 90.7%)	547.1/825.8 = 66.3% (55.3%, 75.7%)
Not at-risk	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	131	817.5/825.8 = 99.0% (93.0%, 99.9%)	817.5/825.8 = 99.0% (93.0%, 99.9%)	817.5/825.8 = 99.0% (93.0%, 99.9%)
Not at-risk	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	131	825.8/825.8 = 100.0% (100.0%, 100.0%)	825.8/825.8 = 100.0% (100.0%, 100.0%)	825.8/825.8 = 100.0% (100.0%, 100.0%)
Not at-risk	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	343	7728.8/8056.1 = 95.9% (92.0%, 98.0%)	7728.8/8056.1 = 95.9% (92.0%, 98.0%)	7268.5/8056.1 = 90.2% (85.3%, 93.6%)
Not at-risk	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	343	8056.1/8056.1 = 100.0% (100.0%, 100.0%)	8056.1/8056.1 = 100.0% (100.0%, 100.0%)	8056.1/8056.1 = 100.0% (100.0%, 100.0%)
Not at-risk	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	343	8056.1/8056.1 = 100.0% (100.0%, 100.0%)	8056.1/8056.1 = 100.0% (100.0%, 100.0%)	8056.1/8056.1 = 100.0% (100.0%, 100.0%)
Not at-risk	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	130	837.3/853.6 = 98.1% (93.7%, 99.4%)	837.3/853.6 = 98.1% (93.7%, 99.4%)	822.2/853.6 = 96.3% (88.9%, 98.9%)
Not at-risk	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	130	853.6/853.6 = 100.0% (100.0%, 100.0%)	853.6/853.6 = 100.0% (100.0%, 100.0%)	853.6/853.6 = 100.0% (100.0%, 100.0%)
Not at-risk	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	130	853.6/853.6 = 100.0% (100.0%, 100.0%)	853.6/853.6 = 100.0% (100.0%, 100.0%)	853.6/853.6 = 100.0% (100.0%, 100.0%)
Not at-risk	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	63	0/7721.5 = 0.0% (0.0%, 0.0%)	0/7721.5 = 0.0% (0.0%, 0.0%)	0/7721.5 = 0.0% (0.0%, 0.0%)
Not at-risk	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	63	0/7721.5 = 0.0% (0.0%, 0.0%)	0/7721.5 = 0.0% (0.0%, 0.0%)	0/7721.5 = 0.0% (0.0%, 0.0%)
Not at-risk	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	63	0/7721.5 = 0.0% (0.0%, 0.0%)	0/7721.5 = 0.0% (0.0%, 0.0%)	0/7721.5 = 0.0% (0.0%, 0.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Not at-risk	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	131	773.4/825.8 = 93.7% (85.3%, 97.4%)	773.4/825.8 = 93.7% (85.3%, 97.4%)	750.9/825.8 = 90.9% (82.1%, 95.6%)
Not at-risk	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	131	825.8/825.8 = 100.0% (100.0%, 100.0%)	825.8/825.8 = 100.0% (100.0%, 100.0%)	825.8/825.8 = 100.0% (100.0%, 100.0%)
Not at-risk	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	131	825.8/825.8 = 100.0% (100.0%, 100.0%)	825.8/825.8 = 100.0% (100.0%, 100.0%)	825.8/825.8 = 100.0% (100.0%, 100.0%)

Binding Antibody Responders are defined as participants who had baseline values below the LLOQ with detectable antibody concentration above the assay LLOQ, or as participants with baseline values above the LLOQ with a 4-fold increase in antibody concentration.

Percentages are calculated for the whole per-protocol group/subgroup, using inverse probability weighting.

LLOQ = 4.49, 5.77, 1.80 IU/ml for N, RBD, Spike, respectively.

Table 5d. Percentage of responders, and participants with 2-fold rise, and participants with 4-fold rise for binding antibody markers by Age, Risk for Severe Covid-19

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Age, Risk for Severe Covid-19								
Age < 65 At-risk	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	179	1604.4/1862 = 86.2% (80.3%, 90.5%)	1604.4/1862 = 86.2% (80.3%, 90.5%)	1316.7/1862 = 70.7% (63.4%, 77.1%)
Age < 65 At-risk	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	179	1862/1862 = 100.0% (100.0%, 100.0%)	1862/1862 = 100.0% (100.0%, 100.0%)	1845.9/1862 = 99.1% (96.6%, 99.8%)
Age < 65 At-risk	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	179	1862/1862 = 100.0% (100.0%, 100.0%)	1862/1862 = 100.0% (100.0%, 100.0%)	1862/1862 = 100.0% (100.0%, 100.0%)
Age < 65 At-risk	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	57	163.3/190 = 85.9% (73.8%, 93.0%)	163.3/190 = 85.9% (73.8%, 93.0%)	153.5/190 = 80.8% (68.0%, 89.3%)
Age < 65 At-risk	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	57	190/190 = 100.0% (100.0%, 100.0%)	190/190 = 100.0% (100.0%, 100.0%)	186.6/190 = 98.2% (87.6%, 99.8%)
Age < 65 At-risk	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	57	190/190 = 100.0% (100.0%, 100.0%)	190/190 = 100.0% (100.0%, 100.0%)	190/190 = 100.0% (100.0%, 100.0%)
Age < 65 At-risk	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	32	0/2086 = 0.0% (0.0%, 0.0%)	0/2086 = 0.0% (0.0%, 0.0%)	0/2086 = 0.0% (0.0%, 0.0%)
Age < 65 At-risk	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	32	0/2086 = 0.0% (0.0%, 0.0%)	0/2086 = 0.0% (0.0%, 0.0%)	0/2086 = 0.0% (0.0%, 0.0%)
Age < 65 At-risk	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	32	0/2086 = 0.0% (0.0%, 0.0%)	0/2086 = 0.0% (0.0%, 0.0%)	0/2086 = 0.0% (0.0%, 0.0%)
Age < 65 At-risk	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	56	158.3/174 = 91.0% (79.6%, 96.3%)	158.3/174 = 91.0% (79.6%, 96.3%)	145.8/174 = 83.8% (71.2%, 91.5%)
Age < 65 At-risk	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	56	174/174 = 100.0% (100.0%, 100.0%)	174/174 = 100.0% (100.0%, 100.0%)	174/174 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Age < 65 At-risk	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	56	174/174 = 100.0% (100.0%, 100.0%)	174/174 = 100.0% (100.0%, 100.0%)	174/174 = 100.0% (100.0%, 100.0%)
Age < 65 At-risk	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	179	1739.3/1862 = 93.4% (88.6%, 96.3%)	1739.3/1862 = 93.4% (88.6%, 96.3%)	1644/1862 = 88.3% (82.7%, 92.3%)
Age < 65 At-risk	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	179	1862/1862 = 100.0% (100.0%, 100.0%)	1862/1862 = 100.0% (100.0%, 100.0%)	1862/1862 = 100.0% (100.0%, 100.0%)
Age < 65 At-risk	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	179	1862/1862 = 100.0% (100.0%, 100.0%)	1862/1862 = 100.0% (100.0%, 100.0%)	1862/1862 = 100.0% (100.0%, 100.0%)
Age < 65 At-risk	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	57	179.9/190 = 94.7% (84.3%, 98.4%)	179.9/190 = 94.7% (84.3%, 98.4%)	179.9/190 = 94.7% (84.3%, 98.4%)
Age < 65 At-risk	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	57	190/190 = 100.0% (100.0%, 100.0%)	190/190 = 100.0% (100.0%, 100.0%)	186.6/190 = 98.2% (87.6%, 99.8%)
Age < 65 At-risk	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	57	190/190 = 100.0% (100.0%, 100.0%)	190/190 = 100.0% (100.0%, 100.0%)	190/190 = 100.0% (100.0%, 100.0%)
Age < 65 At-risk	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	32	0/2086 = 0.0% (0.0%, 0.0%)	0/2086 = 0.0% (0.0%, 0.0%)	0/2086 = 0.0% (0.0%, 0.0%)
Age < 65 At-risk	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	32	0/2086 = 0.0% (0.0%, 0.0%)	0/2086 = 0.0% (0.0%, 0.0%)	0/2086 = 0.0% (0.0%, 0.0%)
Age < 65 At-risk	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	32	0/2086 = 0.0% (0.0%, 0.0%)	0/2086 = 0.0% (0.0%, 0.0%)	0/2086 = 0.0% (0.0%, 0.0%)
Age < 65 At-risk	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	56	167.6/174 = 96.3% (85.9%, 99.1%)	167.6/174 = 96.3% (85.9%, 99.1%)	157.9/174 = 90.7% (79.3%, 96.2%)
Age < 65 At-risk	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	56	174/174 = 100.0% (100.0%, 100.0%)	174/174 = 100.0% (100.0%, 100.0%)	174/174 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Age < 65 At-risk	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	56	174/174 = 100.0% (100.0%, 100.0%)	174/174 = 100.0% (100.0%, 100.0%)	174/174 = 100.0% (100.0%, 100.0%)
Age < 65 Not at-risk	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	170	5978.4/6975 = 85.7% (79.5%, 90.3%)	5978.4/6975 = 85.7% (79.5%, 90.3%)	5338/6975 = 76.5% (69.5%, 82.4%)
Age < 65 Not at-risk	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	170	6975/6975 = 100.0% (100.0%, 100.0%)	6975/6975 = 100.0% (100.0%, 100.0%)	6975/6975 = 100.0% (100.0%, 100.0%)
Age < 65 Not at-risk	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	170	6975/6975 = 100.0% (100.0%, 100.0%)	6975/6975 = 100.0% (100.0%, 100.0%)	6975/6975 = 100.0% (100.0%, 100.0%)
Age < 65 Not at-risk	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	63	696.8/718 = 97.0% (91.2%, 99.0%)	696.8/718 = 97.0% (91.2%, 99.0%)	689.7/718 = 96.1% (90.1%, 98.5%)
Age < 65 Not at-risk	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	63	718/718 = 100.0% (100.0%, 100.0%)	718/718 = 100.0% (100.0%, 100.0%)	718/718 = 100.0% (100.0%, 100.0%)
Age < 65 Not at-risk	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	63	718/718 = 100.0% (100.0%, 100.0%)	718/718 = 100.0% (100.0%, 100.0%)	718/718 = 100.0% (100.0%, 100.0%)
Age < 65 Not at-risk	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	31	0/6404 = 0.0% (0.0%, 0.0%)	0/6404 = 0.0% (0.0%, 0.0%)	0/6404 = 0.0% (0.0%, 0.0%)
Age < 65 Not at-risk	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	31	0/6404 = 0.0% (0.0%, 0.0%)	0/6404 = 0.0% (0.0%, 0.0%)	0/6404 = 0.0% (0.0%, 0.0%)
Age < 65 Not at-risk	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	31	0/6404 = 0.0% (0.0%, 0.0%)	0/6404 = 0.0% (0.0%, 0.0%)	0/6404 = 0.0% (0.0%, 0.0%)
Age < 65 Not at-risk	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	66	571.6/693 = 82.5% (71.0%, 90.1%)	571.6/693 = 82.5% (71.0%, 90.1%)	431/693 = 62.2% (49.4%, 73.5%)
Age < 65 Not at-risk	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	66	684.7/693 = 98.8% (91.6%, 99.8%)	684.7/693 = 98.8% (91.6%, 99.8%)	684.7/693 = 98.8% (91.6%, 99.8%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Age < 65 Not at-risk	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	66	693/693 = 100.0% (100.0%, 100.0%)	693/693 = 100.0% (100.0%, 100.0%)	693/693 = 100.0% (100.0%, 100.0%)
Age < 65 Not at-risk	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	170	6647.7/6975 = 95.3% (90.8%, 97.7%)	6647.7/6975 = 95.3% (90.8%, 97.7%)	6204.2/6975 = 88.9% (83.2%, 92.9%)
Age < 65 Not at-risk	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	170	6975/6975 = 100.0% (100.0%, 100.0%)	6975/6975 = 100.0% (100.0%, 100.0%)	6975/6975 = 100.0% (100.0%, 100.0%)
Age < 65 Not at-risk	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	170	6975/6975 = 100.0% (100.0%, 100.0%)	6975/6975 = 100.0% (100.0%, 100.0%)	6975/6975 = 100.0% (100.0%, 100.0%)
Age < 65 Not at-risk	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	63	703.9/718 = 98.0% (92.3%, 99.5%)	703.9/718 = 98.0% (92.3%, 99.5%)	688.8/718 = 95.9% (86.7%, 98.8%)
Age < 65 Not at-risk	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	63	718/718 = 100.0% (100.0%, 100.0%)	718/718 = 100.0% (100.0%, 100.0%)	718/718 = 100.0% (100.0%, 100.0%)
Age < 65 Not at-risk	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	63	718/718 = 100.0% (100.0%, 100.0%)	718/718 = 100.0% (100.0%, 100.0%)	718/718 = 100.0% (100.0%, 100.0%)
Age < 65 Not at-risk	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	31	0/6404 = 0.0% (0.0%, 0.0%)	0/6404 = 0.0% (0.0%, 0.0%)	0/6404 = 0.0% (0.0%, 0.0%)
Age < 65 Not at-risk	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	31	0/6404 = 0.0% (0.0%, 0.0%)	0/6404 = 0.0% (0.0%, 0.0%)	0/6404 = 0.0% (0.0%, 0.0%)
Age < 65 Not at-risk	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	31	0/6404 = 0.0% (0.0%, 0.0%)	0/6404 = 0.0% (0.0%, 0.0%)	0/6404 = 0.0% (0.0%, 0.0%)
Age < 65 Not at-risk	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	66	640.6/693 = 92.4% (82.5%, 96.9%)	640.6/693 = 92.4% (82.5%, 96.9%)	620.4/693 = 89.5% (79.0%, 95.1%)
Age < 65 Not at-risk	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	66	693/693 = 100.0% (100.0%, 100.0%)	693/693 = 100.0% (100.0%, 100.0%)	693/693 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Age < 65 Not at-risk	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	66	693/693 = 100.0% (100.0%, 100.0%)	693/693 = 100.0% (100.0%, 100.0%)	693/693 = 100.0% (100.0%, 100.0%)
Age ≥ 65 At-risk	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	207	1215/1277.9 = 95.1% (90.9%, 97.4%)	1215/1277.9 = 95.1% (90.9%, 97.4%)	1147.4/1277.9 = 89.8% (84.7%, 93.3%)
Age ≥ 65 At-risk	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	207	1277.9/1277.9 = 100.0% (100.0%, 100.0%)	1277.9/1277.9 = 100.0% (100.0%, 100.0%)	1277.9/1277.9 = 100.0% (100.0%, 100.0%)
Age ≥ 65 At-risk	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	207	1277.9/1277.9 = 100.0% (100.0%, 100.0%)	1277.9/1277.9 = 100.0% (100.0%, 100.0%)	1277.9/1277.9 = 100.0% (100.0%, 100.0%)
Age ≥ 65 At-risk	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	48	96.3/98.4 = 97.9% (85.6%, 99.7%)	96.3/98.4 = 97.9% (85.6%, 99.7%)	92.1/98.4 = 93.6% (81.4%, 98.0%)
Age ≥ 65 At-risk	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	48	98.4/98.4 = 100.0% (100.0%, 100.0%)	98.4/98.4 = 100.0% (100.0%, 100.0%)	98.4/98.4 = 100.0% (100.0%, 100.0%)
Age ≥ 65 At-risk	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	48	98.4/98.4 = 100.0% (100.0%, 100.0%)	98.4/98.4 = 100.0% (100.0%, 100.0%)	98.4/98.4 = 100.0% (100.0%, 100.0%)
Age ≥ 65 At-risk	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	35	0/1388.5 = 0.0% (0.0%, 0.0%)	0/1388.5 = 0.0% (0.0%, 0.0%)	0/1388.5 = 0.0% (0.0%, 0.0%)
Age ≥ 65 At-risk	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	35	0/1388.5 = 0.0% (0.0%, 0.0%)	0/1388.5 = 0.0% (0.0%, 0.0%)	0/1388.5 = 0.0% (0.0%, 0.0%)
Age ≥ 65 At-risk	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	35	0/1388.5 = 0.0% (0.0%, 0.0%)	0/1388.5 = 0.0% (0.0%, 0.0%)	0/1388.5 = 0.0% (0.0%, 0.0%)
Age ≥ 65 At-risk	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	34	73.2/73.2 = 100.0% (100.0%, 100.0%)	73.2/73.2 = 100.0% (100.0%, 100.0%)	64.3/73.2 = 87.8% (70.8%, 95.5%)
Age ≥ 65 At-risk	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	34	73.2/73.2 = 100.0% (100.0%, 100.0%)	73.2/73.2 = 100.0% (100.0%, 100.0%)	73.2/73.2 = 100.0% (100.0%, 100.0%)

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Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Age ≥ 65 At-risk	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	34	73.2/73.2 = 100.0% (100.0%, 100.0%)	73.2/73.2 = 100.0% (100.0%, 100.0%)	73.2/73.2 = 100.0% (100.0%, 100.0%)
Age ≥ 65 At-risk	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	207	1253.8/1277.9 = 98.1% (94.9%, 99.3%)	1253.8/1277.9 = 98.1% (94.9%, 99.3%)	1215/1277.9 = 95.1% (90.9%, 97.4%)
Age ≥ 65 At-risk	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	207	1277.9/1277.9 = 100.0% (100.0%, 100.0%)	1277.9/1277.9 = 100.0% (100.0%, 100.0%)	1277.9/1277.9 = 100.0% (100.0%, 100.0%)
Age ≥ 65 At-risk	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	207	1277.9/1277.9 = 100.0% (100.0%, 100.0%)	1277.9/1277.9 = 100.0% (100.0%, 100.0%)	1277.9/1277.9 = 100.0% (100.0%, 100.0%)
Age ≥ 65 At-risk	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	48	98.4/98.4 = 100.0% (100.0%, 100.0%)	98.4/98.4 = 100.0% (100.0%, 100.0%)	98.4/98.4 = 100.0% (100.0%, 100.0%)
Age ≥ 65 At-risk	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	48	98.4/98.4 = 100.0% (100.0%, 100.0%)	98.4/98.4 = 100.0% (100.0%, 100.0%)	98.4/98.4 = 100.0% (100.0%, 100.0%)
Age ≥ 65 At-risk	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	48	98.4/98.4 = 100.0% (100.0%, 100.0%)	98.4/98.4 = 100.0% (100.0%, 100.0%)	98.4/98.4 = 100.0% (100.0%, 100.0%)
Age ≥ 65 At-risk	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	35	0/1388.5 = 0.0% (0.0%, 0.0%)	0/1388.5 = 0.0% (0.0%, 0.0%)	0/1388.5 = 0.0% (0.0%, 0.0%)
Age ≥ 65 At-risk	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	35	0/1388.5 = 0.0% (0.0%, 0.0%)	0/1388.5 = 0.0% (0.0%, 0.0%)	0/1388.5 = 0.0% (0.0%, 0.0%)
Age ≥ 65 At-risk	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	35	0/1388.5 = 0.0% (0.0%, 0.0%)	0/1388.5 = 0.0% (0.0%, 0.0%)	0/1388.5 = 0.0% (0.0%, 0.0%)
Age ≥ 65 At-risk	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	34	73.2/73.2 = 100.0% (100.0%, 100.0%)	73.2/73.2 = 100.0% (100.0%, 100.0%)	73.2/73.2 = 100.0% (100.0%, 100.0%)
Age ≥ 65 At-risk	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	34	73.2/73.2 = 100.0% (100.0%, 100.0%)	73.2/73.2 = 100.0% (100.0%, 100.0%)	73.2/73.2 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Age ≥ 65 At-risk	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	34	73.2/73.2 = 100.0% (100.0%, 100.0%)	73.2/73.2 = 100.0% (100.0%, 100.0%)	73.2/73.2 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Not at-risk	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	173	1046.9/1081.1 = 96.8% (92.5%, 98.7%)	1046.9/1081.1 = 96.8% (92.5%, 98.7%)	1012.8/1081.1 = 93.7% (88.5%, 96.6%)
Age ≥ 65 Not at-risk	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	173	1081.1/1081.1 = 100.0% (100.0%, 100.0%)	1081.1/1081.1 = 100.0% (100.0%, 100.0%)	1081.1/1081.1 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Not at-risk	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	173	1081.1/1081.1 = 100.0% (100.0%, 100.0%)	1081.1/1081.1 = 100.0% (100.0%, 100.0%)	1081.1/1081.1 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Not at-risk	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	67	135.6/135.6 = 100.0% (100.0%, 100.0%)	135.6/135.6 = 100.0% (100.0%, 100.0%)	133.7/135.6 = 98.6% (90.3%, 99.8%)
Age ≥ 65 Not at-risk	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	67	135.6/135.6 = 100.0% (100.0%, 100.0%)	135.6/135.6 = 100.0% (100.0%, 100.0%)	135.6/135.6 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Not at-risk	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	67	135.6/135.6 = 100.0% (100.0%, 100.0%)	135.6/135.6 = 100.0% (100.0%, 100.0%)	135.6/135.6 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Not at-risk	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	32	0/1317.5 = 0.0% (0.0%, 0.0%)	0/1317.5 = 0.0% (0.0%, 0.0%)	0/1317.5 = 0.0% (0.0%, 0.0%)
Age ≥ 65 Not at-risk	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	32	0/1317.5 = 0.0% (0.0%, 0.0%)	0/1317.5 = 0.0% (0.0%, 0.0%)	0/1317.5 = 0.0% (0.0%, 0.0%)
Age ≥ 65 Not at-risk	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	32	0/1317.5 = 0.0% (0.0%, 0.0%)	0/1317.5 = 0.0% (0.0%, 0.0%)	0/1317.5 = 0.0% (0.0%, 0.0%)
Age ≥ 65 Not at-risk	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	65	124.2/132.8 = 93.6% (83.7%, 97.6%)	124.2/132.8 = 93.6% (83.7%, 97.6%)	116.1/132.8 = 87.4% (76.5%, 93.7%)
Age ≥ 65 Not at-risk	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	65	132.8/132.8 = 100.0% (100.0%, 100.0%)	132.8/132.8 = 100.0% (100.0%, 100.0%)	132.8/132.8 = 100.0% (100.0%, 100.0%)

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Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Age ≥ 65 Not at-risk	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	65	132.8/132.8 = 100.0% (100.0%, 100.0%)	132.8/132.8 = 100.0% (100.0%, 100.0%)	132.8/132.8 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Not at-risk	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	173	1081.1/1081.1 = 100.0% (100.0%, 100.0%)	1081.1/1081.1 = 100.0% (100.0%, 100.0%)	1064.3/1081.1 = 98.5% (95.1%, 99.5%)
Age ≥ 65 Not at-risk	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	173	1081.1/1081.1 = 100.0% (100.0%, 100.0%)	1081.1/1081.1 = 100.0% (100.0%, 100.0%)	1081.1/1081.1 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Not at-risk	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	173	1081.1/1081.1 = 100.0% (100.0%, 100.0%)	1081.1/1081.1 = 100.0% (100.0%, 100.0%)	1081.1/1081.1 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Not at-risk	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	67	133.5/135.6 = 98.4% (89.4%, 99.8%)	133.5/135.6 = 98.4% (89.4%, 99.8%)	133.5/135.6 = 98.4% (89.4%, 99.8%)
Age ≥ 65 Not at-risk	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	67	135.6/135.6 = 100.0% (100.0%, 100.0%)	135.6/135.6 = 100.0% (100.0%, 100.0%)	135.6/135.6 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Not at-risk	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	67	135.6/135.6 = 100.0% (100.0%, 100.0%)	135.6/135.6 = 100.0% (100.0%, 100.0%)	135.6/135.6 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Not at-risk	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	32	0/1317.5 = 0.0% (0.0%, 0.0%)	0/1317.5 = 0.0% (0.0%, 0.0%)	0/1317.5 = 0.0% (0.0%, 0.0%)
Age ≥ 65 Not at-risk	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	32	0/1317.5 = 0.0% (0.0%, 0.0%)	0/1317.5 = 0.0% (0.0%, 0.0%)	0/1317.5 = 0.0% (0.0%, 0.0%)
Age ≥ 65 Not at-risk	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	32	0/1317.5 = 0.0% (0.0%, 0.0%)	0/1317.5 = 0.0% (0.0%, 0.0%)	0/1317.5 = 0.0% (0.0%, 0.0%)
Age ≥ 65 Not at-risk	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	65	132.8/132.8 = 100.0% (100.0%, 100.0%)	132.8/132.8 = 100.0% (100.0%, 100.0%)	130.5/132.8 = 98.3% (88.6%, 99.8%)
Age ≥ 65 Not at-risk	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	65	132.8/132.8 = 100.0% (100.0%, 100.0%)	132.8/132.8 = 100.0% (100.0%, 100.0%)	132.8/132.8 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Age \geq 65 Not at-risk	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	65	132.8/132.8 = 100.0% (100.0%, 100.0%)	132.8/132.8 = 100.0% (100.0%, 100.0%)	132.8/132.8 = 100.0% (100.0%, 100.0%)

Binding Antibody Responders are defined as participants who had baseline values below the LLOQ with detectable antibody concentration above the assay LLOQ, or as participants with baseline values above the LLOQ with a 4-fold increase in antibody concentration.

Percentages are calculated for the whole per-protocol group/subgroup, using inverse probability weighting.

LLOQ = 4.49, 5.77, 1.80 IU/ml for N, RBD, Spike, respectively.

Table 5e. Percentage of responders, and participants with 2-fold rise, and participants with 4-fold rise for binding antibody markers by Sex

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Sex								
Male	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	323	4351.6/5194.9 = 83.8% (77.0%, 88.8%)	4351.6/5194.9 = 83.8% (77.0%, 88.8%)	3895.4/5194.9 = 75.0% (67.6%, 81.1%)
Male	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	323	5194.9/5194.9 = 100.0% (100.0%, 100.0%)	5194.9/5194.9 = 100.0% (100.0%, 100.0%)	5186.9/5194.9 = 99.8% (98.9%, 100.0%)
Male	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	323	5194.9/5194.9 = 100.0% (100.0%, 100.0%)	5194.9/5194.9 = 100.0% (100.0%, 100.0%)	5194.9/5194.9 = 100.0% (100.0%, 100.0%)
Male	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	106	517/546.7 = 94.6% (88.2%, 97.6%)	517/546.7 = 94.6% (88.2%, 97.6%)	498.2/546.7 = 91.1% (84.1%, 95.2%)
Male	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	106	546.7/546.7 = 100.0% (100.0%, 100.0%)	546.7/546.7 = 100.0% (100.0%, 100.0%)	546.7/546.7 = 100.0% (100.0%, 100.0%)
Male	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	106	546.7/546.7 = 100.0% (100.0%, 100.0%)	546.7/546.7 = 100.0% (100.0%, 100.0%)	546.7/546.7 = 100.0% (100.0%, 100.0%)
Male	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	55	0/4633.7 = 0.0% (0.0%, 0.0%)	0/4633.7 = 0.0% (0.0%, 0.0%)	0/4633.7 = 0.0% (0.0%, 0.0%)
Male	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	55	0/4633.7 = 0.0% (0.0%, 0.0%)	0/4633.7 = 0.0% (0.0%, 0.0%)	0/4633.7 = 0.0% (0.0%, 0.0%)
Male	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	55	0/4633.7 = 0.0% (0.0%, 0.0%)	0/4633.7 = 0.0% (0.0%, 0.0%)	0/4633.7 = 0.0% (0.0%, 0.0%)
Male	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	104	394.5/452.3 = 87.2% (74.7%, 94.0%)	394.5/452.3 = 87.2% (74.7%, 94.0%)	316.4/452.3 = 69.9% (56.8%, 80.5%)
Male	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	104	444/452.3 = 98.2% (87.7%, 99.8%)	444/452.3 = 98.2% (87.7%, 99.8%)	444/452.3 = 98.2% (87.7%, 99.8%)
Male	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	104	452.3/452.3 = 100.0% (100.0%, 100.0%)	452.3/452.3 = 100.0% (100.0%, 100.0%)	452.3/452.3 = 100.0% (100.0%, 100.0%)
Male	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	323	4945/5194.9 = 95.2% (90.1%, 97.7%)	4945/5194.9 = 95.2% (90.1%, 97.7%)	4695/5194.9 = 90.4% (84.6%, 94.1%)
Male	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	323	5194.9/5194.9 = 100.0% (100.0%, 100.0%)	5194.9/5194.9 = 100.0% (100.0%, 100.0%)	5194.9/5194.9 = 100.0% (100.0%, 100.0%)
Male	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	323	5194.9/5194.9 = 100.0% (100.0%, 100.0%)	5194.9/5194.9 = 100.0% (100.0%, 100.0%)	5194.9/5194.9 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Male	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	106	536.2/546.7 = 98.1% (91.9%, 99.6%)	536.2/546.7 = 98.1% (91.9%, 99.6%)	521.1/546.7 = 95.3% (83.9%, 98.8%)
Male	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	106	546.7/546.7 = 100.0% (100.0%, 100.0%)	546.7/546.7 = 100.0% (100.0%, 100.0%)	546.7/546.7 = 100.0% (100.0%, 100.0%)
Male	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	106	546.7/546.7 = 100.0% (100.0%, 100.0%)	546.7/546.7 = 100.0% (100.0%, 100.0%)	546.7/546.7 = 100.0% (100.0%, 100.0%)
Male	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	55	0/4633.7 = 0.0% (0.0%, 0.0%)	0/4633.7 = 0.0% (0.0%, 0.0%)	0/4633.7 = 0.0% (0.0%, 0.0%)
Male	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	55	0/4633.7 = 0.0% (0.0%, 0.0%)	0/4633.7 = 0.0% (0.0%, 0.0%)	0/4633.7 = 0.0% (0.0%, 0.0%)
Male	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	55	0/4633.7 = 0.0% (0.0%, 0.0%)	0/4633.7 = 0.0% (0.0%, 0.0%)	0/4633.7 = 0.0% (0.0%, 0.0%)
Male	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	104	405/452.3 = 89.5% (76.3%, 95.8%)	405/452.3 = 89.5% (76.3%, 95.8%)	398.5/452.3 = 88.1% (75.4%, 94.7%)
Male	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	104	452.3/452.3 = 100.0% (100.0%, 100.0%)	452.3/452.3 = 100.0% (100.0%, 100.0%)	452.3/452.3 = 100.0% (100.0%, 100.0%)
Male	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	104	452.3/452.3 = 100.0% (100.0%, 100.0%)	452.3/452.3 = 100.0% (100.0%, 100.0%)	452.3/452.3 = 100.0% (100.0%, 100.0%)
Female	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	406	5493.1/6001.1 = 91.5% (86.7%, 94.7%)	5493.1/6001.1 = 91.5% (86.7%, 94.7%)	4919.4/6001.1 = 82.0% (76.2%, 86.6%)
Female	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	406	6001.1/6001.1 = 100.0% (100.0%, 100.0%)	6001.1/6001.1 = 100.0% (100.0%, 100.0%)	5993/6001.1 = 99.9% (99.0%, 100.0%)
Female	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	406	6001.1/6001.1 = 100.0% (100.0%, 100.0%)	6001.1/6001.1 = 100.0% (100.0%, 100.0%)	6001.1/6001.1 = 100.0% (100.0%, 100.0%)
Female	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	129	575/595.3 = 96.6% (91.5%, 98.7%)	575/595.3 = 96.6% (91.5%, 98.7%)	570.7/595.3 = 95.9% (90.9%, 98.2%)
Female	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	129	595.3/595.3 = 100.0% (100.0%, 100.0%)	595.3/595.3 = 100.0% (100.0%, 100.0%)	591.8/595.3 = 99.4% (95.9%, 99.9%)
Female	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	129	595.3/595.3 = 100.0% (100.0%, 100.0%)	595.3/595.3 = 100.0% (100.0%, 100.0%)	595.3/595.3 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Female	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	75	0/6562.3 = 0.0% (0.0%, 0.0%)	0/6562.3 = 0.0% (0.0%, 0.0%)	0/6562.3 = 0.0% (0.0%, 0.0%)
Female	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	75	0/6562.3 = 0.0% (0.0%, 0.0%)	0/6562.3 = 0.0% (0.0%, 0.0%)	0/6562.3 = 0.0% (0.0%, 0.0%)
Female	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	75	0/6562.3 = 0.0% (0.0%, 0.0%)	0/6562.3 = 0.0% (0.0%, 0.0%)	0/6562.3 = 0.0% (0.0%, 0.0%)
Female	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	117	532.9/620.7 = 85.8% (75.4%, 92.3%)	532.9/620.7 = 85.8% (75.4%, 92.3%)	440.9/620.7 = 71.0% (58.8%, 80.8%)
Female	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	117	620.7/620.7 = 100.0% (100.0%, 100.0%)	620.7/620.7 = 100.0% (100.0%, 100.0%)	620.7/620.7 = 100.0% (100.0%, 100.0%)
Female	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	117	620.7/620.7 = 100.0% (100.0%, 100.0%)	620.7/620.7 = 100.0% (100.0%, 100.0%)	620.7/620.7 = 100.0% (100.0%, 100.0%)
Female	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	406	5777/6001.1 = 96.3% (92.9%, 98.1%)	5777/6001.1 = 96.3% (92.9%, 98.1%)	5432.5/6001.1 = 90.5% (85.5%, 93.9%)
Female	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	406	6001.1/6001.1 = 100.0% (100.0%, 100.0%)	6001.1/6001.1 = 100.0% (100.0%, 100.0%)	6001.1/6001.1 = 100.0% (100.0%, 100.0%)
Female	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	406	6001.1/6001.1 = 100.0% (100.0%, 100.0%)	6001.1/6001.1 = 100.0% (100.0%, 100.0%)	6001.1/6001.1 = 100.0% (100.0%, 100.0%)
Female	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	129	579.5/595.3 = 97.3% (92.3%, 99.1%)	579.5/595.3 = 97.3% (92.3%, 99.1%)	579.5/595.3 = 97.3% (92.3%, 99.1%)
Female	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	129	595.3/595.3 = 100.0% (100.0%, 100.0%)	595.3/595.3 = 100.0% (100.0%, 100.0%)	591.8/595.3 = 99.4% (95.9%, 99.9%)
Female	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	129	595.3/595.3 = 100.0% (100.0%, 100.0%)	595.3/595.3 = 100.0% (100.0%, 100.0%)	595.3/595.3 = 100.0% (100.0%, 100.0%)
Female	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	75	0/6562.3 = 0.0% (0.0%, 0.0%)	0/6562.3 = 0.0% (0.0%, 0.0%)	0/6562.3 = 0.0% (0.0%, 0.0%)
Female	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	75	0/6562.3 = 0.0% (0.0%, 0.0%)	0/6562.3 = 0.0% (0.0%, 0.0%)	0/6562.3 = 0.0% (0.0%, 0.0%)
Female	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	75	0/6562.3 = 0.0% (0.0%, 0.0%)	0/6562.3 = 0.0% (0.0%, 0.0%)	0/6562.3 = 0.0% (0.0%, 0.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Female	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	117	609.2/620.7 = 98.1% (91.8%, 99.6%)	609.2/620.7 = 98.1% (91.8%, 99.6%)	583.5/620.7 = 94.0% (85.6%, 97.6%)
Female	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	117	620.7/620.7 = 100.0% (100.0%, 100.0%)	620.7/620.7 = 100.0% (100.0%, 100.0%)	620.7/620.7 = 100.0% (100.0%, 100.0%)
Female	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	117	620.7/620.7 = 100.0% (100.0%, 100.0%)	620.7/620.7 = 100.0% (100.0%, 100.0%)	620.7/620.7 = 100.0% (100.0%, 100.0%)

Binding Antibody Responders are defined as participants who had baseline values below the LLOQ with detectable antibody concentration above the assay LLOQ, or as participants with baseline values above the LLOQ with a 4-fold increase in antibody concentration.

Percentages are calculated for the whole per-protocol group/subgroup, using inverse probability weighting.

LLOQ = 4.49, 5.77, 1.80 IU/ml for N, RBD, Spike, respectively.

Table 5f. Percentage of responders, and participants with 2-fold rise, and participants with 4-fold rise for binding antibody markers by Age, sex

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Age, sex								
Age < 65 Female	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	193	4239.2/4708.4 = 90.0% (83.8%, 94.0%)	4239.2/4708.4 = 90.0% (83.8%, 94.0%)	3759.9/4708.4 = 79.9% (72.5%, 85.6%)
Age < 65 Female	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	193	4708.4/4708.4 = 100.0% (100.0%, 100.0%)	4708.4/4708.4 = 100.0% (100.0%, 100.0%)	4700.3/4708.4 = 99.8% (98.8%, 100.0%)
Age < 65 Female	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	193	4708.4/4708.4 = 100.0% (100.0%, 100.0%)	4708.4/4708.4 = 100.0% (100.0%, 100.0%)	4708.4/4708.4 = 100.0% (100.0%, 100.0%)
Age < 65 Female	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	60	435.4/455.7 = 95.5% (88.8%, 98.3%)	435.4/455.7 = 95.5% (88.8%, 98.3%)	435.4/455.7 = 95.5% (88.8%, 98.3%)
Age < 65 Female	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	60	455.7/455.7 = 100.0% (100.0%, 100.0%)	455.7/455.7 = 100.0% (100.0%, 100.0%)	452.2/455.7 = 99.2% (94.6%, 99.9%)
Age < 65 Female	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	60	455.7/455.7 = 100.0% (100.0%, 100.0%)	455.7/455.7 = 100.0% (100.0%, 100.0%)	455.7/455.7 = 100.0% (100.0%, 100.0%)
Age < 65 Female	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	39	0/5144.1 = 0.0% (0.0%, 0.0%)	0/5144.1 = 0.0% (0.0%, 0.0%)	0/5144.1 = 0.0% (0.0%, 0.0%)
Age < 65 Female	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	39	0/5144.1 = 0.0% (0.0%, 0.0%)	0/5144.1 = 0.0% (0.0%, 0.0%)	0/5144.1 = 0.0% (0.0%, 0.0%)
Age < 65 Female	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	39	0/5144.1 = 0.0% (0.0%, 0.0%)	0/5144.1 = 0.0% (0.0%, 0.0%)	0/5144.1 = 0.0% (0.0%, 0.0%)
Age < 65 Female	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	62	423.8/507.6 = 83.5% (70.8%, 91.3%)	423.8/507.6 = 83.5% (70.8%, 91.3%)	340.3/507.6 = 67.1% (52.4%, 79.0%)
Age < 65 Female	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	62	507.6/507.6 = 100.0% (100.0%, 100.0%)	507.6/507.6 = 100.0% (100.0%, 100.0%)	507.6/507.6 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Age < 65 Female	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	62	507.6/507.6 = 100.0% (100.0%, 100.0%)	507.6/507.6 = 100.0% (100.0%, 100.0%)	507.6/507.6 = 100.0% (100.0%, 100.0%)
Age < 65 Female	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	193	4501/4708.4 = 95.6% (91.3%, 97.8%)	4501/4708.4 = 95.6% (91.3%, 97.8%)	4185.3/4708.4 = 88.9% (82.5%, 93.1%)
Age < 65 Female	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	193	4708.4/4708.4 = 100.0% (100.0%, 100.0%)	4708.4/4708.4 = 100.0% (100.0%, 100.0%)	4708.4/4708.4 = 100.0% (100.0%, 100.0%)
Age < 65 Female	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	193	4708.4/4708.4 = 100.0% (100.0%, 100.0%)	4708.4/4708.4 = 100.0% (100.0%, 100.0%)	4708.4/4708.4 = 100.0% (100.0%, 100.0%)
Age < 65 Female	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	60	442/455.7 = 97.0% (90.0%, 99.1%)	442/455.7 = 97.0% (90.0%, 99.1%)	442/455.7 = 97.0% (90.0%, 99.1%)
Age < 65 Female	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	60	455.7/455.7 = 100.0% (100.0%, 100.0%)	455.7/455.7 = 100.0% (100.0%, 100.0%)	452.2/455.7 = 99.2% (94.6%, 99.9%)
Age < 65 Female	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	60	455.7/455.7 = 100.0% (100.0%, 100.0%)	455.7/455.7 = 100.0% (100.0%, 100.0%)	455.7/455.7 = 100.0% (100.0%, 100.0%)
Age < 65 Female	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	39	0/5144.1 = 0.0% (0.0%, 0.0%)	0/5144.1 = 0.0% (0.0%, 0.0%)	0/5144.1 = 0.0% (0.0%, 0.0%)
Age < 65 Female	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	39	0/5144.1 = 0.0% (0.0%, 0.0%)	0/5144.1 = 0.0% (0.0%, 0.0%)	0/5144.1 = 0.0% (0.0%, 0.0%)
Age < 65 Female	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	39	0/5144.1 = 0.0% (0.0%, 0.0%)	0/5144.1 = 0.0% (0.0%, 0.0%)	0/5144.1 = 0.0% (0.0%, 0.0%)
Age < 65 Female	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	62	496/507.6 = 97.7% (89.9%, 99.5%)	496/507.6 = 97.7% (89.9%, 99.5%)	472.6/507.6 = 93.1% (82.7%, 97.4%)
Age < 65 Female	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	62	507.6/507.6 = 100.0% (100.0%, 100.0%)	507.6/507.6 = 100.0% (100.0%, 100.0%)	507.6/507.6 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Age < 65 Female	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	62	507.6/507.6 = 100.0% (100.0%, 100.0%)	507.6/507.6 = 100.0% (100.0%, 100.0%)	507.6/507.6 = 100.0% (100.0%, 100.0%)
Age < 65 Male	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	156	3343.5/4128.6 = 81.0% (72.6%, 87.3%)	3343.5/4128.6 = 81.0% (72.6%, 87.3%)	2894.7/4128.6 = 70.1% (61.0%, 77.8%)
Age < 65 Male	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	156	4128.6/4128.6 = 100.0% (100.0%, 100.0%)	4128.6/4128.6 = 100.0% (100.0%, 100.0%)	4120.6/4128.6 = 99.8% (98.6%, 100.0%)
Age < 65 Male	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	156	4128.6/4128.6 = 100.0% (100.0%, 100.0%)	4128.6/4128.6 = 100.0% (100.0%, 100.0%)	4128.6/4128.6 = 100.0% (100.0%, 100.0%)
Age < 65 Male	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	60	424.7/452.3 = 93.9% (86.0%, 97.5%)	424.7/452.3 = 93.9% (86.0%, 97.5%)	407.8/452.3 = 90.2% (81.6%, 95.0%)
Age < 65 Male	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	60	452.3/452.3 = 100.0% (100.0%, 100.0%)	452.3/452.3 = 100.0% (100.0%, 100.0%)	452.3/452.3 = 100.0% (100.0%, 100.0%)
Age < 65 Male	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	60	452.3/452.3 = 100.0% (100.0%, 100.0%)	452.3/452.3 = 100.0% (100.0%, 100.0%)	452.3/452.3 = 100.0% (100.0%, 100.0%)
Age < 65 Male	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	24	0/3345.9 = 0.0% (0.0%, 0.0%)	0/3345.9 = 0.0% (0.0%, 0.0%)	0/3345.9 = 0.0% (0.0%, 0.0%)
Age < 65 Male	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	24	0/3345.9 = 0.0% (0.0%, 0.0%)	0/3345.9 = 0.0% (0.0%, 0.0%)	0/3345.9 = 0.0% (0.0%, 0.0%)
Age < 65 Male	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	24	0/3345.9 = 0.0% (0.0%, 0.0%)	0/3345.9 = 0.0% (0.0%, 0.0%)	0/3345.9 = 0.0% (0.0%, 0.0%)
Age < 65 Male	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	60	306.1/359.4 = 85.2% (69.5%, 93.5%)	306.1/359.4 = 85.2% (69.5%, 93.5%)	236.5/359.4 = 65.8% (49.8%, 78.8%)
Age < 65 Male	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	60	351.1/359.4 = 97.7% (84.6%, 99.7%)	351.1/359.4 = 97.7% (84.6%, 99.7%)	351.1/359.4 = 97.7% (84.6%, 99.7%)
Age < 65 Male	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	60	359.4/359.4 = 100.0% (100.0%, 100.0%)	359.4/359.4 = 100.0% (100.0%, 100.0%)	359.4/359.4 = 100.0% (100.0%, 100.0%)
Age < 65 Male	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	156	3886/4128.6 = 94.1% (87.7%, 97.3%)	3886/4128.6 = 94.1% (87.7%, 97.3%)	3662.9/4128.6 = 88.7% (81.5%, 93.4%)
Age < 65 Male	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	156	4128.6/4128.6 = 100.0% (100.0%, 100.0%)	4128.6/4128.6 = 100.0% (100.0%, 100.0%)	4128.6/4128.6 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Age < 65 Male	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	156	4128.6/4128.6 = 100.0% (100.0%, 100.0%)	4128.6/4128.6 = 100.0% (100.0%, 100.0%)	4128.6/4128.6 = 100.0% (100.0%, 100.0%)
Age < 65 Male	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	60	441.8/452.3 = 97.7% (90.1%, 99.5%)	441.8/452.3 = 97.7% (90.1%, 99.5%)	426.7/452.3 = 94.3% (80.6%, 98.5%)
Age < 65 Male	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	60	452.3/452.3 = 100.0% (100.0%, 100.0%)	452.3/452.3 = 100.0% (100.0%, 100.0%)	452.3/452.3 = 100.0% (100.0%, 100.0%)
Age < 65 Male	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	60	452.3/452.3 = 100.0% (100.0%, 100.0%)	452.3/452.3 = 100.0% (100.0%, 100.0%)	452.3/452.3 = 100.0% (100.0%, 100.0%)
Age < 65 Male	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	24	0/3345.9 = 0.0% (0.0%, 0.0%)	0/3345.9 = 0.0% (0.0%, 0.0%)	0/3345.9 = 0.0% (0.0%, 0.0%)
Age < 65 Male	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	24	0/3345.9 = 0.0% (0.0%, 0.0%)	0/3345.9 = 0.0% (0.0%, 0.0%)	0/3345.9 = 0.0% (0.0%, 0.0%)
Age < 65 Male	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	24	0/3345.9 = 0.0% (0.0%, 0.0%)	0/3345.9 = 0.0% (0.0%, 0.0%)	0/3345.9 = 0.0% (0.0%, 0.0%)
Age < 65 Male	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	60	312.1/359.4 = 86.8% (70.7%, 94.7%)	312.1/359.4 = 86.8% (70.7%, 94.7%)	305.7/359.4 = 85.0% (69.4%, 93.4%)
Age < 65 Male	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	60	359.4/359.4 = 100.0% (100.0%, 100.0%)	359.4/359.4 = 100.0% (100.0%, 100.0%)	359.4/359.4 = 100.0% (100.0%, 100.0%)
Age < 65 Male	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	60	359.4/359.4 = 100.0% (100.0%, 100.0%)	359.4/359.4 = 100.0% (100.0%, 100.0%)	359.4/359.4 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Male	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	167	1008.1/1066.3 = 94.5% (89.7%, 97.2%)	1008.1/1066.3 = 94.5% (89.7%, 97.2%)	1000.7/1066.3 = 93.8% (88.8%, 96.7%)
Age ≥ 65 Male	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	167	1066.3/1066.3 = 100.0% (100.0%, 100.0%)	1066.3/1066.3 = 100.0% (100.0%, 100.0%)	1066.3/1066.3 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Male	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	167	1066.3/1066.3 = 100.0% (100.0%, 100.0%)	1066.3/1066.3 = 100.0% (100.0%, 100.0%)	1066.3/1066.3 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Male	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	46	92.3/94.4 = 97.8% (85.0%, 99.7%)	92.3/94.4 = 97.8% (85.0%, 99.7%)	90.4/94.4 = 95.8% (83.9%, 99.0%)
Age ≥ 65 Male	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	46	94.4/94.4 = 100.0% (100.0%, 100.0%)	94.4/94.4 = 100.0% (100.0%, 100.0%)	94.4/94.4 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Age ≥ 65 Male	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	46	94.4/94.4 = 100.0% (100.0%, 100.0%)	94.4/94.4 = 100.0% (100.0%, 100.0%)	94.4/94.4 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Male	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	31	0/1287.8 = 0.0% (0.0%, 0.0%)	0/1287.8 = 0.0% (0.0%, 0.0%)	0/1287.8 = 0.0% (0.0%, 0.0%)
Age ≥ 65 Male	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	31	0/1287.8 = 0.0% (0.0%, 0.0%)	0/1287.8 = 0.0% (0.0%, 0.0%)	0/1287.8 = 0.0% (0.0%, 0.0%)
Age ≥ 65 Male	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	31	0/1287.8 = 0.0% (0.0%, 0.0%)	0/1287.8 = 0.0% (0.0%, 0.0%)	0/1287.8 = 0.0% (0.0%, 0.0%)
Age ≥ 65 Male	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	44	88.4/92.8 = 95.2% (82.1%, 98.8%)	88.4/92.8 = 95.2% (82.1%, 98.8%)	79.8/92.8 = 86.0% (71.5%, 93.7%)
Age ≥ 65 Male	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	44	92.8/92.8 = 100.0% (100.0%, 100.0%)	92.8/92.8 = 100.0% (100.0%, 100.0%)	92.8/92.8 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Male	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	44	92.8/92.8 = 100.0% (100.0%, 100.0%)	92.8/92.8 = 100.0% (100.0%, 100.0%)	92.8/92.8 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Male	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	167	1058.9/1066.3 = 99.3% (95.2%, 99.9%)	1058.9/1066.3 = 99.3% (95.2%, 99.9%)	1032.2/1066.3 = 96.8% (92.4%, 98.7%)
Age ≥ 65 Male	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	167	1066.3/1066.3 = 100.0% (100.0%, 100.0%)	1066.3/1066.3 = 100.0% (100.0%, 100.0%)	1066.3/1066.3 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Male	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	167	1066.3/1066.3 = 100.0% (100.0%, 100.0%)	1066.3/1066.3 = 100.0% (100.0%, 100.0%)	1066.3/1066.3 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Male	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	46	94.4/94.4 = 100.0% (100.0%, 100.0%)	94.4/94.4 = 100.0% (100.0%, 100.0%)	94.4/94.4 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Male	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	46	94.4/94.4 = 100.0% (100.0%, 100.0%)	94.4/94.4 = 100.0% (100.0%, 100.0%)	94.4/94.4 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Male	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	46	94.4/94.4 = 100.0% (100.0%, 100.0%)	94.4/94.4 = 100.0% (100.0%, 100.0%)	94.4/94.4 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Male	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	31	0/1287.8 = 0.0% (0.0%, 0.0%)	0/1287.8 = 0.0% (0.0%, 0.0%)	0/1287.8 = 0.0% (0.0%, 0.0%)
Age ≥ 65 Male	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	31	0/1287.8 = 0.0% (0.0%, 0.0%)	0/1287.8 = 0.0% (0.0%, 0.0%)	0/1287.8 = 0.0% (0.0%, 0.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Age ≥ 65 Male	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	31	0/1287.8 = 0.0% (0.0%, 0.0%)	0/1287.8 = 0.0% (0.0%, 0.0%)	0/1287.8 = 0.0% (0.0%, 0.0%)
Age ≥ 65 Male	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	44	92.8/92.8 = 100.0% (100.0%, 100.0%)	92.8/92.8 = 100.0% (100.0%, 100.0%)	92.8/92.8 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Male	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	44	92.8/92.8 = 100.0% (100.0%, 100.0%)	92.8/92.8 = 100.0% (100.0%, 100.0%)	92.8/92.8 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Male	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	44	92.8/92.8 = 100.0% (100.0%, 100.0%)	92.8/92.8 = 100.0% (100.0%, 100.0%)	92.8/92.8 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Female	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	213	1253.9/1292.7 = 97.0% (93.4%, 98.7%)	1253.9/1292.7 = 97.0% (93.4%, 98.7%)	1159.5/1292.7 = 89.7% (84.6%, 93.3%)
Age ≥ 65 Female	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	213	1292.7/1292.7 = 100.0% (100.0%, 100.0%)	1292.7/1292.7 = 100.0% (100.0%, 100.0%)	1292.7/1292.7 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Female	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	213	1292.7/1292.7 = 100.0% (100.0%, 100.0%)	1292.7/1292.7 = 100.0% (100.0%, 100.0%)	1292.7/1292.7 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Female	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	69	139.6/139.6 = 100.0% (100.0%, 100.0%)	139.6/139.6 = 100.0% (100.0%, 100.0%)	135.4/139.6 = 97.0% (88.5%, 99.3%)
Age ≥ 65 Female	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	69	139.6/139.6 = 100.0% (100.0%, 100.0%)	139.6/139.6 = 100.0% (100.0%, 100.0%)	139.6/139.6 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Female	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	69	139.6/139.6 = 100.0% (100.0%, 100.0%)	139.6/139.6 = 100.0% (100.0%, 100.0%)	139.6/139.6 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Female	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	36	0/1418.2 = 0.0% (0.0%, 0.0%)	0/1418.2 = 0.0% (0.0%, 0.0%)	0/1418.2 = 0.0% (0.0%, 0.0%)
Age ≥ 65 Female	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	36	0/1418.2 = 0.0% (0.0%, 0.0%)	0/1418.2 = 0.0% (0.0%, 0.0%)	0/1418.2 = 0.0% (0.0%, 0.0%)
Age ≥ 65 Female	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	36	0/1418.2 = 0.0% (0.0%, 0.0%)	0/1418.2 = 0.0% (0.0%, 0.0%)	0/1418.2 = 0.0% (0.0%, 0.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Age ≥ 65 Female	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	55	109.1/113.2 = 96.4% (86.1%, 99.1%)	109.1/113.2 = 96.4% (86.1%, 99.1%)	100.5/113.2 = 88.8% (76.9%, 95.0%)
Age ≥ 65 Female	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	55	113.2/113.2 = 100.0% (100.0%, 100.0%)	113.2/113.2 = 100.0% (100.0%, 100.0%)	113.2/113.2 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Female	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	55	113.2/113.2 = 100.0% (100.0%, 100.0%)	113.2/113.2 = 100.0% (100.0%, 100.0%)	113.2/113.2 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Female	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	213	1276/1292.7 = 98.7% (95.9%, 99.6%)	1276/1292.7 = 98.7% (95.9%, 99.6%)	1247.2/1292.7 = 96.5% (93.0%, 98.3%)
Age ≥ 65 Female	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	213	1292.7/1292.7 = 100.0% (100.0%, 100.0%)	1292.7/1292.7 = 100.0% (100.0%, 100.0%)	1292.7/1292.7 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Female	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	213	1292.7/1292.7 = 100.0% (100.0%, 100.0%)	1292.7/1292.7 = 100.0% (100.0%, 100.0%)	1292.7/1292.7 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Female	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	69	137.5/139.6 = 98.5% (89.7%, 99.8%)	137.5/139.6 = 98.5% (89.7%, 99.8%)	137.5/139.6 = 98.5% (89.7%, 99.8%)
Age ≥ 65 Female	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	69	139.6/139.6 = 100.0% (100.0%, 100.0%)	139.6/139.6 = 100.0% (100.0%, 100.0%)	139.6/139.6 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Female	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	69	139.6/139.6 = 100.0% (100.0%, 100.0%)	139.6/139.6 = 100.0% (100.0%, 100.0%)	139.6/139.6 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Female	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	36	0/1418.2 = 0.0% (0.0%, 0.0%)	0/1418.2 = 0.0% (0.0%, 0.0%)	0/1418.2 = 0.0% (0.0%, 0.0%)
Age ≥ 65 Female	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	36	0/1418.2 = 0.0% (0.0%, 0.0%)	0/1418.2 = 0.0% (0.0%, 0.0%)	0/1418.2 = 0.0% (0.0%, 0.0%)
Age ≥ 65 Female	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	36	0/1418.2 = 0.0% (0.0%, 0.0%)	0/1418.2 = 0.0% (0.0%, 0.0%)	0/1418.2 = 0.0% (0.0%, 0.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Age ≥ 65 Female	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	55	113.2/113.2 = 100.0% (100.0%, 100.0%)	113.2/113.2 = 100.0% (100.0%, 100.0%)	110.9/113.2 = 98.0% (86.7%, 99.7%)
Age ≥ 65 Female	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	55	113.2/113.2 = 100.0% (100.0%, 100.0%)	113.2/113.2 = 100.0% (100.0%, 100.0%)	113.2/113.2 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Female	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	55	113.2/113.2 = 100.0% (100.0%, 100.0%)	113.2/113.2 = 100.0% (100.0%, 100.0%)	113.2/113.2 = 100.0% (100.0%, 100.0%)

Binding Antibody Responders are defined as participants who had baseline values below the LLOQ with detectable antibody concentration above the assay LLOQ, or as participants with baseline values above the LLOQ with a 4-fold increase in antibody concentration.

Percentages are calculated for the whole per-protocol group/subgroup, using inverse probability weighting.

LLOQ = 4.49, 5.77, 1.80 IU/ml for N, RBD, Spike, respectively.

Table 5g. Percentage of responders, and participants with 2-fold rise, and participants with 4-fold rise for binding antibody markers by Hispanic or Latino ethnicity

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Hispanic or Latino ethnicity								
Hispanic or Latino	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	102	1075.2/1225.5 = 87.7% (74.1%, 94.7%)	1075.2/1225.5 = 87.7% (74.1%, 94.7%)	1037/1225.5 = 84.6% (71.7%, 92.3%)
Hispanic or Latino	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	102	1225.5/1225.5 = 100.0% (100.0%, 100.0%)	1225.5/1225.5 = 100.0% (100.0%, 100.0%)	1225.5/1225.5 = 100.0% (100.0%, 100.0%)
Hispanic or Latino	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	102	1225.5/1225.5 = 100.0% (100.0%, 100.0%)	1225.5/1225.5 = 100.0% (100.0%, 100.0%)	1225.5/1225.5 = 100.0% (100.0%, 100.0%)
Hispanic or Latino	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	27	93.2/96.4 = 96.7% (77.9%, 99.6%)	93.2/96.4 = 96.7% (77.9%, 99.6%)	90.1/96.4 = 93.4% (75.7%, 98.5%)
Hispanic or Latino	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	27	96.4/96.4 = 100.0% (100.0%, 100.0%)	96.4/96.4 = 100.0% (100.0%, 100.0%)	96.4/96.4 = 100.0% (100.0%, 100.0%)
Hispanic or Latino	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	27	96.4/96.4 = 100.0% (100.0%, 100.0%)	96.4/96.4 = 100.0% (100.0%, 100.0%)	96.4/96.4 = 100.0% (100.0%, 100.0%)
Hispanic or Latino	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	24	0/1647.1 = 0.0% (0.0%, 0.0%)	0/1647.1 = 0.0% (0.0%, 0.0%)	0/1647.1 = 0.0% (0.0%, 0.0%)
Hispanic or Latino	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	24	0/1647.1 = 0.0% (0.0%, 0.0%)	0/1647.1 = 0.0% (0.0%, 0.0%)	0/1647.1 = 0.0% (0.0%, 0.0%)
Hispanic or Latino	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	24	0/1647.1 = 0.0% (0.0%, 0.0%)	0/1647.1 = 0.0% (0.0%, 0.0%)	0/1647.1 = 0.0% (0.0%, 0.0%)
Hispanic or Latino	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	29	93.5/106.5 = 87.8% (60.9%, 97.1%)	93.5/106.5 = 87.8% (60.9%, 97.1%)	75.1/106.5 = 70.5% (43.9%, 87.9%)
Hispanic or Latino	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	29	106.5/106.5 = 100.0% (100.0%, 100.0%)	106.5/106.5 = 100.0% (100.0%, 100.0%)	106.5/106.5 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Hispanic or Latino	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	29	106.5/106.5 = 100.0% (100.0%, 100.0%)	106.5/106.5 = 100.0% (100.0%, 100.0%)	106.5/106.5 = 100.0% (100.0%, 100.0%)
Hispanic or Latino	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	102	1176.5/1225.5 = 96.0% (83.5%, 99.1%)	1176.5/1225.5 = 96.0% (83.5%, 99.1%)	1098.7/1225.5 = 89.7% (77.6%, 95.6%)
Hispanic or Latino	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	102	1225.5/1225.5 = 100.0% (100.0%, 100.0%)	1225.5/1225.5 = 100.0% (100.0%, 100.0%)	1225.5/1225.5 = 100.0% (100.0%, 100.0%)
Hispanic or Latino	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	102	1225.5/1225.5 = 100.0% (100.0%, 100.0%)	1225.5/1225.5 = 100.0% (100.0%, 100.0%)	1225.5/1225.5 = 100.0% (100.0%, 100.0%)
Hispanic or Latino	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	27	96.4/96.4 = 100.0% (100.0%, 100.0%)	96.4/96.4 = 100.0% (100.0%, 100.0%)	96.4/96.4 = 100.0% (100.0%, 100.0%)
Hispanic or Latino	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	27	96.4/96.4 = 100.0% (100.0%, 100.0%)	96.4/96.4 = 100.0% (100.0%, 100.0%)	96.4/96.4 = 100.0% (100.0%, 100.0%)
Hispanic or Latino	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	27	96.4/96.4 = 100.0% (100.0%, 100.0%)	96.4/96.4 = 100.0% (100.0%, 100.0%)	96.4/96.4 = 100.0% (100.0%, 100.0%)
Hispanic or Latino	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	24	0/1647.1 = 0.0% (0.0%, 0.0%)	0/1647.1 = 0.0% (0.0%, 0.0%)	0/1647.1 = 0.0% (0.0%, 0.0%)
Hispanic or Latino	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	24	0/1647.1 = 0.0% (0.0%, 0.0%)	0/1647.1 = 0.0% (0.0%, 0.0%)	0/1647.1 = 0.0% (0.0%, 0.0%)
Hispanic or Latino	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	24	0/1647.1 = 0.0% (0.0%, 0.0%)	0/1647.1 = 0.0% (0.0%, 0.0%)	0/1647.1 = 0.0% (0.0%, 0.0%)
Hispanic or Latino	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	29	106.5/106.5 = 100.0% (100.0%, 100.0%)	106.5/106.5 = 100.0% (100.0%, 100.0%)	98.2/106.5 = 92.2% (58.3%, 99.0%)
Hispanic or Latino	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	29	106.5/106.5 = 100.0% (100.0%, 100.0%)	106.5/106.5 = 100.0% (100.0%, 100.0%)	106.5/106.5 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Hispanic or Latino	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	29	106.5/106.5 = 100.0% (100.0%, 100.0%)	106.5/106.5 = 100.0% (100.0%, 100.0%)	106.5/106.5 = 100.0% (100.0%, 100.0%)
Not Hispanic or Latino	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	600	8405/9605.9 = 87.5% (83.1%, 90.8%)	8405/9605.9 = 87.5% (83.1%, 90.8%)	7449.6/9605.9 = 77.6% (72.5%, 81.9%)
Not Hispanic or Latino	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	600	9605.9/9605.9 = 100.0% (100.0%, 100.0%)	9605.9/9605.9 = 100.0% (100.0%, 100.0%)	9589.8/9605.9 = 99.8% (99.3%, 100.0%)
Not Hispanic or Latino	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	600	9605.9/9605.9 = 100.0% (100.0%, 100.0%)	9605.9/9605.9 = 100.0% (100.0%, 100.0%)	9605.9/9605.9 = 100.0% (100.0%, 100.0%)
Not Hispanic or Latino	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	200	975.8/1022.7 = 95.4% (91.6%, 97.5%)	975.8/1022.7 = 95.4% (91.6%, 97.5%)	956/1022.7 = 93.5% (89.4%, 96.1%)
Not Hispanic or Latino	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	200	1022.7/1022.7 = 100.0% (100.0%, 100.0%)	1022.7/1022.7 = 100.0% (100.0%, 100.0%)	1019.2/1022.7 = 99.7% (97.6%, 100.0%)
Not Hispanic or Latino	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	200	1022.7/1022.7 = 100.0% (100.0%, 100.0%)	1022.7/1022.7 = 100.0% (100.0%, 100.0%)	1022.7/1022.7 = 100.0% (100.0%, 100.0%)
Not Hispanic or Latino	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	103	0/9415.3 = 0.0% (0.0%, 0.0%)	0/9415.3 = 0.0% (0.0%, 0.0%)	0/9415.3 = 0.0% (0.0%, 0.0%)
Not Hispanic or Latino	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	103	0/9415.3 = 0.0% (0.0%, 0.0%)	0/9415.3 = 0.0% (0.0%, 0.0%)	0/9415.3 = 0.0% (0.0%, 0.0%)
Not Hispanic or Latino	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	103	0/9415.3 = 0.0% (0.0%, 0.0%)	0/9415.3 = 0.0% (0.0%, 0.0%)	0/9415.3 = 0.0% (0.0%, 0.0%)
Not Hispanic or Latino	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	184	794.1/918.5 = 86.5% (78.1%, 92.0%)	794.1/918.5 = 86.5% (78.1%, 92.0%)	642.4/918.5 = 69.9% (60.3%, 78.1%)
Not Hispanic or Latino	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	184	910.1/918.5 = 99.1% (93.8%, 99.9%)	910.1/918.5 = 99.1% (93.8%, 99.9%)	910.1/918.5 = 99.1% (93.8%, 99.9%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Not Hispanic or Latino	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	184	918.5/918.5 = 100.0% (100.0%, 100.0%)	918.5/918.5 = 100.0% (100.0%, 100.0%)	918.5/918.5 = 100.0% (100.0%, 100.0%)
Not Hispanic or Latino	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	600	9180.9/9605.9 = 95.6% (92.6%, 97.4%)	9180.9/9605.9 = 95.6% (92.6%, 97.4%)	8708.6/9605.9 = 90.7% (86.7%, 93.5%)
Not Hispanic or Latino	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	600	9605.9/9605.9 = 100.0% (100.0%, 100.0%)	9605.9/9605.9 = 100.0% (100.0%, 100.0%)	9605.9/9605.9 = 100.0% (100.0%, 100.0%)
Not Hispanic or Latino	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	600	9605.9/9605.9 = 100.0% (100.0%, 100.0%)	9605.9/9605.9 = 100.0% (100.0%, 100.0%)	9605.9/9605.9 = 100.0% (100.0%, 100.0%)
Not Hispanic or Latino	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	200	996.4/1022.7 = 97.4% (94.0%, 98.9%)	996.4/1022.7 = 97.4% (94.0%, 98.9%)	981.3/1022.7 = 96.0% (90.2%, 98.4%)
Not Hispanic or Latino	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	200	1022.7/1022.7 = 100.0% (100.0%, 100.0%)	1022.7/1022.7 = 100.0% (100.0%, 100.0%)	1019.2/1022.7 = 99.7% (97.6%, 100.0%)
Not Hispanic or Latino	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	200	1022.7/1022.7 = 100.0% (100.0%, 100.0%)	1022.7/1022.7 = 100.0% (100.0%, 100.0%)	1022.7/1022.7 = 100.0% (100.0%, 100.0%)
Not Hispanic or Latino	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	103	0/9415.3 = 0.0% (0.0%, 0.0%)	0/9415.3 = 0.0% (0.0%, 0.0%)	0/9415.3 = 0.0% (0.0%, 0.0%)
Not Hispanic or Latino	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	103	0/9415.3 = 0.0% (0.0%, 0.0%)	0/9415.3 = 0.0% (0.0%, 0.0%)	0/9415.3 = 0.0% (0.0%, 0.0%)
Not Hispanic or Latino	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	103	0/9415.3 = 0.0% (0.0%, 0.0%)	0/9415.3 = 0.0% (0.0%, 0.0%)	0/9415.3 = 0.0% (0.0%, 0.0%)
Not Hispanic or Latino	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	184	859.6/918.5 = 93.6% (86.3%, 97.1%)	859.6/918.5 = 93.6% (86.3%, 97.1%)	835.8/918.5 = 91.0% (83.5%, 95.3%)
Not Hispanic or Latino	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	184	918.5/918.5 = 100.0% (100.0%, 100.0%)	918.5/918.5 = 100.0% (100.0%, 100.0%)	918.5/918.5 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Not Hispanic or Latino	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	184	918.5/918.5 = 100.0% (100.0%, 100.0%)	918.5/918.5 = 100.0% (100.0%, 100.0%)	918.5/918.5 = 100.0% (100.0%, 100.0%)
Not reported and unknown	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	27	364.6/364.6 = 100.0% (100.0%, 100.0%)	364.6/364.6 = 100.0% (100.0%, 100.0%)	328.3/364.6 = 90.0% (51.1%, 98.7%)
Not reported and unknown	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	27	364.6/364.6 = 100.0% (100.0%, 100.0%)	364.6/364.6 = 100.0% (100.0%, 100.0%)	364.6/364.6 = 100.0% (100.0%, 100.0%)
Not reported and unknown	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	27	364.6/364.6 = 100.0% (100.0%, 100.0%)	364.6/364.6 = 100.0% (100.0%, 100.0%)	364.6/364.6 = 100.0% (100.0%, 100.0%)
Not reported and unknown	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	8	22.9/22.9 = 100.0% (100.0%, 100.0%)	22.9/22.9 = 100.0% (100.0%, 100.0%)	22.9/22.9 = 100.0% (100.0%, 100.0%)
Not reported and unknown	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	8	22.9/22.9 = 100.0% (100.0%, 100.0%)	22.9/22.9 = 100.0% (100.0%, 100.0%)	22.9/22.9 = 100.0% (100.0%, 100.0%)
Not reported and unknown	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	8	22.9/22.9 = 100.0% (100.0%, 100.0%)	22.9/22.9 = 100.0% (100.0%, 100.0%)	22.9/22.9 = 100.0% (100.0%, 100.0%)
Not reported and unknown	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	3	0/133.6 = 0.0%	0/133.6 = 0.0%	0/133.6 = 0.0%
Not reported and unknown	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	3	0/133.6 = 0.0%	0/133.6 = 0.0%	0/133.6 = 0.0%
Not reported and unknown	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	3	0/133.6 = 0.0%	0/133.6 = 0.0%	0/133.6 = 0.0%
Not reported and unknown	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	8	39.7/48 = 82.7% (21.8%, 98.8%)	39.7/48 = 82.7% (21.8%, 98.8%)	39.7/48 = 82.7% (21.8%, 98.8%)
Not reported and unknown	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	8	48/48 = 100.0% (100.0%, 100.0%)	48/48 = 100.0% (100.0%, 100.0%)	48/48 = 100.0% (100.0%, 100.0%)
Not reported and unknown	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	8	48/48 = 100.0% (100.0%, 100.0%)	48/48 = 100.0% (100.0%, 100.0%)	48/48 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Not reported and unknown	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	27	364.6/364.6 = 100.0% (100.0%, 100.0%)	364.6/364.6 = 100.0% (100.0%, 100.0%)	320.2/364.6 = 87.8% (53.3%, 97.9%)
Not reported and unknown	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	27	364.6/364.6 = 100.0% (100.0%, 100.0%)	364.6/364.6 = 100.0% (100.0%, 100.0%)	364.6/364.6 = 100.0% (100.0%, 100.0%)
Not reported and unknown	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	27	364.6/364.6 = 100.0% (100.0%, 100.0%)	364.6/364.6 = 100.0% (100.0%, 100.0%)	364.6/364.6 = 100.0% (100.0%, 100.0%)
Not reported and unknown	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	8	22.9/22.9 = 100.0% (100.0%, 100.0%)	22.9/22.9 = 100.0% (100.0%, 100.0%)	22.9/22.9 = 100.0% (100.0%, 100.0%)
Not reported and unknown	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	8	22.9/22.9 = 100.0% (100.0%, 100.0%)	22.9/22.9 = 100.0% (100.0%, 100.0%)	22.9/22.9 = 100.0% (100.0%, 100.0%)
Not reported and unknown	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	8	22.9/22.9 = 100.0% (100.0%, 100.0%)	22.9/22.9 = 100.0% (100.0%, 100.0%)	22.9/22.9 = 100.0% (100.0%, 100.0%)
Not reported and unknown	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	3	0/133.6 = 0.0%	0/133.6 = 0.0%	0/133.6 = 0.0%
Not reported and unknown	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	3	0/133.6 = 0.0%	0/133.6 = 0.0%	0/133.6 = 0.0%
Not reported and unknown	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	3	0/133.6 = 0.0%	0/133.6 = 0.0%	0/133.6 = 0.0%
Not reported and unknown	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	8	48/48 = 100.0% (100.0%, 100.0%)	48/48 = 100.0% (100.0%, 100.0%)	48/48 = 100.0% (100.0%, 100.0%)
Not reported and unknown	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	8	48/48 = 100.0% (100.0%, 100.0%)	48/48 = 100.0% (100.0%, 100.0%)	48/48 = 100.0% (100.0%, 100.0%)
Not reported and unknown	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	8	48/48 = 100.0% (100.0%, 100.0%)	48/48 = 100.0% (100.0%, 100.0%)	48/48 = 100.0% (100.0%, 100.0%)

Binding Antibody Responders are defined as participants who had baseline values below the LLOQ with detectable antibody concentration above the assay LLOQ, or as participants with baseline values above the LLOQ with a 4-fold increase in antibody concentration.

Percentages are calculated for the whole per-protocol group/subgroup, using inverse probability weighting.

LLOQ = 4.49, 5.77, 1.80 IU/ml for N, RBD, Spike, respectively.

Table 5h. Percentage of responders, and participants with 2-fold rise, and participants with 4-fold rise for binding antibody markers by Race

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Race								
White Non-Hispanic	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	355	5491.9/6280.2 = 87.4% (81.7%, 91.6%)	5491.9/6280.2 = 87.4% (81.7%, 91.6%)	4775.7/6280.2 = 76.0% (69.4%, 81.6%)
White Non-Hispanic	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	355	6280.2/6280.2 = 100.0% (100.0%, 100.0%)	6280.2/6280.2 = 100.0% (100.0%, 100.0%)	6280.2/6280.2 = 100.0% (100.0%, 100.0%)
White Non-Hispanic	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	355	6280.2/6280.2 = 100.0% (100.0%, 100.0%)	6280.2/6280.2 = 100.0% (100.0%, 100.0%)	6280.2/6280.2 = 100.0% (100.0%, 100.0%)
White Non-Hispanic	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	121	641.2/657.1 = 97.6% (94.3%, 99.0%)	641.2/657.1 = 97.6% (94.3%, 99.0%)	639.1/657.1 = 97.3% (94.0%, 98.8%)
White Non-Hispanic	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	121	657.1/657.1 = 100.0% (100.0%, 100.0%)	657.1/657.1 = 100.0% (100.0%, 100.0%)	653.7/657.1 = 99.5% (96.3%, 99.9%)
White Non-Hispanic	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	121	657.1/657.1 = 100.0% (100.0%, 100.0%)	657.1/657.1 = 100.0% (100.0%, 100.0%)	657.1/657.1 = 100.0% (100.0%, 100.0%)
White Non-Hispanic	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	64	0/7123.2 = 0.0% (0.0%, 0.0%)	0/7123.2 = 0.0% (0.0%, 0.0%)	0/7123.2 = 0.0% (0.0%, 0.0%)
White Non-Hispanic	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	64	0/7123.2 = 0.0% (0.0%, 0.0%)	0/7123.2 = 0.0% (0.0%, 0.0%)	0/7123.2 = 0.0% (0.0%, 0.0%)
White Non-Hispanic	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	64	0/7123.2 = 0.0% (0.0%, 0.0%)	0/7123.2 = 0.0% (0.0%, 0.0%)	0/7123.2 = 0.0% (0.0%, 0.0%)
White Non-Hispanic	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	119	552.3/625 = 88.4% (77.5%, 94.4%)	552.3/625 = 88.4% (77.5%, 94.4%)	436/625 = 69.8% (57.5%, 79.7%)
White Non-Hispanic	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	119	625/625 = 100.0% (100.0%, 100.0%)	625/625 = 100.0% (100.0%, 100.0%)	625/625 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
White Non-Hispanic	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	119	625/625 = 100.0% (100.0%, 100.0%)	625/625 = 100.0% (100.0%, 100.0%)	625/625 = 100.0% (100.0%, 100.0%)
White Non-Hispanic	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	355	5976.3/6280.2 = 95.2% (90.9%, 97.5%)	5976.3/6280.2 = 95.2% (90.9%, 97.5%)	5681.3/6280.2 = 90.5% (85.2%, 94.0%)
White Non-Hispanic	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	355	6280.2/6280.2 = 100.0% (100.0%, 100.0%)	6280.2/6280.2 = 100.0% (100.0%, 100.0%)	6280.2/6280.2 = 100.0% (100.0%, 100.0%)
White Non-Hispanic	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	355	6280.2/6280.2 = 100.0% (100.0%, 100.0%)	6280.2/6280.2 = 100.0% (100.0%, 100.0%)	6280.2/6280.2 = 100.0% (100.0%, 100.0%)
White Non-Hispanic	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	121	648.1/657.1 = 98.6% (95.7%, 99.6%)	648.1/657.1 = 98.6% (95.7%, 99.6%)	648.1/657.1 = 98.6% (95.7%, 99.6%)
White Non-Hispanic	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	121	657.1/657.1 = 100.0% (100.0%, 100.0%)	657.1/657.1 = 100.0% (100.0%, 100.0%)	653.7/657.1 = 99.5% (96.3%, 99.9%)
White Non-Hispanic	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	121	657.1/657.1 = 100.0% (100.0%, 100.0%)	657.1/657.1 = 100.0% (100.0%, 100.0%)	657.1/657.1 = 100.0% (100.0%, 100.0%)
White Non-Hispanic	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	64	0/7123.2 = 0.0% (0.0%, 0.0%)	0/7123.2 = 0.0% (0.0%, 0.0%)	0/7123.2 = 0.0% (0.0%, 0.0%)
White Non-Hispanic	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	64	0/7123.2 = 0.0% (0.0%, 0.0%)	0/7123.2 = 0.0% (0.0%, 0.0%)	0/7123.2 = 0.0% (0.0%, 0.0%)
White Non-Hispanic	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	64	0/7123.2 = 0.0% (0.0%, 0.0%)	0/7123.2 = 0.0% (0.0%, 0.0%)	0/7123.2 = 0.0% (0.0%, 0.0%)
White Non-Hispanic	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	119	586/625 = 93.8% (83.4%, 97.8%)	586/625 = 93.8% (83.4%, 97.8%)	565.4/625 = 90.5% (80.1%, 95.7%)
White Non-Hispanic	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	119	625/625 = 100.0% (100.0%, 100.0%)	625/625 = 100.0% (100.0%, 100.0%)	625/625 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
White Non-Hispanic	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	119	625/625 = 100.0% (100.0%, 100.0%)	625/625 = 100.0% (100.0%, 100.0%)	625/625 = 100.0% (100.0%, 100.0%)
Black or African American	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	179	1890.7/2114.1 = 89.4% (80.5%, 94.5%)	1890.7/2114.1 = 89.4% (80.5%, 94.5%)	1775.2/2114.1 = 84.0% (74.3%, 90.5%)
Black or African American	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	179	2114.1/2114.1 = 100.0% (100.0%, 100.0%)	2114.1/2114.1 = 100.0% (100.0%, 100.0%)	2106.1/2114.1 = 99.6% (97.3%, 99.9%)
Black or African American	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	179	2114.1/2114.1 = 100.0% (100.0%, 100.0%)	2114.1/2114.1 = 100.0% (100.0%, 100.0%)	2114.1/2114.1 = 100.0% (100.0%, 100.0%)
Black or African American	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	60	225.1/245.6 = 91.7% (78.0%, 97.1%)	225.1/245.6 = 91.7% (78.0%, 97.1%)	214.8/245.6 = 87.5% (73.2%, 94.7%)
Black or African American	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	60	245.6/245.6 = 100.0% (100.0%, 100.0%)	245.6/245.6 = 100.0% (100.0%, 100.0%)	245.6/245.6 = 100.0% (100.0%, 100.0%)
Black or African American	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	60	245.6/245.6 = 100.0% (100.0%, 100.0%)	245.6/245.6 = 100.0% (100.0%, 100.0%)	245.6/245.6 = 100.0% (100.0%, 100.0%)
Black or African American	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	36	0/2356.8 = 0.0% (0.0%, 0.0%)	0/2356.8 = 0.0% (0.0%, 0.0%)	0/2356.8 = 0.0% (0.0%, 0.0%)
Black or African American	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	36	0/2356.8 = 0.0% (0.0%, 0.0%)	0/2356.8 = 0.0% (0.0%, 0.0%)	0/2356.8 = 0.0% (0.0%, 0.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Black or African American	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	36	0/2356.8 = 0.0% (0.0%, 0.0%)	0/2356.8 = 0.0% (0.0%, 0.0%)	0/2356.8 = 0.0% (0.0%, 0.0%)
Black or African American	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	46	154.5/196 = 78.8% (58.2%, 90.9%)	154.5/196 = 78.8% (58.2%, 90.9%)	144.3/196 = 73.6% (53.4%, 87.2%)
Black or African American	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	46	187.7/196 = 95.8% (73.8%, 99.5%)	187.7/196 = 95.8% (73.8%, 99.5%)	187.7/196 = 95.8% (73.8%, 99.5%)
Black or African American	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	46	196/196 = 100.0% (100.0%, 100.0%)	196/196 = 100.0% (100.0%, 100.0%)	196/196 = 100.0% (100.0%, 100.0%)
Black or African American	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	179	2004.7/2114.1 = 94.8% (87.0%, 98.0%)	2004.7/2114.1 = 94.8% (87.0%, 98.0%)	1834.1/2114.1 = 86.8% (76.7%, 92.9%)
Black or African American	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	179	2114.1/2114.1 = 100.0% (100.0%, 100.0%)	2114.1/2114.1 = 100.0% (100.0%, 100.0%)	2114.1/2114.1 = 100.0% (100.0%, 100.0%)
Black or African American	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	179	2114.1/2114.1 = 100.0% (100.0%, 100.0%)	2114.1/2114.1 = 100.0% (100.0%, 100.0%)	2114.1/2114.1 = 100.0% (100.0%, 100.0%)
Black or African American	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	60	235.3/245.6 = 95.8% (82.7%, 99.1%)	235.3/245.6 = 95.8% (82.7%, 99.1%)	235.3/245.6 = 95.8% (82.7%, 99.1%)
Black or African American	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	60	245.6/245.6 = 100.0% (100.0%, 100.0%)	245.6/245.6 = 100.0% (100.0%, 100.0%)	245.6/245.6 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Black or African American	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	60	245.6/245.6 = 100.0% (100.0%, 100.0%)	245.6/245.6 = 100.0% (100.0%, 100.0%)	245.6/245.6 = 100.0% (100.0%, 100.0%)
Black or African American	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	36	0/2356.8 = 0.0% (0.0%, 0.0%)	0/2356.8 = 0.0% (0.0%, 0.0%)	0/2356.8 = 0.0% (0.0%, 0.0%)
Black or African American	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	36	0/2356.8 = 0.0% (0.0%, 0.0%)	0/2356.8 = 0.0% (0.0%, 0.0%)	0/2356.8 = 0.0% (0.0%, 0.0%)
Black or African American	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	36	0/2356.8 = 0.0% (0.0%, 0.0%)	0/2356.8 = 0.0% (0.0%, 0.0%)	0/2356.8 = 0.0% (0.0%, 0.0%)
Black or African American	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	46	179.4/196 = 91.5% (70.8%, 98.0%)	179.4/196 = 91.5% (70.8%, 98.0%)	179.4/196 = 91.5% (70.8%, 98.0%)
Black or African American	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	46	196/196 = 100.0% (100.0%, 100.0%)	196/196 = 100.0% (100.0%, 100.0%)	196/196 = 100.0% (100.0%, 100.0%)
Black or African American	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	46	196/196 = 100.0% (100.0%, 100.0%)	196/196 = 100.0% (100.0%, 100.0%)	196/196 = 100.0% (100.0%, 100.0%)
Asian	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	65	896.9/1066.3 = 84.1% (66.4%, 93.4%)	896.9/1066.3 = 84.1% (66.4%, 93.4%)	803.2/1066.3 = 75.3% (58.0%, 87.1%)
Asian	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	65	1066.3/1066.3 = 100.0% (100.0%, 100.0%)	1066.3/1066.3 = 100.0% (100.0%, 100.0%)	1066.3/1066.3 = 100.0% (100.0%, 100.0%)
Asian	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	65	1066.3/1066.3 = 100.0% (100.0%, 100.0%)	1066.3/1066.3 = 100.0% (100.0%, 100.0%)	1066.3/1066.3 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Asian	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	21	125.4/128.8 = 97.3% (80.3%, 99.7%)	125.4/128.8 = 97.3% (80.3%, 99.7%)	119.8/128.8 = 93.0% (77.0%, 98.1%)
Asian	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	21	128.8/128.8 = 100.0% (100.0%, 100.0%)	128.8/128.8 = 100.0% (100.0%, 100.0%)	128.8/128.8 = 100.0% (100.0%, 100.0%)
Asian	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	21	128.8/128.8 = 100.0% (100.0%, 100.0%)	128.8/128.8 = 100.0% (100.0%, 100.0%)	128.8/128.8 = 100.0% (100.0%, 100.0%)
Asian	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	8	0/441.3 = 0.0% (0.0%, 0.0%)	0/441.3 = 0.0% (0.0%, 0.0%)	0/441.3 = 0.0% (0.0%, 0.0%)
Asian	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	8	0/441.3 = 0.0% (0.0%, 0.0%)	0/441.3 = 0.0% (0.0%, 0.0%)	0/441.3 = 0.0% (0.0%, 0.0%)
Asian	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	8	0/441.3 = 0.0% (0.0%, 0.0%)	0/441.3 = 0.0% (0.0%, 0.0%)	0/441.3 = 0.0% (0.0%, 0.0%)
Asian	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	19	81.1/98.1 = 82.7% (45.9%, 96.4%)	81.1/98.1 = 82.7% (45.9%, 96.4%)	66.9/98.1 = 68.2% (34.5%, 89.8%)
Asian	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	19	98.1/98.1 = 100.0% (100.0%, 100.0%)	98.1/98.1 = 100.0% (100.0%, 100.0%)	98.1/98.1 = 100.0% (100.0%, 100.0%)
Asian	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	19	98.1/98.1 = 100.0% (100.0%, 100.0%)	98.1/98.1 = 100.0% (100.0%, 100.0%)	98.1/98.1 = 100.0% (100.0%, 100.0%)
Asian	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	65	1066.3/1066.3 = 100.0% (100.0%, 100.0%)	1066.3/1066.3 = 100.0% (100.0%, 100.0%)	986.3/1066.3 = 92.5% (74.0%, 98.2%)
Asian	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	65	1066.3/1066.3 = 100.0% (100.0%, 100.0%)	1066.3/1066.3 = 100.0% (100.0%, 100.0%)	1066.3/1066.3 = 100.0% (100.0%, 100.0%)
Asian	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	65	1066.3/1066.3 = 100.0% (100.0%, 100.0%)	1066.3/1066.3 = 100.0% (100.0%, 100.0%)	1066.3/1066.3 = 100.0% (100.0%, 100.0%)
Asian	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	21	128.8/128.8 = 100.0% (100.0%, 100.0%)	128.8/128.8 = 100.0% (100.0%, 100.0%)	113.7/128.8 = 88.3% (44.9%, 98.6%)
Asian	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	21	128.8/128.8 = 100.0% (100.0%, 100.0%)	128.8/128.8 = 100.0% (100.0%, 100.0%)	128.8/128.8 = 100.0% (100.0%, 100.0%)
Asian	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	21	128.8/128.8 = 100.0% (100.0%, 100.0%)	128.8/128.8 = 100.0% (100.0%, 100.0%)	128.8/128.8 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Asian	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	8	0/441.3 = 0.0% (0.0%, 0.0%)	0/441.3 = 0.0% (0.0%, 0.0%)	0/441.3 = 0.0% (0.0%, 0.0%)
Asian	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	8	0/441.3 = 0.0% (0.0%, 0.0%)	0/441.3 = 0.0% (0.0%, 0.0%)	0/441.3 = 0.0% (0.0%, 0.0%)
Asian	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	8	0/441.3 = 0.0% (0.0%, 0.0%)	0/441.3 = 0.0% (0.0%, 0.0%)	0/441.3 = 0.0% (0.0%, 0.0%)
Asian	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	19	94.8/98.1 = 96.7% (76.1%, 99.6%)	94.8/98.1 = 96.7% (76.1%, 99.6%)	94.8/98.1 = 96.7% (76.1%, 99.6%)
Asian	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	19	98.1/98.1 = 100.0% (100.0%, 100.0%)	98.1/98.1 = 100.0% (100.0%, 100.0%)	98.1/98.1 = 100.0% (100.0%, 100.0%)
Asian	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	19	98.1/98.1 = 100.0% (100.0%, 100.0%)	98.1/98.1 = 100.0% (100.0%, 100.0%)	98.1/98.1 = 100.0% (100.0%, 100.0%)
American Indian or Alaska Native	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	14	170.5/170.5 = 100.0% (100.0%, 100.0%)	170.5/170.5 = 100.0% (100.0%, 100.0%)	162.5/170.5 = 95.3% (65.4%, 99.5%)
American Indian or Alaska Native	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	14	170.5/170.5 = 100.0% (100.0%, 100.0%)	170.5/170.5 = 100.0% (100.0%, 100.0%)	170.5/170.5 = 100.0% (100.0%, 100.0%)
American Indian or Alaska Native	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	14	170.5/170.5 = 100.0% (100.0%, 100.0%)	170.5/170.5 = 100.0% (100.0%, 100.0%)	170.5/170.5 = 100.0% (100.0%, 100.0%)
American Indian or Alaska Native	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	4	8.9/8.9 = 100.0% (100.0%, 100.0%)	8.9/8.9 = 100.0% (100.0%, 100.0%)	7/8.9 = 78.6% (2.3%, 99.8%)
American Indian or Alaska Native	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	4	8.9/8.9 = 100.0% (100.0%, 100.0%)	8.9/8.9 = 100.0% (100.0%, 100.0%)	8.9/8.9 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
American Indian or Alaska Native	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	4	8.9/8.9 = 100.0% (100.0%, 100.0%)	8.9/8.9 = 100.0% (100.0%, 100.0%)	8.9/8.9 = 100.0% (100.0%, 100.0%)
American Indian or Alaska Native	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	2	0/59.5 = 0.0%	0/59.5 = 0.0%	0/59.5 = 0.0%
American Indian or Alaska Native	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	2	0/59.5 = 0.0%	0/59.5 = 0.0%	0/59.5 = 0.0%
American Indian or Alaska Native	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	2	0/59.5 = 0.0%	0/59.5 = 0.0%	0/59.5 = 0.0%
American Indian or Alaska Native	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	5	29.6/29.6 = 100.0% (100.0%, 100.0%)	29.6/29.6 = 100.0% (100.0%, 100.0%)	18.5/29.6 = 62.4% (1.9%, 99.3%)
American Indian or Alaska Native	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	5	29.6/29.6 = 100.0% (100.0%, 100.0%)	29.6/29.6 = 100.0% (100.0%, 100.0%)	29.6/29.6 = 100.0% (100.0%, 100.0%)
American Indian or Alaska Native	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	5	29.6/29.6 = 100.0% (100.0%, 100.0%)	29.6/29.6 = 100.0% (100.0%, 100.0%)	29.6/29.6 = 100.0% (100.0%, 100.0%)
American Indian or Alaska Native	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	14	162.5/170.5 = 95.3% (65.4%, 99.5%)	162.5/170.5 = 95.3% (65.4%, 99.5%)	162.5/170.5 = 95.3% (65.4%, 99.5%)
American Indian or Alaska Native	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	14	170.5/170.5 = 100.0% (100.0%, 100.0%)	170.5/170.5 = 100.0% (100.0%, 100.0%)	170.5/170.5 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
American Indian or Alaska Native	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	14	170.5/170.5 = 100.0% (100.0%, 100.0%)	170.5/170.5 = 100.0% (100.0%, 100.0%)	170.5/170.5 = 100.0% (100.0%, 100.0%)
American Indian or Alaska Native	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	4	8.9/8.9 = 100.0% (100.0%, 100.0%)	8.9/8.9 = 100.0% (100.0%, 100.0%)	8.9/8.9 = 100.0% (100.0%, 100.0%)
American Indian or Alaska Native	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	4	8.9/8.9 = 100.0% (100.0%, 100.0%)	8.9/8.9 = 100.0% (100.0%, 100.0%)	8.9/8.9 = 100.0% (100.0%, 100.0%)
American Indian or Alaska Native	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	4	8.9/8.9 = 100.0% (100.0%, 100.0%)	8.9/8.9 = 100.0% (100.0%, 100.0%)	8.9/8.9 = 100.0% (100.0%, 100.0%)
American Indian or Alaska Native	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	2	0/59.5 = 0.0%	0/59.5 = 0.0%	0/59.5 = 0.0%
American Indian or Alaska Native	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	2	0/59.5 = 0.0%	0/59.5 = 0.0%	0/59.5 = 0.0%
American Indian or Alaska Native	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	2	0/59.5 = 0.0%	0/59.5 = 0.0%	0/59.5 = 0.0%
American Indian or Alaska Native	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	5	29.6/29.6 = 100.0% (100.0%, 100.0%)	29.6/29.6 = 100.0% (100.0%, 100.0%)	29.6/29.6 = 100.0% (100.0%, 100.0%)
American Indian or Alaska Native	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	5	29.6/29.6 = 100.0% (100.0%, 100.0%)	29.6/29.6 = 100.0% (100.0%, 100.0%)	29.6/29.6 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
American Indian or Alaska Native	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	5	29.6/29.6 = 100.0% (100.0%, 100.0%)	29.6/29.6 = 100.0% (100.0%, 100.0%)	29.6/29.6 = 100.0% (100.0%, 100.0%)
Native Hawaiian or Other Pacific Islander	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	9	135.7/143.7 = 94.4% (53.2%, 99.6%)	135.7/143.7 = 94.4% (53.2%, 99.6%)	135.7/143.7 = 94.4% (53.2%, 99.6%)
Native Hawaiian or Other Pacific Islander	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	9	143.7/143.7 = 100.0% (100.0%, 100.0%)	143.7/143.7 = 100.0% (100.0%, 100.0%)	135.7/143.7 = 94.4% (53.2%, 99.6%)
Native Hawaiian or Other Pacific Islander	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	9	143.7/143.7 = 100.0% (100.0%, 100.0%)	143.7/143.7 = 100.0% (100.0%, 100.0%)	143.7/143.7 = 100.0% (100.0%, 100.0%)
Native Hawaiian or Other Pacific Islander	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	4	7/14 = 49.7%	7/14 = 49.7%	7/14 = 49.7%
Native Hawaiian or Other Pacific Islander	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	4	14/14 = 100.0%	14/14 = 100.0%	14/14 = 100.0%
Native Hawaiian or Other Pacific Islander	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	4	14/14 = 100.0%	14/14 = 100.0%	14/14 = 100.0%

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Native Hawaiian or Other Pacific Islander	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	3	0/133.6 = 0.0%	0/133.6 = 0.0%	0/133.6 = 0.0%
Native Hawaiian or Other Pacific Islander	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	3	0/133.6 = 0.0%	0/133.6 = 0.0%	0/133.6 = 0.0%
Native Hawaiian or Other Pacific Islander	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	3	0/133.6 = 0.0%	0/133.6 = 0.0%	0/133.6 = 0.0%
Native Hawaiian or Other Pacific Islander	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	4	8.4/8.4 = 100.0% (100.0%, 100.0%)	8.4/8.4 = 100.0% (100.0%, 100.0%)	8.4/8.4 = 100.0% (100.0%, 100.0%)
Native Hawaiian or Other Pacific Islander	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	4	8.4/8.4 = 100.0% (100.0%, 100.0%)	8.4/8.4 = 100.0% (100.0%, 100.0%)	8.4/8.4 = 100.0% (100.0%, 100.0%)
Native Hawaiian or Other Pacific Islander	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	4	8.4/8.4 = 100.0% (100.0%, 100.0%)	8.4/8.4 = 100.0% (100.0%, 100.0%)	8.4/8.4 = 100.0% (100.0%, 100.0%)
Native Hawaiian or Other Pacific Islander	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	9	143.7/143.7 = 100.0% (100.0%, 100.0%)	143.7/143.7 = 100.0% (100.0%, 100.0%)	143.7/143.7 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Native Hawaiian or Other Pacific Islander	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	9	143.7/143.7 = 100.0% (100.0%, 100.0%)	143.7/143.7 = 100.0% (100.0%, 100.0%)	143.7/143.7 = 100.0% (100.0%, 100.0%)
Native Hawaiian or Other Pacific Islander	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	9	143.7/143.7 = 100.0% (100.0%, 100.0%)	143.7/143.7 = 100.0% (100.0%, 100.0%)	143.7/143.7 = 100.0% (100.0%, 100.0%)
Native Hawaiian or Other Pacific Islander	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	4	7/14 = 49.7%	7/14 = 49.7%	7/14 = 49.7%
Native Hawaiian or Other Pacific Islander	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	4	14/14 = 100.0%	14/14 = 100.0%	14/14 = 100.0%
Native Hawaiian or Other Pacific Islander	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	4	14/14 = 100.0%	14/14 = 100.0%	14/14 = 100.0%
Native Hawaiian or Other Pacific Islander	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	3	0/133.6 = 0.0%	0/133.6 = 0.0%	0/133.6 = 0.0%
Native Hawaiian or Other Pacific Islander	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	3	0/133.6 = 0.0%	0/133.6 = 0.0%	0/133.6 = 0.0%

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Native Hawaiian or Other Pacific Islander	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	3	0/133.6 = 0.0%	0/133.6 = 0.0%	0/133.6 = 0.0%
Native Hawaiian or Other Pacific Islander	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	4	8.4/8.4 = 100.0% (100.0%, 100.0%)	8.4/8.4 = 100.0% (100.0%, 100.0%)	8.4/8.4 = 100.0% (100.0%, 100.0%)
Native Hawaiian or Other Pacific Islander	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	4	8.4/8.4 = 100.0% (100.0%, 100.0%)	8.4/8.4 = 100.0% (100.0%, 100.0%)	8.4/8.4 = 100.0% (100.0%, 100.0%)
Native Hawaiian or Other Pacific Islander	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	4	8.4/8.4 = 100.0% (100.0%, 100.0%)	8.4/8.4 = 100.0% (100.0%, 100.0%)	8.4/8.4 = 100.0% (100.0%, 100.0%)
Multiracial	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	54	686.5/779.8 = 88.0% (68.7%, 96.1%)	686.5/779.8 = 88.0% (68.7%, 96.1%)	613.6/779.8 = 78.7% (58.6%, 90.6%)
Multiracial	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	54	779.8/779.8 = 100.0% (100.0%, 100.0%)	779.8/779.8 = 100.0% (100.0%, 100.0%)	779.8/779.8 = 100.0% (100.0%, 100.0%)
Multiracial	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	54	779.8/779.8 = 100.0% (100.0%, 100.0%)	779.8/779.8 = 100.0% (100.0%, 100.0%)	779.8/779.8 = 100.0% (100.0%, 100.0%)
Multiracial	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	11	39.2/39.2 = 100.0% (100.0%, 100.0%)	39.2/39.2 = 100.0% (100.0%, 100.0%)	36/39.2 = 91.9% (47.6%, 99.3%)
Multiracial	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	11	39.2/39.2 = 100.0% (100.0%, 100.0%)	39.2/39.2 = 100.0% (100.0%, 100.0%)	39.2/39.2 = 100.0% (100.0%, 100.0%)
Multiracial	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	11	39.2/39.2 = 100.0% (100.0%, 100.0%)	39.2/39.2 = 100.0% (100.0%, 100.0%)	39.2/39.2 = 100.0% (100.0%, 100.0%)
Multiracial	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	11	0/712.6 = 0.0% (0.0%, 0.0%)	0/712.6 = 0.0% (0.0%, 0.0%)	0/712.6 = 0.0% (0.0%, 0.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Multiracial	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	11	0/712.6 = 0.0% (0.0%, 0.0%)	0/712.6 = 0.0% (0.0%, 0.0%)	0/712.6 = 0.0% (0.0%, 0.0%)
Multiracial	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	11	0/712.6 = 0.0% (0.0%, 0.0%)	0/712.6 = 0.0% (0.0%, 0.0%)	0/712.6 = 0.0% (0.0%, 0.0%)
Multiracial	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	14	48.5/62.8 = 77.2% (38.5%, 94.8%)	48.5/62.8 = 77.2% (38.5%, 94.8%)	31.9/62.8 = 50.7% (19.7%, 81.2%)
Multiracial	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	14	62.8/62.8 = 100.0% (100.0%, 100.0%)	62.8/62.8 = 100.0% (100.0%, 100.0%)	62.8/62.8 = 100.0% (100.0%, 100.0%)
Multiracial	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	14	62.8/62.8 = 100.0% (100.0%, 100.0%)	62.8/62.8 = 100.0% (100.0%, 100.0%)	62.8/62.8 = 100.0% (100.0%, 100.0%)
Multiracial	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	54	779.8/779.8 = 100.0% (100.0%, 100.0%)	779.8/779.8 = 100.0% (100.0%, 100.0%)	754.4/779.8 = 96.7% (90.7%, 98.9%)
Multiracial	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	54	779.8/779.8 = 100.0% (100.0%, 100.0%)	779.8/779.8 = 100.0% (100.0%, 100.0%)	779.8/779.8 = 100.0% (100.0%, 100.0%)
Multiracial	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	54	779.8/779.8 = 100.0% (100.0%, 100.0%)	779.8/779.8 = 100.0% (100.0%, 100.0%)	779.8/779.8 = 100.0% (100.0%, 100.0%)
Multiracial	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	11	39.2/39.2 = 100.0% (100.0%, 100.0%)	39.2/39.2 = 100.0% (100.0%, 100.0%)	39.2/39.2 = 100.0% (100.0%, 100.0%)
Multiracial	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	11	39.2/39.2 = 100.0% (100.0%, 100.0%)	39.2/39.2 = 100.0% (100.0%, 100.0%)	39.2/39.2 = 100.0% (100.0%, 100.0%)
Multiracial	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	11	39.2/39.2 = 100.0% (100.0%, 100.0%)	39.2/39.2 = 100.0% (100.0%, 100.0%)	39.2/39.2 = 100.0% (100.0%, 100.0%)
Multiracial	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	11	0/712.6 = 0.0% (0.0%, 0.0%)	0/712.6 = 0.0% (0.0%, 0.0%)	0/712.6 = 0.0% (0.0%, 0.0%)
Multiracial	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	11	0/712.6 = 0.0% (0.0%, 0.0%)	0/712.6 = 0.0% (0.0%, 0.0%)	0/712.6 = 0.0% (0.0%, 0.0%)
Multiracial	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	11	0/712.6 = 0.0% (0.0%, 0.0%)	0/712.6 = 0.0% (0.0%, 0.0%)	0/712.6 = 0.0% (0.0%, 0.0%)
Multiracial	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	14	62.8/62.8 = 100.0% (100.0%, 100.0%)	62.8/62.8 = 100.0% (100.0%, 100.0%)	51.3/62.8 = 81.6% (39.5%, 96.8%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Multiracial	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	14	62.8/62.8 = 100.0% (100.0%, 100.0%)	62.8/62.8 = 100.0% (100.0%, 100.0%)	62.8/62.8 = 100.0% (100.0%, 100.0%)
Multiracial	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	14	62.8/62.8 = 100.0% (100.0%, 100.0%)	62.8/62.8 = 100.0% (100.0%, 100.0%)	62.8/62.8 = 100.0% (100.0%, 100.0%)
Other	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	20	222.2/270.3 = 82.2% (41.8%, 96.7%)	222.2/270.3 = 82.2% (41.8%, 96.7%)	198.6/270.3 = 73.5% (38.5%, 92.5%)
Other	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	20	270.3/270.3 = 100.0% (100.0%, 100.0%)	270.3/270.3 = 100.0% (100.0%, 100.0%)	270.3/270.3 = 100.0% (100.0%, 100.0%)
Other	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	20	270.3/270.3 = 100.0% (100.0%, 100.0%)	270.3/270.3 = 100.0% (100.0%, 100.0%)	270.3/270.3 = 100.0% (100.0%, 100.0%)
Other	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	4	15.3/15.3 = 100.0%	15.3/15.3 = 100.0%	15.3/15.3 = 100.0%
Other	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	4	15.3/15.3 = 100.0%	15.3/15.3 = 100.0%	15.3/15.3 = 100.0%
Other	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	4	15.3/15.3 = 100.0%	15.3/15.3 = 100.0%	15.3/15.3 = 100.0%
Other	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	3	0/154.8 = 0.0%	0/154.8 = 0.0%	0/154.8 = 0.0%
Other	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	3	0/154.8 = 0.0%	0/154.8 = 0.0%	0/154.8 = 0.0%
Other	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	3	0/154.8 = 0.0%	0/154.8 = 0.0%	0/154.8 = 0.0%
Other	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	5	21.6/21.6 = 100.0%	21.6/21.6 = 100.0%	21.6/21.6 = 100.0%
Other	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	5	21.6/21.6 = 100.0%	21.6/21.6 = 100.0%	21.6/21.6 = 100.0%
Other	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	5	21.6/21.6 = 100.0%	21.6/21.6 = 100.0%	21.6/21.6 = 100.0%
Other	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	20	217.5/270.3 = 80.5% (42.0%, 95.9%)	217.5/270.3 = 80.5% (42.0%, 95.9%)	210.2/270.3 = 77.8% (41.3%, 94.5%)
Other	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	20	270.3/270.3 = 100.0% (100.0%, 100.0%)	270.3/270.3 = 100.0% (100.0%, 100.0%)	270.3/270.3 = 100.0% (100.0%, 100.0%)
Other	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	20	270.3/270.3 = 100.0% (100.0%, 100.0%)	270.3/270.3 = 100.0% (100.0%, 100.0%)	270.3/270.3 = 100.0% (100.0%, 100.0%)
Other	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	4	15.3/15.3 = 100.0%	15.3/15.3 = 100.0%	15.3/15.3 = 100.0%
Other	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	4	15.3/15.3 = 100.0%	15.3/15.3 = 100.0%	15.3/15.3 = 100.0%
Other	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	4	15.3/15.3 = 100.0%	15.3/15.3 = 100.0%	15.3/15.3 = 100.0%
Other	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	3	0/154.8 = 0.0%	0/154.8 = 0.0%	0/154.8 = 0.0%
Other	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	3	0/154.8 = 0.0%	0/154.8 = 0.0%	0/154.8 = 0.0%
Other	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	3	0/154.8 = 0.0%	0/154.8 = 0.0%	0/154.8 = 0.0%

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Other	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	5	21.6/21.6 = 100.0%	21.6/21.6 = 100.0%	21.6/21.6 = 100.0%
Other	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	5	21.6/21.6 = 100.0%	21.6/21.6 = 100.0%	21.6/21.6 = 100.0%
Other	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	5	21.6/21.6 = 100.0%	21.6/21.6 = 100.0%	21.6/21.6 = 100.0%
Not reported and unknown	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	3	9.4/17.4 = 53.9%	9.4/17.4 = 53.9%	9.4/17.4 = 53.9%
Not reported and unknown	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	3	17.4/17.4 = 100.0%	17.4/17.4 = 100.0%	17.4/17.4 = 100.0%
Not reported and unknown	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	3	17.4/17.4 = 100.0%	17.4/17.4 = 100.0%	17.4/17.4 = 100.0%
Not reported and unknown	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	3	7/7 = 100.0%	7/7 = 100.0%	7/7 = 100.0%
Not reported and unknown	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	3	7/7 = 100.0%	7/7 = 100.0%	7/7 = 100.0%
Not reported and unknown	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	3	7/7 = 100.0%	7/7 = 100.0%	7/7 = 100.0%
Not reported and unknown	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	1	0/29.8 = 0.0%	0/29.8 = 0.0%	0/29.8 = 0.0%
Not reported and unknown	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	1	0/29.8 = 0.0%	0/29.8 = 0.0%	0/29.8 = 0.0%
Not reported and unknown	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	1	0/29.8 = 0.0%	0/29.8 = 0.0%	0/29.8 = 0.0%
Not reported and unknown	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	1	1.8/1.8 = 100.0%	1.8/1.8 = 100.0%	0/1.8 = 0.0%
Not reported and unknown	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	1	1.8/1.8 = 100.0%	1.8/1.8 = 100.0%	1.8/1.8 = 100.0%
Not reported and unknown	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	1	1.8/1.8 = 100.0%	1.8/1.8 = 100.0%	1.8/1.8 = 100.0%
Not reported and unknown	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	3	17.4/17.4 = 100.0%	17.4/17.4 = 100.0%	17.4/17.4 = 100.0%
Not reported and unknown	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	3	17.4/17.4 = 100.0%	17.4/17.4 = 100.0%	17.4/17.4 = 100.0%

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Not reported and unknown	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	3	17.4/17.4 = 100.0%	17.4/17.4 = 100.0%	17.4/17.4 = 100.0%
Not reported and unknown	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	3	7/7 = 100.0%	7/7 = 100.0%	7/7 = 100.0%
Not reported and unknown	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	3	7/7 = 100.0%	7/7 = 100.0%	7/7 = 100.0%
Not reported and unknown	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	3	7/7 = 100.0%	7/7 = 100.0%	7/7 = 100.0%
Not reported and unknown	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	1	0/29.8 = 0.0%	0/29.8 = 0.0%	0/29.8 = 0.0%
Not reported and unknown	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	1	0/29.8 = 0.0%	0/29.8 = 0.0%	0/29.8 = 0.0%
Not reported and unknown	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	1	0/29.8 = 0.0%	0/29.8 = 0.0%	0/29.8 = 0.0%
Not reported and unknown	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	1	1.8/1.8 = 100.0%	1.8/1.8 = 100.0%	1.8/1.8 = 100.0%
Not reported and unknown	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	1	1.8/1.8 = 100.0%	1.8/1.8 = 100.0%	1.8/1.8 = 100.0%
Not reported and unknown	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	1	1.8/1.8 = 100.0%	1.8/1.8 = 100.0%	1.8/1.8 = 100.0%

Binding Antibody Responders are defined as participants who had baseline values below the LLOQ with detectable antibody concentration above the assay LLOQ, or as participants with baseline values above the LLOQ with a 4-fold increase in antibody concentration.
 Percentages are calculated for the whole per-protocol group/subgroup, using inverse probability weighting.
 LLOQ = 4.49, 5.77, 1.80 IU/ml for N, RBD, Spike, respectively.

Table 5i. Percentage of responders, and participants with 2-fold rise, and participants with 4-fold rise for binding antibody markers by Communities of color

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Communities of color								
Communities of Color	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	374	4352.8/4915.8 = 88.5% (82.8%, 92.6%)	4352.8/4915.8 = 88.5% (82.8%, 92.6%)	4039.1/4915.8 = 82.2% (75.8%, 87.1%)
Communities of Color	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	374	4915.8/4915.8 = 100.0% (100.0%, 100.0%)	4915.8/4915.8 = 100.0% (100.0%, 100.0%)	4899.8/4915.8 = 99.7% (98.7%, 99.9%)
Communities of Color	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	374	4915.8/4915.8 = 100.0% (100.0%, 100.0%)	4915.8/4915.8 = 100.0% (100.0%, 100.0%)	4915.8/4915.8 = 100.0% (100.0%, 100.0%)
Communities of Color	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	114	450.7/484.9 = 93.0% (85.0%, 96.8%)	450.7/484.9 = 93.0% (85.0%, 96.8%)	429.9/484.9 = 88.7% (80.2%, 93.8%)
Communities of Color	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	114	484.9/484.9 = 100.0% (100.0%, 100.0%)	484.9/484.9 = 100.0% (100.0%, 100.0%)	484.9/484.9 = 100.0% (100.0%, 100.0%)
Communities of Color	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	114	484.9/484.9 = 100.0% (100.0%, 100.0%)	484.9/484.9 = 100.0% (100.0%, 100.0%)	484.9/484.9 = 100.0% (100.0%, 100.0%)
Communities of Color	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	66	0/4072.8 = 0.0% (0.0%, 0.0%)	0/4072.8 = 0.0% (0.0%, 0.0%)	0/4072.8 = 0.0% (0.0%, 0.0%)
Communities of Color	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	66	0/4072.8 = 0.0% (0.0%, 0.0%)	0/4072.8 = 0.0% (0.0%, 0.0%)	0/4072.8 = 0.0% (0.0%, 0.0%)
Communities of Color	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	66	0/4072.8 = 0.0% (0.0%, 0.0%)	0/4072.8 = 0.0% (0.0%, 0.0%)	0/4072.8 = 0.0% (0.0%, 0.0%)
Communities of Color	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	102	375.1/448 = 83.7% (71.6%, 91.3%)	375.1/448 = 83.7% (71.6%, 91.3%)	321.2/448 = 71.7% (58.8%, 81.8%)
Communities of Color	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	102	439.7/448 = 98.1% (87.5%, 99.8%)	439.7/448 = 98.1% (87.5%, 99.8%)	439.7/448 = 98.1% (87.5%, 99.8%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Communities of Color	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	102	448/448 = 100.0% (100.0%, 100.0%)	448/448 = 100.0% (100.0%, 100.0%)	448/448 = 100.0% (100.0%, 100.0%)
Communities of Color	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	374	4745.6/4915.8 = 96.5% (92.7%, 98.4%)	4745.6/4915.8 = 96.5% (92.7%, 98.4%)	4446.2/4915.8 = 90.4% (85.0%, 94.0%)
Communities of Color	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	374	4915.8/4915.8 = 100.0% (100.0%, 100.0%)	4915.8/4915.8 = 100.0% (100.0%, 100.0%)	4915.8/4915.8 = 100.0% (100.0%, 100.0%)
Communities of Color	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	374	4915.8/4915.8 = 100.0% (100.0%, 100.0%)	4915.8/4915.8 = 100.0% (100.0%, 100.0%)	4915.8/4915.8 = 100.0% (100.0%, 100.0%)
Communities of Color	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	114	467.6/484.9 = 96.4% (88.7%, 98.9%)	467.6/484.9 = 96.4% (88.7%, 98.9%)	452.5/484.9 = 93.3% (81.4%, 97.8%)
Communities of Color	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	114	484.9/484.9 = 100.0% (100.0%, 100.0%)	484.9/484.9 = 100.0% (100.0%, 100.0%)	484.9/484.9 = 100.0% (100.0%, 100.0%)
Communities of Color	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	114	484.9/484.9 = 100.0% (100.0%, 100.0%)	484.9/484.9 = 100.0% (100.0%, 100.0%)	484.9/484.9 = 100.0% (100.0%, 100.0%)
Communities of Color	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	66	0/4072.8 = 0.0% (0.0%, 0.0%)	0/4072.8 = 0.0% (0.0%, 0.0%)	0/4072.8 = 0.0% (0.0%, 0.0%)
Communities of Color	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	66	0/4072.8 = 0.0% (0.0%, 0.0%)	0/4072.8 = 0.0% (0.0%, 0.0%)	0/4072.8 = 0.0% (0.0%, 0.0%)
Communities of Color	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	66	0/4072.8 = 0.0% (0.0%, 0.0%)	0/4072.8 = 0.0% (0.0%, 0.0%)	0/4072.8 = 0.0% (0.0%, 0.0%)
Communities of Color	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	102	428.1/448 = 95.6% (86.0%, 98.7%)	428.1/448 = 95.6% (86.0%, 98.7%)	416.6/448 = 93.0% (83.1%, 97.3%)
Communities of Color	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	102	448/448 = 100.0% (100.0%, 100.0%)	448/448 = 100.0% (100.0%, 100.0%)	448/448 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Communities of Color	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	102	448/448 = 100.0% (100.0%, 100.0%)	448/448 = 100.0% (100.0%, 100.0%)	448/448 = 100.0% (100.0%, 100.0%)
White Non-Hispanic	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	355	5491.9/6280.2 = 87.4% (81.7%, 91.6%)	5491.9/6280.2 = 87.4% (81.7%, 91.6%)	4775.7/6280.2 = 76.0% (69.4%, 81.6%)
White Non-Hispanic	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	355	6280.2/6280.2 = 100.0% (100.0%, 100.0%)	6280.2/6280.2 = 100.0% (100.0%, 100.0%)	6280.2/6280.2 = 100.0% (100.0%, 100.0%)
White Non-Hispanic	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	355	6280.2/6280.2 = 100.0% (100.0%, 100.0%)	6280.2/6280.2 = 100.0% (100.0%, 100.0%)	6280.2/6280.2 = 100.0% (100.0%, 100.0%)
White Non-Hispanic	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	121	641.2/657.1 = 97.6% (94.3%, 99.0%)	641.2/657.1 = 97.6% (94.3%, 99.0%)	639.1/657.1 = 97.3% (94.0%, 98.8%)
White Non-Hispanic	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	121	657.1/657.1 = 100.0% (100.0%, 100.0%)	657.1/657.1 = 100.0% (100.0%, 100.0%)	653.7/657.1 = 99.5% (96.3%, 99.9%)
White Non-Hispanic	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	121	657.1/657.1 = 100.0% (100.0%, 100.0%)	657.1/657.1 = 100.0% (100.0%, 100.0%)	657.1/657.1 = 100.0% (100.0%, 100.0%)
White Non-Hispanic	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	64	0/7123.2 = 0.0% (0.0%, 0.0%)	0/7123.2 = 0.0% (0.0%, 0.0%)	0/7123.2 = 0.0% (0.0%, 0.0%)
White Non-Hispanic	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	64	0/7123.2 = 0.0% (0.0%, 0.0%)	0/7123.2 = 0.0% (0.0%, 0.0%)	0/7123.2 = 0.0% (0.0%, 0.0%)
White Non-Hispanic	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	64	0/7123.2 = 0.0% (0.0%, 0.0%)	0/7123.2 = 0.0% (0.0%, 0.0%)	0/7123.2 = 0.0% (0.0%, 0.0%)
White Non-Hispanic	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	119	552.3/625 = 88.4% (77.5%, 94.4%)	552.3/625 = 88.4% (77.5%, 94.4%)	436/625 = 69.8% (57.5%, 79.7%)
White Non-Hispanic	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	119	625/625 = 100.0% (100.0%, 100.0%)	625/625 = 100.0% (100.0%, 100.0%)	625/625 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
White Non-Hispanic	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	119	625/625 = 100.0% (100.0%, 100.0%)	625/625 = 100.0% (100.0%, 100.0%)	625/625 = 100.0% (100.0%, 100.0%)
White Non-Hispanic	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	355	5976.3/6280.2 = 95.2% (90.9%, 97.5%)	5976.3/6280.2 = 95.2% (90.9%, 97.5%)	5681.3/6280.2 = 90.5% (85.2%, 94.0%)
White Non-Hispanic	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	355	6280.2/6280.2 = 100.0% (100.0%, 100.0%)	6280.2/6280.2 = 100.0% (100.0%, 100.0%)	6280.2/6280.2 = 100.0% (100.0%, 100.0%)
White Non-Hispanic	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	355	6280.2/6280.2 = 100.0% (100.0%, 100.0%)	6280.2/6280.2 = 100.0% (100.0%, 100.0%)	6280.2/6280.2 = 100.0% (100.0%, 100.0%)
White Non-Hispanic	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	121	648.1/657.1 = 98.6% (95.7%, 99.6%)	648.1/657.1 = 98.6% (95.7%, 99.6%)	648.1/657.1 = 98.6% (95.7%, 99.6%)
White Non-Hispanic	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	121	657.1/657.1 = 100.0% (100.0%, 100.0%)	657.1/657.1 = 100.0% (100.0%, 100.0%)	653.7/657.1 = 99.5% (96.3%, 99.9%)
White Non-Hispanic	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	121	657.1/657.1 = 100.0% (100.0%, 100.0%)	657.1/657.1 = 100.0% (100.0%, 100.0%)	657.1/657.1 = 100.0% (100.0%, 100.0%)
White Non-Hispanic	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	64	0/7123.2 = 0.0% (0.0%, 0.0%)	0/7123.2 = 0.0% (0.0%, 0.0%)	0/7123.2 = 0.0% (0.0%, 0.0%)
White Non-Hispanic	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	64	0/7123.2 = 0.0% (0.0%, 0.0%)	0/7123.2 = 0.0% (0.0%, 0.0%)	0/7123.2 = 0.0% (0.0%, 0.0%)
White Non-Hispanic	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	64	0/7123.2 = 0.0% (0.0%, 0.0%)	0/7123.2 = 0.0% (0.0%, 0.0%)	0/7123.2 = 0.0% (0.0%, 0.0%)
White Non-Hispanic	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	119	586/625 = 93.8% (83.4%, 97.8%)	586/625 = 93.8% (83.4%, 97.8%)	565.4/625 = 90.5% (80.1%, 95.7%)
White Non-Hispanic	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	119	625/625 = 100.0% (100.0%, 100.0%)	625/625 = 100.0% (100.0%, 100.0%)	625/625 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
White Non-Hispanic	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	119	625/625 = 100.0% (100.0%, 100.0%)	625/625 = 100.0% (100.0%, 100.0%)	625/625 = 100.0% (100.0%, 100.0%)

Binding Antibody Responders are defined as participants who had baseline values below the LLOQ with detectable antibody concentration above the assay LLOQ, or as participants with baseline values above the LLOQ with a 4-fold increase in antibody concentration.

Percentages are calculated for the whole per-protocol group/subgroup, using inverse probability weighting.

LLOQ = 4.49, 5.77, 1.80 IU/ml for N, RBD, Spike, respectively.

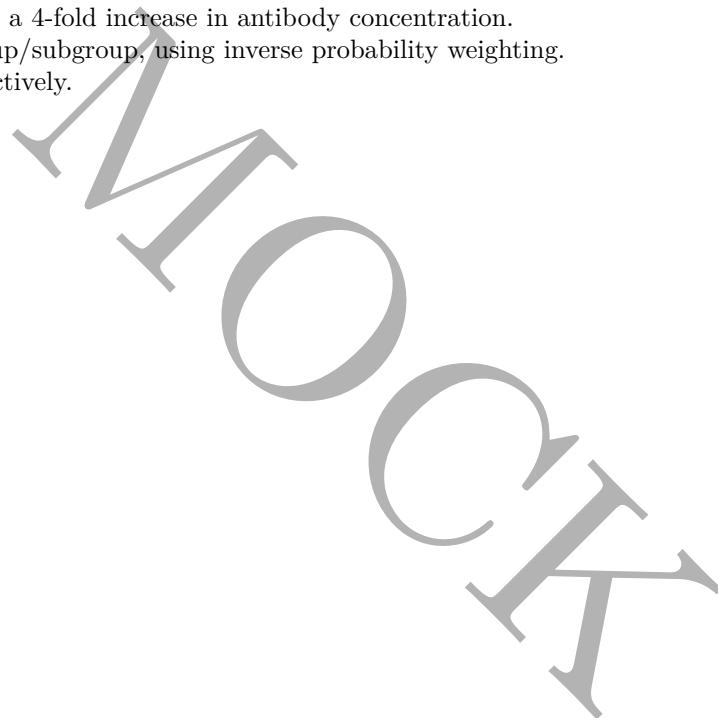


Table 5j. Percentage of responders, and participants with 2-fold rise, and participants with 4-fold rise for binding antibody markers by Age, Communities of color

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Age, Communities of color								
Age < 65 Communities of Color	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	169	3320.2/3845 = 86.3% (79.0%, 91.4%)	3320.2/3845 = 86.3% (79.0%, 91.4%)	3049.3/3845 = 79.3% (71.3%, 85.5%)
Age < 65 Communities of Color	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	169	3845/3845 = 100.0% (100.0%, 100.0%)	3845/3845 = 100.0% (100.0%, 100.0%)	3829/3845 = 99.6% (98.3%, 99.9%)
Age < 65 Communities of Color	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	169	3845/3845 = 100.0% (100.0%, 100.0%)	3845/3845 = 100.0% (100.0%, 100.0%)	3845/3845 = 100.0% (100.0%, 100.0%)
Age < 65 Communities of Color	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	63	351.6/385.7 = 91.1% (81.1%, 96.1%)	351.6/385.7 = 91.1% (81.1%, 96.1%)	334.7/385.7 = 86.8% (76.1%, 93.1%)
Age < 65 Communities of Color	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	63	385.7/385.7 = 100.0% (100.0%, 100.0%)	385.7/385.7 = 100.0% (100.0%, 100.0%)	385.7/385.7 = 100.0% (100.0%, 100.0%)
Age < 65 Communities of Color	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	63	385.7/385.7 = 100.0% (100.0%, 100.0%)	385.7/385.7 = 100.0% (100.0%, 100.0%)	385.7/385.7 = 100.0% (100.0%, 100.0%)
Age < 65 Communities of Color	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	31	0/2903.6 = 0.0% (0.0%, 0.0%)	0/2903.6 = 0.0% (0.0%, 0.0%)	0/2903.6 = 0.0% (0.0%, 0.0%)
Age < 65 Communities of Color	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	31	0/2903.6 = 0.0% (0.0%, 0.0%)	0/2903.6 = 0.0% (0.0%, 0.0%)	0/2903.6 = 0.0% (0.0%, 0.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Age < 65 Communities of Color	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	31	0/2903.6 = 0.0% (0.0%, 0.0%)	0/2903.6 = 0.0% (0.0%, 0.0%)	0/2903.6 = 0.0% (0.0%, 0.0%)
Age < 65 Communities of Color	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	58	293.8/364.8 = 80.5% (65.8%, 89.9%)	293.8/364.8 = 80.5% (65.8%, 89.9%)	245.8/364.8 = 67.4% (52.0%, 79.8%)
Age < 65 Communities of Color	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	58	356.5/364.8 = 97.7% (84.6%, 99.7%)	356.5/364.8 = 97.7% (84.6%, 99.7%)	356.5/364.8 = 97.7% (84.6%, 99.7%)
Age < 65 Communities of Color	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	58	364.8/364.8 = 100.0% (100.0%, 100.0%)	364.8/364.8 = 100.0% (100.0%, 100.0%)	364.8/364.8 = 100.0% (100.0%, 100.0%)
Age < 65 Communities of Color	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	169	3684.2/3845 = 95.8% (90.8%, 98.2%)	3684.2/3845 = 95.8% (90.8%, 98.2%)	3410.9/3845 = 88.7% (81.8%, 93.2%)
Age < 65 Communities of Color	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	169	3845/3845 = 100.0% (100.0%, 100.0%)	3845/3845 = 100.0% (100.0%, 100.0%)	3845/3845 = 100.0% (100.0%, 100.0%)
Age < 65 Communities of Color	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	169	3845/3845 = 100.0% (100.0%, 100.0%)	3845/3845 = 100.0% (100.0%, 100.0%)	3845/3845 = 100.0% (100.0%, 100.0%)
Age < 65 Communities of Color	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	63	368.4/385.7 = 95.5% (85.8%, 98.7%)	368.4/385.7 = 95.5% (85.8%, 98.7%)	353.3/385.7 = 91.6% (76.9%, 97.3%)
Age < 65 Communities of Color	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	63	385.7/385.7 = 100.0% (100.0%, 100.0%)	385.7/385.7 = 100.0% (100.0%, 100.0%)	385.7/385.7 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Age < 65 Communities of Color	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	63	385.7/385.7 = 100.0% (100.0%, 100.0%)	385.7/385.7 = 100.0% (100.0%, 100.0%)	385.7/385.7 = 100.0% (100.0%, 100.0%)
Age < 65 Communities of Color	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	31	0/2903.6 = 0.0% (0.0%, 0.0%)	0/2903.6 = 0.0% (0.0%, 0.0%)	0/2903.6 = 0.0% (0.0%, 0.0%)
Age < 65 Communities of Color	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	31	0/2903.6 = 0.0% (0.0%, 0.0%)	0/2903.6 = 0.0% (0.0%, 0.0%)	0/2903.6 = 0.0% (0.0%, 0.0%)
Age < 65 Communities of Color	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	31	0/2903.6 = 0.0% (0.0%, 0.0%)	0/2903.6 = 0.0% (0.0%, 0.0%)	0/2903.6 = 0.0% (0.0%, 0.0%)
Age < 65 Communities of Color	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	58	345/364.8 = 94.6% (82.8%, 98.4%)	345/364.8 = 94.6% (82.8%, 98.4%)	333.4/364.8 = 91.4% (79.3%, 96.7%)
Age < 65 Communities of Color	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	58	364.8/364.8 = 100.0% (100.0%, 100.0%)	364.8/364.8 = 100.0% (100.0%, 100.0%)	364.8/364.8 = 100.0% (100.0%, 100.0%)
Age < 65 Communities of Color	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	58	364.8/364.8 = 100.0% (100.0%, 100.0%)	364.8/364.8 = 100.0% (100.0%, 100.0%)	364.8/364.8 = 100.0% (100.0%, 100.0%)
Age < 65 White Non-Hispanic	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	180	4262.6/4992 = 85.4% (78.2%, 90.5%)	4262.6/4992 = 85.4% (78.2%, 90.5%)	3605.3/4992 = 72.2% (64.0%, 79.2%)
Age < 65 White Non-Hispanic	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	180	4992/4992 = 100.0% (100.0%, 100.0%)	4992/4992 = 100.0% (100.0%, 100.0%)	4992/4992 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Age < 65 White Non-Hispanic	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	180	4992/4992 = 100.0% (100.0%, 100.0%)	4992/4992 = 100.0% (100.0%, 100.0%)	4992/4992 = 100.0% (100.0%, 100.0%)
Age < 65 White Non-Hispanic	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	57	508.5/522.3 = 97.4% (93.2%, 99.0%)	508.5/522.3 = 97.4% (93.2%, 99.0%)	508.5/522.3 = 97.4% (93.2%, 99.0%)
Age < 65 White Non-Hispanic	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	57	522.3/522.3 = 100.0% (100.0%, 100.0%)	522.3/522.3 = 100.0% (100.0%, 100.0%)	518.8/522.3 = 99.3% (95.2%, 99.9%)
Age < 65 White Non-Hispanic	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	57	522.3/522.3 = 100.0% (100.0%, 100.0%)	522.3/522.3 = 100.0% (100.0%, 100.0%)	522.3/522.3 = 100.0% (100.0%, 100.0%)
Age < 65 White Non-Hispanic	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	32	0/5586.4 = 0.0% (0.0%, 0.0%)	0/5586.4 = 0.0% (0.0%, 0.0%)	0/5586.4 = 0.0% (0.0%, 0.0%)
Age < 65 White Non-Hispanic	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	32	0/5586.4 = 0.0% (0.0%, 0.0%)	0/5586.4 = 0.0% (0.0%, 0.0%)	0/5586.4 = 0.0% (0.0%, 0.0%)
Age < 65 White Non-Hispanic	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	32	0/5586.4 = 0.0% (0.0%, 0.0%)	0/5586.4 = 0.0% (0.0%, 0.0%)	0/5586.4 = 0.0% (0.0%, 0.0%)
Age < 65 White Non-Hispanic	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	64	436.1/502.2 = 86.8% (73.2%, 94.1%)	436.1/502.2 = 86.8% (73.2%, 94.1%)	331/502.2 = 65.9% (51.0%, 78.2%)
Age < 65 White Non-Hispanic	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	64	502.2/502.2 = 100.0% (100.0%, 100.0%)	502.2/502.2 = 100.0% (100.0%, 100.0%)	502.2/502.2 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Age < 65 White Non-Hispanic	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	64	502.2/502.2 = 100.0% (100.0%, 100.0%)	502.2/502.2 = 100.0% (100.0%, 100.0%)	502.2/502.2 = 100.0% (100.0%, 100.0%)
Age < 65 White Non-Hispanic	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	180	4702.9/4992 = 94.2% (88.8%, 97.1%)	4702.9/4992 = 94.2% (88.8%, 97.1%)	4437.3/4992 = 88.9% (82.3%, 93.2%)
Age < 65 White Non-Hispanic	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	180	4992/4992 = 100.0% (100.0%, 100.0%)	4992/4992 = 100.0% (100.0%, 100.0%)	4992/4992 = 100.0% (100.0%, 100.0%)
Age < 65 White Non-Hispanic	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	180	4992/4992 = 100.0% (100.0%, 100.0%)	4992/4992 = 100.0% (100.0%, 100.0%)	4992/4992 = 100.0% (100.0%, 100.0%)
Age < 65 White Non-Hispanic	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	57	515.4/522.3 = 98.7% (94.8%, 99.7%)	515.4/522.3 = 98.7% (94.8%, 99.7%)	515.4/522.3 = 98.7% (94.8%, 99.7%)
Age < 65 White Non-Hispanic	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	57	522.3/522.3 = 100.0% (100.0%, 100.0%)	522.3/522.3 = 100.0% (100.0%, 100.0%)	518.8/522.3 = 99.3% (95.2%, 99.9%)
Age < 65 White Non-Hispanic	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	57	522.3/522.3 = 100.0% (100.0%, 100.0%)	522.3/522.3 = 100.0% (100.0%, 100.0%)	522.3/522.3 = 100.0% (100.0%, 100.0%)
Age < 65 White Non-Hispanic	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	32	0/5586.4 = 0.0% (0.0%, 0.0%)	0/5586.4 = 0.0% (0.0%, 0.0%)	0/5586.4 = 0.0% (0.0%, 0.0%)
Age < 65 White Non-Hispanic	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	32	0/5586.4 = 0.0% (0.0%, 0.0%)	0/5586.4 = 0.0% (0.0%, 0.0%)	0/5586.4 = 0.0% (0.0%, 0.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Age < 65 White Non-Hispanic	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	32	0/5586.4 = 0.0% (0.0%, 0.0%)	0/5586.4 = 0.0% (0.0%, 0.0%)	0/5586.4 = 0.0% (0.0%, 0.0%)
Age < 65 White Non-Hispanic	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	64	463.2/502.2 = 92.2% (79.4%, 97.3%)	463.2/502.2 = 92.2% (79.4%, 97.3%)	444.8/502.2 = 88.6% (75.6%, 95.1%)
Age < 65 White Non-Hispanic	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	64	502.2/502.2 = 100.0% (100.0%, 100.0%)	502.2/502.2 = 100.0% (100.0%, 100.0%)	502.2/502.2 = 100.0% (100.0%, 100.0%)
Age < 65 White Non-Hispanic	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	64	502.2/502.2 = 100.0% (100.0%, 100.0%)	502.2/502.2 = 100.0% (100.0%, 100.0%)	502.2/502.2 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Communities of Color	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	205	1032.6/1070.8 = 96.4% (92.6%, 98.3%)	1032.6/1070.8 = 96.4% (92.6%, 98.3%)	989.8/1070.8 = 92.4% (87.7%, 95.5%)
Age ≥ 65 Communities of Color	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	205	1070.8/1070.8 = 100.0% (100.0%, 100.0%)	1070.8/1070.8 = 100.0% (100.0%, 100.0%)	1070.8/1070.8 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Communities of Color	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	205	1070.8/1070.8 = 100.0% (100.0%, 100.0%)	1070.8/1070.8 = 100.0% (100.0%, 100.0%)	1070.8/1070.8 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Communities of Color	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	51	99.2/99.2 = 100.0% (100.0%, 100.0%)	99.2/99.2 = 100.0% (100.0%, 100.0%)	95.2/99.2 = 96.0% (84.7%, 99.0%)
Age ≥ 65 Communities of Color	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	51	99.2/99.2 = 100.0% (100.0%, 100.0%)	99.2/99.2 = 100.0% (100.0%, 100.0%)	99.2/99.2 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Age ≥ 65 Communities of Color	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	51	99.2/99.2 = 100.0% (100.0%, 100.0%)	99.2/99.2 = 100.0% (100.0%, 100.0%)	99.2/99.2 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Communities of Color	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	35	0/1169.2 = 0.0% (0.0%, 0.0%)	0/1169.2 = 0.0% (0.0%, 0.0%)	0/1169.2 = 0.0% (0.0%, 0.0%)
Age ≥ 65 Communities of Color	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	35	0/1169.2 = 0.0% (0.0%, 0.0%)	0/1169.2 = 0.0% (0.0%, 0.0%)	0/1169.2 = 0.0% (0.0%, 0.0%)
Age ≥ 65 Communities of Color	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	35	0/1169.2 = 0.0% (0.0%, 0.0%)	0/1169.2 = 0.0% (0.0%, 0.0%)	0/1169.2 = 0.0% (0.0%, 0.0%)
Age ≥ 65 Communities of Color	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	44	81.3/83.2 = 97.8% (85.0%, 99.7%)	81.3/83.2 = 97.8% (85.0%, 99.7%)	75.4/83.2 = 90.7% (76.9%, 96.6%)
Age ≥ 65 Communities of Color	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	44	83.2/83.2 = 100.0% (100.0%, 100.0%)	83.2/83.2 = 100.0% (100.0%, 100.0%)	83.2/83.2 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Communities of Color	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	44	83.2/83.2 = 100.0% (100.0%, 100.0%)	83.2/83.2 = 100.0% (100.0%, 100.0%)	83.2/83.2 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Communities of Color	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	205	1061.4/1070.8 = 99.1% (96.5%, 99.8%)	1061.4/1070.8 = 99.1% (96.5%, 99.8%)	1035.3/1070.8 = 96.7% (93.1%, 98.4%)
Age ≥ 65 Communities of Color	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	205	1070.8/1070.8 = 100.0% (100.0%, 100.0%)	1070.8/1070.8 = 100.0% (100.0%, 100.0%)	1070.8/1070.8 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Age ≥ 65 Communities of Color	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	205	1070.8/1070.8 = 100.0% (100.0%, 100.0%)	1070.8/1070.8 = 100.0% (100.0%, 100.0%)	1070.8/1070.8 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Communities of Color	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	51	99.2/99.2 = 100.0% (100.0%, 100.0%)	99.2/99.2 = 100.0% (100.0%, 100.0%)	99.2/99.2 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Communities of Color	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	51	99.2/99.2 = 100.0% (100.0%, 100.0%)	99.2/99.2 = 100.0% (100.0%, 100.0%)	99.2/99.2 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Communities of Color	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	51	99.2/99.2 = 100.0% (100.0%, 100.0%)	99.2/99.2 = 100.0% (100.0%, 100.0%)	99.2/99.2 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Communities of Color	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	35	0/1169.2 = 0.0% (0.0%, 0.0%)	0/1169.2 = 0.0% (0.0%, 0.0%)	0/1169.2 = 0.0% (0.0%, 0.0%)
Age ≥ 65 Communities of Color	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	35	0/1169.2 = 0.0% (0.0%, 0.0%)	0/1169.2 = 0.0% (0.0%, 0.0%)	0/1169.2 = 0.0% (0.0%, 0.0%)
Age ≥ 65 Communities of Color	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	35	0/1169.2 = 0.0% (0.0%, 0.0%)	0/1169.2 = 0.0% (0.0%, 0.0%)	0/1169.2 = 0.0% (0.0%, 0.0%)
Age ≥ 65 Communities of Color	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	44	83.2/83.2 = 100.0% (100.0%, 100.0%)	83.2/83.2 = 100.0% (100.0%, 100.0%)	83.2/83.2 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Communities of Color	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	44	83.2/83.2 = 100.0% (100.0%, 100.0%)	83.2/83.2 = 100.0% (100.0%, 100.0%)	83.2/83.2 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Age ≥ 65 Communities of Color	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	44	83.2/83.2 = 100.0% (100.0%, 100.0%)	83.2/83.2 = 100.0% (100.0%, 100.0%)	83.2/83.2 = 100.0% (100.0%, 100.0%)
Age ≥ 65 White Non-Hispanic	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	175	1229.3/1288.2 = 95.4% (91.1%, 97.7%)	1229.3/1288.2 = 95.4% (91.1%, 97.7%)	1170.4/1288.2 = 90.9% (85.5%, 94.3%)
Age ≥ 65 White Non-Hispanic	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	175	1288.2/1288.2 = 100.0% (100.0%, 100.0%)	1288.2/1288.2 = 100.0% (100.0%, 100.0%)	1288.2/1288.2 = 100.0% (100.0%, 100.0%)
Age ≥ 65 White Non-Hispanic	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	175	1288.2/1288.2 = 100.0% (100.0%, 100.0%)	1288.2/1288.2 = 100.0% (100.0%, 100.0%)	1288.2/1288.2 = 100.0% (100.0%, 100.0%)
Age ≥ 65 White Non-Hispanic	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	64	132.7/134.8 = 98.4% (89.3%, 99.8%)	132.7/134.8 = 98.4% (89.3%, 99.8%)	130.6/134.8 = 96.9% (88.0%, 99.2%)
Age ≥ 65 White Non-Hispanic	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	64	134.8/134.8 = 100.0% (100.0%, 100.0%)	134.8/134.8 = 100.0% (100.0%, 100.0%)	134.8/134.8 = 100.0% (100.0%, 100.0%)
Age ≥ 65 White Non-Hispanic	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	64	134.8/134.8 = 100.0% (100.0%, 100.0%)	134.8/134.8 = 100.0% (100.0%, 100.0%)	134.8/134.8 = 100.0% (100.0%, 100.0%)
Age ≥ 65 White Non-Hispanic	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	32	0/1536.8 = 0.0% (0.0%, 0.0%)	0/1536.8 = 0.0% (0.0%, 0.0%)	0/1536.8 = 0.0% (0.0%, 0.0%)
Age ≥ 65 White Non-Hispanic	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	32	0/1536.8 = 0.0% (0.0%, 0.0%)	0/1536.8 = 0.0% (0.0%, 0.0%)	0/1536.8 = 0.0% (0.0%, 0.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Age ≥ 65 White Non-Hispanic	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	32	0/1536.8 = 0.0% (0.0%, 0.0%)	0/1536.8 = 0.0% (0.0%, 0.0%)	0/1536.8 = 0.0% (0.0%, 0.0%)
Age ≥ 65 White Non-Hispanic	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	55	116.1/122.8 = 94.5% (84.0%, 98.3%)	116.1/122.8 = 94.5% (84.0%, 98.3%)	105/122.8 = 85.5% (73.1%, 92.7%)
Age ≥ 65 White Non-Hispanic	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	55	122.8/122.8 = 100.0% (100.0%, 100.0%)	122.8/122.8 = 100.0% (100.0%, 100.0%)	122.8/122.8 = 100.0% (100.0%, 100.0%)
Age ≥ 65 White Non-Hispanic	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	55	122.8/122.8 = 100.0% (100.0%, 100.0%)	122.8/122.8 = 100.0% (100.0%, 100.0%)	122.8/122.8 = 100.0% (100.0%, 100.0%)
Age ≥ 65 White Non-Hispanic	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	175	1273.5/1288.2 = 98.9% (95.5%, 99.7%)	1273.5/1288.2 = 98.9% (95.5%, 99.7%)	1244/1288.2 = 96.6% (92.5%, 98.5%)
Age ≥ 65 White Non-Hispanic	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	175	1288.2/1288.2 = 100.0% (100.0%, 100.0%)	1288.2/1288.2 = 100.0% (100.0%, 100.0%)	1288.2/1288.2 = 100.0% (100.0%, 100.0%)
Age ≥ 65 White Non-Hispanic	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	175	1288.2/1288.2 = 100.0% (100.0%, 100.0%)	1288.2/1288.2 = 100.0% (100.0%, 100.0%)	1288.2/1288.2 = 100.0% (100.0%, 100.0%)
Age ≥ 65 White Non-Hispanic	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	64	132.7/134.8 = 98.4% (89.3%, 99.8%)	132.7/134.8 = 98.4% (89.3%, 99.8%)	132.7/134.8 = 98.4% (89.3%, 99.8%)
Age ≥ 65 White Non-Hispanic	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	64	134.8/134.8 = 100.0% (100.0%, 100.0%)	134.8/134.8 = 100.0% (100.0%, 100.0%)	134.8/134.8 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Age ≥ 65 White Non-Hispanic	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	64	134.8/134.8 = 100.0% (100.0%, 100.0%)	134.8/134.8 = 100.0% (100.0%, 100.0%)	134.8/134.8 = 100.0% (100.0%, 100.0%)
Age ≥ 65 White Non-Hispanic	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	32	0/1536.8 = 0.0% (0.0%, 0.0%)	0/1536.8 = 0.0% (0.0%, 0.0%)	0/1536.8 = 0.0% (0.0%, 0.0%)
Age ≥ 65 White Non-Hispanic	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	32	0/1536.8 = 0.0% (0.0%, 0.0%)	0/1536.8 = 0.0% (0.0%, 0.0%)	0/1536.8 = 0.0% (0.0%, 0.0%)
Age ≥ 65 White Non-Hispanic	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	32	0/1536.8 = 0.0% (0.0%, 0.0%)	0/1536.8 = 0.0% (0.0%, 0.0%)	0/1536.8 = 0.0% (0.0%, 0.0%)
Age ≥ 65 White Non-Hispanic	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	55	122.8/122.8 = 100.0% (100.0%, 100.0%)	122.8/122.8 = 100.0% (100.0%, 100.0%)	120.6/122.8 = 98.2% (87.6%, 99.8%)
Age ≥ 65 White Non-Hispanic	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	55	122.8/122.8 = 100.0% (100.0%, 100.0%)	122.8/122.8 = 100.0% (100.0%, 100.0%)	122.8/122.8 = 100.0% (100.0%, 100.0%)
Age ≥ 65 White Non-Hispanic	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	55	122.8/122.8 = 100.0% (100.0%, 100.0%)	122.8/122.8 = 100.0% (100.0%, 100.0%)	122.8/122.8 = 100.0% (100.0%, 100.0%)

Binding Antibody Responders are defined as participants who had baseline values below the LLOQ with detectable antibody concentration above the assay LLOQ, or as participants with baseline values above the LLOQ with a 4-fold increase in antibody concentration.

Percentages are calculated for the whole per-protocol group/subgroup, using inverse probability weighting.

LLOQ = 4.49, 5.77, 1.80 IU/ml for N, RBD, Spike, respectively.

1.6 Percentage of responders, and participants participants with 2-fold rise, and participants with 4-fold rise for ID50 pseudo-virus neutralization antibody markers

Table 6a. Percentage of responders, and participants participants with 2-fold rise, and participants with 4-fold rise for ID50 pseudo-virus neutralization antibody markers by All participants

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
All participants								
	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	729	10095.1/11196 = 90.2% (86.5%, 92.9%)	10095.1/11196 = 90.2% (86.5%, 92.9%)	8293.8/11196 = 74.1% (69.3%, 78.4%)
	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	235	1102.1/1142 = 96.5% (91.6%, 98.6%)	1122.8/1142 = 98.3% (95.7%, 99.4%)	1041.3/1142 = 91.2% (85.2%, 94.9%)
	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	130	0/11196 = 0.0% (0.0%, 0.0%)	0/11196 = 0.0% (0.0%, 0.0%)	0/11196 = 0.0% (0.0%, 0.0%)
	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	221	824/1073 = 76.8% (68.3%, 83.5%)	841/1073 = 78.4% (70.0%, 84.9%)	615.8/1073 = 57.4% (48.8%, 65.6%)
	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	729	11196/11196 = 100.0% (100.0%, 100.0%)	11196/11196 = 100.0% (100.0%, 100.0%)	11196/11196 = 100.0% (100.0%, 100.0%)
	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	235	1142/1142 = 100.0% (100.0%, 100.0%)	1142/1142 = 100.0% (100.0%, 100.0%)	1142/1142 = 100.0% (100.0%, 100.0%)
	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	130	0/11196 = 0.0% (0.0%, 0.0%)	0/11196 = 0.0% (0.0%, 0.0%)	0/11196 = 0.0% (0.0%, 0.0%)
	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	221	1073/1073 = 100.0% (100.0%, 100.0%)	1073/1073 = 100.0% (100.0%, 100.0%)	1064.7/1073 = 99.2% (94.6%, 99.9%)

Neutralization Responders are defined as participants who had baseline values below the lower limit of detection (LLOQ) with detectable ID50 neutralization titer above the assay LLOQ, or as participants with baseline values above the LLOQ with a 4-fold increase in ID50.

Percentages are calculated for the whole per-protocol group/subgroup, using inverse probability weighting.

LLOQ = 18.50, 14.30 for pseudovirus-nAb ID50, ID80, respectively.

Table 6b. Percentage of responders, and participants participants with 2-fold rise, and participants with 4-fold rise for ID50 pseudo-virus neutralization antibody markers by Age

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Age								
Age < 65	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	349	7799.1/8837 = 88.3% (83.6%, 91.7%)	7799.1/8837 = 88.3% (83.6%, 91.7%)	6155/8837 = 69.7% (63.7%, 75.0%)
Age < 65	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	120	872.3/908 = 96.1% (89.7%, 98.6%)	890.9/908 = 98.1% (94.7%, 99.3%)	815.8/908 = 89.8% (82.2%, 94.4%)
Age < 65	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	63	0/8490 = 0.0% (0.0%, 0.0%)	0/8490 = 0.0% (0.0%, 0.0%)	0/8490 = 0.0% (0.0%, 0.0%)
Age < 65	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	122	632.5/867 = 72.9% (62.6%, 81.3%)	647.2/867 = 74.6% (64.4%, 82.7%)	446.5/867 = 51.5% (41.3%, 61.6%)
Age < 65	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	349	8837/8837 = 100.0% (100.0%, 100.0%)	8837/8837 = 100.0% (100.0%, 100.0%)	8837/8837 = 100.0% (100.0%, 100.0%)
Age < 65	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	120	908/908 = 100.0% (100.0%, 100.0%)	908/908 = 100.0% (100.0%, 100.0%)	908/908 = 100.0% (100.0%, 100.0%)
Age < 65	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	63	0/8490 = 0.0% (0.0%, 0.0%)	0/8490 = 0.0% (0.0%, 0.0%)	0/8490 = 0.0% (0.0%, 0.0%)
Age < 65	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	122	867/867 = 100.0% (100.0%, 100.0%)	867/867 = 100.0% (100.0%, 100.0%)	858.7/867 = 99.0% (93.3%, 99.9%)
Age ≥ 65	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	380	2296.1/2359 = 97.3% (95.0%, 98.6%)	2296.1/2359 = 97.3% (95.0%, 98.6%)	2138.8/2359 = 90.7% (87.2%, 93.3%)
Age ≥ 65	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	115	229.8/234 = 98.2% (93.0%, 99.6%)	231.9/234 = 99.1% (93.7%, 99.9%)	225.6/234 = 96.4% (90.7%, 98.7%)
Age ≥ 65	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	67	0/2706 = 0.0% (0.0%, 0.0%)	0/2706 = 0.0% (0.0%, 0.0%)	0/2706 = 0.0% (0.0%, 0.0%)
Age ≥ 65	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	99	191.5/206 = 93.0% (85.8%, 96.7%)	193.8/206 = 94.1% (87.2%, 97.4%)	169.3/206 = 82.2% (73.3%, 88.6%)
Age ≥ 65	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	380	2359/2359 = 100.0% (100.0%, 100.0%)	2359/2359 = 100.0% (100.0%, 100.0%)	2359/2359 = 100.0% (100.0%, 100.0%)
Age ≥ 65	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	115	234/234 = 100.0% (100.0%, 100.0%)	234/234 = 100.0% (100.0%, 100.0%)	234/234 = 100.0% (100.0%, 100.0%)
Age ≥ 65	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	67	0/2706 = 0.0% (0.0%, 0.0%)	0/2706 = 0.0% (0.0%, 0.0%)	0/2706 = 0.0% (0.0%, 0.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Age \geq 65	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	99	206/206 = 100.0% (100.0%, 100.0%)	206/206 = 100.0% (100.0%, 100.0%)	206/206 = 100.0% (100.0%, 100.0%)

Neutralization Responders are defined as participants who had baseline values below the lower limit of detection (LLOQ) with detectable ID50 neutralization titer above the assay LLOQ, or as participants with baseline values above the LLOQ with a 4-fold increase in ID50.

Percentages are calculated for the whole per-protocol group/subgroup, using inverse probability weighting.

LLOQ = 18.50, 14.30 for pseudovirus-nAb ID50, ID80, respectively.

Table 6c. Percentage of responders, and participants participants with 2-fold rise, and participants with 4-fold rise for ID50 pseudo-virus neutralization antibody markers by Risk for Severe Covid-19

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Risk for Severe Covid-19								
At-risk	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	386	2890.5/3139.9 = 92.1% (88.6%, 94.5%)	2890.5/3139.9 = 92.1% (88.6%, 94.5%)	2427.5/3139.9 = 77.3% (72.5%, 81.5%)
At-risk	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	105	272.8/288.4 = 94.6% (87.4%, 97.8%)	276.3/288.4 = 95.8% (88.9%, 98.5%)	255.4/288.4 = 88.5% (80.1%, 93.7%)
At-risk	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	67	0/3474.5 = 0.0% (0.0%, 0.0%)	0/3474.5 = 0.0% (0.0%, 0.0%)	0/3474.5 = 0.0% (0.0%, 0.0%)
At-risk	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	90	220/247.2 = 89.0% (79.9%, 94.3%)	222.8/247.2 = 90.1% (81.3%, 95.1%)	167.1/247.2 = 67.6% (56.9%, 76.7%)
At-risk	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	386	3139.9/3139.9 = 100.0% (100.0%, 100.0%)	3139.9/3139.9 = 100.0% (100.0%, 100.0%)	3139.9/3139.9 = 100.0% (100.0%, 100.0%)
At-risk	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	105	288.4/288.4 = 100.0% (100.0%, 100.0%)	288.4/288.4 = 100.0% (100.0%, 100.0%)	288.4/288.4 = 100.0% (100.0%, 100.0%)
At-risk	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	67	0/3474.5 = 0.0% (0.0%, 0.0%)	0/3474.5 = 0.0% (0.0%, 0.0%)	0/3474.5 = 0.0% (0.0%, 0.0%)
At-risk	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	90	247.2/247.2 = 100.0% (100.0%, 100.0%)	247.2/247.2 = 100.0% (100.0%, 100.0%)	247.2/247.2 = 100.0% (100.0%, 100.0%)
Not at-risk	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	343	7204.7/8056.1 = 89.4% (84.3%, 93.0%)	7204.7/8056.1 = 89.4% (84.3%, 93.0%)	5866.3/8056.1 = 72.8% (66.3%, 78.5%)
Not at-risk	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	130	829.3/853.6 = 97.2% (89.3%, 99.3%)	846.5/853.6 = 99.2% (94.2%, 99.9%)	785.9/853.6 = 92.1% (83.7%, 96.3%)
Not at-risk	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	63	0/7721.5 = 0.0% (0.0%, 0.0%)	0/7721.5 = 0.0% (0.0%, 0.0%)	0/7721.5 = 0.0% (0.0%, 0.0%)
Not at-risk	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	131	604/825.8 = 73.1% (62.4%, 81.7%)	618.1/825.8 = 74.9% (64.2%, 83.2%)	448.7/825.8 = 54.3% (43.7%, 64.6%)
Not at-risk	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	343	8056.1/8056.1 = 100.0% (100.0%, 100.0%)	8056.1/8056.1 = 100.0% (100.0%, 100.0%)	8056.1/8056.1 = 100.0% (100.0%, 100.0%)
Not at-risk	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	130	853.6/853.6 = 100.0% (100.0%, 100.0%)	853.6/853.6 = 100.0% (100.0%, 100.0%)	853.6/853.6 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Not at-risk	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	63	0/7721.5 = 0.0% (0.0%, 0.0%)	0/7721.5 = 0.0% (0.0%, 0.0%)	0/7721.5 = 0.0% (0.0%, 0.0%)
Not at-risk	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	131	825.8/825.8 = 100.0% (100.0%, 100.0%)	825.8/825.8 = 100.0% (100.0%, 100.0%)	817.5/825.8 = 99.0% (93.0%, 99.9%)

Neutralization Responders are defined as participants who had baseline values below the lower limit of detection (LLOQ) with detectable ID50 neutralization titer above the assay LLOQ, or as participants with baseline values above the LLOQ with a 4-fold increase in ID50.

Percentages are calculated for the whole per-protocol group/subgroup, using inverse probability weighting.

LLOQ = 18.50, 14.30 for pseudovirus-nAb ID50, ID80, respectively.

Table 6d. Percentage of responders, and participants participants with 2-fold rise, and participants with 4-fold rise for ID50 pseudo-virus neutralization antibody markers by Age, Risk for Severe Covid-19

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Age, Risk for Severe Covid-19								
Age < 65 At-risk	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	179	1668.1/1862 = 89.6% (84.1%, 93.3%)	1668.1/1862 = 89.6% (84.1%, 93.3%)	1296.9/1862 = 69.6% (62.3%, 76.1%)
Age < 65 At-risk	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	57	176.5/190 = 92.9% (82.1%, 97.4%)	179.9/190 = 94.7% (84.3%, 98.4%)	163.3/190 = 85.9% (73.8%, 93.0%)
Age < 65 At-risk	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	32	0/2086 = 0.0% (0.0%, 0.0%)	0/2086 = 0.0% (0.0%, 0.0%)	0/2086 = 0.0% (0.0%, 0.0%)
Age < 65 At-risk	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	56	149/174 = 85.6% (73.3%, 92.8%)	151.8/174 = 87.3% (75.2%, 93.9%)	104.7/174 = 60.2% (46.6%, 72.4%)
Age < 65 At-risk	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	179	1862/1862 = 100.0% (100.0%, 100.0%)	1862/1862 = 100.0% (100.0%, 100.0%)	1862/1862 = 100.0% (100.0%, 100.0%)
Age < 65 At-risk	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	57	190/190 = 100.0% (100.0%, 100.0%)	190/190 = 100.0% (100.0%, 100.0%)	190/190 = 100.0% (100.0%, 100.0%)
Age < 65 At-risk	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	32	0/2086 = 0.0% (0.0%, 0.0%)	0/2086 = 0.0% (0.0%, 0.0%)	0/2086 = 0.0% (0.0%, 0.0%)
Age < 65 At-risk	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	56	174/174 = 100.0% (100.0%, 100.0%)	174/174 = 100.0% (100.0%, 100.0%)	174/174 = 100.0% (100.0%, 100.0%)
Age < 65 Not at-risk	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	170	6131/6975 = 87.9% (81.9%, 92.1%)	6131/6975 = 87.9% (81.9%, 92.1%)	4858.1/6975 = 69.7% (62.2%, 76.2%)
Age < 65 Not at-risk	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	63	695.8/718 = 96.9% (87.0%, 99.3%)	710.9/718 = 99.0% (93.0%, 99.9%)	652.5/718 = 90.9% (80.8%, 95.9%)
Age < 65 Not at-risk	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	31	0/6404 = 0.0% (0.0%, 0.0%)	0/6404 = 0.0% (0.0%, 0.0%)	0/6404 = 0.0% (0.0%, 0.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Age < 65 Not at-risk	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	66	483.4/693 = 69.8% (57.1%, 80.0%)	495.4/693 = 71.5% (58.9%, 81.4%)	341.8/693 = 49.3% (37.0%, 61.7%)
Age < 65 Not at-risk	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	170	6975/6975 = 100.0% (100.0%, 100.0%)	6975/6975 = 100.0% (100.0%, 100.0%)	6975/6975 = 100.0% (100.0%, 100.0%)
Age < 65 Not at-risk	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	63	718/718 = 100.0% (100.0%, 100.0%)	718/718 = 100.0% (100.0%, 100.0%)	718/718 = 100.0% (100.0%, 100.0%)
Age < 65 Not at-risk	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	31	0/6404 = 0.0% (0.0%, 0.0%)	0/6404 = 0.0% (0.0%, 0.0%)	0/6404 = 0.0% (0.0%, 0.0%)
Age < 65 Not at-risk	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	66	693/693 = 100.0% (100.0%, 100.0%)	693/693 = 100.0% (100.0%, 100.0%)	684.7/693 = 98.8% (91.6%, 99.8%)
Age ≥ 65 At-risk	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	207	1222.4/1277.9 = 95.7% (91.7%, 97.8%)	1222.4/1277.9 = 95.7% (91.7%, 97.8%)	1130.6/1277.9 = 88.5% (83.2%, 92.3%)
Age ≥ 65 At-risk	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	48	96.3/98.4 = 97.9% (85.6%, 99.7%)	96.3/98.4 = 97.9% (85.6%, 99.7%)	92.1/98.4 = 93.6% (81.4%, 98.0%)
Age ≥ 65 At-risk	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	35	0/1388.5 = 0.0% (0.0%, 0.0%)	0/1388.5 = 0.0% (0.0%, 0.0%)	0/1388.5 = 0.0% (0.0%, 0.0%)
Age ≥ 65 At-risk	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	34	71/73.2 = 96.9% (79.9%, 99.6%)	71/73.2 = 96.9% (79.9%, 99.6%)	62.4/73.2 = 85.3% (68.2%, 94.0%)
Age ≥ 65 At-risk	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	207	1277.9/1277.9 = 100.0% (100.0%, 100.0%)	1277.9/1277.9 = 100.0% (100.0%, 100.0%)	1277.9/1277.9 = 100.0% (100.0%, 100.0%)
Age ≥ 65 At-risk	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	48	98.4/98.4 = 100.0% (100.0%, 100.0%)	98.4/98.4 = 100.0% (100.0%, 100.0%)	98.4/98.4 = 100.0% (100.0%, 100.0%)
Age ≥ 65 At-risk	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	35	0/1388.5 = 0.0% (0.0%, 0.0%)	0/1388.5 = 0.0% (0.0%, 0.0%)	0/1388.5 = 0.0% (0.0%, 0.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Age ≥ 65 At-risk	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	34	73.2/73.2 = 100.0% (100.0%, 100.0%)	73.2/73.2 = 100.0% (100.0%, 100.0%)	73.2/73.2 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Not at-risk	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	173	1073.7/1081.1 = 99.3% (95.3%, 99.9%)	1073.7/1081.1 = 99.3% (95.3%, 99.9%)	1008.1/1081.1 = 93.3% (88.1%, 96.3%)
Age ≥ 65 Not at-risk	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	67	133.5/135.6 = 98.4% (89.4%, 99.8%)	135.6/135.6 = 100.0% (100.0%, 100.0%)	133.5/135.6 = 98.4% (89.4%, 99.8%)
Age ≥ 65 Not at-risk	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	32	0/1317.5 = 0.0% (0.0%, 0.0%)	0/1317.5 = 0.0% (0.0%, 0.0%)	0/1317.5 = 0.0% (0.0%, 0.0%)
Age ≥ 65 Not at-risk	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	65	120.5/132.8 = 90.8% (80.6%, 95.9%)	122.8/132.8 = 92.5% (82.8%, 96.9%)	106.8/132.8 = 80.5% (68.8%, 88.5%)
Age ≥ 65 Not at-risk	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	173	1081.1/1081.1 = 100.0% (100.0%, 100.0%)	1081.1/1081.1 = 100.0% (100.0%, 100.0%)	1081.1/1081.1 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Not at-risk	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	67	135.6/135.6 = 100.0% (100.0%, 100.0%)	135.6/135.6 = 100.0% (100.0%, 100.0%)	135.6/135.6 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Not at-risk	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	32	0/1317.5 = 0.0% (0.0%, 0.0%)	0/1317.5 = 0.0% (0.0%, 0.0%)	0/1317.5 = 0.0% (0.0%, 0.0%)
Age ≥ 65 Not at-risk	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	65	132.8/132.8 = 100.0% (100.0%, 100.0%)	132.8/132.8 = 100.0% (100.0%, 100.0%)	132.8/132.8 = 100.0% (100.0%, 100.0%)

Neutralization Responders are defined as participants who had baseline values below the lower limit of detection (LLOQ) with detectable ID50 neutralization titer above the assay LLOQ, or as participants with baseline values above the LLOQ with a 4-fold increase in ID50.

Percentages are calculated for the whole per-protocol group/subgroup, using inverse probability weighting.

LLOQ = 18.50, 14.30 for pseudovirus-nAb ID50, ID80, respectively.

Table 6e. Percentage of responders, and participants participants with 2-fold rise, and participants with 4-fold rise for ID50 pseudo-virus neutralization antibody markers by Sex

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Sex								
Male	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	323	4610.1/5194.9 = 88.7% (82.5%, 92.9%)	4610.1/5194.9 = 88.7% (82.5%, 92.9%)	3658.9/5194.9 = 70.4% (62.9%, 77.0%)
Male	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	106	532/546.7 = 97.3% (91.9%, 99.1%)	534.1/546.7 = 97.7% (92.0%, 99.4%)	483.8/546.7 = 88.5% (78.5%, 94.2%)
Male	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	55	0/4633.7 = 0.0% (0.0%, 0.0%)	0/4633.7 = 0.0% (0.0%, 0.0%)	0/4633.7 = 0.0% (0.0%, 0.0%)
Male	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	104	350.3/452.3 = 77.5% (64.3%, 86.8%)	364.5/452.3 = 80.6% (67.8%, 89.1%)	246/452.3 = 54.4% (42.0%, 66.3%)
Male	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	323	5194.9/5194.9 = 100.0% (100.0%, 100.0%)	5194.9/5194.9 = 100.0% (100.0%, 100.0%)	5194.9/5194.9 = 100.0% (100.0%, 100.0%)
Male	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	106	546.7/546.7 = 100.0% (100.0%, 100.0%)	546.7/546.7 = 100.0% (100.0%, 100.0%)	546.7/546.7 = 100.0% (100.0%, 100.0%)
Male	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	55	0/4633.7 = 0.0% (0.0%, 0.0%)	0/4633.7 = 0.0% (0.0%, 0.0%)	0/4633.7 = 0.0% (0.0%, 0.0%)
Male	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	104	452.3/452.3 = 100.0% (100.0%, 100.0%)	452.3/452.3 = 100.0% (100.0%, 100.0%)	444/452.3 = 98.2% (87.7%, 99.8%)
Female	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	406	5485.1/6001.1 = 91.4% (86.3%, 94.7%)	5485.1/6001.1 = 91.4% (86.3%, 94.7%)	4634.9/6001.1 = 77.2% (70.9%, 82.6%)
Female	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	129	570.1/595.3 = 95.8% (86.0%, 98.8%)	588.6/595.3 = 98.9% (95.6%, 99.7%)	557.5/595.3 = 93.7% (84.6%, 97.6%)
Female	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	75	0/6562.3 = 0.0% (0.0%, 0.0%)	0/6562.3 = 0.0% (0.0%, 0.0%)	0/6562.3 = 0.0% (0.0%, 0.0%)
Female	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	117	473.7/620.7 = 76.3% (64.3%, 85.2%)	476.5/620.7 = 76.8% (64.7%, 85.6%)	369.8/620.7 = 59.6% (47.7%, 70.4%)
Female	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	406	6001.1/6001.1 = 100.0% (100.0%, 100.0%)	6001.1/6001.1 = 100.0% (100.0%, 100.0%)	6001.1/6001.1 = 100.0% (100.0%, 100.0%)
Female	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	129	595.3/595.3 = 100.0% (100.0%, 100.0%)	595.3/595.3 = 100.0% (100.0%, 100.0%)	595.3/595.3 = 100.0% (100.0%, 100.0%)
Female	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	75	0/6562.3 = 0.0% (0.0%, 0.0%)	0/6562.3 = 0.0% (0.0%, 0.0%)	0/6562.3 = 0.0% (0.0%, 0.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Female	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	117	620.7/620.7 = 100.0% (100.0%, 100.0%)	620.7/620.7 = 100.0% (100.0%, 100.0%)	620.7/620.7 = 100.0% (100.0%, 100.0%)

Neutralization Responders are defined as participants who had baseline values below the lower limit of detection (LLOQ) with detectable ID50 neutralization titer above the assay LLOQ, or as participants with baseline values above the LLOQ with a 4-fold increase in ID50.

Percentages are calculated for the whole per-protocol group/subgroup, using inverse probability weighting.

LLOQ = 18.50, 14.30 for pseudovirus-nAb ID50, ID80, respectively.

Table 6f. Percentage of responders, and participants participants with 2-fold rise, and participants with 4-fold rise for ID50 pseudo-virus neutralization antibody markers by Age, sex

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Age, sex								
Age < 65 Female	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	193	4219.1/4708.4 = 89.6% (83.2%, 93.8%)	4219.1/4708.4 = 89.6% (83.2%, 93.8%)	3472.7/4708.4 = 73.8% (65.8%, 80.4%)
Age < 65 Female	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	60	430.5/455.7 = 94.5% (81.7%, 98.5%)	449.1/455.7 = 98.5% (94.1%, 99.7%)	420/455.7 = 92.2% (80.1%, 97.2%)
Age < 65 Female	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	39	0/5144.1 = 0.0% (0.0%, 0.0%)	0/5144.1 = 0.0% (0.0%, 0.0%)	0/5144.1 = 0.0% (0.0%, 0.0%)
Age < 65 Female	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	62	366.4/507.6 = 72.2% (57.8%, 83.1%)	369.3/507.6 = 72.8% (58.3%, 83.6%)	273/507.6 = 53.8% (39.9%, 67.1%)
Age < 65 Female	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	193	4708.4/4708.4 = 100.0% (100.0%, 100.0%)	4708.4/4708.4 = 100.0% (100.0%, 100.0%)	4708.4/4708.4 = 100.0% (100.0%, 100.0%)
Age < 65 Female	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	60	455.7/455.7 = 100.0% (100.0%, 100.0%)	455.7/455.7 = 100.0% (100.0%, 100.0%)	455.7/455.7 = 100.0% (100.0%, 100.0%)
Age < 65 Female	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	39	0/5144.1 = 0.0% (0.0%, 0.0%)	0/5144.1 = 0.0% (0.0%, 0.0%)	0/5144.1 = 0.0% (0.0%, 0.0%)
Age < 65 Female	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	62	507.6/507.6 = 100.0% (100.0%, 100.0%)	507.6/507.6 = 100.0% (100.0%, 100.0%)	507.6/507.6 = 100.0% (100.0%, 100.0%)
Age < 65 Male	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	156	3579.9/4128.6 = 86.7% (78.9%, 91.9%)	3579.9/4128.6 = 86.7% (78.9%, 91.9%)	2682.3/4128.6 = 65.0% (55.7%, 73.2%)
Age < 65 Male	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	60	441.8/452.3 = 97.7% (90.1%, 99.5%)	441.8/452.3 = 97.7% (90.1%, 99.5%)	395.7/452.3 = 87.5% (75.2%, 94.2%)
Age < 65 Male	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	24	0/3345.9 = 0.0% (0.0%, 0.0%)	0/3345.9 = 0.0% (0.0%, 0.0%)	0/3345.9 = 0.0% (0.0%, 0.0%)
Age < 65 Male	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	60	266/359.4 = 74.0% (57.9%, 85.5%)	277.9/359.4 = 77.3% (61.5%, 87.9%)	173.5/359.4 = 48.3% (33.8%, 63.1%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Age < 65 Male	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	156	4128.6/4128.6 = 100.0% (100.0%, 100.0%)	4128.6/4128.6 = 100.0% (100.0%, 100.0%)	4128.6/4128.6 = 100.0% (100.0%, 100.0%)
Age < 65 Male	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	60	452.3/452.3 = 100.0% (100.0%, 100.0%)	452.3/452.3 = 100.0% (100.0%, 100.0%)	452.3/452.3 = 100.0% (100.0%, 100.0%)
Age < 65 Male	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	24	0/3345.9 = 0.0% (0.0%, 0.0%)	0/3345.9 = 0.0% (0.0%, 0.0%)	0/3345.9 = 0.0% (0.0%, 0.0%)
Age < 65 Male	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	60	359.4/359.4 = 100.0% (100.0%, 100.0%)	359.4/359.4 = 100.0% (100.0%, 100.0%)	351.1/359.4 = 97.7% (84.6%, 99.7%)
Age ≥ 65 Male	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	167	1030.2/1066.3 = 96.6% (92.5%, 98.5%)	1030.2/1066.3 = 96.6% (92.5%, 98.5%)	976.6/1066.3 = 91.6% (86.1%, 95.0%)
Age ≥ 65 Male	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	46	90.2/94.4 = 95.5% (83.2%, 98.9%)	92.3/94.4 = 97.8% (85.0%, 99.7%)	88.1/94.4 = 93.3% (80.7%, 97.9%)
Age ≥ 65 Male	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	31	0/1287.8 = 0.0% (0.0%, 0.0%)	0/1287.8 = 0.0% (0.0%, 0.0%)	0/1287.8 = 0.0% (0.0%, 0.0%)
Age ≥ 65 Male	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	44	84.3/92.8 = 90.8% (77.2%, 96.6%)	86.5/92.8 = 93.2% (80.2%, 97.9%)	72.4/92.8 = 78.0% (63.1%, 88.1%)
Age ≥ 65 Male	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	167	1066.3/1066.3 = 100.0% (100.0%, 100.0%)	1066.3/1066.3 = 100.0% (100.0%, 100.0%)	1066.3/1066.3 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Male	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	46	94.4/94.4 = 100.0% (100.0%, 100.0%)	94.4/94.4 = 100.0% (100.0%, 100.0%)	94.4/94.4 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Male	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	31	0/1287.8 = 0.0% (0.0%, 0.0%)	0/1287.8 = 0.0% (0.0%, 0.0%)	0/1287.8 = 0.0% (0.0%, 0.0%)
Age ≥ 65 Male	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	44	92.8/92.8 = 100.0% (100.0%, 100.0%)	92.8/92.8 = 100.0% (100.0%, 100.0%)	92.8/92.8 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Female	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	213	1265.9/1292.7 = 97.9% (94.5%, 99.2%)	1265.9/1292.7 = 97.9% (94.5%, 99.2%)	1162.2/1292.7 = 89.9% (84.8%, 93.4%)
Age ≥ 65 Female	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	69	139.6/139.6 = 100.0% (100.0%, 100.0%)	139.6/139.6 = 100.0% (100.0%, 100.0%)	137.5/139.6 = 98.5% (89.7%, 99.8%)
Age ≥ 65 Female	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	36	0/1418.2 = 0.0% (0.0%, 0.0%)	0/1418.2 = 0.0% (0.0%, 0.0%)	0/1418.2 = 0.0% (0.0%, 0.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Age ≥ 65 Female	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	55	107.2/113.2 = 94.8% (84.5%, 98.4%)	107.2/113.2 = 94.8% (84.5%, 98.4%)	96.8/113.2 = 85.6% (73.2%, 92.8%)
Age ≥ 65 Female	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	213	1292.7/1292.7 = 100.0% (100.0%, 100.0%)	1292.7/1292.7 = 100.0% (100.0%, 100.0%)	1292.7/1292.7 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Female	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	69	139.6/139.6 = 100.0% (100.0%, 100.0%)	139.6/139.6 = 100.0% (100.0%, 100.0%)	139.6/139.6 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Female	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	36	0/1418.2 = 0.0% (0.0%, 0.0%)	0/1418.2 = 0.0% (0.0%, 0.0%)	0/1418.2 = 0.0% (0.0%, 0.0%)
Age ≥ 65 Female	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	55	113.2/113.2 = 100.0% (100.0%, 100.0%)	113.2/113.2 = 100.0% (100.0%, 100.0%)	113.2/113.2 = 100.0% (100.0%, 100.0%)

Neutralization Responders are defined as participants who had baseline values below the lower limit of detection (LLOQ) with detectable ID50 neutralization titer above the assay LLOQ, or as participants with baseline values above the LLOQ with a 4-fold increase in ID50.

Percentages are calculated for the whole per-protocol group/subgroup, using inverse probability weighting.

LLOQ = 18.50, 14.30 for pseudovirus-nAb ID50, ID80, respectively.

Table 6g. Percentage of responders, and participants participants with 2-fold rise, and participants with 4-fold rise for ID50 pseudo-virus neutralization antibody markers by Hispanic or Latino ethnicity

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Hispanic or Latino ethnicity								
Hispanic or Latino	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	102	1135.5/1225.5 = 92.7% (79.2%, 97.7%)	1135.5/1225.5 = 92.7% (79.2%, 97.7%)	972.4/1225.5 = 79.3% (64.8%, 88.9%)
Hispanic or Latino	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	27	96.4/96.4 = 100.0% (100.0%, 100.0%)	96.4/96.4 = 100.0% (100.0%, 100.0%)	93.2/96.4 = 96.7% (77.9%, 99.6%)
Hispanic or Latino	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	24	0/1647.1 = 0.0% (0.0%, 0.0%)	0/1647.1 = 0.0% (0.0%, 0.0%)	0/1647.1 = 0.0% (0.0%, 0.0%)
Hispanic or Latino	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	29	96.3/106.5 = 90.5% (60.7%, 98.3%)	96.3/106.5 = 90.5% (60.7%, 98.3%)	50.1/106.5 = 47.1% (27.0%, 68.2%)
Hispanic or Latino	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	102	1225.5/1225.5 = 100.0% (100.0%, 100.0%)	1225.5/1225.5 = 100.0% (100.0%, 100.0%)	1225.5/1225.5 = 100.0% (100.0%, 100.0%)
Hispanic or Latino	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	27	96.4/96.4 = 100.0% (100.0%, 100.0%)	96.4/96.4 = 100.0% (100.0%, 100.0%)	96.4/96.4 = 100.0% (100.0%, 100.0%)
Hispanic or Latino	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	24	0/1647.1 = 0.0% (0.0%, 0.0%)	0/1647.1 = 0.0% (0.0%, 0.0%)	0/1647.1 = 0.0% (0.0%, 0.0%)
Hispanic or Latino	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	29	106.5/106.5 = 100.0% (100.0%, 100.0%)	106.5/106.5 = 100.0% (100.0%, 100.0%)	106.5/106.5 = 100.0% (100.0%, 100.0%)
Not Hispanic or Latino	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	600	8595/9605.9 = 89.5% (85.3%, 92.6%)	8595/9605.9 = 89.5% (85.3%, 92.6%)	7001.1/9605.9 = 72.9% (67.6%, 77.6%)
Not Hispanic or Latino	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	200	982.8/1022.7 = 96.1% (90.7%, 98.4%)	1003.5/1022.7 = 98.1% (95.2%, 99.3%)	925.2/1022.7 = 90.5% (83.8%, 94.6%)
Not Hispanic or Latino	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	103	0/9415.3 = 0.0% (0.0%, 0.0%)	0/9415.3 = 0.0% (0.0%, 0.0%)	0/9415.3 = 0.0% (0.0%, 0.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Not Hispanic or Latino	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	184	687.9/918.5 = 74.9% (65.4%, 82.5%)	704.9/918.5 = 76.7% (67.4%, 84.1%)	534.2/918.5 = 58.2% (48.6%, 67.1%)
Not Hispanic or Latino	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	600	9605.9/9605.9 = 100.0% (100.0%, 100.0%)	9605.9/9605.9 = 100.0% (100.0%, 100.0%)	9605.9/9605.9 = 100.0% (100.0%, 100.0%)
Not Hispanic or Latino	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	200	1022.7/1022.7 = 100.0% (100.0%, 100.0%)	1022.7/1022.7 = 100.0% (100.0%, 100.0%)	1022.7/1022.7 = 100.0% (100.0%, 100.0%)
Not Hispanic or Latino	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	103	0/9415.3 = 0.0% (0.0%, 0.0%)	0/9415.3 = 0.0% (0.0%, 0.0%)	0/9415.3 = 0.0% (0.0%, 0.0%)
Not Hispanic or Latino	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	184	918.5/918.5 = 100.0% (100.0%, 100.0%)	918.5/918.5 = 100.0% (100.0%, 100.0%)	910.1/918.5 = 99.1% (93.8%, 99.9%)
Not reported and unknown	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	27	364.6/364.6 = 100.0% (100.0%, 100.0%)	364.6/364.6 = 100.0% (100.0%, 100.0%)	320.2/364.6 = 87.8% (53.3%, 97.9%)
Not reported and unknown	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	8	22.9/22.9 = 100.0% (100.0%, 100.0%)	22.9/22.9 = 100.0% (100.0%, 100.0%)	22.9/22.9 = 100.0% (100.0%, 100.0%)
Not reported and unknown	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	3	0/133.6 = 0.0%	0/133.6 = 0.0%	0/133.6 = 0.0%
Not reported and unknown	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	8	39.7/48 = 82.7% (21.8%, 98.8%)	39.7/48 = 82.7% (21.8%, 98.8%)	31.4/48 = 65.4% (17.0%, 94.6%)
Not reported and unknown	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	27	364.6/364.6 = 100.0% (100.0%, 100.0%)	364.6/364.6 = 100.0% (100.0%, 100.0%)	364.6/364.6 = 100.0% (100.0%, 100.0%)
Not reported and unknown	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	8	22.9/22.9 = 100.0% (100.0%, 100.0%)	22.9/22.9 = 100.0% (100.0%, 100.0%)	22.9/22.9 = 100.0% (100.0%, 100.0%)
Not reported and unknown	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	3	0/133.6 = 0.0%	0/133.6 = 0.0%	0/133.6 = 0.0%
Not reported and unknown	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	8	48/48 = 100.0% (100.0%, 100.0%)	48/48 = 100.0% (100.0%, 100.0%)	48/48 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
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Neutralization Responders are defined as participants who had baseline values below the lower limit of detection (LLOQ) with detectable ID50 neutralization titer above the assay LLOQ, or as participants with baseline values above the LLOQ with a 4-fold increase in ID50.

Percentages are calculated for the whole per-protocol group/subgroup, using inverse probability weighting.

LLOQ = 18.50, 14.30 for pseudovirus-nAb ID50, ID80, respectively.

Table 6h. Percentage of responders, and participants participants with 2-fold rise, and participants with 4-fold rise for ID50 pseudo-virus neutralization antibody markers by Race

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Race								
White Non-Hispanic	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	355	5581.2/6280.2 = 88.9% (83.2%, 92.8%)	5581.2/6280.2 = 88.9% (83.2%, 92.8%)	4512.2/6280.2 = 71.8% (65.0%, 77.8%)
White Non-Hispanic	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	121	630.9/657.1 = 96.0% (87.2%, 98.8%)	648.1/657.1 = 98.6% (95.7%, 99.6%)	621.9/657.1 = 94.6% (86.7%, 98.0%)
White Non-Hispanic	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	64	0/7123.2 = 0.0% (0.0%, 0.0%)	0/7123.2 = 0.0% (0.0%, 0.0%)	0/7123.2 = 0.0% (0.0%, 0.0%)
White Non-Hispanic	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	119	475.2/625 = 76.0% (63.8%, 85.1%)	489.4/625 = 78.3% (66.1%, 87.0%)	392.8/625 = 62.8% (50.7%, 73.5%)
White Non-Hispanic	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	355	6280.2/6280.2 = 100.0% (100.0%, 100.0%)	6280.2/6280.2 = 100.0% (100.0%, 100.0%)	6280.2/6280.2 = 100.0% (100.0%, 100.0%)
White Non-Hispanic	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	121	657.1/657.1 = 100.0% (100.0%, 100.0%)	657.1/657.1 = 100.0% (100.0%, 100.0%)	657.1/657.1 = 100.0% (100.0%, 100.0%)
White Non-Hispanic	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	64	0/7123.2 = 0.0% (0.0%, 0.0%)	0/7123.2 = 0.0% (0.0%, 0.0%)	0/7123.2 = 0.0% (0.0%, 0.0%)
White Non-Hispanic	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	119	625/625 = 100.0% (100.0%, 100.0%)	625/625 = 100.0% (100.0%, 100.0%)	625/625 = 100.0% (100.0%, 100.0%)
Black or African American	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	179	1976/2114.1 = 93.5% (86.1%, 97.0%)	1976/2114.1 = 93.5% (86.1%, 97.0%)	1650.3/2114.1 = 78.1% (67.5%, 85.9%)
Black or African American	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	60	235.3/245.6 = 95.8% (82.7%, 99.1%)	235.3/245.6 = 95.8% (82.7%, 99.1%)	210.9/245.6 = 85.9% (70.7%, 93.9%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Black or African American	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	36	0/2356.8 = 0.0% (0.0%, 0.0%)	0/2356.8 = 0.0% (0.0%, 0.0%)	0/2356.8 = 0.0% (0.0%, 0.0%)
Black or African American	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	46	136.9/196 = 69.8% (50.1%, 84.2%)	139.7/196 = 71.3% (51.4%, 85.3%)	121.2/196 = 61.8% (42.9%, 77.8%)
Black or African American	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	179	2114.1/2114.1 = 100.0% (100.0%, 100.0%)	2114.1/2114.1 = 100.0% (100.0%, 100.0%)	2114.1/2114.1 = 100.0% (100.0%, 100.0%)
Black or African American	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	60	245.6/245.6 = 100.0% (100.0%, 100.0%)	245.6/245.6 = 100.0% (100.0%, 100.0%)	245.6/245.6 = 100.0% (100.0%, 100.0%)
Black or African American	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	36	0/2356.8 = 0.0% (0.0%, 0.0%)	0/2356.8 = 0.0% (0.0%, 0.0%)	0/2356.8 = 0.0% (0.0%, 0.0%)
Black or African American	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	46	196/196 = 100.0% (100.0%, 100.0%)	196/196 = 100.0% (100.0%, 100.0%)	187.7/196 = 95.8% (73.8%, 99.5%)
Asian	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	65	904.3/1066.3 = 84.8% (66.8%, 93.9%)	904.3/1066.3 = 84.8% (66.8%, 93.9%)	744.8/1066.3 = 69.9% (52.6%, 82.8%)
Asian	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	21	125.4/128.8 = 97.3% (80.3%, 99.7%)	128.8/128.8 = 100.0% (100.0%, 100.0%)	108.2/128.8 = 84.0% (47.6%, 96.8%)
Asian	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	8	0/441.3 = 0.0% (0.0%, 0.0%)	0/441.3 = 0.0% (0.0%, 0.0%)	0/441.3 = 0.0% (0.0%, 0.0%)
Asian	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	19	77.8/98.1 = 79.4% (45.1%, 94.8%)	77.8/98.1 = 79.4% (45.1%, 94.8%)	30.1/98.1 = 30.7% (11.1%, 61.1%)
Asian	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	65	1066.3/1066.3 = 100.0% (100.0%, 100.0%)	1066.3/1066.3 = 100.0% (100.0%, 100.0%)	1066.3/1066.3 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Asian	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	21	128.8/128.8 = 100.0% (100.0%, 100.0%)	128.8/128.8 = 100.0% (100.0%, 100.0%)	128.8/128.8 = 100.0% (100.0%, 100.0%)
Asian	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	8	0/441.3 = 0.0% (0.0%, 0.0%)	0/441.3 = 0.0% (0.0%, 0.0%)	0/441.3 = 0.0% (0.0%, 0.0%)
Asian	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	19	98.1/98.1 = 100.0% (100.0%, 100.0%)	98.1/98.1 = 100.0% (100.0%, 100.0%)	98.1/98.1 = 100.0% (100.0%, 100.0%)
American Indian or Alaska Native	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	14	170.5/170.5 = 100.0% (100.0%, 100.0%)	170.5/170.5 = 100.0% (100.0%, 100.0%)	162.5/170.5 = 95.3% (65.4%, 99.5%)
American Indian or Alaska Native	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	4	8.9/8.9 = 100.0% (100.0%, 100.0%)	8.9/8.9 = 100.0% (100.0%, 100.0%)	8.9/8.9 = 100.0% (100.0%, 100.0%)
American Indian or Alaska Native	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	2	0/59.5 = 0.0%	0/59.5 = 0.0%	0/59.5 = 0.0%
American Indian or Alaska Native	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	5	21.3/29.6 = 71.9% (1.6%, 99.7%)	21.3/29.6 = 71.9% (1.6%, 99.7%)	8.3/29.6 = 28.1% (0.3%, 98.4%)
American Indian or Alaska Native	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	14	170.5/170.5 = 100.0% (100.0%, 100.0%)	170.5/170.5 = 100.0% (100.0%, 100.0%)	170.5/170.5 = 100.0% (100.0%, 100.0%)
American Indian or Alaska Native	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	4	8.9/8.9 = 100.0% (100.0%, 100.0%)	8.9/8.9 = 100.0% (100.0%, 100.0%)	8.9/8.9 = 100.0% (100.0%, 100.0%)
American Indian or Alaska Native	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	2	0/59.5 = 0.0%	0/59.5 = 0.0%	0/59.5 = 0.0%

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
American Indian or Alaska Native	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	5	29.6/29.6 = 100.0% (100.0%, 100.0%)	29.6/29.6 = 100.0% (100.0%, 100.0%)	29.6/29.6 = 100.0% (100.0%, 100.0%)
Native Hawaiian or Other Pacific Islander	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	9	143.7/143.7 = 100.0% (100.0%, 100.0%)	143.7/143.7 = 100.0% (100.0%, 100.0%)	90/143.7 = 62.6% (15.0%, 94.1%)
Native Hawaiian or Other Pacific Islander	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	4	14/14 = 100.0%	14/14 = 100.0%	7/14 = 49.7%
Native Hawaiian or Other Pacific Islander	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	3	0/133.6 = 0.0%	0/133.6 = 0.0%	0/133.6 = 0.0%
Native Hawaiian or Other Pacific Islander	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	4	8.4/8.4 = 100.0% (100.0%, 100.0%)	8.4/8.4 = 100.0% (100.0%, 100.0%)	8.4/8.4 = 100.0% (100.0%, 100.0%)
Native Hawaiian or Other Pacific Islander	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	9	143.7/143.7 = 100.0% (100.0%, 100.0%)	143.7/143.7 = 100.0% (100.0%, 100.0%)	143.7/143.7 = 100.0% (100.0%, 100.0%)
Native Hawaiian or Other Pacific Islander	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	4	14/14 = 100.0%	14/14 = 100.0%	14/14 = 100.0%

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Native Hawaiian or Other Pacific Islander	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	3	0/133.6 = 0.0%	0/133.6 = 0.0%	0/133.6 = 0.0%
Native Hawaiian or Other Pacific Islander	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	4	8.4/8.4 = 100.0% (100.0%, 100.0%)	8.4/8.4 = 100.0% (100.0%, 100.0%)	8.4/8.4 = 100.0% (100.0%, 100.0%)
Multiracial	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	54	730.8/779.8 = 93.7% (75.2%, 98.7%)	730.8/779.8 = 93.7% (75.2%, 98.7%)	617.2/779.8 = 79.1% (60.0%, 90.6%)
Multiracial	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	11	39.2/39.2 = 100.0% (100.0%, 100.0%)	39.2/39.2 = 100.0% (100.0%, 100.0%)	39.2/39.2 = 100.0% (100.0%, 100.0%)
Multiracial	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	11	0/712.6 = 0.0% (0.0%, 0.0%)	0/712.6 = 0.0% (0.0%, 0.0%)	0/712.6 = 0.0% (0.0%, 0.0%)
Multiracial	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	14	51.3/62.8 = 81.6% (39.5%, 96.8%)	51.3/62.8 = 81.6% (39.5%, 96.8%)	20.4/62.8 = 32.4% (10.5%, 66.2%)
Multiracial	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	54	779.8/779.8 = 100.0% (100.0%, 100.0%)	779.8/779.8 = 100.0% (100.0%, 100.0%)	779.8/779.8 = 100.0% (100.0%, 100.0%)
Multiracial	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	11	39.2/39.2 = 100.0% (100.0%, 100.0%)	39.2/39.2 = 100.0% (100.0%, 100.0%)	39.2/39.2 = 100.0% (100.0%, 100.0%)
Multiracial	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	11	0/712.6 = 0.0% (0.0%, 0.0%)	0/712.6 = 0.0% (0.0%, 0.0%)	0/712.6 = 0.0% (0.0%, 0.0%)
Multiracial	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	14	62.8/62.8 = 100.0% (100.0%, 100.0%)	62.8/62.8 = 100.0% (100.0%, 100.0%)	62.8/62.8 = 100.0% (100.0%, 100.0%)
Other	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	20	222.2/270.3 = 82.2% (41.8%, 96.7%)	222.2/270.3 = 82.2% (41.8%, 96.7%)	171.2/270.3 = 63.3% (27.9%, 88.5%)
Other	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	4	15.3/15.3 = 100.0%	15.3/15.3 = 100.0%	15.3/15.3 = 100.0%
Other	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	3	0/154.8 = 0.0%	0/154.8 = 0.0%	0/154.8 = 0.0%
Other	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	5	21.6/21.6 = 100.0%	21.6/21.6 = 100.0%	21.6/21.6 = 100.0%
Other	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	20	270.3/270.3 = 100.0% (100.0%, 100.0%)	270.3/270.3 = 100.0% (100.0%, 100.0%)	270.3/270.3 = 100.0% (100.0%, 100.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Other	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	4	15.3/15.3 = 100.0%	15.3/15.3 = 100.0%	15.3/15.3 = 100.0%
Other	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	3	0/154.8 = 0.0%	0/154.8 = 0.0%	0/154.8 = 0.0%
Other	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	5	21.6/21.6 = 100.0%	21.6/21.6 = 100.0%	21.6/21.6 = 100.0%
Not reported and unknown	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	3	17.4/17.4 = 100.0%	17.4/17.4 = 100.0%	9.4/17.4 = 53.9%
Not reported and unknown	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	3	7/7 = 100.0%	7/7 = 100.0%	7/7 = 100.0%
Not reported and unknown	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	1	0/29.8 = 0.0%	0/29.8 = 0.0%	0/29.8 = 0.0%
Not reported and unknown	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	1	1.8/1.8 = 100.0%	1.8/1.8 = 100.0%	0/1.8 = 0.0%
Not reported and unknown	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	3	17.4/17.4 = 100.0%	17.4/17.4 = 100.0%	17.4/17.4 = 100.0%
Not reported and unknown	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	3	7/7 = 100.0%	7/7 = 100.0%	7/7 = 100.0%
Not reported and unknown	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	1	0/29.8 = 0.0%	0/29.8 = 0.0%	0/29.8 = 0.0%
Not reported and unknown	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	1	1.8/1.8 = 100.0%	1.8/1.8 = 100.0%	1.8/1.8 = 100.0%

Neutralization Responders are defined as participants who had baseline values below the lower limit of detection (LLOQ) with detectable ID50 neutralization titer above the assay LLOQ, or as participants with baseline values above the LLOQ with a 4-fold increase in ID50.

Percentages are calculated for the whole per-protocol group/subgroup, using inverse probability weighting.

LLOQ = 18.50, 14.30 for pseudovirus-nAb ID50, ID80, respectively.

Table 6i. Percentage of responders, and participants participants with 2-fold rise, and participants with 4-fold rise for ID50 pseudo-virus neutralization antibody markers by Communities of color

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Communities of color								
Communities of Color	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	374	4513.9/4915.8 = 91.8% (86.5%, 95.2%)	4513.9/4915.8 = 91.8% (86.5%, 95.2%)	3781.6/4915.8 = 76.9% (70.1%, 82.6%)
Communities of Color	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	114	471.2/484.9 = 97.2% (90.7%, 99.2%)	474.7/484.9 = 97.9% (90.9%, 99.5%)	419.4/484.9 = 86.5% (75.3%, 93.1%)
Communities of Color	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	66	0/4072.8 = 0.0% (0.0%, 0.0%)	0/4072.8 = 0.0% (0.0%, 0.0%)	0/4072.8 = 0.0% (0.0%, 0.0%)
Communities of Color	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	102	348.7/448 = 77.8% (65.5%, 86.7%)	351.6/448 = 78.5% (66.2%, 87.2%)	223/448 = 49.8% (37.8%, 61.7%)
Communities of Color	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	374	4915.8/4915.8 = 100.0% (100.0%, 100.0%)	4915.8/4915.8 = 100.0% (100.0%, 100.0%)	4915.8/4915.8 = 100.0% (100.0%, 100.0%)
Communities of Color	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	114	484.9/484.9 = 100.0% (100.0%, 100.0%)	484.9/484.9 = 100.0% (100.0%, 100.0%)	484.9/484.9 = 100.0% (100.0%, 100.0%)
Communities of Color	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	66	0/4072.8 = 0.0% (0.0%, 0.0%)	0/4072.8 = 0.0% (0.0%, 0.0%)	0/4072.8 = 0.0% (0.0%, 0.0%)
Communities of Color	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	102	448/448 = 100.0% (100.0%, 100.0%)	448/448 = 100.0% (100.0%, 100.0%)	439.7/448 = 98.1% (87.5%, 99.8%)
White Non-Hispanic	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	355	5581.2/6280.2 = 88.9% (83.2%, 92.8%)	5581.2/6280.2 = 88.9% (83.2%, 92.8%)	4512.2/6280.2 = 71.8% (65.0%, 77.8%)
White Non-Hispanic	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	121	630.9/657.1 = 96.0% (87.2%, 98.8%)	648.1/657.1 = 98.6% (95.7%, 99.6%)	621.9/657.1 = 94.6% (86.7%, 98.0%)
White Non-Hispanic	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	64	0/7123.2 = 0.0% (0.0%, 0.0%)	0/7123.2 = 0.0% (0.0%, 0.0%)	0/7123.2 = 0.0% (0.0%, 0.0%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
White Non-Hispanic	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	119	475.2/625 = 76.0% (63.8%, 85.1%)	489.4/625 = 78.3% (66.1%, 87.0%)	392.8/625 = 62.8% (50.7%, 73.5%)
White Non-Hispanic	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	355	6280.2/6280.2 = 100.0% (100.0%, 100.0%)	6280.2/6280.2 = 100.0% (100.0%, 100.0%)	6280.2/6280.2 = 100.0% (100.0%, 100.0%)
White Non-Hispanic	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	121	657.1/657.1 = 100.0% (100.0%, 100.0%)	657.1/657.1 = 100.0% (100.0%, 100.0%)	657.1/657.1 = 100.0% (100.0%, 100.0%)
White Non-Hispanic	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	64	0/7123.2 = 0.0% (0.0%, 0.0%)	0/7123.2 = 0.0% (0.0%, 0.0%)	0/7123.2 = 0.0% (0.0%, 0.0%)
White Non-Hispanic	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	119	625/625 = 100.0% (100.0%, 100.0%)	625/625 = 100.0% (100.0%, 100.0%)	625/625 = 100.0% (100.0%, 100.0%)

Neutralization Responders are defined as participants who had baseline values below the lower limit of detection (LLOQ) with detectable ID50 neutralization titer above the assay LLOQ, or as participants with baseline values above the LLOQ with a 4-fold increase in ID50.

Percentages are calculated for the whole per-protocol group/subgroup, using inverse probability weighting.

LLOQ = 18.50, 14.30 for pseudovirus-nAb ID50, ID80, respectively.

Table 6j. Percentage of responders, and participants participants with 2-fold rise, and participants with 4-fold rise for ID50 pseudo-virus neutralization antibody markers by Age, Communities of color

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Age, Communities of color								
Age < 65 Communities of Color	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	169	3469.2/3845 = 90.2% (83.4%, 94.4%)	3469.2/3845 = 90.2% (83.4%, 94.4%)	2835.3/3845 = 73.7% (65.1%, 80.9%)
Age < 65 Communities of Color	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	63	372.1/385.7 = 96.5% (88.2%, 99.0%)	375.5/385.7 = 97.3% (88.5%, 99.4%)	322.3/385.7 = 83.6% (69.6%, 91.9%)
Age < 65 Communities of Color	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	31	0/2903.6 = 0.0% (0.0%, 0.0%)	0/2903.6 = 0.0% (0.0%, 0.0%)	0/2903.6 = 0.0% (0.0%, 0.0%)
Age < 65 Communities of Color	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	58	271.1/364.8 = 74.3% (59.4%, 85.1%)	273.9/364.8 = 75.1% (60.1%, 85.8%)	158.7/364.8 = 43.5% (29.8%, 58.3%)
Age < 65 Communities of Color	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	169	3845/3845 = 100.0% (100.0%, 100.0%)	3845/3845 = 100.0% (100.0%, 100.0%)	3845/3845 = 100.0% (100.0%, 100.0%)
Age < 65 Communities of Color	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	63	385.7/385.7 = 100.0% (100.0%, 100.0%)	385.7/385.7 = 100.0% (100.0%, 100.0%)	385.7/385.7 = 100.0% (100.0%, 100.0%)
Age < 65 Communities of Color	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	31	0/2903.6 = 0.0% (0.0%, 0.0%)	0/2903.6 = 0.0% (0.0%, 0.0%)	0/2903.6 = 0.0% (0.0%, 0.0%)
Age < 65 Communities of Color	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	58	364.8/364.8 = 100.0% (100.0%, 100.0%)	364.8/364.8 = 100.0% (100.0%, 100.0%)	356.5/364.8 = 97.7% (84.6%, 99.7%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Age < 65 White Non-Hispanic	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	180	4329.9/4992 = 86.7% (79.6%, 91.6%)	4329.9/4992 = 86.7% (79.6%, 91.6%)	3319.7/4992 = 66.5% (58.0%, 74.0%)
Age < 65 White Non-Hispanic	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	57	500.3/522.3 = 95.8% (83.5%, 99.0%)	515.4/522.3 = 98.7% (94.8%, 99.7%)	493.4/522.3 = 94.5% (83.7%, 98.3%)
Age < 65 White Non-Hispanic	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	32	0/5586.4 = 0.0% (0.0%, 0.0%)	0/5586.4 = 0.0% (0.0%, 0.0%)	0/5586.4 = 0.0% (0.0%, 0.0%)
Age < 65 White Non-Hispanic	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	64	361.4/502.2 = 72.0% (57.0%, 83.2%)	373.3/502.2 = 74.3% (59.5%, 85.1%)	287.9/502.2 = 57.3% (42.8%, 70.7%)
Age < 65 White Non-Hispanic	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	180	4992/4992 = 100.0% (100.0%, 100.0%)	4992/4992 = 100.0% (100.0%, 100.0%)	4992/4992 = 100.0% (100.0%, 100.0%)
Age < 65 White Non-Hispanic	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	57	522.3/522.3 = 100.0% (100.0%, 100.0%)	522.3/522.3 = 100.0% (100.0%, 100.0%)	522.3/522.3 = 100.0% (100.0%, 100.0%)
Age < 65 White Non-Hispanic	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	32	0/5586.4 = 0.0% (0.0%, 0.0%)	0/5586.4 = 0.0% (0.0%, 0.0%)	0/5586.4 = 0.0% (0.0%, 0.0%)
Age < 65 White Non-Hispanic	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	64	502.2/502.2 = 100.0% (100.0%, 100.0%)	502.2/502.2 = 100.0% (100.0%, 100.0%)	502.2/502.2 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Communities of Color	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	205	1044.7/1070.8 = 97.6% (94.1%, 99.0%)	1044.7/1070.8 = 97.6% (94.1%, 99.0%)	946.3/1070.8 = 88.4% (82.8%, 92.3%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Age ≥ 65 Communities of Color	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	51	99.2/99.2 = 100.0% (100.0%, 100.0%)	99.2/99.2 = 100.0% (100.0%, 100.0%)	97.1/99.2 = 97.9% (85.9%, 99.7%)
Age ≥ 65 Communities of Color	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	35	0/1169.2 = 0.0% (0.0%, 0.0%)	0/1169.2 = 0.0% (0.0%, 0.0%)	0/1169.2 = 0.0% (0.0%, 0.0%)
Age ≥ 65 Communities of Color	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	44	77.6/83.2 = 93.3% (80.6%, 97.9%)	77.6/83.2 = 93.3% (80.6%, 97.9%)	64.3/83.2 = 77.3% (62.1%, 87.6%)
Age ≥ 65 Communities of Color	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	205	1070.8/1070.8 = 100.0% (100.0%, 100.0%)	1070.8/1070.8 = 100.0% (100.0%, 100.0%)	1070.8/1070.8 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Communities of Color	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	51	99.2/99.2 = 100.0% (100.0%, 100.0%)	99.2/99.2 = 100.0% (100.0%, 100.0%)	99.2/99.2 = 100.0% (100.0%, 100.0%)
Age ≥ 65 Communities of Color	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	35	0/1169.2 = 0.0% (0.0%, 0.0%)	0/1169.2 = 0.0% (0.0%, 0.0%)	0/1169.2 = 0.0% (0.0%, 0.0%)
Age ≥ 65 Communities of Color	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	44	83.2/83.2 = 100.0% (100.0%, 100.0%)	83.2/83.2 = 100.0% (100.0%, 100.0%)	83.2/83.2 = 100.0% (100.0%, 100.0%)
Age ≥ 65 White Non-Hispanic	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	175	1251.4/1288.2 = 97.1% (93.3%, 98.8%)	1251.4/1288.2 = 97.1% (93.3%, 98.8%)	1192.5/1288.2 = 92.6% (87.6%, 95.7%)
Age ≥ 65 White Non-Hispanic	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	64	130.6/134.8 = 96.9% (88.0%, 99.2%)	132.7/134.8 = 98.4% (89.3%, 99.8%)	128.5/134.8 = 95.3% (86.1%, 98.5%)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Responder	% 2-Fold Rise	% 4-Fold Rise
Age ≥ 65 White Non-Hispanic	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	32	0/1536.8 = 0.0% (0.0%, 0.0%)	0/1536.8 = 0.0% (0.0%, 0.0%)	0/1536.8 = 0.0% (0.0%, 0.0%)
Age ≥ 65 White Non-Hispanic	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	55	113.9/122.8 = 92.7% (81.8%, 97.3%)	116.1/122.8 = 94.5% (84.0%, 98.3%)	105/122.8 = 85.5% (73.1%, 92.7%)
Age ≥ 65 White Non-Hispanic	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	175	1288.2/1288.2 = 100.0% (100.0%, 100.0%)	1288.2/1288.2 = 100.0% (100.0%, 100.0%)	1288.2/1288.2 = 100.0% (100.0%, 100.0%)
Age ≥ 65 White Non-Hispanic	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	64	134.8/134.8 = 100.0% (100.0%, 100.0%)	134.8/134.8 = 100.0% (100.0%, 100.0%)	134.8/134.8 = 100.0% (100.0%, 100.0%)
Age ≥ 65 White Non-Hispanic	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	32	0/1536.8 = 0.0% (0.0%, 0.0%)	0/1536.8 = 0.0% (0.0%, 0.0%)	0/1536.8 = 0.0% (0.0%, 0.0%)
Age ≥ 65 White Non-Hispanic	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	55	122.8/122.8 = 100.0% (100.0%, 100.0%)	122.8/122.8 = 100.0% (100.0%, 100.0%)	122.8/122.8 = 100.0% (100.0%, 100.0%)

Neutralization Responders are defined as participants who had baseline values below the lower limit of detection (LLOQ) with detectable ID50 neutralization titer above the assay LLOQ, or as participants with baseline values above the LLOQ with a 4-fold increase in ID50.

Percentages are calculated for the whole per-protocol group/subgroup, using inverse probability weighting.

LLOQ = 18.50, 14.30 for pseudovirus-nAb ID50, ID80, respectively.

1.7 Geometric mean titers (GMTs) and geometric mean concentrations (GMCs)

Table 7a. Geometric mean titers (GMTs) and geometric mean concentrations (GMCs) by All participants

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
All participants						
	Day 1	Vaccine	Negative	Anti N IgG (IU/ml)	729	0.05 (0.05, 0.05)
	Day 1	Vaccine	Negative	Anti RBD IgG (IU/ml)	729	0.80 (0.80, 0.80)
	Day 1	Vaccine	Negative	Anti Spike IgG (IU/ml)	729	0.15 (0.15, 0.16)
	Day 1	Vaccine	Negative	Pseudovirus-nAb ID50	729	5.00 (5.00, 5.00)
	Day 1	Vaccine	Negative	Pseudovirus-nAb ID80	729	5.00 (5.00, 5.00)
	Day 1	Vaccine	Positive	Anti N IgG (IU/ml)	235	0.05 (0.05, 0.05)
	Day 1	Vaccine	Positive	Anti RBD IgG (IU/ml)	235	0.80 (0.79, 0.80)
	Day 1	Vaccine	Positive	Anti Spike IgG (IU/ml)	235	0.16 (0.15, 0.16)
	Day 1	Vaccine	Positive	Pseudovirus-nAb ID50	235	7.46 (6.58, 8.47)
	Day 1	Vaccine	Positive	Pseudovirus-nAb ID80	235	6.80 (6.12, 7.55)
	Day 1	Placebo	Negative	Anti N IgG (IU/ml)	130	0.05 (0.05, 0.05)
	Day 1	Placebo	Negative	Anti RBD IgG (IU/ml)	130	0.80 (0.80, 0.80)
	Day 1	Placebo	Negative	Anti Spike IgG (IU/ml)	130	0.15 (0.15, 0.15)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
	Day 1	Placebo	Negative	Pseudovirus-nAb ID50	130	5.00 (5.00, 5.00)
	Day 1	Placebo	Negative	Pseudovirus-nAb ID80	130	5.00 (5.00, 5.00)
	Day 1	Placebo	Positive	Anti N IgG (IU/ml)	221	0.05 (0.05, 0.05)
	Day 1	Placebo	Positive	Anti RBD IgG (IU/ml)	221	0.80 (0.80, 0.80)
	Day 1	Placebo	Positive	Anti Spike IgG (IU/ml)	221	0.15 (0.15, 0.15)
	Day 1	Placebo	Positive	Pseudovirus-nAb ID50	221	6.61 (6.07, 7.20)
	Day 1	Placebo	Positive	Pseudovirus-nAb ID80	221	6.74 (6.09, 7.47)
	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	729	37.12 (31.37, 43.93)
	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	729	443.20 (380.84, 515.77)
	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	729	240.78 (214.08, 270.82)
	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	729	65.70 (59.95, 72.01)
	Day 29	Vaccine	Negative	Pseudovirus-nAb ID80	729	16.84 (15.44, 18.38)
	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	235	96.82 (73.87, 126.89)
	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	235	1068.00 (782.37, 1457.90)
	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	235	491.02 (376.15, 640.97)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	235	145.12 (125.72, 167.52)
	Day 29	Vaccine	Positive	Pseudovirus-nAb ID80	235	32.40 (27.75, 37.83)
	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	130	0.05 (0.05, 0.05)
	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	130	0.80 (0.80, 0.80)
	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	130	0.15 (0.15, 0.15)
	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	130	5.05 (4.98, 5.12)
	Day 29	Placebo	Negative	Pseudovirus-nAb ID80	130	5.03 (4.99, 5.06)
	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	221	26.50 (19.96, 35.18)
	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	221	349.86 (277.95, 440.37)
	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	221	188.94 (152.96, 233.39)
	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	221	48.67 (41.47, 57.12)
	Day 29	Placebo	Positive	Pseudovirus-nAb ID80	221	11.18 (9.92, 12.60)
	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	729	150.61 (122.97, 184.47)
	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	729	4520.91 (3806.95, 5368.76)
	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	729	3103.50 (2687.12, 3584.40)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	729	1625.37 (1436.05, 1839.66)
	Day 57	Vaccine	Negative	Pseudovirus-nAb ID80	729	375.55 (338.05, 417.22)
	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	235	506.75 (350.49, 732.68)
	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	235	14304.58 (10352.78, 19764.83)
	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	235	11876.45 (9121.26, 15463.89)
	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	235	5384.92 (4290.47, 6758.56)
	Day 57	Vaccine	Positive	Pseudovirus-nAb ID80	235	1121.05 (916.98, 1370.52)
	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	130	0.05 (0.05, 0.05)
	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	130	0.80 (0.80, 0.80)
	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	130	0.15 (0.15, 0.15)
	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	130	5.02 (4.98, 5.07)
	Day 57	Placebo	Negative	Pseudovirus-nAb ID80	130	5.00 (5.00, 5.00)
	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	221	152.68 (109.54, 212.81)
	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	221	3889.34 (2945.83, 5135.04)
	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	221	2421.54 (1923.28, 3048.90)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	221	1371.19 (1107.92, 1697.02)
	Day 57	Placebo	Positive	Pseudovirus-nAb ID80	221	282.29 (234.94, 339.20)

MOCK

Table 7b. Geometric mean titers (GMTs) and geometric mean concentrations (GMCs) by Age

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Age						
Age < 65	Day 1	Vaccine	Negative	Anti N IgG (IU/ml)	349	0.05 (0.05, 0.05)
Age < 65	Day 1	Vaccine	Negative	Anti RBD IgG (IU/ml)	349	0.80 (0.80, 0.80)
Age < 65	Day 1	Vaccine	Negative	Anti Spike IgG (IU/ml)	349	0.15 (0.15, 0.16)
Age < 65	Day 1	Vaccine	Negative	Pseudovirus-nAb ID50	349	5.00 (5.00, 5.00)
Age < 65	Day 1	Vaccine	Negative	Pseudovirus-nAb ID80	349	5.00 (5.00, 5.00)
Age < 65	Day 1	Vaccine	Positive	Anti N IgG (IU/ml)	120	0.05 (0.05, 0.06)
Age < 65	Day 1	Vaccine	Positive	Anti RBD IgG (IU/ml)	120	0.80 (0.80, 0.80)
Age < 65	Day 1	Vaccine	Positive	Anti Spike IgG (IU/ml)	120	0.16 (0.15, 0.16)
Age < 65	Day 1	Vaccine	Positive	Pseudovirus-nAb ID50	120	7.63 (6.53, 8.92)
Age < 65	Day 1	Vaccine	Positive	Pseudovirus-nAb ID80	120	7.06 (6.20, 8.04)
Age < 65	Day 1	Placebo	Negative	Anti N IgG (IU/ml)	63	0.05 (0.05, 0.05)
Age < 65	Day 1	Placebo	Negative	Anti RBD IgG (IU/ml)	63	0.80 (0.80, 0.80)
Age < 65	Day 1	Placebo	Negative	Anti Spike IgG (IU/ml)	63	0.15 (0.15, 0.15)
Age < 65	Day 1	Placebo	Negative	Pseudovirus-nAb ID50	63	5.00 (5.00, 5.00)
Age < 65	Day 1	Placebo	Negative	Pseudovirus-nAb ID80	63	5.00 (5.00, 5.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Age < 65	Day 1	Placebo	Positive	Anti N IgG (IU/ml)	122	0.05 (0.05, 0.05)
Age < 65	Day 1	Placebo	Positive	Anti RBD IgG (IU/ml)	122	0.80 (0.80, 0.80)
Age < 65	Day 1	Placebo	Positive	Anti Spike IgG (IU/ml)	122	0.15 (0.15, 0.15)
Age < 65	Day 1	Placebo	Positive	Pseudovirus-nAb ID50	122	6.62 (5.98, 7.34)
Age < 65	Day 1	Placebo	Positive	Pseudovirus-nAb ID80	122	6.72 (5.94, 7.60)
Age < 65	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	349	28.03 (22.78, 34.48)
Age < 65	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	349	334.05 (276.98, 402.88)
Age < 65	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	349	178.69 (154.63, 206.49)
Age < 65	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	349	55.94 (49.96, 62.64)
Age < 65	Day 29	Vaccine	Negative	Pseudovirus-nAb ID80	349	15.39 (13.81, 17.14)
Age < 65	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	120	81.28 (58.42, 113.08)
Age < 65	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	120	878.51 (598.18, 1290.20)
Age < 65	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	120	387.84 (279.01, 539.10)
Age < 65	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	120	133.45 (111.98, 159.04)
Age < 65	Day 29	Vaccine	Positive	Pseudovirus-nAb ID80	120	31.20 (25.80, 37.75)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Age < 65	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	63	0.05 (0.05, 0.05)
Age < 65	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	63	0.80 (0.80, 0.80)
Age < 65	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	63	0.15 (0.15, 0.15)
Age < 65	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	63	5.04 (4.97, 5.11)
Age < 65	Day 29	Placebo	Negative	Pseudovirus-nAb ID80	63	5.00 (5.00, 5.00)
Age < 65	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	122	20.62 (14.70, 28.93)
Age < 65	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	122	261.13 (198.73, 343.13)
Age < 65	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	122	134.06 (104.39, 172.16)
Age < 65	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	122	42.35 (34.95, 51.33)
Age < 65	Day 29	Placebo	Positive	Pseudovirus-nAb ID80	122	9.89 (8.58, 11.40)
Age < 65	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	349	110.13 (85.72, 141.50)
Age < 65	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	349	3322.92 (2686.06, 4110.77)
Age < 65	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	349	2201.19 (1842.78, 2629.30)
Age < 65	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	349	1347.46 (1155.84, 1570.85)
Age < 65	Day 57	Vaccine	Negative	Pseudovirus-nAb ID80	349	347.51 (305.03, 395.91)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Age < 65	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	120	387.24 (246.11, 609.31)
Age < 65	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	120	11076.22 (7440.08, 16489.45)
Age < 65	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	120	9253.13 (6697.07, 12784.76)
Age < 65	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	120	4717.38 (3563.79, 6244.37)
Age < 65	Day 57	Vaccine	Positive	Pseudovirus-nAb ID80	120	1058.79 (826.54, 1356.29)
Age < 65	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	63	0.05 (0.05, 0.05)
Age < 65	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	63	0.80 (0.80, 0.80)
Age < 65	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	63	0.15 (0.15, 0.15)
Age < 65	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	63	5.00 (5.00, 5.00)
Age < 65	Day 57	Placebo	Negative	Pseudovirus-nAb ID80	63	5.00 (5.00, 5.00)
Age < 65	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	122	112.28 (75.54, 166.89)
Age < 65	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	122	2708.45 (1948.93, 3763.96)
Age < 65	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	122	1654.04 (1259.60, 2171.99)
Age < 65	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	122	1149.42 (889.63, 1485.07)
Age < 65	Day 57	Placebo	Positive	Pseudovirus-nAb ID80	122	248.29 (199.14, 309.58)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Age \geq 65	Day 1	Vaccine	Negative	Anti N IgG (IU/ml)	380	0.05 (0.05, 0.05)
Age \geq 65	Day 1	Vaccine	Negative	Anti RBD IgG (IU/ml)	380	0.80 (0.80, 0.80)
Age \geq 65	Day 1	Vaccine	Negative	Anti Spike IgG (IU/ml)	380	0.15 (0.15, 0.15)
Age \geq 65	Day 1	Vaccine	Negative	Pseudovirus-nAb ID50	380	5.00 (5.00, 5.00)
Age \geq 65	Day 1	Vaccine	Negative	Pseudovirus-nAb ID80	380	5.00 (5.00, 5.00)
Age \geq 65	Day 1	Vaccine	Positive	Anti N IgG (IU/ml)	115	0.05 (0.05, 0.05)
Age \geq 65	Day 1	Vaccine	Positive	Anti RBD IgG (IU/ml)	115	0.81 (0.79, 0.83)
Age \geq 65	Day 1	Vaccine	Positive	Anti Spike IgG (IU/ml)	115	0.15 (0.15, 0.16)
Age \geq 65	Day 1	Vaccine	Positive	Pseudovirus-nAb ID50	115	6.85 (6.10, 7.70)
Age \geq 65	Day 1	Vaccine	Positive	Pseudovirus-nAb ID80	115	5.87 (5.42, 6.35)
Age \geq 65	Day 1	Placebo	Negative	Anti N IgG (IU/ml)	67	0.05 (0.05, 0.05)
Age \geq 65	Day 1	Placebo	Negative	Anti RBD IgG (IU/ml)	67	0.80 (0.80, 0.80)
Age \geq 65	Day 1	Placebo	Negative	Anti Spike IgG (IU/ml)	67	0.15 (0.15, 0.15)
Age \geq 65	Day 1	Placebo	Negative	Pseudovirus-nAb ID50	67	5.00 (5.00, 5.00)
Age \geq 65	Day 1	Placebo	Negative	Pseudovirus-nAb ID80	67	5.00 (5.00, 5.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Age \geq 65	Day 1	Placebo	Positive	Anti N IgG (IU/ml)	99	0.05 (0.05, 0.05)
Age \geq 65	Day 1	Placebo	Positive	Anti RBD IgG (IU/ml)	99	0.80 (0.80, 0.80)
Age \geq 65	Day 1	Placebo	Positive	Anti Spike IgG (IU/ml)	99	0.15 (0.15, 0.15)
Age \geq 65	Day 1	Placebo	Positive	Pseudovirus-nAb ID50	99	6.53 (5.85, 7.28)
Age \geq 65	Day 1	Placebo	Positive	Pseudovirus-nAb ID80	99	6.84 (6.09, 7.69)
Age \geq 65	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	380	106.36 (88.47, 127.86)
Age \geq 65	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	380	1278.10 (1098.06, 1487.67)
Age \geq 65	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	380	735.91 (650.37, 832.70)
Age \geq 65	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	380	120.05 (109.29, 131.86)
Age \geq 65	Day 29	Vaccine	Negative	Pseudovirus-nAb ID80	380	23.64 (21.76, 25.68)
Age \geq 65	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	115	190.90 (141.02, 258.43)
Age \geq 65	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	115	2278.84 (1746.16, 2974.00)
Age \geq 65	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	115	1226.44 (1001.06, 1502.57)
Age \geq 65	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	115	200.91 (171.37, 235.55)
Age \geq 65	Day 29	Vaccine	Positive	Pseudovirus-nAb ID80	115	37.50 (31.97, 43.98)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Age ≥ 65	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	67	0.05 (0.05, 0.05)
Age ≥ 65	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	67	0.80 (0.80, 0.80)
Age ≥ 65	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	67	0.15 (0.15, 0.15)
Age ≥ 65	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	67	5.09 (4.91, 5.28)
Age ≥ 65	Day 29	Placebo	Negative	Pseudovirus-nAb ID80	67	5.11 (4.96, 5.26)
Age ≥ 65	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	99	76.21 (53.70, 108.14)
Age ≥ 65	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	99	1198.14 (902.26, 1591.04)
Age ≥ 65	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	99	800.83 (634.04, 1011.50)
Age ≥ 65	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	99	87.38 (72.83, 104.84)
Age ≥ 65	Day 29	Placebo	Positive	Pseudovirus-nAb ID80	99	18.68 (15.96, 21.85)
Age ≥ 65	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	380	486.49 (395.79, 597.97)
Age ≥ 65	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	380	14325.17 (12137.26, 16907.48)
Age ≥ 65	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	380	11239.44 (9729.00, 12984.37)
Age ≥ 65	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	380	3281.13 (2911.97, 3697.09)
Age ≥ 65	Day 57	Vaccine	Negative	Pseudovirus-nAb ID80	380	502.25 (453.11, 556.72)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Age ≥ 65	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	115	1439.08 (1015.71, 2038.90)
Age ≥ 65	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	115	38593.74 (28814.02, 51692.79)
Age ≥ 65	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	115	31283.02 (24182.81, 40467.89)
Age ≥ 65	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	115	8999.47 (7367.88, 10992.37)
Age ≥ 65	Day 57	Vaccine	Positive	Pseudovirus-nAb ID80	115	1399.31 (1153.67, 1697.26)
Age ≥ 65	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	67	0.05 (0.05, 0.05)
Age ≥ 65	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	67	0.80 (0.80, 0.80)
Age ≥ 65	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	67	0.15 (0.15, 0.15)
Age ≥ 65	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	67	5.10 (4.91, 5.30)
Age ≥ 65	Day 57	Placebo	Negative	Pseudovirus-nAb ID80	67	5.00 (5.00, 5.00)
Age ≥ 65	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	99	556.72 (368.56, 840.94)
Age ≥ 65	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	99	17836.18 (12568.45, 25311.74)
Age ≥ 65	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	99	12045.86 (9318.95, 15570.71)
Age ≥ 65	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	99	2881.21 (2266.23, 3663.09)
Age ≥ 65	Day 57	Placebo	Positive	Pseudovirus-nAb ID80	99	484.49 (390.97, 600.39)

Table 7c. Geometric mean titers (GMTs) and geometric mean concentrations (GMCs) by Risk for Severe Covid-19

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Risk for Severe Covid-19						
At-risk	Day 1	Vaccine	Negative	Anti N IgG (IU/ml)	386	0.05 (0.05, 0.05)
At-risk	Day 1	Vaccine	Negative	Anti RBD IgG (IU/ml)	386	0.80 (0.80, 0.80)
At-risk	Day 1	Vaccine	Negative	Anti Spike IgG (IU/ml)	386	0.15 (0.15, 0.15)
At-risk	Day 1	Vaccine	Negative	Pseudovirus-nAb ID50	386	5.00 (5.00, 5.00)
At-risk	Day 1	Vaccine	Negative	Pseudovirus-nAb ID80	386	5.00 (5.00, 5.00)
At-risk	Day 1	Vaccine	Positive	Anti N IgG (IU/ml)	105	0.05 (0.05, 0.05)
At-risk	Day 1	Vaccine	Positive	Anti RBD IgG (IU/ml)	105	0.80 (0.80, 0.80)
At-risk	Day 1	Vaccine	Positive	Anti Spike IgG (IU/ml)	105	0.15 (0.15, 0.16)
At-risk	Day 1	Vaccine	Positive	Pseudovirus-nAb ID50	105	6.67 (5.96, 7.48)
At-risk	Day 1	Vaccine	Positive	Pseudovirus-nAb ID80	105	6.64 (5.91, 7.45)
At-risk	Day 1	Placebo	Negative	Anti N IgG (IU/ml)	67	0.05 (0.05, 0.05)
At-risk	Day 1	Placebo	Negative	Anti RBD IgG (IU/ml)	67	0.80 (0.80, 0.80)
At-risk	Day 1	Placebo	Negative	Anti Spike IgG (IU/ml)	67	0.15 (0.15, 0.15)
At-risk	Day 1	Placebo	Negative	Pseudovirus-nAb ID50	67	5.00 (5.00, 5.00)
At-risk	Day 1	Placebo	Negative	Pseudovirus-nAb ID80	67	5.00 (5.00, 5.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
At-risk	Day 1	Placebo	Positive	Anti N IgG (IU/ml)	90	0.05 (0.05, 0.05)
At-risk	Day 1	Placebo	Positive	Anti RBD IgG (IU/ml)	90	0.80 (0.80, 0.80)
At-risk	Day 1	Placebo	Positive	Anti Spike IgG (IU/ml)	90	0.15 (0.15, 0.15)
At-risk	Day 1	Placebo	Positive	Pseudovirus-nAb ID50	90	6.16 (5.56, 6.83)
At-risk	Day 1	Placebo	Positive	Pseudovirus-nAb ID80	90	6.58 (5.87, 7.39)
At-risk	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	386	44.28 (37.13, 52.81)
At-risk	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	386	485.46 (414.37, 568.76)
At-risk	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	386	289.13 (252.52, 331.05)
At-risk	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	386	76.50 (69.55, 84.15)
At-risk	Day 29	Vaccine	Negative	Pseudovirus-nAb ID80	386	18.47 (16.88, 20.21)
At-risk	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	105	81.33 (53.77, 123.02)
At-risk	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	105	984.44 (689.20, 1406.14)
At-risk	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	105	455.21 (339.71, 609.98)
At-risk	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	105	129.09 (104.45, 159.54)
At-risk	Day 29	Vaccine	Positive	Pseudovirus-nAb ID80	105	29.44 (24.18, 35.85)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
At-risk	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	67	0.05 (0.05, 0.05)
At-risk	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	67	0.80 (0.80, 0.80)
At-risk	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	67	0.15 (0.15, 0.15)
At-risk	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	67	5.16 (4.94, 5.39)
At-risk	Day 29	Placebo	Negative	Pseudovirus-nAb ID80	67	5.03 (4.97, 5.09)
At-risk	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	90	39.68 (28.82, 54.63)
At-risk	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	90	520.13 (381.79, 708.60)
At-risk	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	90	307.79 (234.52, 403.94)
At-risk	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	90	60.07 (50.29, 71.75)
At-risk	Day 29	Placebo	Positive	Pseudovirus-nAb ID80	90	12.59 (10.55, 15.03)
At-risk	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	386	195.52 (156.27, 244.63)
At-risk	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	386	5968.52 (5011.87, 7107.78)
At-risk	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	386	4138.28 (3532.44, 4848.02)
At-risk	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	386	1858.97 (1642.59, 2103.86)
At-risk	Day 57	Vaccine	Negative	Pseudovirus-nAb ID80	386	380.45 (341.63, 423.68)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
At-risk	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	105	487.62 (294.63, 807.02)
At-risk	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	105	14955.96 (10185.61, 21960.47)
At-risk	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	105	11438.51 (7887.92, 16587.33)
At-risk	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	105	4342.98 (3370.54, 5595.98)
At-risk	Day 57	Vaccine	Positive	Pseudovirus-nAb ID80	105	1140.79 (916.59, 1419.83)
At-risk	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	67	0.05 (0.05, 0.05)
At-risk	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	67	0.80 (0.80, 0.80)
At-risk	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	67	0.15 (0.15, 0.15)
At-risk	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	67	5.00 (5.00, 5.00)
At-risk	Day 57	Placebo	Negative	Pseudovirus-nAb ID80	67	5.00 (5.00, 5.00)
At-risk	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	90	232.51 (142.22, 380.12)
At-risk	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	90	5149.57 (3527.35, 7517.84)
At-risk	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	90	3830.52 (2888.83, 5079.19)
At-risk	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	90	1675.89 (1293.01, 2172.15)
At-risk	Day 57	Placebo	Positive	Pseudovirus-nAb ID80	90	327.27 (260.71, 410.83)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Not at-risk	Day 1	Vaccine	Negative	Anti N IgG (IU/ml)	343	0.05 (0.05, 0.05)
Not at-risk	Day 1	Vaccine	Negative	Anti RBD IgG (IU/ml)	343	0.80 (0.80, 0.80)
Not at-risk	Day 1	Vaccine	Negative	Anti Spike IgG (IU/ml)	343	0.15 (0.15, 0.16)
Not at-risk	Day 1	Vaccine	Negative	Pseudovirus-nAb ID50	343	5.00 (5.00, 5.00)
Not at-risk	Day 1	Vaccine	Negative	Pseudovirus-nAb ID80	343	5.00 (5.00, 5.00)
Not at-risk	Day 1	Vaccine	Positive	Anti N IgG (IU/ml)	130	0.05 (0.05, 0.06)
Not at-risk	Day 1	Vaccine	Positive	Anti RBD IgG (IU/ml)	130	0.80 (0.79, 0.81)
Not at-risk	Day 1	Vaccine	Positive	Anti Spike IgG (IU/ml)	130	0.16 (0.15, 0.16)
Not at-risk	Day 1	Vaccine	Positive	Pseudovirus-nAb ID50	130	7.75 (6.57, 9.14)
Not at-risk	Day 1	Vaccine	Positive	Pseudovirus-nAb ID80	130	6.85 (5.99, 7.84)
Not at-risk	Day 1	Placebo	Negative	Anti N IgG (IU/ml)	63	0.05 (0.05, 0.05)
Not at-risk	Day 1	Placebo	Negative	Anti RBD IgG (IU/ml)	63	0.80 (0.80, 0.80)
Not at-risk	Day 1	Placebo	Negative	Anti Spike IgG (IU/ml)	63	0.15 (0.15, 0.15)
Not at-risk	Day 1	Placebo	Negative	Pseudovirus-nAb ID50	63	5.00 (5.00, 5.00)
Not at-risk	Day 1	Placebo	Negative	Pseudovirus-nAb ID80	63	5.00 (5.00, 5.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Not at-risk	Day 1	Placebo	Positive	Anti N IgG (IU/ml)	131	0.05 (0.05, 0.05)
Not at-risk	Day 1	Placebo	Positive	Anti RBD IgG (IU/ml)	131	0.80 (0.80, 0.80)
Not at-risk	Day 1	Placebo	Positive	Anti Spike IgG (IU/ml)	131	0.15 (0.15, 0.15)
Not at-risk	Day 1	Placebo	Positive	Pseudovirus-nAb ID50	131	6.74 (6.06, 7.50)
Not at-risk	Day 1	Placebo	Positive	Pseudovirus-nAb ID80	131	6.79 (5.98, 7.72)
Not at-risk	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	343	34.66 (27.69, 43.38)
Not at-risk	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	343	427.74 (349.33, 523.75)
Not at-risk	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	343	224.21 (191.82, 262.07)
Not at-risk	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	343	61.92 (54.79, 69.97)
Not at-risk	Day 29	Vaccine	Negative	Pseudovirus-nAb ID80	343	16.25 (14.47, 18.25)
Not at-risk	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	130	102.69 (73.52, 143.44)
Not at-risk	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	130	1097.81 (736.60, 1636.14)
Not at-risk	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	130	503.75 (357.38, 710.07)
Not at-risk	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	130	150.98 (126.32, 180.46)
Not at-risk	Day 29	Vaccine	Positive	Pseudovirus-nAb ID80	130	33.47 (27.51, 40.73)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Not at-risk	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	63	0.05 (0.05, 0.05)
Not at-risk	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	63	0.80 (0.80, 0.80)
Not at-risk	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	63	0.15 (0.15, 0.15)
Not at-risk	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	63	5.00 (5.00, 5.00)
Not at-risk	Day 29	Placebo	Negative	Pseudovirus-nAb ID80	63	5.02 (4.98, 5.07)
Not at-risk	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	131	23.49 (16.45, 33.52)
Not at-risk	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	131	310.69 (233.62, 413.18)
Not at-risk	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	131	163.26 (125.47, 212.44)
Not at-risk	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	131	45.70 (37.36, 55.89)
Not at-risk	Day 29	Placebo	Positive	Pseudovirus-nAb ID80	131	10.78 (9.32, 12.49)
Not at-risk	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	343	136.05 (103.98, 178.00)
Not at-risk	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	343	4057.00 (3223.54, 5105.95)
Not at-risk	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	343	2774.24 (2289.82, 3361.15)
Not at-risk	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	343	1542.49 (1306.91, 1820.53)
Not at-risk	Day 57	Vaccine	Negative	Pseudovirus-nAb ID80	343	373.66 (324.78, 429.89)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Not at-risk	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	130	513.39 (322.88, 816.29)
Not at-risk	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	130	14090.95 (9320.72, 21302.51)
Not at-risk	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	130	12028.20 (8639.69, 16745.69)
Not at-risk	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	130	5790.79 (4324.99, 7753.37)
Not at-risk	Day 57	Vaccine	Positive	Pseudovirus-nAb ID80	130	1114.45 (860.57, 1443.25)
Not at-risk	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	63	0.05 (0.05, 0.05)
Not at-risk	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	63	0.80 (0.80, 0.80)
Not at-risk	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	63	0.15 (0.15, 0.15)
Not at-risk	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	63	5.03 (4.97, 5.10)
Not at-risk	Day 57	Placebo	Negative	Pseudovirus-nAb ID80	63	5.00 (5.00, 5.00)
Not at-risk	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	131	134.62 (89.67, 202.10)
Not at-risk	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	131	3575.88 (2534.08, 5045.98)
Not at-risk	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	131	2110.89 (1581.56, 2817.38)
Not at-risk	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	131	1291.24 (989.33, 1685.29)
Not at-risk	Day 57	Placebo	Positive	Pseudovirus-nAb ID80	131	270.07 (214.81, 339.55)

Table 7d. Geometric mean titers (GMTs) and geometric mean concentrations (GMCs) by Age, Risk for Severe Covid-19

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Age, Risk for Severe Covid-19						
Age < 65 At-risk	Day 1	Vaccine	Negative	Anti N IgG (IU/ml)	179	0.05 (0.05, 0.05)
Age < 65 At-risk	Day 1	Vaccine	Negative	Anti RBD IgG (IU/ml)	179	0.80 (0.80, 0.80)
Age < 65 At-risk	Day 1	Vaccine	Negative	Anti Spike IgG (IU/ml)	179	0.15 (0.15, 0.15)
Age < 65 At-risk	Day 1	Vaccine	Negative	Pseudovirus-nAb ID50	179	5.00 (5.00, 5.00)
Age < 65 At-risk	Day 1	Vaccine	Negative	Pseudovirus-nAb ID80	179	5.00 (5.00, 5.00)
Age < 65 At-risk	Day 1	Vaccine	Positive	Anti N IgG (IU/ml)	57	0.05 (0.05, 0.05)
Age < 65 At-risk	Day 1	Vaccine	Positive	Anti RBD IgG (IU/ml)	57	0.80 (0.80, 0.80)
Age < 65 At-risk	Day 1	Vaccine	Positive	Anti Spike IgG (IU/ml)	57	0.15 (0.15, 0.15)
Age < 65 At-risk	Day 1	Vaccine	Positive	Pseudovirus-nAb ID50	57	6.59 (5.70, 7.61)
Age < 65 At-risk	Day 1	Vaccine	Positive	Pseudovirus-nAb ID80	57	7.16 (6.08, 8.44)
Age < 65 At-risk	Day 1	Placebo	Negative	Anti N IgG (IU/ml)	32	0.05 (0.05, 0.05)
Age < 65 At-risk	Day 1	Placebo	Negative	Anti RBD IgG (IU/ml)	32	0.80 (0.80, 0.80)
Age < 65 At-risk	Day 1	Placebo	Negative	Anti Spike IgG (IU/ml)	32	0.15 (0.15, 0.15)
Age < 65 At-risk	Day 1	Placebo	Negative	Pseudovirus-nAb ID50	32	5.00 (5.00, 5.00)
Age < 65 At-risk	Day 1	Placebo	Negative	Pseudovirus-nAb ID80	32	5.00 (5.00, 5.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Age < 65 At-risk	Day 1	Placebo	Positive	Anti N IgG (IU/ml)	56	0.05 (0.05, 0.05)
Age < 65 At-risk	Day 1	Placebo	Positive	Anti RBD IgG (IU/ml)	56	0.80 (0.80, 0.80)
Age < 65 At-risk	Day 1	Placebo	Positive	Anti Spike IgG (IU/ml)	56	0.15 (0.15, 0.15)
Age < 65 At-risk	Day 1	Placebo	Positive	Pseudovirus-nAb ID50	56	6.49 (5.66, 7.45)
Age < 65 At-risk	Day 1	Placebo	Positive	Pseudovirus-nAb ID80	56	6.49 (5.68, 7.42)
Age < 65 At-risk	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	179	24.85 (19.74, 31.29)
Age < 65 At-risk	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	179	259.66 (210.31, 320.59)
Age < 65 At-risk	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	179	156.86 (131.13, 187.64)
Age < 65 At-risk	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	179	56.80 (49.99, 64.54)
Age < 65 At-risk	Day 29	Vaccine	Negative	Pseudovirus-nAb ID80	179	15.47 (13.62, 17.57)
Age < 65 At-risk	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	57	58.74 (33.71, 102.37)
Age < 65 At-risk	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	57	680.03 (422.69, 1094.03)
Age < 65 At-risk	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	57	294.98 (198.55, 438.24)
Age < 65 At-risk	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	57	109.03 (81.87, 145.20)
Age < 65 At-risk	Day 29	Vaccine	Positive	Pseudovirus-nAb ID80	57	26.36 (20.36, 34.13)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Age < 65 At-risk	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	32	0.05 (0.05, 0.05)
Age < 65 At-risk	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	32	0.80 (0.80, 0.80)
Age < 65 At-risk	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	32	0.15 (0.15, 0.15)
Age < 65 At-risk	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	32	5.15 (4.86, 5.45)
Age < 65 At-risk	Day 29	Placebo	Negative	Pseudovirus-nAb ID80	32	5.00 (5.00, 5.00)
Age < 65 At-risk	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	56	33.70 (22.51, 50.45)
Age < 65 At-risk	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	56	376.50 (258.33, 548.72)
Age < 65 At-risk	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	56	195.43 (143.27, 266.58)
Age < 65 At-risk	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	56	52.78 (42.24, 65.95)
Age < 65 At-risk	Day 29	Placebo	Positive	Pseudovirus-nAb ID80	56	10.49 (8.44, 13.04)
Age < 65 At-risk	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	179	102.12 (75.24, 138.61)
Age < 65 At-risk	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	179	3391.18 (2684.59, 4283.74)
Age < 65 At-risk	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	179	2138.52 (1719.33, 2659.90)
Age < 65 At-risk	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	179	1333.82 (1120.64, 1587.56)
Age < 65 At-risk	Day 57	Vaccine	Negative	Pseudovirus-nAb ID80	179	322.74 (276.67, 376.49)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Age < 65 At-risk	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	57	263.98 (132.48, 525.99)
Age < 65 At-risk	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	57	10594.30 (6336.39, 17713.42)
Age < 65 At-risk	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	57	7490.66 (4539.64, 12360.00)
Age < 65 At-risk	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	57	3085.51 (2208.48, 4310.84)
Age < 65 At-risk	Day 57	Vaccine	Positive	Pseudovirus-nAb ID80	57	1070.87 (796.19, 1440.30)
Age < 65 At-risk	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	32	0.05 (0.05, 0.05)
Age < 65 At-risk	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	32	0.80 (0.80, 0.80)
Age < 65 At-risk	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	32	0.15 (0.15, 0.15)
Age < 65 At-risk	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	32	5.00 (5.00, 5.00)
Age < 65 At-risk	Day 57	Placebo	Negative	Pseudovirus-nAb ID80	32	5.00 (5.00, 5.00)
Age < 65 At-risk	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	56	157.81 (83.47, 298.39)
Age < 65 At-risk	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	56	3047.97 (1940.66, 4787.11)
Age < 65 At-risk	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	56	2430.39 (1750.77, 3373.82)
Age < 65 At-risk	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	56	1305.29 (944.80, 1803.34)
Age < 65 At-risk	Day 57	Placebo	Positive	Pseudovirus-nAb ID80	56	287.22 (217.01, 380.14)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Age < 65 Not at-risk	Day 1	Vaccine	Negative	Anti N IgG (IU/ml)	170	0.05 (0.05, 0.05)
Age < 65 Not at-risk	Day 1	Vaccine	Negative	Anti RBD IgG (IU/ml)	170	0.80 (0.80, 0.80)
Age < 65 Not at-risk	Day 1	Vaccine	Negative	Anti Spike IgG (IU/ml)	170	0.15 (0.15, 0.16)
Age < 65 Not at-risk	Day 1	Vaccine	Negative	Pseudovirus-nAb ID50	170	5.00 (5.00, 5.00)
Age < 65 Not at-risk	Day 1	Vaccine	Negative	Pseudovirus-nAb ID80	170	5.00 (5.00, 5.00)
Age < 65 Not at-risk	Day 1	Vaccine	Positive	Anti N IgG (IU/ml)	63	0.05 (0.04, 0.06)
Age < 65 Not at-risk	Day 1	Vaccine	Positive	Anti RBD IgG (IU/ml)	63	0.80 (0.80, 0.80)
Age < 65 Not at-risk	Day 1	Vaccine	Positive	Anti Spike IgG (IU/ml)	63	0.16 (0.15, 0.17)
Age < 65 Not at-risk	Day 1	Vaccine	Positive	Pseudovirus-nAb ID50	63	7.93 (6.53, 9.62)
Age < 65 Not at-risk	Day 1	Vaccine	Positive	Pseudovirus-nAb ID80	63	7.03 (6.00, 8.25)
Age < 65 Not at-risk	Day 1	Placebo	Negative	Anti N IgG (IU/ml)	31	0.05 (0.05, 0.05)
Age < 65 Not at-risk	Day 1	Placebo	Negative	Anti RBD IgG (IU/ml)	31	0.80 (0.80, 0.80)
Age < 65 Not at-risk	Day 1	Placebo	Negative	Anti Spike IgG (IU/ml)	31	0.15 (0.15, 0.15)
Age < 65 Not at-risk	Day 1	Placebo	Negative	Pseudovirus-nAb ID50	31	5.00 (5.00, 5.00)
Age < 65 Not at-risk	Day 1	Placebo	Negative	Pseudovirus-nAb ID80	31	5.00 (5.00, 5.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Age < 65 Not at-risk	Day 1	Placebo	Positive	Anti N IgG (IU/ml)	66	0.05 (0.05, 0.05)
Age < 65 Not at-risk	Day 1	Placebo	Positive	Anti RBD IgG (IU/ml)	66	0.80 (0.80, 0.80)
Age < 65 Not at-risk	Day 1	Placebo	Positive	Anti Spike IgG (IU/ml)	66	0.15 (0.15, 0.15)
Age < 65 Not at-risk	Day 1	Placebo	Positive	Pseudovirus-nAb ID50	66	6.66 (5.88, 7.53)
Age < 65 Not at-risk	Day 1	Placebo	Positive	Pseudovirus-nAb ID80	66	6.78 (5.83, 7.88)
Age < 65 Not at-risk	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	170	28.94 (22.42, 37.36)
Age < 65 Not at-risk	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	170	357.29 (283.72, 449.94)
Age < 65 Not at-risk	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	170	185.02 (155.03, 220.81)
Age < 65 Not at-risk	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	170	55.71 (48.47, 64.03)
Age < 65 Not at-risk	Day 29	Vaccine	Negative	Pseudovirus-nAb ID80	170	15.36 (13.46, 17.54)
Age < 65 Not at-risk	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	63	88.57 (59.94, 130.90)
Age < 65 Not at-risk	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	63	940.11 (587.96, 1503.17)
Age < 65 Not at-risk	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	63	416.97 (278.69, 623.86)
Age < 65 Not at-risk	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	63	140.79 (114.31, 173.39)
Age < 65 Not at-risk	Day 29	Vaccine	Positive	Pseudovirus-nAb ID80	63	32.63 (25.91, 41.10)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Age < 65 Not at-risk	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	31	0.05 (0.05, 0.05)
Age < 65 Not at-risk	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	31	0.80 (0.80, 0.80)
Age < 65 Not at-risk	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	31	0.15 (0.15, 0.15)
Age < 65 Not at-risk	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	31	5.00 (5.00, 5.00)
Age < 65 Not at-risk	Day 29	Placebo	Negative	Pseudovirus-nAb ID80	31	5.00 (5.00, 5.00)
Age < 65 Not at-risk	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	66	18.23 (12.09, 27.48)
Age < 65 Not at-risk	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	66	238.21 (171.61, 330.67)
Age < 65 Not at-risk	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	66	121.96 (90.11, 165.06)
Age < 65 Not at-risk	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	66	40.08 (31.72, 50.63)
Age < 65 Not at-risk	Day 29	Placebo	Positive	Pseudovirus-nAb ID80	66	9.75 (8.23, 11.54)
Age < 65 Not at-risk	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	170	112.38 (82.69, 152.73)
Age < 65 Not at-risk	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	170	3304.93 (2542.54, 4295.92)
Age < 65 Not at-risk	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	170	2218.23 (1784.62, 2757.19)
Age < 65 Not at-risk	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	170	1351.12 (1118.77, 1631.73)
Age < 65 Not at-risk	Day 57	Vaccine	Negative	Pseudovirus-nAb ID80	170	354.44 (302.03, 415.94)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Age < 65 Not at-risk	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	63	428.57 (248.95, 737.76)
Age < 65 Not at-risk	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	63	11207.38 (6903.91, 18193.36)
Age < 65 Not at-risk	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	63	9785.27 (6647.32, 14404.53)
Age < 65 Not at-risk	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	63	5278.25 (3745.85, 7437.55)
Age < 65 Not at-risk	Day 57	Vaccine	Positive	Pseudovirus-nAb ID80	63	1055.62 (779.54, 1429.47)
Age < 65 Not at-risk	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	31	0.05 (0.05, 0.05)
Age < 65 Not at-risk	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	31	0.80 (0.80, 0.80)
Age < 65 Not at-risk	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	31	0.15 (0.15, 0.15)
Age < 65 Not at-risk	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	31	5.00 (5.00, 5.00)
Age < 65 Not at-risk	Day 57	Placebo	Negative	Pseudovirus-nAb ID80	31	5.00 (5.00, 5.00)
Age < 65 Not at-risk	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	66	103.08 (64.48, 164.79)
Age < 65 Not at-risk	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	66	2629.32 (1769.93, 3905.97)
Age < 65 Not at-risk	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	66	1501.69 (1079.24, 2089.52)
Age < 65 Not at-risk	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	66	1113.30 (816.50, 1517.97)
Age < 65 Not at-risk	Day 57	Placebo	Positive	Pseudovirus-nAb ID80	66	239.38 (183.32, 312.58)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Age \geq 65 At-risk	Day 1	Vaccine	Negative	Anti N IgG (IU/ml)	207	0.05 (0.05, 0.05)
Age \geq 65 At-risk	Day 1	Vaccine	Negative	Anti RBD IgG (IU/ml)	207	0.80 (0.80, 0.80)
Age \geq 65 At-risk	Day 1	Vaccine	Negative	Anti Spike IgG (IU/ml)	207	0.15 (0.15, 0.15)
Age \geq 65 At-risk	Day 1	Vaccine	Negative	Pseudovirus-nAb ID50	207	5.00 (5.00, 5.00)
Age \geq 65 At-risk	Day 1	Vaccine	Negative	Pseudovirus-nAb ID80	207	5.00 (5.00, 5.00)
Age \geq 65 At-risk	Day 1	Vaccine	Positive	Anti N IgG (IU/ml)	48	0.05 (0.05, 0.05)
Age \geq 65 At-risk	Day 1	Vaccine	Positive	Anti RBD IgG (IU/ml)	48	0.80 (0.80, 0.80)
Age \geq 65 At-risk	Day 1	Vaccine	Positive	Anti Spike IgG (IU/ml)	48	0.16 (0.15, 0.16)
Age \geq 65 At-risk	Day 1	Vaccine	Positive	Pseudovirus-nAb ID50	48	6.84 (5.71, 8.19)
Age \geq 65 At-risk	Day 1	Vaccine	Positive	Pseudovirus-nAb ID80	48	5.74 (5.10, 6.45)
Age \geq 65 At-risk	Day 1	Placebo	Negative	Anti N IgG (IU/ml)	35	0.05 (0.05, 0.05)
Age \geq 65 At-risk	Day 1	Placebo	Negative	Anti RBD IgG (IU/ml)	35	0.80 (0.80, 0.80)
Age \geq 65 At-risk	Day 1	Placebo	Negative	Anti Spike IgG (IU/ml)	35	0.15 (0.15, 0.15)
Age \geq 65 At-risk	Day 1	Placebo	Negative	Pseudovirus-nAb ID50	35	5.00 (5.00, 5.00)
Age \geq 65 At-risk	Day 1	Placebo	Negative	Pseudovirus-nAb ID80	35	5.00 (5.00, 5.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Age \geq 65 At-risk	Day 1	Placebo	Positive	Anti N IgG (IU/ml)	34	0.05 (0.05, 0.05)
Age \geq 65 At-risk	Day 1	Placebo	Positive	Anti RBD IgG (IU/ml)	34	0.80 (0.80, 0.80)
Age \geq 65 At-risk	Day 1	Placebo	Positive	Anti Spike IgG (IU/ml)	34	0.15 (0.15, 0.15)
Age \geq 65 At-risk	Day 1	Placebo	Positive	Pseudovirus-nAb ID50	34	5.44 (4.85, 6.11)
Age \geq 65 At-risk	Day 1	Placebo	Positive	Pseudovirus-nAb ID80	34	6.81 (5.45, 8.51)
Age \geq 65 At-risk	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	207	102.72 (79.51, 132.71)
Age \geq 65 At-risk	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	207	1208.15 (973.44, 1499.46)
Age \geq 65 At-risk	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	207	704.80 (588.42, 844.19)
Age \geq 65 At-risk	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	207	118.06 (103.33, 134.89)
Age \geq 65 At-risk	Day 29	Vaccine	Negative	Pseudovirus-nAb ID80	207	23.90 (21.27, 26.86)
Age \geq 65 At-risk	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	48	152.42 (89.14, 260.63)
Age \geq 65 At-risk	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	48	2010.51 (1276.03, 3167.74)
Age \geq 65 At-risk	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	48	1051.78 (774.94, 1427.51)
Age \geq 65 At-risk	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	48	178.85 (137.17, 233.19)
Age \geq 65 At-risk	Day 29	Vaccine	Positive	Pseudovirus-nAb ID80	48	36.44 (27.45, 48.37)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Age ≥ 65 At-risk	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	35	0.05 (0.05, 0.05)
Age ≥ 65 At-risk	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	35	0.80 (0.80, 0.80)
Age ≥ 65 At-risk	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	35	0.15 (0.15, 0.15)
Age ≥ 65 At-risk	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	35	5.18 (4.84, 5.55)
Age ≥ 65 At-risk	Day 29	Placebo	Negative	Pseudovirus-nAb ID80	35	5.08 (4.93, 5.23)
Age ≥ 65 At-risk	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	34	58.48 (36.18, 94.50)
Age ≥ 65 At-risk	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	34	1121.05 (698.94, 1798.10)
Age ≥ 65 At-risk	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	34	905.72 (600.50, 1366.09)
Age ≥ 65 At-risk	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	34	81.69 (62.81, 106.25)
Age ≥ 65 At-risk	Day 29	Placebo	Positive	Pseudovirus-nAb ID80	34	19.43 (14.95, 25.25)
Age ≥ 65 At-risk	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	207	503.70 (371.04, 683.78)
Age ≥ 65 At-risk	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	207	13601.87 (10654.51, 17364.58)
Age ≥ 65 At-risk	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	207	10828.50 (8897.83, 13178.09)
Age ≥ 65 At-risk	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	207	3015.39 (2572.69, 3534.28)
Age ≥ 65 At-risk	Day 57	Vaccine	Negative	Pseudovirus-nAb ID80	207	483.49 (421.46, 554.66)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Age \geq 65 At-risk	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	48	1594.12 (928.56, 2736.72)
Age \geq 65 At-risk	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	48	29097.29 (17725.21, 47765.46)
Age \geq 65 At-risk	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	48	25896.62 (16633.51, 40318.29)
Age \geq 65 At-risk	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	48	8401.39 (6134.56, 11505.84)
Age \geq 65 At-risk	Day 57	Vaccine	Positive	Pseudovirus-nAb ID80	48	1288.94 (967.06, 1717.95)
Age \geq 65 At-risk	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	35	0.05 (0.05, 0.05)
Age \geq 65 At-risk	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	35	0.80 (0.80, 0.80)
Age \geq 65 At-risk	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	35	0.15 (0.15, 0.15)
Age \geq 65 At-risk	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	35	5.00 (5.00, 5.00)
Age \geq 65 At-risk	Day 57	Placebo	Negative	Pseudovirus-nAb ID80	35	5.00 (5.00, 5.00)
Age \geq 65 At-risk	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	34	583.94 (318.08, 1072.01)
Age \geq 65 At-risk	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	34	17905.90 (10279.07, 31191.67)
Age \geq 65 At-risk	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	34	11292.06 (7474.39, 17059.65)
Age \geq 65 At-risk	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	34	3035.04 (2093.95, 4399.09)
Age \geq 65 At-risk	Day 57	Placebo	Positive	Pseudovirus-nAb ID80	34	446.32 (309.08, 644.50)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Age \geq 65 Not at-risk	Day 1	Vaccine	Negative	Anti N IgG (IU/ml)	173	0.05 (0.05, 0.05)
Age \geq 65 Not at-risk	Day 1	Vaccine	Negative	Anti RBD IgG (IU/ml)	173	0.80 (0.80, 0.80)
Age \geq 65 Not at-risk	Day 1	Vaccine	Negative	Anti Spike IgG (IU/ml)	173	0.15 (0.15, 0.15)
Age \geq 65 Not at-risk	Day 1	Vaccine	Negative	Pseudovirus-nAb ID50	173	5.00 (5.00, 5.00)
Age \geq 65 Not at-risk	Day 1	Vaccine	Negative	Pseudovirus-nAb ID80	173	5.00 (5.00, 5.00)
Age \geq 65 Not at-risk	Day 1	Vaccine	Positive	Anti N IgG (IU/ml)	67	0.05 (0.05, 0.05)
Age \geq 65 Not at-risk	Day 1	Vaccine	Positive	Anti RBD IgG (IU/ml)	67	0.82 (0.78, 0.86)
Age \geq 65 Not at-risk	Day 1	Vaccine	Positive	Anti Spike IgG (IU/ml)	67	0.15 (0.15, 0.15)
Age \geq 65 Not at-risk	Day 1	Vaccine	Positive	Pseudovirus-nAb ID50	67	6.86 (5.89, 7.99)
Age \geq 65 Not at-risk	Day 1	Vaccine	Positive	Pseudovirus-nAb ID80	67	5.97 (5.36, 6.64)
Age \geq 65 Not at-risk	Day 1	Placebo	Negative	Anti N IgG (IU/ml)	32	0.05 (0.05, 0.05)
Age \geq 65 Not at-risk	Day 1	Placebo	Negative	Anti RBD IgG (IU/ml)	32	0.80 (0.80, 0.80)
Age \geq 65 Not at-risk	Day 1	Placebo	Negative	Anti Spike IgG (IU/ml)	32	0.15 (0.15, 0.15)
Age \geq 65 Not at-risk	Day 1	Placebo	Negative	Pseudovirus-nAb ID50	32	5.00 (5.00, 5.00)
Age \geq 65 Not at-risk	Day 1	Placebo	Negative	Pseudovirus-nAb ID80	32	5.00 (5.00, 5.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Age \geq 65 Not at-risk	Day 1	Placebo	Positive	Anti N IgG (IU/ml)	65	0.05 (0.05, 0.05)
Age \geq 65 Not at-risk	Day 1	Placebo	Positive	Anti RBD IgG (IU/ml)	65	0.80 (0.80, 0.80)
Age \geq 65 Not at-risk	Day 1	Placebo	Positive	Anti Spike IgG (IU/ml)	65	0.15 (0.15, 0.15)
Age \geq 65 Not at-risk	Day 1	Placebo	Positive	Pseudovirus-nAb ID50	65	7.22 (6.21, 8.40)
Age \geq 65 Not at-risk	Day 1	Placebo	Positive	Pseudovirus-nAb ID80	65	6.86 (6.00, 7.83)
Age \geq 65 Not at-risk	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	173	110.83 (85.11, 144.31)
Age \geq 65 Not at-risk	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	173	1366.03 (1106.49, 1686.44)
Age \geq 65 Not at-risk	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	173	774.46 (657.17, 912.69)
Age \geq 65 Not at-risk	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	173	122.44 (107.44, 139.53)
Age \geq 65 Not at-risk	Day 29	Vaccine	Negative	Pseudovirus-nAb ID80	173	23.33 (20.74, 26.23)
Age \geq 65 Not at-risk	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	67	224.79 (158.97, 317.88)
Age \geq 65 Not at-risk	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	67	2495.84 (1808.72, 3444.00)
Age \geq 65 Not at-risk	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	67	1371.18 (1046.47, 1796.64)
Age \geq 65 Not at-risk	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	67	218.62 (180.11, 265.38)
Age \geq 65 Not at-risk	Day 29	Vaccine	Positive	Pseudovirus-nAb ID80	67	38.29 (31.92, 45.93)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Age ≥ 65 Not at-risk	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	32	0.05 (0.05, 0.05)
Age ≥ 65 Not at-risk	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	32	0.80 (0.80, 0.80)
Age ≥ 65 Not at-risk	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	32	0.15 (0.15, 0.15)
Age ≥ 65 Not at-risk	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	32	5.00 (5.00, 5.00)
Age ≥ 65 Not at-risk	Day 29	Placebo	Negative	Pseudovirus-nAb ID80	32	5.14 (4.87, 5.41)
Age ≥ 65 Not at-risk	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	65	88.19 (55.19, 140.92)
Age ≥ 65 Not at-risk	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	65	1242.90 (872.59, 1770.35)
Age ≥ 65 Not at-risk	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	65	748.28 (564.73, 991.49)
Age ≥ 65 Not at-risk	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	65	90.68 (71.20, 115.50)
Age ≥ 65 Not at-risk	Day 29	Placebo	Positive	Pseudovirus-nAb ID80	65	18.27 (15.03, 22.21)
Age ≥ 65 Not at-risk	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	173	466.90 (357.00, 610.64)
Age ≥ 65 Not at-risk	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	173	15229.92 (12252.91, 18930.24)
Age ≥ 65 Not at-risk	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	173	11745.36 (9495.83, 14527.78)
Age ≥ 65 Not at-risk	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	173	3625.61 (3031.34, 4336.38)
Age ≥ 65 Not at-risk	Day 57	Vaccine	Negative	Pseudovirus-nAb ID80	173	525.37 (449.78, 613.66)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Age \geq 65 Not at-risk	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	67	1336.04 (845.46, 2111.28)
Age \geq 65 Not at-risk	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	67	47378.57 (33515.55, 66975.76)
Age \geq 65 Not at-risk	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	67	35883.56 (26533.45, 48528.54)
Age \geq 65 Not at-risk	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	67	9460.24 (7310.11, 12242.79)
Age \geq 65 Not at-risk	Day 57	Vaccine	Positive	Pseudovirus-nAb ID80	67	1485.33 (1145.19, 1926.50)
Age \geq 65 Not at-risk	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	32	0.05 (0.05, 0.05)
Age \geq 65 Not at-risk	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	32	0.80 (0.80, 0.80)
Age \geq 65 Not at-risk	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	32	0.15 (0.15, 0.15)
Age \geq 65 Not at-risk	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	32	5.21 (4.81, 5.63)
Age \geq 65 Not at-risk	Day 57	Placebo	Negative	Pseudovirus-nAb ID80	32	5.00 (5.00, 5.00)
Age \geq 65 Not at-risk	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	65	542.25 (314.50, 934.94)
Age \geq 65 Not at-risk	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	65	17797.85 (11394.08, 27800.70)
Age \geq 65 Not at-risk	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	65	12482.88 (9007.31, 17299.52)
Age \geq 65 Not at-risk	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	65	2799.74 (2052.47, 3819.08)
Age \geq 65 Not at-risk	Day 57	Placebo	Positive	Pseudovirus-nAb ID80	65	506.92 (390.29, 658.41)

Table 7e. Geometric mean titers (GMTs) and geometric mean concentrations (GMCs) by Sex

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Sex						
Male	Day 1	Vaccine	Negative	Anti N IgG (IU/ml)	323	0.05 (0.05, 0.05)
Male	Day 1	Vaccine	Negative	Anti RBD IgG (IU/ml)	323	0.80 (0.80, 0.80)
Male	Day 1	Vaccine	Negative	Anti Spike IgG (IU/ml)	323	0.15 (0.15, 0.15)
Male	Day 1	Vaccine	Negative	Pseudovirus-nAb ID50	323	5.00 (5.00, 5.00)
Male	Day 1	Vaccine	Negative	Pseudovirus-nAb ID80	323	5.00 (5.00, 5.00)
Male	Day 1	Vaccine	Positive	Anti N IgG (IU/ml)	106	0.05 (0.05, 0.05)
Male	Day 1	Vaccine	Positive	Anti RBD IgG (IU/ml)	106	0.80 (0.80, 0.80)
Male	Day 1	Vaccine	Positive	Anti Spike IgG (IU/ml)	106	0.15 (0.15, 0.15)
Male	Day 1	Vaccine	Positive	Pseudovirus-nAb ID50	106	6.34 (5.68, 7.08)
Male	Day 1	Vaccine	Positive	Pseudovirus-nAb ID80	106	6.68 (5.86, 7.61)
Male	Day 1	Placebo	Negative	Anti N IgG (IU/ml)	55	0.05 (0.05, 0.05)
Male	Day 1	Placebo	Negative	Anti RBD IgG (IU/ml)	55	0.80 (0.80, 0.80)
Male	Day 1	Placebo	Negative	Anti Spike IgG (IU/ml)	55	0.15 (0.15, 0.15)
Male	Day 1	Placebo	Negative	Pseudovirus-nAb ID50	55	5.00 (5.00, 5.00)
Male	Day 1	Placebo	Negative	Pseudovirus-nAb ID80	55	5.00 (5.00, 5.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Male	Day 1	Placebo	Positive	Anti N IgG (IU/ml)	104	0.05 (0.05, 0.05)
Male	Day 1	Placebo	Positive	Anti RBD IgG (IU/ml)	104	0.80 (0.80, 0.80)
Male	Day 1	Placebo	Positive	Anti Spike IgG (IU/ml)	104	0.15 (0.15, 0.15)
Male	Day 1	Placebo	Positive	Pseudovirus-nAb ID50	104	6.75 (5.85, 7.79)
Male	Day 1	Placebo	Positive	Pseudovirus-nAb ID80	104	6.22 (5.55, 6.98)
Male	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	323	31.76 (24.28, 41.54)
Male	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	323	421.15 (333.46, 531.91)
Male	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	323	235.93 (196.41, 283.40)
Male	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	323	60.71 (52.79, 69.82)
Male	Day 29	Vaccine	Negative	Pseudovirus-nAb ID80	323	15.88 (14.02, 17.99)
Male	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	106	83.75 (56.70, 123.68)
Male	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	106	829.10 (531.48, 1293.39)
Male	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	106	476.21 (334.06, 678.85)
Male	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	106	124.56 (100.78, 153.96)
Male	Day 29	Vaccine	Positive	Pseudovirus-nAb ID80	106	33.09 (26.22, 41.75)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Male	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	55	0.05 (0.05, 0.05)
Male	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	55	0.80 (0.80, 0.80)
Male	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	55	0.15 (0.15, 0.15)
Male	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	55	5.05 (4.95, 5.16)
Male	Day 29	Placebo	Negative	Pseudovirus-nAb ID80	55	5.02 (4.98, 5.07)
Male	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	104	25.51 (16.91, 38.47)
Male	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	104	361.11 (250.22, 521.14)
Male	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	104	182.27 (136.52, 243.36)
Male	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	104	47.14 (37.05, 59.96)
Male	Day 29	Placebo	Positive	Pseudovirus-nAb ID80	104	10.83 (9.01, 13.02)
Male	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	323	140.02 (102.75, 190.82)
Male	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	323	4059.94 (3055.89, 5393.87)
Male	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	323	2809.47 (2274.64, 3470.07)
Male	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	323	1573.61 (1302.29, 1901.47)
Male	Day 57	Vaccine	Negative	Pseudovirus-nAb ID80	323	348.77 (295.56, 411.55)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Male	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	106	407.07 (232.95, 711.34)
Male	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	106	15153.95 (9664.15, 23762.26)
Male	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	106	9992.53 (7143.32, 13978.21)
Male	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	106	4778.46 (3457.85, 6603.43)
Male	Day 57	Vaccine	Positive	Pseudovirus-nAb ID80	106	1103.04 (808.54, 1504.80)
Male	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	55	0.05 (0.05, 0.05)
Male	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	55	0.80 (0.80, 0.80)
Male	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	55	0.15 (0.15, 0.15)
Male	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	55	5.00 (5.00, 5.00)
Male	Day 57	Placebo	Negative	Pseudovirus-nAb ID80	55	5.00 (5.00, 5.00)
Male	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	104	147.52 (85.75, 253.78)
Male	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	104	3704.28 (2321.25, 5911.32)
Male	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	104	2332.32 (1669.25, 3258.78)
Male	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	104	1459.90 (1119.20, 1904.33)
Male	Day 57	Placebo	Positive	Pseudovirus-nAb ID80	104	291.86 (222.28, 383.21)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Female	Day 1	Vaccine	Negative	Anti N IgG (IU/ml)	406	0.05 (0.05, 0.05)
Female	Day 1	Vaccine	Negative	Anti RBD IgG (IU/ml)	406	0.80 (0.80, 0.80)
Female	Day 1	Vaccine	Negative	Anti Spike IgG (IU/ml)	406	0.15 (0.15, 0.16)
Female	Day 1	Vaccine	Negative	Pseudovirus-nAb ID50	406	5.00 (5.00, 5.00)
Female	Day 1	Vaccine	Negative	Pseudovirus-nAb ID80	406	5.00 (5.00, 5.00)
Female	Day 1	Vaccine	Positive	Anti N IgG (IU/ml)	129	0.05 (0.04, 0.06)
Female	Day 1	Vaccine	Positive	Anti RBD IgG (IU/ml)	129	0.80 (0.79, 0.81)
Female	Day 1	Vaccine	Positive	Anti Spike IgG (IU/ml)	129	0.16 (0.15, 0.17)
Female	Day 1	Vaccine	Positive	Pseudovirus-nAb ID50	129	8.66 (7.12, 10.54)
Female	Day 1	Vaccine	Positive	Pseudovirus-nAb ID80	129	6.91 (5.89, 8.11)
Female	Day 1	Placebo	Negative	Anti N IgG (IU/ml)	75	0.05 (0.05, 0.05)
Female	Day 1	Placebo	Negative	Anti RBD IgG (IU/ml)	75	0.80 (0.80, 0.80)
Female	Day 1	Placebo	Negative	Anti Spike IgG (IU/ml)	75	0.15 (0.15, 0.15)
Female	Day 1	Placebo	Negative	Pseudovirus-nAb ID50	75	5.00 (5.00, 5.00)
Female	Day 1	Placebo	Negative	Pseudovirus-nAb ID80	75	5.00 (5.00, 5.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Female	Day 1	Placebo	Positive	Anti N IgG (IU/ml)	117	0.05 (0.05, 0.05)
Female	Day 1	Placebo	Positive	Anti RBD IgG (IU/ml)	117	0.80 (0.80, 0.80)
Female	Day 1	Placebo	Positive	Anti Spike IgG (IU/ml)	117	0.15 (0.15, 0.15)
Female	Day 1	Placebo	Positive	Pseudovirus-nAb ID50	117	6.50 (5.86, 7.21)
Female	Day 1	Placebo	Positive	Pseudovirus-nAb ID80	117	7.15 (6.14, 8.32)
Female	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	406	42.49 (34.27, 52.67)
Female	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	406	463.21 (377.79, 567.95)
Female	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	406	245.07 (209.23, 287.03)
Female	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	406	70.36 (62.22, 79.55)
Female	Day 29	Vaccine	Negative	Pseudovirus-nAb ID80	406	17.73 (15.69, 20.02)
Female	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	129	110.62 (75.20, 162.72)
Female	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	129	1347.64 (867.54, 2093.41)
Female	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	129	505.03 (339.38, 751.55)
Female	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	129	166.98 (138.14, 201.85)
Female	Day 29	Vaccine	Positive	Pseudovirus-nAb ID80	129	31.79 (25.82, 39.14)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Female	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	75	0.05 (0.05, 0.05)
Female	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	75	0.80 (0.80, 0.80)
Female	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	75	0.15 (0.15, 0.15)
Female	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	75	5.05 (4.96, 5.14)
Female	Day 29	Placebo	Negative	Pseudovirus-nAb ID80	75	5.03 (4.97, 5.08)
Female	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	117	27.25 (18.45, 40.25)
Female	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	117	341.88 (251.58, 464.58)
Female	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	117	193.96 (141.88, 265.15)
Female	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	117	49.82 (40.18, 61.77)
Female	Day 29	Placebo	Positive	Pseudovirus-nAb ID80	117	11.44 (9.74, 13.42)
Female	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	406	160.42 (122.46, 210.14)
Female	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	406	4962.02 (4019.46, 6125.59)
Female	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	406	3382.76 (2759.35, 4147.01)
Female	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	406	1671.55 (1415.87, 1973.40)
Female	Day 57	Vaccine	Negative	Pseudovirus-nAb ID80	406	400.39 (350.05, 457.98)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Female	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	129	619.68 (379.42, 1012.08)
Female	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	129	13566.44 (8553.27, 21517.87)
Female	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	129	13918.27 (9287.06, 20858.96)
Female	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	129	6009.55 (4366.34, 8271.17)
Female	Day 57	Vaccine	Positive	Pseudovirus-nAb ID80	129	1137.85 (877.16, 1476.01)
Female	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	75	0.05 (0.05, 0.05)
Female	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	75	0.80 (0.80, 0.80)
Female	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	75	0.15 (0.15, 0.15)
Female	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	75	5.04 (4.96, 5.12)
Female	Day 57	Placebo	Negative	Pseudovirus-nAb ID80	75	5.00 (5.00, 5.00)
Female	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	117	156.55 (103.11, 237.69)
Female	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	117	4029.99 (2840.74, 5717.10)
Female	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	117	2488.70 (1787.49, 3464.98)
Female	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	117	1309.97 (954.62, 1797.59)
Female	Day 57	Placebo	Positive	Pseudovirus-nAb ID80	117	275.52 (214.01, 354.73)

Table 7f. Geometric mean titers (GMTs) and geometric mean concentrations (GMCs) by Age, sex

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Age, sex						
Age < 65 Female	Day 1	Vaccine	Negative	Anti N IgG (IU/ml)	193	0.05 (0.05, 0.05)
Age < 65 Female	Day 1	Vaccine	Negative	Anti RBD IgG (IU/ml)	193	0.80 (0.80, 0.80)
Age < 65 Female	Day 1	Vaccine	Negative	Anti Spike IgG (IU/ml)	193	0.16 (0.15, 0.16)
Age < 65 Female	Day 1	Vaccine	Negative	Pseudovirus-nAb ID50	193	5.00 (5.00, 5.00)
Age < 65 Female	Day 1	Vaccine	Negative	Pseudovirus-nAb ID80	193	5.00 (5.00, 5.00)
Age < 65 Female	Day 1	Vaccine	Positive	Anti N IgG (IU/ml)	60	0.05 (0.04, 0.07)
Age < 65 Female	Day 1	Vaccine	Positive	Anti RBD IgG (IU/ml)	60	0.80 (0.80, 0.80)
Age < 65 Female	Day 1	Vaccine	Positive	Anti Spike IgG (IU/ml)	60	0.16 (0.15, 0.17)
Age < 65 Female	Day 1	Vaccine	Positive	Pseudovirus-nAb ID50	60	9.57 (7.47, 12.28)
Age < 65 Female	Day 1	Vaccine	Positive	Pseudovirus-nAb ID80	60	7.22 (5.88, 8.86)
Age < 65 Female	Day 1	Placebo	Negative	Anti N IgG (IU/ml)	39	0.05 (0.05, 0.05)
Age < 65 Female	Day 1	Placebo	Negative	Anti RBD IgG (IU/ml)	39	0.80 (0.80, 0.80)
Age < 65 Female	Day 1	Placebo	Negative	Anti Spike IgG (IU/ml)	39	0.15 (0.15, 0.15)
Age < 65 Female	Day 1	Placebo	Negative	Pseudovirus-nAb ID50	39	5.00 (5.00, 5.00)
Age < 65 Female	Day 1	Placebo	Negative	Pseudovirus-nAb ID80	39	5.00 (5.00, 5.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Age < 65 Female	Day 1	Placebo	Positive	Anti N IgG (IU/ml)	62	0.05 (0.05, 0.05)
Age < 65 Female	Day 1	Placebo	Positive	Anti RBD IgG (IU/ml)	62	0.80 (0.80, 0.80)
Age < 65 Female	Day 1	Placebo	Positive	Anti Spike IgG (IU/ml)	62	0.15 (0.15, 0.15)
Age < 65 Female	Day 1	Placebo	Positive	Pseudovirus-nAb ID50	62	6.54 (5.78, 7.40)
Age < 65 Female	Day 1	Placebo	Positive	Pseudovirus-nAb ID80	62	7.33 (6.10, 8.80)
Age < 65 Female	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	193	34.48 (26.48, 44.88)
Age < 65 Female	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	193	363.53 (283.05, 466.89)
Age < 65 Female	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	193	183.30 (151.41, 221.91)
Age < 65 Female	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	193	61.90 (53.21, 72.01)
Age < 65 Female	Day 29	Vaccine	Negative	Pseudovirus-nAb ID80	193	16.42 (14.11, 19.12)
Age < 65 Female	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	60	97.04 (59.29, 158.82)
Age < 65 Female	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	60	1086.89 (618.32, 1910.58)
Age < 65 Female	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	60	389.46 (234.24, 647.53)
Age < 65 Female	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	60	159.22 (125.17, 202.54)
Age < 65 Female	Day 29	Vaccine	Positive	Pseudovirus-nAb ID80	60	30.24 (23.24, 39.35)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Age < 65 Female	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	39	0.05 (0.05, 0.05)
Age < 65 Female	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	39	0.80 (0.80, 0.80)
Age < 65 Female	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	39	0.15 (0.15, 0.15)
Age < 65 Female	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	39	5.06 (4.94, 5.18)
Age < 65 Female	Day 29	Placebo	Negative	Pseudovirus-nAb ID80	39	5.00 (5.00, 5.00)
Age < 65 Female	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	62	21.56 (13.59, 34.19)
Age < 65 Female	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	62	259.40 (181.71, 370.31)
Age < 65 Female	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	62	142.75 (99.02, 205.78)
Age < 65 Female	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	62	43.50 (33.72, 56.12)
Age < 65 Female	Day 29	Placebo	Positive	Pseudovirus-nAb ID80	62	10.24 (8.49, 12.35)
Age < 65 Female	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	193	122.39 (87.66, 170.89)
Age < 65 Female	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	193	3727.08 (2881.35, 4821.05)
Age < 65 Female	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	193	2478.07 (1930.94, 3180.24)
Age < 65 Female	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	193	1429.15 (1163.62, 1755.26)
Age < 65 Female	Day 57	Vaccine	Negative	Pseudovirus-nAb ID80	193	379.25 (320.99, 448.09)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Age < 65 Female	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	60	459.00 (246.32, 855.31)
Age < 65 Female	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	60	9191.10 (5152.22, 16396.12)
Age < 65 Female	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	60	11132.13 (6649.51, 18636.61)
Age < 65 Female	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	60	5296.44 (3515.98, 7978.49)
Age < 65 Female	Day 57	Vaccine	Positive	Pseudovirus-nAb ID80	60	1099.84 (789.44, 1532.28)
Age < 65 Female	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	39	0.05 (0.05, 0.05)
Age < 65 Female	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	39	0.80 (0.80, 0.80)
Age < 65 Female	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	39	0.15 (0.15, 0.15)
Age < 65 Female	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	39	5.00 (5.00, 5.00)
Age < 65 Female	Day 57	Placebo	Negative	Pseudovirus-nAb ID80	39	5.00 (5.00, 5.00)
Age < 65 Female	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	62	121.37 (74.33, 198.18)
Age < 65 Female	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	62	2887.32 (1931.63, 4315.86)
Age < 65 Female	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	62	1758.56 (1197.37, 2582.77)
Age < 65 Female	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	62	1110.42 (761.30, 1619.65)
Age < 65 Female	Day 57	Placebo	Positive	Pseudovirus-nAb ID80	62	249.14 (184.26, 336.88)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Age < 65 Male	Day 1	Vaccine	Negative	Anti N IgG (IU/ml)	156	0.05 (0.05, 0.05)
Age < 65 Male	Day 1	Vaccine	Negative	Anti RBD IgG (IU/ml)	156	0.80 (0.80, 0.80)
Age < 65 Male	Day 1	Vaccine	Negative	Anti Spike IgG (IU/ml)	156	0.15 (0.15, 0.15)
Age < 65 Male	Day 1	Vaccine	Negative	Pseudovirus-nAb ID50	156	5.00 (5.00, 5.00)
Age < 65 Male	Day 1	Vaccine	Negative	Pseudovirus-nAb ID80	156	5.00 (5.00, 5.00)
Age < 65 Male	Day 1	Vaccine	Positive	Anti N IgG (IU/ml)	60	0.05 (0.05, 0.05)
Age < 65 Male	Day 1	Vaccine	Positive	Anti RBD IgG (IU/ml)	60	0.80 (0.80, 0.80)
Age < 65 Male	Day 1	Vaccine	Positive	Anti Spike IgG (IU/ml)	60	0.15 (0.15, 0.15)
Age < 65 Male	Day 1	Vaccine	Positive	Pseudovirus-nAb ID50	60	6.07 (5.37, 6.86)
Age < 65 Male	Day 1	Vaccine	Positive	Pseudovirus-nAb ID80	60	6.90 (5.90, 8.07)
Age < 65 Male	Day 1	Placebo	Negative	Anti N IgG (IU/ml)	24	0.05 (0.05, 0.05)
Age < 65 Male	Day 1	Placebo	Negative	Anti RBD IgG (IU/ml)	24	0.80 (0.80, 0.80)
Age < 65 Male	Day 1	Placebo	Negative	Anti Spike IgG (IU/ml)	24	0.15 (0.15, 0.15)
Age < 65 Male	Day 1	Placebo	Negative	Pseudovirus-nAb ID50	24	5.00 (5.00, 5.00)
Age < 65 Male	Day 1	Placebo	Negative	Pseudovirus-nAb ID80	24	5.00 (5.00, 5.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Age < 65 Male	Day 1	Placebo	Positive	Anti N IgG (IU/ml)	60	0.05 (0.05, 0.05)
Age < 65 Male	Day 1	Placebo	Positive	Anti RBD IgG (IU/ml)	60	0.80 (0.80, 0.80)
Age < 65 Male	Day 1	Placebo	Positive	Anti Spike IgG (IU/ml)	60	0.15 (0.15, 0.15)
Age < 65 Male	Day 1	Placebo	Positive	Pseudovirus-nAb ID50	60	6.74 (5.67, 8.03)
Age < 65 Male	Day 1	Placebo	Positive	Pseudovirus-nAb ID80	60	5.95 (5.19, 6.80)
Age < 65 Male	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	156	22.13 (16.02, 30.58)
Age < 65 Male	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	156	303.34 (228.43, 402.80)
Age < 65 Male	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	156	173.57 (139.37, 216.17)
Age < 65 Male	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	156	49.84 (42.13, 58.95)
Age < 65 Male	Day 29	Vaccine	Negative	Pseudovirus-nAb ID80	156	14.29 (12.27, 16.63)
Age < 65 Male	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	60	67.99 (43.02, 107.46)
Age < 65 Male	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	60	708.96 (417.03, 1205.22)
Age < 65 Male	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	60	386.21 (253.47, 588.47)
Age < 65 Male	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	60	111.71 (87.08, 143.30)
Age < 65 Male	Day 29	Vaccine	Positive	Pseudovirus-nAb ID80	60	32.21 (24.41, 42.51)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Age < 65 Male	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	24	0.05 (0.05, 0.05)
Age < 65 Male	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	24	0.80 (0.80, 0.80)
Age < 65 Male	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	24	0.15 (0.15, 0.15)
Age < 65 Male	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	24	5.00 (5.00, 5.00)
Age < 65 Male	Day 29	Placebo	Negative	Pseudovirus-nAb ID80	24	5.00 (5.00, 5.00)
Age < 65 Male	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	60	19.36 (12.01, 31.22)
Age < 65 Male	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	60	263.60 (171.88, 404.25)
Age < 65 Male	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	60	122.69 (90.14, 166.99)
Age < 65 Male	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	60	40.78 (30.69, 54.21)
Age < 65 Male	Day 29	Placebo	Positive	Pseudovirus-nAb ID80	60	9.42 (7.61, 11.67)
Age < 65 Male	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	156	97.65 (67.09, 142.12)
Age < 65 Male	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	156	2915.22 (2062.08, 4121.32)
Age < 65 Male	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	156	1922.98 (1497.22, 2469.80)
Age < 65 Male	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	156	1259.98 (1000.98, 1586.01)
Age < 65 Male	Day 57	Vaccine	Negative	Pseudovirus-nAb ID80	156	314.54 (256.58, 385.59)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Age < 65 Male	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	60	326.29 (168.24, 632.83)
Age < 65 Male	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	60	13366.50 (7819.65, 22847.99)
Age < 65 Male	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	60	7680.73 (5186.35, 11374.79)
Age < 65 Male	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	60	4198.01 (2858.43, 6165.39)
Age < 65 Male	Day 57	Vaccine	Positive	Pseudovirus-nAb ID80	60	1018.98 (704.36, 1474.14)
Age < 65 Male	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	24	0.05 (0.05, 0.05)
Age < 65 Male	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	24	0.80 (0.80, 0.80)
Age < 65 Male	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	24	0.15 (0.15, 0.15)
Age < 65 Male	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	24	5.00 (5.00, 5.00)
Age < 65 Male	Day 57	Placebo	Negative	Pseudovirus-nAb ID80	24	5.00 (5.00, 5.00)
Age < 65 Male	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	60	100.58 (53.28, 189.86)
Age < 65 Male	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	60	2474.57 (1428.21, 4287.53)
Age < 65 Male	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	60	1516.94 (1053.10, 2185.06)
Age < 65 Male	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	60	1206.82 (882.57, 1650.21)
Age < 65 Male	Day 57	Placebo	Positive	Pseudovirus-nAb ID80	60	247.10 (178.79, 341.51)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Age ≥ 65 Male	Day 1	Vaccine	Negative	Anti N IgG (IU/ml)	167	0.05 (0.05, 0.05)
Age ≥ 65 Male	Day 1	Vaccine	Negative	Anti RBD IgG (IU/ml)	167	0.80 (0.80, 0.80)
Age ≥ 65 Male	Day 1	Vaccine	Negative	Anti Spike IgG (IU/ml)	167	0.15 (0.15, 0.15)
Age ≥ 65 Male	Day 1	Vaccine	Negative	Pseudovirus-nAb ID50	167	5.00 (5.00, 5.00)
Age ≥ 65 Male	Day 1	Vaccine	Negative	Pseudovirus-nAb ID80	167	5.00 (5.00, 5.00)
Age ≥ 65 Male	Day 1	Vaccine	Positive	Anti N IgG (IU/ml)	46	0.05 (0.05, 0.05)
Age ≥ 65 Male	Day 1	Vaccine	Positive	Anti RBD IgG (IU/ml)	46	0.80 (0.80, 0.80)
Age ≥ 65 Male	Day 1	Vaccine	Positive	Anti Spike IgG (IU/ml)	46	0.16 (0.15, 0.16)
Age ≥ 65 Male	Day 1	Vaccine	Positive	Pseudovirus-nAb ID50	46	7.85 (6.26, 9.84)
Age ≥ 65 Male	Day 1	Vaccine	Positive	Pseudovirus-nAb ID80	46	5.69 (5.10, 6.34)
Age ≥ 65 Male	Day 1	Placebo	Negative	Anti N IgG (IU/ml)	31	0.05 (0.05, 0.05)
Age ≥ 65 Male	Day 1	Placebo	Negative	Anti RBD IgG (IU/ml)	31	0.80 (0.80, 0.80)
Age ≥ 65 Male	Day 1	Placebo	Negative	Anti Spike IgG (IU/ml)	31	0.15 (0.15, 0.15)
Age ≥ 65 Male	Day 1	Placebo	Negative	Pseudovirus-nAb ID50	31	5.00 (5.00, 5.00)
Age ≥ 65 Male	Day 1	Placebo	Negative	Pseudovirus-nAb ID80	31	5.00 (5.00, 5.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Age \geq 65 Male	Day 1	Placebo	Positive	Anti N IgG (IU/ml)	44	0.05 (0.05, 0.05)
Age \geq 65 Male	Day 1	Placebo	Positive	Anti RBD IgG (IU/ml)	44	0.80 (0.80, 0.80)
Age \geq 65 Male	Day 1	Placebo	Positive	Anti Spike IgG (IU/ml)	44	0.15 (0.15, 0.15)
Age \geq 65 Male	Day 1	Placebo	Positive	Pseudovirus-nAb ID50	44	6.78 (5.69, 8.08)
Age \geq 65 Male	Day 1	Placebo	Positive	Pseudovirus-nAb ID80	44	7.43 (6.16, 8.96)
Age \geq 65 Male	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	167	128.60 (97.02, 170.46)
Age \geq 65 Male	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	167	1500.54 (1218.42, 1847.97)
Age \geq 65 Male	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	167	774.28 (643.61, 931.49)
Age \geq 65 Male	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	167	130.35 (112.96, 150.41)
Age \geq 65 Male	Day 29	Vaccine	Negative	Pseudovirus-nAb ID80	167	23.92 (20.96, 27.29)
Age \geq 65 Male	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	46	227.26 (133.38, 387.22)
Age \geq 65 Male	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	46	1755.00 (1137.25, 2708.32)
Age \geq 65 Male	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	46	1298.82 (912.78, 1848.12)
Age \geq 65 Male	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	46	209.89 (161.56, 272.66)
Age \geq 65 Male	Day 29	Vaccine	Positive	Pseudovirus-nAb ID80	46	37.62 (29.93, 47.30)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Age ≥ 65 Male	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	31	0.05 (0.05, 0.05)
Age ≥ 65 Male	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	31	0.80 (0.80, 0.80)
Age ≥ 65 Male	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	31	0.15 (0.15, 0.15)
Age ≥ 65 Male	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	31	5.19 (4.82, 5.59)
Age ≥ 65 Male	Day 29	Placebo	Negative	Pseudovirus-nAb ID80	31	5.08 (4.92, 5.25)
Age ≥ 65 Male	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	44	74.13 (42.11, 130.48)
Age ≥ 65 Male	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	44	1221.36 (795.22, 1875.86)
Age ≥ 65 Male	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	44	843.79 (574.25, 1239.87)
Age ≥ 65 Male	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	44	82.56 (61.68, 110.50)
Age ≥ 65 Male	Day 29	Placebo	Positive	Pseudovirus-nAb ID80	44	18.57 (14.43, 23.89)
Age ≥ 65 Male	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	167	565.38 (415.73, 768.88)
Age ≥ 65 Male	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	167	14638.15 (11395.83, 18802.97)
Age ≥ 65 Male	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	167	12193.67 (9813.06, 15151.81)
Age ≥ 65 Male	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	167	3721.04 (3121.74, 4435.39)
Age ≥ 65 Male	Day 57	Vaccine	Negative	Pseudovirus-nAb ID80	167	520.26 (445.63, 607.40)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Age ≥ 65 Male	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	46	1174.50 (638.45, 2160.59)
Age ≥ 65 Male	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	46	27645.81 (18017.17, 42420.13)
Age ≥ 65 Male	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	46	35242.24 (24322.08, 51065.36)
Age ≥ 65 Male	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	46	8886.03 (6372.40, 12391.19)
Age ≥ 65 Male	Day 57	Vaccine	Positive	Pseudovirus-nAb ID80	46	1612.43 (1184.09, 2195.72)
Age ≥ 65 Male	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	31	0.05 (0.05, 0.05)
Age ≥ 65 Male	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	31	0.80 (0.80, 0.80)
Age ≥ 65 Male	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	31	0.15 (0.15, 0.15)
Age ≥ 65 Male	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	31	5.00 (5.00, 5.00)
Age ≥ 65 Male	Day 57	Placebo	Negative	Pseudovirus-nAb ID80	31	5.00 (5.00, 5.00)
Age ≥ 65 Male	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	44	649.87 (347.81, 1214.27)
Age ≥ 65 Male	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	44	17659.17 (10704.15, 29133.22)
Age ≥ 65 Male	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	44	12331.93 (8264.49, 18401.18)
Age ≥ 65 Male	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	44	3050.74 (2115.34, 4399.77)
Age ≥ 65 Male	Day 57	Placebo	Positive	Pseudovirus-nAb ID80	44	556.00 (396.66, 779.36)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Age ≥ 65 Female	Day 1	Vaccine	Negative	Anti N IgG (IU/ml)	213	0.05 (0.05, 0.05)
Age ≥ 65 Female	Day 1	Vaccine	Negative	Anti RBD IgG (IU/ml)	213	0.80 (0.80, 0.80)
Age ≥ 65 Female	Day 1	Vaccine	Negative	Anti Spike IgG (IU/ml)	213	0.15 (0.15, 0.15)
Age ≥ 65 Female	Day 1	Vaccine	Negative	Pseudovirus-nAb ID50	213	5.00 (5.00, 5.00)
Age ≥ 65 Female	Day 1	Vaccine	Negative	Pseudovirus-nAb ID80	213	5.00 (5.00, 5.00)
Age ≥ 65 Female	Day 1	Vaccine	Positive	Anti N IgG (IU/ml)	69	0.05 (0.05, 0.05)
Age ≥ 65 Female	Day 1	Vaccine	Positive	Anti RBD IgG (IU/ml)	69	0.82 (0.78, 0.86)
Age ≥ 65 Female	Day 1	Vaccine	Positive	Anti Spike IgG (IU/ml)	69	0.15 (0.15, 0.15)
Age ≥ 65 Female	Day 1	Vaccine	Positive	Pseudovirus-nAb ID50	69	6.25 (5.57, 7.03)
Age ≥ 65 Female	Day 1	Vaccine	Positive	Pseudovirus-nAb ID80	69	5.99 (5.36, 6.70)
Age ≥ 65 Female	Day 1	Placebo	Negative	Anti N IgG (IU/ml)	36	0.05 (0.05, 0.05)
Age ≥ 65 Female	Day 1	Placebo	Negative	Anti RBD IgG (IU/ml)	36	0.80 (0.80, 0.80)
Age ≥ 65 Female	Day 1	Placebo	Negative	Anti Spike IgG (IU/ml)	36	0.15 (0.15, 0.15)
Age ≥ 65 Female	Day 1	Placebo	Negative	Pseudovirus-nAb ID50	36	5.00 (5.00, 5.00)
Age ≥ 65 Female	Day 1	Placebo	Negative	Pseudovirus-nAb ID80	36	5.00 (5.00, 5.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Age ≥ 65 Female	Day 1	Placebo	Positive	Anti N IgG (IU/ml)	55	0.05 (0.05, 0.05)
Age ≥ 65 Female	Day 1	Placebo	Positive	Anti RBD IgG (IU/ml)	55	0.80 (0.80, 0.80)
Age ≥ 65 Female	Day 1	Placebo	Positive	Anti Spike IgG (IU/ml)	55	0.15 (0.15, 0.15)
Age ≥ 65 Female	Day 1	Placebo	Positive	Pseudovirus-nAb ID50	55	6.33 (5.52, 7.25)
Age ≥ 65 Female	Day 1	Placebo	Positive	Pseudovirus-nAb ID80	55	6.39 (5.53, 7.39)
Age ≥ 65 Female	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	213	90.94 (71.50, 115.67)
Age ≥ 65 Female	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	213	1119.66 (902.31, 1389.37)
Age ≥ 65 Female	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	213	705.69 (597.80, 833.05)
Age ≥ 65 Female	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	213	112.16 (99.17, 126.86)
Age ≥ 65 Female	Day 29	Vaccine	Negative	Pseudovirus-nAb ID80	213	23.41 (21.07, 26.00)
Age ≥ 65 Female	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	69	169.66 (118.71, 242.47)
Age ≥ 65 Female	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	69	2719.29 (1947.39, 3797.17)
Age ≥ 65 Female	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	69	1179.78 (924.24, 1505.95)
Age ≥ 65 Female	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	69	195.06 (159.65, 238.33)
Age ≥ 65 Female	Day 29	Vaccine	Positive	Pseudovirus-nAb ID80	69	37.42 (30.08, 46.55)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Age ≥ 65 Female	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	36	0.05 (0.05, 0.05)
Age ≥ 65 Female	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	36	0.80 (0.80, 0.80)
Age ≥ 65 Female	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	36	0.15 (0.15, 0.15)
Age ≥ 65 Female	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	36	5.00 (5.00, 5.00)
Age ≥ 65 Female	Day 29	Placebo	Negative	Pseudovirus-nAb ID80	36	5.13 (4.88, 5.38)
Age ≥ 65 Female	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	55	77.96 (50.38, 120.63)
Age ≥ 65 Female	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	55	1179.42 (809.76, 1717.82)
Age ≥ 65 Female	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	55	767.22 (577.24, 1019.73)
Age ≥ 65 Female	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	55	91.54 (72.82, 115.08)
Age ≥ 65 Female	Day 29	Placebo	Positive	Pseudovirus-nAb ID80	55	18.77 (15.40, 22.86)
Age ≥ 65 Female	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	213	429.77 (325.87, 566.80)
Age ≥ 65 Female	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	213	14072.05 (11281.54, 17552.78)
Age ≥ 65 Female	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	213	10508.78 (8668.29, 12740.06)
Age ≥ 65 Female	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	213	2957.68 (2517.86, 3474.34)
Age ≥ 65 Female	Day 57	Vaccine	Negative	Pseudovirus-nAb ID80	213	487.86 (425.05, 559.96)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Age ≥ 65 Female	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	69	1651.11 (1091.18, 2498.37)
Age ≥ 65 Female	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	69	48365.86 (32814.61, 71287.04)
Age ≥ 65 Female	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	69	28859.88 (20342.32, 40943.83)
Age ≥ 65 Female	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	69	9077.03 (7077.98, 11640.68)
Age ≥ 65 Female	Day 57	Vaccine	Positive	Pseudovirus-nAb ID80	69	1271.34 (994.72, 1624.89)
Age ≥ 65 Female	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	36	0.05 (0.05, 0.05)
Age ≥ 65 Female	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	36	0.80 (0.80, 0.80)
Age ≥ 65 Female	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	36	0.15 (0.15, 0.15)
Age ≥ 65 Female	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	36	5.19 (4.83, 5.58)
Age ≥ 65 Female	Day 57	Placebo	Negative	Pseudovirus-nAb ID80	36	5.00 (5.00, 5.00)
Age ≥ 65 Female	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	55	490.34 (284.62, 844.76)
Age ≥ 65 Female	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	55	17982.74 (11056.43, 29248.05)
Age ≥ 65 Female	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	55	11816.09 (8475.02, 16474.29)
Age ≥ 65 Female	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	55	2749.17 (2006.18, 3767.34)
Age ≥ 65 Female	Day 57	Placebo	Positive	Pseudovirus-nAb ID80	55	432.74 (330.18, 567.15)

Table 7g. Geometric mean titers (GMTs) and geometric mean concentrations (GMCs) by Hispanic or Latino ethnicity

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Hispanic or Latino ethnicity						
Hispanic or Latino	Day 1	Vaccine	Negative	Anti N IgG (IU/ml)	102	0.05 (0.05, 0.05)
Hispanic or Latino	Day 1	Vaccine	Negative	Anti RBD IgG (IU/ml)	102	0.80 (0.80, 0.80)
Hispanic or Latino	Day 1	Vaccine	Negative	Anti Spike IgG (IU/ml)	102	0.15 (0.15, 0.15)
Hispanic or Latino	Day 1	Vaccine	Negative	Pseudovirus-nAb ID50	102	5.00 (5.00, 5.00)
Hispanic or Latino	Day 1	Vaccine	Negative	Pseudovirus-nAb ID80	102	5.00 (5.00, 5.00)
Hispanic or Latino	Day 1	Vaccine	Positive	Anti N IgG (IU/ml)	27	0.05 (0.05, 0.05)
Hispanic or Latino	Day 1	Vaccine	Positive	Anti RBD IgG (IU/ml)	27	0.80 (0.80, 0.80)
Hispanic or Latino	Day 1	Vaccine	Positive	Anti Spike IgG (IU/ml)	27	0.16 (0.15, 0.16)
Hispanic or Latino	Day 1	Vaccine	Positive	Pseudovirus-nAb ID50	27	6.52 (5.36, 7.93)
Hispanic or Latino	Day 1	Vaccine	Positive	Pseudovirus-nAb ID80	27	6.09 (4.79, 7.74)
Hispanic or Latino	Day 1	Placebo	Negative	Anti N IgG (IU/ml)	24	0.05 (0.05, 0.05)
Hispanic or Latino	Day 1	Placebo	Negative	Anti RBD IgG (IU/ml)	24	0.80 (0.80, 0.80)
Hispanic or Latino	Day 1	Placebo	Negative	Anti Spike IgG (IU/ml)	24	0.15 (0.15, 0.15)
Hispanic or Latino	Day 1	Placebo	Negative	Pseudovirus-nAb ID50	24	5.00 (5.00, 5.00)
Hispanic or Latino	Day 1	Placebo	Negative	Pseudovirus-nAb ID80	24	5.00 (5.00, 5.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Hispanic or Latino	Day 1	Placebo	Positive	Anti N IgG (IU/ml)	29	0.05 (0.05, 0.05)
Hispanic or Latino	Day 1	Placebo	Positive	Anti RBD IgG (IU/ml)	29	0.80 (0.80, 0.80)
Hispanic or Latino	Day 1	Placebo	Positive	Anti Spike IgG (IU/ml)	29	0.15 (0.15, 0.15)
Hispanic or Latino	Day 1	Placebo	Positive	Pseudovirus-nAb ID50	29	6.73 (5.23, 8.66)
Hispanic or Latino	Day 1	Placebo	Positive	Pseudovirus-nAb ID80	29	6.06 (5.22, 7.04)
Hispanic or Latino	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	102	40.80 (27.75, 59.99)
Hispanic or Latino	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	102	532.54 (357.23, 793.89)
Hispanic or Latino	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	102	255.10 (179.21, 363.14)
Hispanic or Latino	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	102	73.01 (58.78, 90.68)
Hispanic or Latino	Day 29	Vaccine	Negative	Pseudovirus-nAb ID80	102	15.89 (12.43, 20.31)
Hispanic or Latino	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	27	107.30 (56.41, 204.09)
Hispanic or Latino	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	27	1413.37 (713.41, 2800.12)
Hispanic or Latino	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	27	659.83 (386.25, 1127.18)
Hispanic or Latino	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	27	161.02 (113.59, 228.25)
Hispanic or Latino	Day 29	Vaccine	Positive	Pseudovirus-nAb ID80	27	41.64 (33.95, 51.07)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Hispanic or Latino	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	24	0.05 (0.05, 0.05)
Hispanic or Latino	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	24	0.80 (0.80, 0.80)
Hispanic or Latino	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	24	0.15 (0.15, 0.15)
Hispanic or Latino	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	24	5.00 (5.00, 5.00)
Hispanic or Latino	Day 29	Placebo	Negative	Pseudovirus-nAb ID80	24	5.07 (4.94, 5.20)
Hispanic or Latino	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	29	22.15 (13.44, 36.52)
Hispanic or Latino	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	29	440.31 (255.52, 758.73)
Hispanic or Latino	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	29	185.78 (111.10, 310.67)
Hispanic or Latino	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	29	53.61 (41.46, 69.31)
Hispanic or Latino	Day 29	Placebo	Positive	Pseudovirus-nAb ID80	29	11.92 (8.90, 15.96)
Hispanic or Latino	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	102	139.35 (77.80, 249.59)
Hispanic or Latino	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	102	4323.88 (2651.13, 7052.09)
Hispanic or Latino	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	102	3221.32 (2085.72, 4975.19)
Hispanic or Latino	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	102	1779.38 (1190.06, 2660.52)
Hispanic or Latino	Day 57	Vaccine	Negative	Pseudovirus-nAb ID80	102	414.41 (309.15, 555.52)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Hispanic or Latino	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	27	913.96 (528.78, 1579.70)
Hispanic or Latino	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	27	21288.68 (13278.70, 34130.44)
Hispanic or Latino	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	27	19793.04 (11686.30, 33523.39)
Hispanic or Latino	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	27	5714.43 (3500.78, 9327.84)
Hispanic or Latino	Day 57	Vaccine	Positive	Pseudovirus-nAb ID80	27	1186.09 (829.28, 1696.42)
Hispanic or Latino	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	24	0.05 (0.05, 0.05)
Hispanic or Latino	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	24	0.80 (0.80, 0.80)
Hispanic or Latino	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	24	0.15 (0.15, 0.15)
Hispanic or Latino	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	24	5.00 (5.00, 5.00)
Hispanic or Latino	Day 57	Placebo	Negative	Pseudovirus-nAb ID80	24	5.00 (5.00, 5.00)
Hispanic or Latino	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	29	233.14 (105.33, 516.04)
Hispanic or Latino	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	29	4928.44 (2153.65, 11278.31)
Hispanic or Latino	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	29	3282.13 (2084.73, 5167.27)
Hispanic or Latino	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	29	1813.26 (1057.52, 3109.08)
Hispanic or Latino	Day 57	Placebo	Positive	Pseudovirus-nAb ID80	29	411.02 (255.89, 660.19)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Not Hispanic or Latino	Day 1	Vaccine	Negative	Anti N IgG (IU/ml)	600	0.05 (0.05, 0.05)
Not Hispanic or Latino	Day 1	Vaccine	Negative	Anti RBD IgG (IU/ml)	600	0.80 (0.80, 0.80)
Not Hispanic or Latino	Day 1	Vaccine	Negative	Anti Spike IgG (IU/ml)	600	0.15 (0.15, 0.16)
Not Hispanic or Latino	Day 1	Vaccine	Negative	Pseudovirus-nAb ID50	600	5.00 (5.00, 5.00)
Not Hispanic or Latino	Day 1	Vaccine	Negative	Pseudovirus-nAb ID80	600	5.00 (5.00, 5.00)
Not Hispanic or Latino	Day 1	Vaccine	Positive	Anti N IgG (IU/ml)	200	0.05 (0.05, 0.06)
Not Hispanic or Latino	Day 1	Vaccine	Positive	Anti RBD IgG (IU/ml)	200	0.80 (0.79, 0.80)
Not Hispanic or Latino	Day 1	Vaccine	Positive	Anti Spike IgG (IU/ml)	200	0.16 (0.15, 0.16)
Not Hispanic or Latino	Day 1	Vaccine	Positive	Pseudovirus-nAb ID50	200	7.61 (6.62, 8.76)
Not Hispanic or Latino	Day 1	Vaccine	Positive	Pseudovirus-nAb ID80	200	6.91 (6.16, 7.75)
Not Hispanic or Latino	Day 1	Placebo	Negative	Anti N IgG (IU/ml)	103	0.05 (0.05, 0.05)
Not Hispanic or Latino	Day 1	Placebo	Negative	Anti RBD IgG (IU/ml)	103	0.80 (0.80, 0.80)
Not Hispanic or Latino	Day 1	Placebo	Negative	Anti Spike IgG (IU/ml)	103	0.15 (0.15, 0.15)
Not Hispanic or Latino	Day 1	Placebo	Negative	Pseudovirus-nAb ID50	103	5.00 (5.00, 5.00)
Not Hispanic or Latino	Day 1	Placebo	Negative	Pseudovirus-nAb ID80	103	5.00 (5.00, 5.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Not Hispanic or Latino	Day 1	Placebo	Positive	Anti N IgG (IU/ml)	184	0.05 (0.05, 0.05)
Not Hispanic or Latino	Day 1	Placebo	Positive	Anti RBD IgG (IU/ml)	184	0.80 (0.80, 0.80)
Not Hispanic or Latino	Day 1	Placebo	Positive	Anti Spike IgG (IU/ml)	184	0.15 (0.15, 0.15)
Not Hispanic or Latino	Day 1	Placebo	Positive	Pseudovirus-nAb ID50	184	6.62 (6.03, 7.27)
Not Hispanic or Latino	Day 1	Placebo	Positive	Pseudovirus-nAb ID80	184	6.81 (6.07, 7.64)
Not Hispanic or Latino	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	600	35.35 (29.35, 42.58)
Not Hispanic or Latino	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	600	419.97 (356.05, 495.36)
Not Hispanic or Latino	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	600	234.29 (206.58, 265.70)
Not Hispanic or Latino	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	600	63.69 (57.53, 70.52)
Not Hispanic or Latino	Day 29	Vaccine	Negative	Pseudovirus-nAb ID80	600	16.50 (15.03, 18.12)
Not Hispanic or Latino	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	200	95.64 (71.13, 128.59)
Not Hispanic or Latino	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	200	1038.68 (738.90, 1460.09)
Not Hispanic or Latino	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	200	479.07 (357.59, 641.84)
Not Hispanic or Latino	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	200	143.67 (122.83, 168.04)
Not Hispanic or Latino	Day 29	Vaccine	Positive	Pseudovirus-nAb ID80	200	31.53 (26.58, 37.41)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Not Hispanic or Latino	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	103	0.05 (0.05, 0.05)
Not Hispanic or Latino	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	103	0.80 (0.80, 0.80)
Not Hispanic or Latino	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	103	0.15 (0.15, 0.15)
Not Hispanic or Latino	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	103	5.06 (4.98, 5.14)
Not Hispanic or Latino	Day 29	Placebo	Negative	Pseudovirus-nAb ID80	103	5.02 (4.98, 5.06)
Not Hispanic or Latino	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	184	26.76 (19.46, 36.80)
Not Hispanic or Latino	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	184	343.51 (265.55, 444.37)
Not Hispanic or Latino	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	184	189.36 (149.58, 239.72)
Not Hispanic or Latino	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	184	47.99 (40.01, 57.57)
Not Hispanic or Latino	Day 29	Placebo	Positive	Pseudovirus-nAb ID80	184	11.07 (9.71, 12.62)
Not Hispanic or Latino	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	600	145.82 (117.37, 181.17)
Not Hispanic or Latino	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	600	4354.05 (3613.72, 5246.05)
Not Hispanic or Latino	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	600	2991.41 (2561.23, 3493.84)
Not Hispanic or Latino	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	600	1582.87 (1384.91, 1809.14)
Not Hispanic or Latino	Day 57	Vaccine	Negative	Pseudovirus-nAb ID80	600	360.83 (322.11, 404.21)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Not Hispanic or Latino	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	200	478.96 (319.16, 718.75)
Not Hispanic or Latino	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	200	13558.26 (9493.76, 19362.88)
Not Hispanic or Latino	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	200	11289.31 (8456.34, 15071.35)
Not Hispanic or Latino	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	200	5353.54 (4171.75, 6870.12)
Not Hispanic or Latino	Day 57	Vaccine	Positive	Pseudovirus-nAb ID80	200	1128.90 (904.81, 1408.51)
Not Hispanic or Latino	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	103	0.05 (0.05, 0.05)
Not Hispanic or Latino	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	103	0.80 (0.80, 0.80)
Not Hispanic or Latino	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	103	0.15 (0.15, 0.15)
Not Hispanic or Latino	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	103	5.03 (4.97, 5.08)
Not Hispanic or Latino	Day 57	Placebo	Negative	Pseudovirus-nAb ID80	103	5.00 (5.00, 5.00)
Not Hispanic or Latino	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	184	142.91 (98.40, 207.54)
Not Hispanic or Latino	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	184	3699.78 (2729.76, 5014.49)
Not Hispanic or Latino	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	184	2343.66 (1802.98, 3046.48)
Not Hispanic or Latino	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	184	1323.41 (1043.34, 1678.67)
Not Hispanic or Latino	Day 57	Placebo	Positive	Pseudovirus-nAb ID80	184	264.59 (215.98, 324.12)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Not reported and unknown	Day 1	Vaccine	Negative	Anti N IgG (IU/ml)	27	0.05 (0.05, 0.05)
Not reported and unknown	Day 1	Vaccine	Negative	Anti RBD IgG (IU/ml)	27	0.80 (0.80, 0.80)
Not reported and unknown	Day 1	Vaccine	Negative	Anti Spike IgG (IU/ml)	27	0.15 (0.15, 0.15)
Not reported and unknown	Day 1	Vaccine	Negative	Pseudovirus-nAb ID50	27	5.00 (5.00, 5.00)
Not reported and unknown	Day 1	Vaccine	Negative	Pseudovirus-nAb ID80	27	5.00 (5.00, 5.00)
Not reported and unknown	Day 1	Vaccine	Positive	Anti N IgG (IU/ml)	8	0.05 (0.05, 0.05)
Not reported and unknown	Day 1	Vaccine	Positive	Anti RBD IgG (IU/ml)	8	0.80 (0.80, 0.80)
Not reported and unknown	Day 1	Vaccine	Positive	Anti Spike IgG (IU/ml)	8	0.15 (0.15, 0.15)
Not reported and unknown	Day 1	Vaccine	Positive	Pseudovirus-nAb ID50	8	5.39 (4.65, 6.24)
Not reported and unknown	Day 1	Vaccine	Positive	Pseudovirus-nAb ID80	8	5.31 (4.72, 5.98)
Not reported and unknown	Day 1	Placebo	Negative	Anti N IgG (IU/ml)	3	0.05 (0.05, 0.05)
Not reported and unknown	Day 1	Placebo	Negative	Anti RBD IgG (IU/ml)	3	0.80 (0.80, 0.80)
Not reported and unknown	Day 1	Placebo	Negative	Anti Spike IgG (IU/ml)	3	0.15 (0.15, 0.15)
Not reported and unknown	Day 1	Placebo	Negative	Pseudovirus-nAb ID50	3	5.00 (5.00, 5.00)
Not reported and unknown	Day 1	Placebo	Negative	Pseudovirus-nAb ID80	3	5.00 (5.00, 5.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Not reported and unknown	Day 1	Placebo	Positive	Anti N IgG (IU/ml)	8	0.05 (0.05, 0.05)
Not reported and unknown	Day 1	Placebo	Positive	Anti RBD IgG (IU/ml)	8	0.80 (0.80, 0.80)
Not reported and unknown	Day 1	Placebo	Positive	Anti Spike IgG (IU/ml)	8	0.15 (0.15, 0.15)
Not reported and unknown	Day 1	Placebo	Positive	Pseudovirus-nAb ID50	8	6.05 (4.30, 8.50)
Not reported and unknown	Day 1	Placebo	Positive	Pseudovirus-nAb ID80	8	7.02 (4.48, 11.00)
Not reported and unknown	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	27	97.76 (38.35, 249.21)
Not reported and unknown	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	27	987.50 (369.02, 2642.52)
Not reported and unknown	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	27	407.61 (172.33, 964.07)
Not reported and unknown	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	27	104.56 (69.35, 157.63)
Not reported and unknown	Day 29	Vaccine	Negative	Pseudovirus-nAb ID80	27	35.03 (22.86, 53.69)
Not reported and unknown	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	8	108.70 (32.37, 365.02)
Not reported and unknown	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	8	1137.99 (515.83, 2510.55)
Not reported and unknown	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	8	425.27 (157.10, 1151.20)
Not reported and unknown	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	8	147.00 (74.56, 289.84)
Not reported and unknown	Day 29	Vaccine	Positive	Pseudovirus-nAb ID80	8	38.03 (24.62, 58.74)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Not reported and unknown	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	3	0.05 (0.05, 0.05)
Not reported and unknown	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	3	0.80 (0.80, 0.80)
Not reported and unknown	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	3	0.15 (0.15, 0.15)
Not reported and unknown	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	3	5.00 (5.00, 5.00)
Not reported and unknown	Day 29	Placebo	Negative	Pseudovirus-nAb ID80	3	5.00 (5.00, 5.00)
Not reported and unknown	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	8	32.66 (8.12, 131.42)
Not reported and unknown	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	8	298.11 (113.00, 786.48)
Not reported and unknown	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	8	188.13 (69.83, 506.84)
Not reported and unknown	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	8	51.36 (25.69, 102.66)
Not reported and unknown	Day 29	Placebo	Positive	Pseudovirus-nAb ID80	8	11.66 (5.87, 23.19)
Not reported and unknown	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	27	458.16 (112.69, 1862.68)
Not reported and unknown	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	27	14145.70 (6491.68, 30824.19)
Not reported and unknown	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	27	7218.10 (3205.53, 16253.42)
Not reported and unknown	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	27	2409.80 (1454.27, 3993.17)
Not reported and unknown	Day 57	Vaccine	Negative	Pseudovirus-nAb ID80	27	773.58 (400.45, 1494.41)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Not reported and unknown	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	8	525.75 (135.74, 2036.37)
Not reported and unknown	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	8	29350.40 (10569.31, 81504.44)
Not reported and unknown	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	8	13311.14 (5833.17, 30375.71)
Not reported and unknown	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	8	5444.52 (2960.61, 10012.39)
Not reported and unknown	Day 57	Vaccine	Positive	Pseudovirus-nAb ID80	8	647.50 (369.11, 1135.86)
Not reported and unknown	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	3	0.05 (0.05, 0.05)
Not reported and unknown	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	3	0.80 (0.80, 0.80)
Not reported and unknown	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	3	0.15 (0.15, 0.15)
Not reported and unknown	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	3	5.00 (5.00, 5.00)
Not reported and unknown	Day 57	Placebo	Negative	Pseudovirus-nAb ID80	3	5.00 (5.00, 5.00)
Not reported and unknown	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	8	211.67 (77.64, 577.13)
Not reported and unknown	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	8	5981.02 (1637.39, 21847.40)
Not reported and unknown	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	8	2305.46 (939.60, 5656.83)
Not reported and unknown	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	8	1453.97 (653.72, 3233.84)
Not reported and unknown	Day 57	Placebo	Positive	Pseudovirus-nAb ID80	8	423.55 (197.72, 907.33)

Table 7h. Geometric mean titers (GMTs) and geometric mean concentrations (GMCs) by Race

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Race						
White Non-Hispanic	Day 1	Vaccine	Negative	Anti N IgG (IU/ml)	355	0.05 (0.05, 0.05)
White Non-Hispanic	Day 1	Vaccine	Negative	Anti RBD IgG (IU/ml)	355	0.80 (0.80, 0.80)
White Non-Hispanic	Day 1	Vaccine	Negative	Anti Spike IgG (IU/ml)	355	0.15 (0.15, 0.15)
White Non-Hispanic	Day 1	Vaccine	Negative	Pseudovirus-nAb ID50	355	5.00 (5.00, 5.00)
White Non-Hispanic	Day 1	Vaccine	Negative	Pseudovirus-nAb ID80	355	5.00 (5.00, 5.00)
White Non-Hispanic	Day 1	Vaccine	Positive	Anti N IgG (IU/ml)	121	0.05 (0.04, 0.06)
White Non-Hispanic	Day 1	Vaccine	Positive	Anti RBD IgG (IU/ml)	121	0.80 (0.80, 0.80)
White Non-Hispanic	Day 1	Vaccine	Positive	Anti Spike IgG (IU/ml)	121	0.16 (0.15, 0.17)
White Non-Hispanic	Day 1	Vaccine	Positive	Pseudovirus-nAb ID50	121	7.83 (6.51, 9.41)
White Non-Hispanic	Day 1	Vaccine	Positive	Pseudovirus-nAb ID80	121	6.76 (5.83, 7.82)
White Non-Hispanic	Day 1	Placebo	Negative	Anti N IgG (IU/ml)	64	0.05 (0.05, 0.05)
White Non-Hispanic	Day 1	Placebo	Negative	Anti RBD IgG (IU/ml)	64	0.80 (0.80, 0.80)
White Non-Hispanic	Day 1	Placebo	Negative	Anti Spike IgG (IU/ml)	64	0.15 (0.15, 0.15)
White Non-Hispanic	Day 1	Placebo	Negative	Pseudovirus-nAb ID50	64	5.00 (5.00, 5.00)
White Non-Hispanic	Day 1	Placebo	Negative	Pseudovirus-nAb ID80	64	5.00 (5.00, 5.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
White Non-Hispanic	Day 1	Placebo	Positive	Anti N IgG (IU/ml)	119	0.05 (0.05, 0.05)
White Non-Hispanic	Day 1	Placebo	Positive	Anti RBD IgG (IU/ml)	119	0.80 (0.80, 0.80)
White Non-Hispanic	Day 1	Placebo	Positive	Anti Spike IgG (IU/ml)	119	0.15 (0.15, 0.15)
White Non-Hispanic	Day 1	Placebo	Positive	Pseudovirus-nAb ID50	119	6.80 (6.02, 7.67)
White Non-Hispanic	Day 1	Placebo	Positive	Pseudovirus-nAb ID80	119	6.86 (5.95, 7.92)
White Non-Hispanic	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	355	35.24 (27.71, 44.82)
White Non-Hispanic	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	355	394.97 (319.03, 488.98)
White Non-Hispanic	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	355	246.00 (210.22, 287.86)
White Non-Hispanic	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	355	63.58 (55.57, 72.74)
White Non-Hispanic	Day 29	Vaccine	Negative	Pseudovirus-nAb ID80	355	17.36 (15.42, 19.54)
White Non-Hispanic	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	121	108.49 (76.64, 153.60)
White Non-Hispanic	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	121	1103.88 (720.93, 1690.25)
White Non-Hispanic	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	121	497.19 (349.12, 708.07)
White Non-Hispanic	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	121	150.52 (126.18, 179.55)
White Non-Hispanic	Day 29	Vaccine	Positive	Pseudovirus-nAb ID80	121	33.02 (27.25, 40.02)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
White Non-Hispanic	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	64	0.05 (0.05, 0.05)
White Non-Hispanic	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	64	0.80 (0.80, 0.80)
White Non-Hispanic	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	64	0.15 (0.15, 0.15)
White Non-Hispanic	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	64	5.08 (4.97, 5.19)
White Non-Hispanic	Day 29	Placebo	Negative	Pseudovirus-nAb ID80	64	5.03 (4.98, 5.07)
White Non-Hispanic	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	119	30.08 (19.98, 45.29)
White Non-Hispanic	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	119	334.14 (244.55, 456.56)
White Non-Hispanic	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	119	193.98 (143.34, 262.51)
White Non-Hispanic	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	119	51.58 (41.19, 64.59)
White Non-Hispanic	Day 29	Placebo	Positive	Pseudovirus-nAb ID80	119	11.31 (9.62, 13.29)
White Non-Hispanic	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	355	154.12 (116.66, 203.61)
White Non-Hispanic	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	355	4647.54 (3662.95, 5896.79)
White Non-Hispanic	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	355	3213.02 (2637.12, 3914.70)
White Non-Hispanic	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	355	1559.07 (1309.74, 1855.86)
White Non-Hispanic	Day 57	Vaccine	Negative	Pseudovirus-nAb ID80	355	366.65 (315.65, 425.89)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
White Non-Hispanic	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	121	524.22 (330.41, 831.70)
White Non-Hispanic	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	121	14740.10 (9467.50, 22949.08)
White Non-Hispanic	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	121	12712.59 (8977.13, 18002.42)
White Non-Hispanic	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	121	5474.91 (3962.27, 7565.02)
White Non-Hispanic	Day 57	Vaccine	Positive	Pseudovirus-nAb ID80	121	1100.91 (824.78, 1469.49)
White Non-Hispanic	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	64	0.05 (0.05, 0.05)
White Non-Hispanic	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	64	0.80 (0.80, 0.80)
White Non-Hispanic	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	64	0.15 (0.15, 0.15)
White Non-Hispanic	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	64	5.04 (4.96, 5.11)
White Non-Hispanic	Day 57	Placebo	Negative	Pseudovirus-nAb ID80	64	5.00 (5.00, 5.00)
White Non-Hispanic	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	119	152.54 (94.61, 245.96)
White Non-Hispanic	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	119	3927.49 (2680.45, 5754.71)
White Non-Hispanic	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	119	2481.87 (1786.06, 3448.74)
White Non-Hispanic	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	119	1385.29 (1014.62, 1891.36)
White Non-Hispanic	Day 57	Placebo	Positive	Pseudovirus-nAb ID80	119	255.56 (199.61, 327.19)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Black or African American	Day 1	Vaccine	Negative	Anti N IgG (IU/ml)	179	0.05 (0.05, 0.05)
Black or African American	Day 1	Vaccine	Negative	Anti RBD IgG (IU/ml)	179	0.80 (0.80, 0.80)
Black or African American	Day 1	Vaccine	Negative	Anti Spike IgG (IU/ml)	179	0.16 (0.15, 0.16)
Black or African American	Day 1	Vaccine	Negative	Pseudovirus-nAb ID50	179	5.00 (5.00, 5.00)
Black or African American	Day 1	Vaccine	Negative	Pseudovirus-nAb ID80	179	5.00 (5.00, 5.00)
Black or African American	Day 1	Vaccine	Positive	Anti N IgG (IU/ml)	60	0.05 (0.05, 0.06)
Black or African American	Day 1	Vaccine	Positive	Anti RBD IgG (IU/ml)	60	0.81 (0.79, 0.83)
Black or African American	Day 1	Vaccine	Positive	Anti Spike IgG (IU/ml)	60	0.15 (0.15, 0.15)
Black or African American	Day 1	Vaccine	Positive	Pseudovirus-nAb ID50	60	6.89 (5.62, 8.44)
Black or African American	Day 1	Vaccine	Positive	Pseudovirus-nAb ID80	60	6.42 (5.57, 7.40)
Black or African American	Day 1	Placebo	Negative	Anti N IgG (IU/ml)	36	0.05 (0.05, 0.05)
Black or African American	Day 1	Placebo	Negative	Anti RBD IgG (IU/ml)	36	0.80 (0.80, 0.80)
Black or African American	Day 1	Placebo	Negative	Anti Spike IgG (IU/ml)	36	0.15 (0.15, 0.15)
Black or African American	Day 1	Placebo	Negative	Pseudovirus-nAb ID50	36	5.00 (5.00, 5.00)
Black or African American	Day 1	Placebo	Negative	Pseudovirus-nAb ID80	36	5.00 (5.00, 5.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Black or African American	Day 1	Placebo	Positive	Anti N IgG (IU/ml)	46	0.05 (0.05, 0.05)
Black or African American	Day 1	Placebo	Positive	Anti RBD IgG (IU/ml)	46	0.80 (0.80, 0.80)
Black or African American	Day 1	Placebo	Positive	Anti Spike IgG (IU/ml)	46	0.15 (0.15, 0.15)
Black or African American	Day 1	Placebo	Positive	Pseudovirus-nAb ID50	46	6.20 (5.23, 7.35)
Black or African American	Day 1	Placebo	Positive	Pseudovirus-nAb ID80	46	6.71 (5.48, 8.21)
Black or African American	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	179	55.46 (37.89, 81.20)
Black or African American	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	179	654.99 (449.84, 953.70)
Black or African American	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	179	279.61 (207.34, 377.07)
Black or African American	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	179	78.49 (64.80, 95.08)
Black or African American	Day 29	Vaccine	Negative	Pseudovirus-nAb ID80	179	18.35 (14.88, 22.64)
Black or African American	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	60	48.88 (29.56, 80.83)
Black or African American	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	60	588.25 (340.65, 1015.81)
Black or African American	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	60	355.76 (229.56, 551.33)
Black or African American	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	60	107.85 (83.43, 139.40)
Black or African American	Day 29	Vaccine	Positive	Pseudovirus-nAb ID80	60	25.05 (19.51, 32.16)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Black or African American	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	36	0.05 (0.05, 0.05)
Black or African American	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	36	0.80 (0.80, 0.80)
Black or African American	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	36	0.15 (0.15, 0.15)
Black or African American	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	36	5.00 (5.00, 5.00)
Black or African American	Day 29	Placebo	Negative	Pseudovirus-nAb ID80	36	5.00 (5.00, 5.00)
Black or African American	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	46	28.06 (13.60, 57.88)
Black or African American	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	46	400.28 (206.02, 777.70)
Black or African American	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	46	213.97 (130.19, 351.65)
Black or African American	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	46	50.71 (32.88, 78.22)
Black or African American	Day 29	Placebo	Positive	Pseudovirus-nAb ID80	46	11.81 (8.74, 15.95)
Black or African American	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	179	150.89 (90.31, 252.09)
Black or African American	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	179	5695.95 (3714.07, 8735.38)
Black or African American	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	179	3772.70 (2751.01, 5173.82)
Black or African American	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	179	1884.66 (1472.16, 2412.74)
Black or African American	Day 57	Vaccine	Negative	Pseudovirus-nAb ID80	179	456.83 (355.72, 586.68)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Black or African American	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	60	336.90 (161.02, 704.90)
Black or African American	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	60	10144.16 (5885.16, 17485.33)
Black or African American	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	60	7620.70 (4463.98, 13009.68)
Black or African American	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	60	4756.75 (3291.21, 6874.88)
Black or African American	Day 57	Vaccine	Positive	Pseudovirus-nAb ID80	60	955.84 (725.22, 1259.81)
Black or African American	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	36	0.05 (0.05, 0.05)
Black or African American	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	36	0.80 (0.80, 0.80)
Black or African American	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	36	0.15 (0.15, 0.15)
Black or African American	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	36	5.00 (5.00, 5.00)
Black or African American	Day 57	Placebo	Negative	Pseudovirus-nAb ID80	36	5.00 (5.00, 5.00)
Black or African American	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	46	168.98 (80.56, 354.44)
Black or African American	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	46	4777.64 (2321.51, 9832.31)
Black or African American	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	46	2547.31 (1414.73, 4586.59)
Black or African American	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	46	1474.31 (886.58, 2451.67)
Black or African American	Day 57	Placebo	Positive	Pseudovirus-nAb ID80	46	339.08 (214.15, 536.89)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Asian	Day 1	Vaccine	Negative	Anti N IgG (IU/ml)	65	0.05 (0.05, 0.05)
Asian	Day 1	Vaccine	Negative	Anti RBD IgG (IU/ml)	65	0.80 (0.80, 0.80)
Asian	Day 1	Vaccine	Negative	Anti Spike IgG (IU/ml)	65	0.15 (0.15, 0.15)
Asian	Day 1	Vaccine	Negative	Pseudovirus-nAb ID50	65	5.00 (5.00, 5.00)
Asian	Day 1	Vaccine	Negative	Pseudovirus-nAb ID80	65	5.00 (5.00, 5.00)
Asian	Day 1	Vaccine	Positive	Anti N IgG (IU/ml)	21	0.05 (0.05, 0.05)
Asian	Day 1	Vaccine	Positive	Anti RBD IgG (IU/ml)	21	0.80 (0.80, 0.80)
Asian	Day 1	Vaccine	Positive	Anti Spike IgG (IU/ml)	21	0.15 (0.15, 0.15)
Asian	Day 1	Vaccine	Positive	Pseudovirus-nAb ID50	21	7.61 (4.86, 11.92)
Asian	Day 1	Vaccine	Positive	Pseudovirus-nAb ID80	21	8.96 (5.97, 13.43)
Asian	Day 1	Placebo	Negative	Anti N IgG (IU/ml)	8	0.05 (0.05, 0.05)
Asian	Day 1	Placebo	Negative	Anti RBD IgG (IU/ml)	8	0.80 (0.80, 0.80)
Asian	Day 1	Placebo	Negative	Anti Spike IgG (IU/ml)	8	0.15 (0.15, 0.15)
Asian	Day 1	Placebo	Negative	Pseudovirus-nAb ID50	8	5.00 (5.00, 5.00)
Asian	Day 1	Placebo	Negative	Pseudovirus-nAb ID80	8	5.00 (5.00, 5.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Asian	Day 1	Placebo	Positive	Anti N IgG (IU/ml)	19	0.05 (0.05, 0.05)
Asian	Day 1	Placebo	Positive	Anti RBD IgG (IU/ml)	19	0.80 (0.80, 0.80)
Asian	Day 1	Placebo	Positive	Anti Spike IgG (IU/ml)	19	0.15 (0.15, 0.15)
Asian	Day 1	Placebo	Positive	Pseudovirus-nAb ID50	19	6.74 (5.24, 8.66)
Asian	Day 1	Placebo	Positive	Pseudovirus-nAb ID80	19	5.89 (4.85, 7.15)
Asian	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	65	20.21 (11.90, 34.31)
Asian	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	65	306.82 (208.97, 450.49)
Asian	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	65	191.25 (136.42, 268.11)
Asian	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	65	51.21 (38.09, 68.83)
Asian	Day 29	Vaccine	Negative	Pseudovirus-nAb ID80	65	11.87 (9.31, 15.13)
Asian	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	21	198.70 (72.43, 545.04)
Asian	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	21	2742.86 (1015.19, 7410.68)
Asian	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	21	827.49 (259.64, 2637.27)
Asian	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	21	205.31 (109.09, 386.41)
Asian	Day 29	Vaccine	Positive	Pseudovirus-nAb ID80	21	44.46 (21.23, 93.09)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Asian	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	8	0.05 (0.05, 0.05)
Asian	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	8	0.80 (0.80, 0.80)
Asian	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	8	0.15 (0.15, 0.15)
Asian	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	8	5.00 (5.00, 5.00)
Asian	Day 29	Placebo	Negative	Pseudovirus-nAb ID80	8	5.00 (5.00, 5.00)
Asian	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	19	13.09 (8.15, 21.02)
Asian	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	19	333.60 (200.62, 554.75)
Asian	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	19	159.55 (80.72, 315.40)
Asian	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	19	31.41 (23.13, 42.65)
Asian	Day 29	Placebo	Positive	Pseudovirus-nAb ID80	19	8.09 (5.93, 11.04)
Asian	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	65	117.46 (67.55, 204.23)
Asian	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	65	2604.10 (1572.83, 4311.55)
Asian	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	65	1924.68 (1140.86, 3247.01)
Asian	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	65	1418.14 (967.95, 2077.72)
Asian	Day 57	Vaccine	Negative	Pseudovirus-nAb ID80	65	309.07 (244.89, 390.07)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Asian	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	21	740.64 (146.74, 3738.26)
Asian	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	21	20107.97 (5518.83, 73263.78)
Asian	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	21	16678.70 (6408.01, 43411.15)
Asian	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	21	7145.54 (3161.17, 16151.85)
Asian	Day 57	Vaccine	Positive	Pseudovirus-nAb ID80	21	1812.50 (896.47, 3664.56)
Asian	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	8	0.05 (0.05, 0.05)
Asian	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	8	0.80 (0.80, 0.80)
Asian	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	8	0.15 (0.15, 0.15)
Asian	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	8	5.00 (5.00, 5.00)
Asian	Day 57	Placebo	Negative	Pseudovirus-nAb ID80	8	5.00 (5.00, 5.00)
Asian	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	19	100.63 (45.87, 220.77)
Asian	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	19	2285.08 (1154.21, 4523.93)
Asian	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	19	1680.86 (1094.85, 2580.54)
Asian	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	19	1098.48 (805.10, 1498.77)
Asian	Day 57	Placebo	Positive	Pseudovirus-nAb ID80	19	226.57 (119.20, 430.65)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
American Indian or Alaska Native	Day 1	Vaccine	Negative	Anti N IgG (IU/ml)	14	0.05 (0.05, 0.05)
American Indian or Alaska Native	Day 1	Vaccine	Negative	Anti RBD IgG (IU/ml)	14	0.80 (0.80, 0.80)
American Indian or Alaska Native	Day 1	Vaccine	Negative	Anti Spike IgG (IU/ml)	14	0.15 (0.15, 0.15)
American Indian or Alaska Native	Day 1	Vaccine	Negative	Pseudovirus-nAb ID50	14	5.00 (5.00, 5.00)
American Indian or Alaska Native	Day 1	Vaccine	Negative	Pseudovirus-nAb ID80	14	5.00 (5.00, 5.00)
American Indian or Alaska Native	Day 1	Vaccine	Positive	Anti N IgG (IU/ml)	4	0.05 (0.05, 0.05)
American Indian or Alaska Native	Day 1	Vaccine	Positive	Anti RBD IgG (IU/ml)	4	0.80 (0.80, 0.80)
American Indian or Alaska Native	Day 1	Vaccine	Positive	Anti Spike IgG (IU/ml)	4	0.15 (0.15, 0.15)
American Indian or Alaska Native	Day 1	Vaccine	Positive	Pseudovirus-nAb ID50	4	11.88 (4.95, 28.50)
American Indian or Alaska Native	Day 1	Vaccine	Positive	Pseudovirus-nAb ID80	4	10.23 (3.62, 28.89)
American Indian or Alaska Native	Day 1	Placebo	Negative	Anti N IgG (IU/ml)	2	0.05 (0.05, 0.05)
American Indian or Alaska Native	Day 1	Placebo	Negative	Anti RBD IgG (IU/ml)	2	0.80 (0.80, 0.80)
American Indian or Alaska Native	Day 1	Placebo	Negative	Anti Spike IgG (IU/ml)	2	0.15 (0.15, 0.15)
American Indian or Alaska Native	Day 1	Placebo	Negative	Pseudovirus-nAb ID50	2	5.00 (5.00, 5.00)
American Indian or Alaska Native	Day 1	Placebo	Negative	Pseudovirus-nAb ID80	2	5.00 (5.00, 5.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
American Indian or Alaska Native	Day 1	Placebo	Positive	Anti N IgG (IU/ml)	5	0.05 (0.05, 0.05)
American Indian or Alaska Native	Day 1	Placebo	Positive	Anti RBD IgG (IU/ml)	5	0.80 (0.80, 0.80)
American Indian or Alaska Native	Day 1	Placebo	Positive	Anti Spike IgG (IU/ml)	5	0.15 (0.15, 0.15)
American Indian or Alaska Native	Day 1	Placebo	Positive	Pseudovirus-nAb ID50	5	5.00 (5.00, 5.00)
American Indian or Alaska Native	Day 1	Placebo	Positive	Pseudovirus-nAb ID80	5	5.43 (4.58, 6.43)
American Indian or Alaska Native	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	14	77.41 (26.93, 222.53)
American Indian or Alaska Native	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	14	679.09 (286.64, 1608.85)
American Indian or Alaska Native	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	14	314.52 (109.57, 902.79)
American Indian or Alaska Native	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	14	96.01 (52.38, 175.96)
American Indian or Alaska Native	Day 29	Vaccine	Negative	Pseudovirus-nAb ID80	14	23.07 (16.11, 33.04)
American Indian or Alaska Native	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	4	74.84 (19.84, 282.24)
American Indian or Alaska Native	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	4	1197.39 (373.03, 3843.51)
American Indian or Alaska Native	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	4	1095.18 (300.15, 3996.10)
American Indian or Alaska Native	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	4	158.37 (90.62, 276.77)
American Indian or Alaska Native	Day 29	Vaccine	Positive	Pseudovirus-nAb ID80	4	22.04 (8.55, 56.80)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
American Indian or Alaska Native	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	2	0.05 (0.05, 0.05)
American Indian or Alaska Native	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	2	0.80 (0.80, 0.80)
American Indian or Alaska Native	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	2	0.15 (0.15, 0.15)
American Indian or Alaska Native	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	2	5.00 (5.00, 5.00)
American Indian or Alaska Native	Day 29	Placebo	Negative	Pseudovirus-nAb ID80	2	5.00 (5.00, 5.00)
American Indian or Alaska Native	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	5	16.03 (6.92, 37.14)
American Indian or Alaska Native	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	5	251.40 (82.20, 768.90)
American Indian or Alaska Native	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	5	95.89 (55.95, 164.34)
American Indian or Alaska Native	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	5	24.31 (16.12, 36.66)
American Indian or Alaska Native	Day 29	Placebo	Positive	Pseudovirus-nAb ID80	5	10.86 (5.43, 21.72)
American Indian or Alaska Native	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	14	281.66 (75.54, 1050.21)
American Indian or Alaska Native	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	14	5593.50 (2829.52, 11057.46)
American Indian or Alaska Native	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	14	6286.29 (3342.72, 11821.93)
American Indian or Alaska Native	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	14	1908.00 (1118.65, 3254.33)
American Indian or Alaska Native	Day 57	Vaccine	Negative	Pseudovirus-nAb ID80	14	578.65 (407.08, 822.51)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
American Indian or Alaska Native	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	4	782.24 (228.10, 2682.53)
American Indian or Alaska Native	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	4	56196.52 (16644.50, 189735.23)
American Indian or Alaska Native	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	4	6516.58 (3016.49, 14077.93)
American Indian or Alaska Native	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	4	2970.66 (1761.75, 5009.14)
American Indian or Alaska Native	Day 57	Vaccine	Positive	Pseudovirus-nAb ID80	4	1211.79 (816.03, 1799.50)
American Indian or Alaska Native	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	2	0.05 (0.05, 0.05)
American Indian or Alaska Native	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	2	0.80 (0.80, 0.80)
American Indian or Alaska Native	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	2	0.15 (0.15, 0.15)
American Indian or Alaska Native	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	2	5.00 (5.00, 5.00)
American Indian or Alaska Native	Day 57	Placebo	Negative	Pseudovirus-nAb ID80	2	5.00 (5.00, 5.00)
American Indian or Alaska Native	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	5	110.49 (12.57, 971.23)
American Indian or Alaska Native	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	5	4202.15 (2129.06, 8293.83)
American Indian or Alaska Native	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	5	840.76 (181.70, 3890.41)
American Indian or Alaska Native	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	5	1055.68 (610.36, 1825.91)
American Indian or Alaska Native	Day 57	Placebo	Positive	Pseudovirus-nAb ID80	5	356.35 (233.91, 542.87)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Native Hawaiian or Other Pacific Islander	Day 1	Vaccine	Negative	Anti N IgG (IU/ml)	9	0.05 (0.05, 0.05)
Native Hawaiian or Other Pacific Islander	Day 1	Vaccine	Negative	Anti RBD IgG (IU/ml)	9	0.80 (0.80, 0.80)
Native Hawaiian or Other Pacific Islander	Day 1	Vaccine	Negative	Anti Spike IgG (IU/ml)	9	0.15 (0.15, 0.15)
Native Hawaiian or Other Pacific Islander	Day 1	Vaccine	Negative	Pseudovirus-nAb ID50	9	5.00 (5.00, 5.00)
Native Hawaiian or Other Pacific Islander	Day 1	Vaccine	Negative	Pseudovirus-nAb ID80	9	5.00 (5.00, 5.00)
Native Hawaiian or Other Pacific Islander	Day 1	Vaccine	Positive	Anti N IgG (IU/ml)	4	0.05 (0.05, 0.05)
Native Hawaiian or Other Pacific Islander	Day 1	Vaccine	Positive	Anti RBD IgG (IU/ml)	4	0.80 (0.80, 0.80)
Native Hawaiian or Other Pacific Islander	Day 1	Vaccine	Positive	Anti Spike IgG (IU/ml)	4	0.15 (0.15, 0.15)
Native Hawaiian or Other Pacific Islander	Day 1	Vaccine	Positive	Pseudovirus-nAb ID50	4	5.00 (5.00, 5.00)
Native Hawaiian or Other Pacific Islander	Day 1	Vaccine	Positive	Pseudovirus-nAb ID80	4	6.01 (4.28, 8.46)
Native Hawaiian or Other Pacific Islander	Day 1	Placebo	Negative	Anti N IgG (IU/ml)	3	0.05 (0.05, 0.05)
Native Hawaiian or Other Pacific Islander	Day 1	Placebo	Negative	Anti RBD IgG (IU/ml)	3	0.80 (0.80, 0.80)
Native Hawaiian or Other Pacific Islander	Day 1	Placebo	Negative	Anti Spike IgG (IU/ml)	3	0.15 (0.15, 0.15)
Native Hawaiian or Other Pacific Islander	Day 1	Placebo	Negative	Pseudovirus-nAb ID50	3	5.00 (5.00, 5.00)
Native Hawaiian or Other Pacific Islander	Day 1	Placebo	Negative	Pseudovirus-nAb ID80	3	5.00 (5.00, 5.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Native Hawaiian or Other Pacific Islander	Day 1	Placebo	Positive	Anti N IgG (IU/ml)	4	0.05 (0.05, 0.05)
Native Hawaiian or Other Pacific Islander	Day 1	Placebo	Positive	Anti RBD IgG (IU/ml)	4	0.80 (0.80, 0.80)
Native Hawaiian or Other Pacific Islander	Day 1	Placebo	Positive	Anti Spike IgG (IU/ml)	4	0.15 (0.15, 0.15)
Native Hawaiian or Other Pacific Islander	Day 1	Placebo	Positive	Pseudovirus-nAb ID50	4	8.11 (3.43, 19.16)
Native Hawaiian or Other Pacific Islander	Day 1	Placebo	Positive	Pseudovirus-nAb ID80	4	6.78 (4.30, 10.69)
Native Hawaiian or Other Pacific Islander	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	9	36.88 (24.07, 56.51)
Native Hawaiian or Other Pacific Islander	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	9	490.37 (137.38, 1750.34)
Native Hawaiian or Other Pacific Islander	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	9	98.78 (46.39, 210.37)
Native Hawaiian or Other Pacific Islander	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	9	47.64 (36.87, 61.56)
Native Hawaiian or Other Pacific Islander	Day 29	Vaccine	Negative	Pseudovirus-nAb ID80	9	22.37 (16.54, 30.27)
Native Hawaiian or Other Pacific Islander	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	4	30.33 (1.55, 594.77)
Native Hawaiian or Other Pacific Islander	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	4	281.46 (39.88, 1986.25)
Native Hawaiian or Other Pacific Islander	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	4	144.84 (45.64, 459.64)
Native Hawaiian or Other Pacific Islander	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	4	77.60 (22.78, 264.36)
Native Hawaiian or Other Pacific Islander	Day 29	Vaccine	Positive	Pseudovirus-nAb ID80	4	11.72 (4.43, 31.05)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Native Hawaiian or Other Pacific Islander	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	3	0.05 (0.05, 0.05)
Native Hawaiian or Other Pacific Islander	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	3	0.80 (0.80, 0.80)
Native Hawaiian or Other Pacific Islander	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	3	0.15 (0.15, 0.15)
Native Hawaiian or Other Pacific Islander	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	3	5.00 (5.00, 5.00)
Native Hawaiian or Other Pacific Islander	Day 29	Placebo	Negative	Pseudovirus-nAb ID80	3	5.00 (5.00, 5.00)
Native Hawaiian or Other Pacific Islander	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	4	105.08 (32.09, 344.09)
Native Hawaiian or Other Pacific Islander	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	4	508.66 (129.81, 1993.10)
Native Hawaiian or Other Pacific Islander	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	4	382.34 (160.18, 912.66)
Native Hawaiian or Other Pacific Islander	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	4	101.90 (57.72, 179.88)
Native Hawaiian or Other Pacific Islander	Day 29	Placebo	Positive	Pseudovirus-nAb ID80	4	17.10 (7.58, 38.55)
Native Hawaiian or Other Pacific Islander	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	9	95.31 (62.05, 146.39)
Native Hawaiian or Other Pacific Islander	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	9	5688.25 (2944.78, 10987.66)
Native Hawaiian or Other Pacific Islander	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	9	3083.19 (1707.05, 5568.71)
Native Hawaiian or Other Pacific Islander	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	9	4221.96 (2721.75, 6549.07)
Native Hawaiian or Other Pacific Islander	Day 57	Vaccine	Negative	Pseudovirus-nAb ID80	9	557.69 (326.12, 953.69)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Native Hawaiian or Other Pacific Islander	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	4	63.66 (1.87, 2172.90)
Native Hawaiian or Other Pacific Islander	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	4	2888.45 (112.52, 74146.61)
Native Hawaiian or Other Pacific Islander	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	4	2885.78 (250.00, 33311.47)
Native Hawaiian or Other Pacific Islander	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	4	2158.72 (713.43, 6531.87)
Native Hawaiian or Other Pacific Islander	Day 57	Vaccine	Positive	Pseudovirus-nAb ID80	4	460.31 (109.93, 1927.56)
Native Hawaiian or Other Pacific Islander	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	3	0.05 (0.05, 0.05)
Native Hawaiian or Other Pacific Islander	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	3	0.80 (0.80, 0.80)
Native Hawaiian or Other Pacific Islander	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	3	0.15 (0.15, 0.15)
Native Hawaiian or Other Pacific Islander	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	3	5.00 (5.00, 5.00)
Native Hawaiian or Other Pacific Islander	Day 57	Placebo	Negative	Pseudovirus-nAb ID80	3	5.00 (5.00, 5.00)
Native Hawaiian or Other Pacific Islander	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	4	303.44 (60.14, 1531.08)
Native Hawaiian or Other Pacific Islander	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	4	4655.70 (916.97, 23638.23)
Native Hawaiian or Other Pacific Islander	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	4	5717.57 (3166.03, 10325.41)
Native Hawaiian or Other Pacific Islander	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	4	1479.70 (357.79, 6119.53)
Native Hawaiian or Other Pacific Islander	Day 57	Placebo	Positive	Pseudovirus-nAb ID80	4	457.37 (108.53, 1927.42)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Multiracial	Day 1	Vaccine	Negative	Anti N IgG (IU/ml)	54	0.05 (0.05, 0.05)
Multiracial	Day 1	Vaccine	Negative	Anti RBD IgG (IU/ml)	54	0.80 (0.80, 0.80)
Multiracial	Day 1	Vaccine	Negative	Anti Spike IgG (IU/ml)	54	0.15 (0.15, 0.15)
Multiracial	Day 1	Vaccine	Negative	Pseudovirus-nAb ID50	54	5.00 (5.00, 5.00)
Multiracial	Day 1	Vaccine	Negative	Pseudovirus-nAb ID80	54	5.00 (5.00, 5.00)
Multiracial	Day 1	Vaccine	Positive	Anti N IgG (IU/ml)	11	0.05 (0.05, 0.05)
Multiracial	Day 1	Vaccine	Positive	Anti RBD IgG (IU/ml)	11	0.80 (0.80, 0.80)
Multiracial	Day 1	Vaccine	Positive	Anti Spike IgG (IU/ml)	11	0.16 (0.15, 0.17)
Multiracial	Day 1	Vaccine	Positive	Pseudovirus-nAb ID50	11	6.78 (4.96, 9.28)
Multiracial	Day 1	Vaccine	Positive	Pseudovirus-nAb ID80	11	5.47 (4.58, 6.53)
Multiracial	Day 1	Placebo	Negative	Anti N IgG (IU/ml)	11	0.05 (0.05, 0.05)
Multiracial	Day 1	Placebo	Negative	Anti RBD IgG (IU/ml)	11	0.80 (0.80, 0.80)
Multiracial	Day 1	Placebo	Negative	Anti Spike IgG (IU/ml)	11	0.15 (0.15, 0.15)
Multiracial	Day 1	Placebo	Negative	Pseudovirus-nAb ID50	11	5.00 (5.00, 5.00)
Multiracial	Day 1	Placebo	Negative	Pseudovirus-nAb ID80	11	5.00 (5.00, 5.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Multiracial	Day 1	Placebo	Positive	Anti N IgG (IU/ml)	14	0.05 (0.05, 0.05)
Multiracial	Day 1	Placebo	Positive	Anti RBD IgG (IU/ml)	14	0.80 (0.80, 0.80)
Multiracial	Day 1	Placebo	Positive	Anti Spike IgG (IU/ml)	14	0.15 (0.15, 0.15)
Multiracial	Day 1	Placebo	Positive	Pseudovirus-nAb ID50	14	7.12 (4.86, 10.41)
Multiracial	Day 1	Placebo	Positive	Pseudovirus-nAb ID80	14	5.39 (4.84, 5.99)
Multiracial	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	54	32.19 (19.27, 53.77)
Multiracial	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	54	483.76 (303.99, 769.82)
Multiracial	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	54	199.74 (135.40, 294.66)
Multiracial	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	54	67.47 (53.40, 85.24)
Multiracial	Day 29	Vaccine	Negative	Pseudovirus-nAb ID80	54	15.40 (11.37, 20.87)
Multiracial	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	11	82.74 (31.50, 217.37)
Multiracial	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	11	942.70 (399.68, 2223.45)
Multiracial	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	11	709.05 (389.80, 1289.78)
Multiracial	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	11	136.07 (75.58, 245.00)
Multiracial	Day 29	Vaccine	Positive	Pseudovirus-nAb ID80	11	44.03 (32.14, 60.33)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Multiracial	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	11	0.05 (0.05, 0.05)
Multiracial	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	11	0.80 (0.80, 0.80)
Multiracial	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	11	0.15 (0.15, 0.15)
Multiracial	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	11	5.00 (5.00, 5.00)
Multiracial	Day 29	Placebo	Negative	Pseudovirus-nAb ID80	11	5.15 (4.85, 5.47)
Multiracial	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	14	14.02 (7.57, 25.97)
Multiracial	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	14	268.61 (122.01, 591.34)
Multiracial	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	14	101.43 (54.23, 189.71)
Multiracial	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	14	44.49 (31.78, 62.28)
Multiracial	Day 29	Placebo	Positive	Pseudovirus-nAb ID80	14	8.53 (6.02, 12.08)
Multiracial	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	54	141.16 (73.25, 272.01)
Multiracial	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	54	3972.32 (2511.55, 6282.68)
Multiracial	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	54	2606.08 (1698.34, 3999.00)
Multiracial	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	54	1328.58 (794.46, 2221.80)
Multiracial	Day 57	Vaccine	Negative	Pseudovirus-nAb ID80	54	346.68 (246.92, 486.75)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Multiracial	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	11	813.41 (346.85, 1907.60)
Multiracial	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	11	25580.64 (14495.43, 45143.12)
Multiracial	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	11	25123.24 (13478.89, 46827.12)
Multiracial	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	11	5797.09 (3447.88, 9746.92)
Multiracial	Day 57	Vaccine	Positive	Pseudovirus-nAb ID80	11	1515.58 (775.21, 2963.03)
Multiracial	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	11	0.05 (0.05, 0.05)
Multiracial	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	11	0.80 (0.80, 0.80)
Multiracial	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	11	0.15 (0.15, 0.15)
Multiracial	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	11	5.00 (5.00, 5.00)
Multiracial	Day 57	Placebo	Negative	Pseudovirus-nAb ID80	11	5.00 (5.00, 5.00)
Multiracial	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	14	86.14 (29.93, 247.92)
Multiracial	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	14	2349.76 (832.16, 6634.98)
Multiracial	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	14	2308.72 (1410.06, 3780.10)
Multiracial	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	14	853.22 (519.52, 1401.27)
Multiracial	Day 57	Placebo	Positive	Pseudovirus-nAb ID80	14	264.54 (160.77, 435.27)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Other	Day 1	Vaccine	Negative	Anti N IgG (IU/ml)	20	0.05 (0.05, 0.05)
Other	Day 1	Vaccine	Negative	Anti RBD IgG (IU/ml)	20	0.80 (0.80, 0.80)
Other	Day 1	Vaccine	Negative	Anti Spike IgG (IU/ml)	20	0.15 (0.15, 0.15)
Other	Day 1	Vaccine	Negative	Pseudovirus-nAb ID50	20	5.00 (5.00, 5.00)
Other	Day 1	Vaccine	Negative	Pseudovirus-nAb ID80	20	5.00 (5.00, 5.00)
Other	Day 1	Vaccine	Positive	Anti N IgG (IU/ml)	4	0.05 (0.05, 0.05)
Other	Day 1	Vaccine	Positive	Anti RBD IgG (IU/ml)	4	0.80 (0.80, 0.80)
Other	Day 1	Vaccine	Positive	Anti Spike IgG (IU/ml)	4	0.15 (0.15, 0.15)
Other	Day 1	Vaccine	Positive	Pseudovirus-nAb ID50	4	5.83 (4.38, 7.75)
Other	Day 1	Vaccine	Positive	Pseudovirus-nAb ID80	4	6.58 (3.94, 10.99)
Other	Day 1	Placebo	Negative	Anti N IgG (IU/ml)	3	0.05 (0.05, 0.05)
Other	Day 1	Placebo	Negative	Anti RBD IgG (IU/ml)	3	0.80 (0.80, 0.80)
Other	Day 1	Placebo	Negative	Anti Spike IgG (IU/ml)	3	0.15 (0.15, 0.15)
Other	Day 1	Placebo	Negative	Pseudovirus-nAb ID50	3	5.00 (5.00, 5.00)
Other	Day 1	Placebo	Negative	Pseudovirus-nAb ID80	3	5.00 (5.00, 5.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Other	Day 1	Placebo	Positive	Anti N IgG (IU/ml)	5	0.05 (0.05, 0.05)
Other	Day 1	Placebo	Positive	Anti RBD IgG (IU/ml)	5	0.80 (0.80, 0.80)
Other	Day 1	Placebo	Positive	Anti Spike IgG (IU/ml)	5	0.15 (0.15, 0.15)
Other	Day 1	Placebo	Positive	Pseudovirus-nAb ID50	5	5.77 (4.26, 7.81)
Other	Day 1	Placebo	Positive	Pseudovirus-nAb ID80	5	21.85 (10.38, 46.01)
Other	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	20	31.08 (13.85, 69.75)
Other	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	20	306.49 (155.50, 604.08)
Other	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	20	118.03 (55.75, 249.87)
Other	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	20	52.95 (31.08, 90.23)
Other	Day 29	Vaccine	Negative	Pseudovirus-nAb ID80	20	12.05 (7.73, 18.78)
Other	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	4	312.76 (118.41, 826.10)
Other	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	4	2176.38 (833.38, 5683.65)
Other	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	4	626.61 (288.80, 1359.57)
Other	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	4	219.94 (158.93, 304.36)
Other	Day 29	Vaccine	Positive	Pseudovirus-nAb ID80	4	50.48 (43.86, 58.11)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Other	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	3	0.05 (0.05, 0.05)
Other	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	3	0.80 (0.80, 0.80)
Other	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	3	0.15 (0.15, 0.15)
Other	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	3	5.00 (5.00, 5.00)
Other	Day 29	Placebo	Negative	Pseudovirus-nAb ID80	3	5.00 (5.00, 5.00)
Other	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	5	43.18 (19.74, 94.48)
Other	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	5	359.52 (154.25, 837.95)
Other	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	5	245.70 (138.67, 435.35)
Other	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	5	83.36 (51.84, 134.03)
Other	Day 29	Placebo	Positive	Pseudovirus-nAb ID80	5	17.82 (11.41, 27.81)
Other	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	20	80.19 (21.64, 297.13)
Other	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	20	1630.51 (702.16, 3786.27)
Other	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	20	1144.96 (384.77, 3407.00)
Other	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	20	1386.65 (588.36, 3268.04)
Other	Day 57	Vaccine	Negative	Pseudovirus-nAb ID80	20	154.43 (104.27, 228.74)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Other	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	4	1455.44 (553.52, 3826.96)
Other	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	4	24179.61 (11117.33, 52589.40)
Other	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	4	40495.39 (24369.97, 67290.88)
Other	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	4	9012.47 (1263.33, 64293.79)
Other	Day 57	Vaccine	Positive	Pseudovirus-nAb ID80	4	1054.69 (690.09, 1611.91)
Other	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	3	0.05 (0.05, 0.05)
Other	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	3	0.80 (0.80, 0.80)
Other	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	3	0.15 (0.15, 0.15)
Other	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	3	5.00 (5.00, 5.00)
Other	Day 57	Placebo	Negative	Pseudovirus-nAb ID80	3	5.00 (5.00, 5.00)
Other	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	5	192.12 (96.40, 382.85)
Other	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	5	3902.46 (1161.82, 13108.00)
Other	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	5	6512.28 (3474.00, 12207.76)
Other	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	5	1103.58 (731.21, 1665.57)
Other	Day 57	Placebo	Positive	Pseudovirus-nAb ID80	5	415.45 (304.95, 565.98)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Not reported and unknown	Day 1	Vaccine	Negative	Anti N IgG (IU/ml)	3	0.05 (0.05, 0.05)
Not reported and unknown	Day 1	Vaccine	Negative	Anti RBD IgG (IU/ml)	3	0.80 (0.80, 0.80)
Not reported and unknown	Day 1	Vaccine	Negative	Anti Spike IgG (IU/ml)	3	0.15 (0.15, 0.15)
Not reported and unknown	Day 1	Vaccine	Negative	Pseudovirus-nAb ID50	3	5.00 (5.00, 5.00)
Not reported and unknown	Day 1	Vaccine	Negative	Pseudovirus-nAb ID80	3	5.00 (5.00, 5.00)
Not reported and unknown	Day 1	Vaccine	Positive	Anti N IgG (IU/ml)	3	0.05 (0.05, 0.05)
Not reported and unknown	Day 1	Vaccine	Positive	Anti RBD IgG (IU/ml)	3	0.80 (0.80, 0.80)
Not reported and unknown	Day 1	Vaccine	Positive	Anti Spike IgG (IU/ml)	3	0.15 (0.15, 0.15)
Not reported and unknown	Day 1	Vaccine	Positive	Pseudovirus-nAb ID50	3	5.00 (5.00, 5.00)
Not reported and unknown	Day 1	Vaccine	Positive	Pseudovirus-nAb ID80	3	5.00 (5.00, 5.00)
Not reported and unknown	Day 1	Placebo	Negative	Anti N IgG (IU/ml)	1	0.05 (0.05, 0.05)
Not reported and unknown	Day 1	Placebo	Negative	Anti RBD IgG (IU/ml)	1	0.80 (0.80, 0.80)
Not reported and unknown	Day 1	Placebo	Negative	Anti Spike IgG (IU/ml)	1	0.15 (0.15, 0.15)
Not reported and unknown	Day 1	Placebo	Negative	Pseudovirus-nAb ID50	1	5.00 (5.00, 5.00)
Not reported and unknown	Day 1	Placebo	Negative	Pseudovirus-nAb ID80	1	5.00 (5.00, 5.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Not reported and unknown	Day 1	Placebo	Positive	Anti N IgG (IU/ml)	1	0.05 (0.05, 0.05)
Not reported and unknown	Day 1	Placebo	Positive	Anti RBD IgG (IU/ml)	1	0.80 (0.80, 0.80)
Not reported and unknown	Day 1	Placebo	Positive	Anti Spike IgG (IU/ml)	1	0.15 (0.15, 0.15)
Not reported and unknown	Day 1	Placebo	Positive	Pseudovirus-nAb ID50	1	5.00 (5.00, 5.00)
Not reported and unknown	Day 1	Placebo	Positive	Pseudovirus-nAb ID80	1	15.21 (15.21, 15.21)
Not reported and unknown	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	3	26.62 (2.54, 278.95)
Not reported and unknown	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	3	199.75 (32.25, 1237.27)
Not reported and unknown	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	3	169.76 (13.00, 2217.59)
Not reported and unknown	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	3	71.93 (19.49, 265.43)
Not reported and unknown	Day 29	Vaccine	Negative	Pseudovirus-nAb ID80	3	16.14 (8.14, 32.01)
Not reported and unknown	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	3	57.55 (11.31, 292.79)
Not reported and unknown	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	3	831.28 (77.06, 8967.08)
Not reported and unknown	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	3	363.95 (115.66, 1145.24)
Not reported and unknown	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	3	105.43 (32.49, 342.14)
Not reported and unknown	Day 29	Vaccine	Positive	Pseudovirus-nAb ID80	3	37.80 (17.25, 82.86)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Not reported and unknown	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	1	0.05 (0.05, 0.05)
Not reported and unknown	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	1	0.80 (0.80, 0.80)
Not reported and unknown	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	1	0.15 (0.15, 0.15)
Not reported and unknown	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	1	5.00 (5.00, 5.00)
Not reported and unknown	Day 29	Placebo	Negative	Pseudovirus-nAb ID80	1	5.00 (5.00, 5.00)
Not reported and unknown	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	1	8.80 (8.80, 8.80)
Not reported and unknown	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	1	548.62 (548.62, 548.62)
Not reported and unknown	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	1	210.69 (210.69, 210.69)
Not reported and unknown	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	1	36.41 (36.41, 36.41)
Not reported and unknown	Day 29	Placebo	Positive	Pseudovirus-nAb ID80	1	12.20 (12.20, 12.20)
Not reported and unknown	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	3	76.82 (18.42, 320.39)
Not reported and unknown	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	3	1652.83 (110.81, 24653.74)
Not reported and unknown	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	3	1786.79 (124.31, 25683.59)
Not reported and unknown	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	3	1797.25 (640.05, 5046.68)
Not reported and unknown	Day 57	Vaccine	Negative	Pseudovirus-nAb ID80	3	222.15 (111.59, 442.24)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Not reported and unknown	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	3	663.23 (86.30, 5097.15)
Not reported and unknown	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	3	13807.51 (2037.10, 93587.47)
Not reported and unknown	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	3	9816.92 (851.36, 113197.19)
Not reported and unknown	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	3	3660.93 (1522.47, 8803.04)
Not reported and unknown	Day 57	Vaccine	Positive	Pseudovirus-nAb ID80	3	933.08 (427.27, 2037.68)
Not reported and unknown	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	1	0.05 (0.05, 0.05)
Not reported and unknown	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	1	0.80 (0.80, 0.80)
Not reported and unknown	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	1	0.15 (0.15, 0.15)
Not reported and unknown	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	1	5.00 (5.00, 5.00)
Not reported and unknown	Day 57	Placebo	Negative	Pseudovirus-nAb ID80	1	5.00 (5.00, 5.00)
Not reported and unknown	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	1	1265.35 (1265.35, 1265.35)
Not reported and unknown	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	1	34488.07 (34488.07, 34488.07)
Not reported and unknown	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	1	1454.26 (1454.26, 1454.26)
Not reported and unknown	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	1	1097.99 (1097.99, 1097.99)
Not reported and unknown	Day 57	Placebo	Positive	Pseudovirus-nAb ID80	1	155.49 (155.49, 155.49)

Table 7i. Geometric mean titers (GMTs) and geometric mean concentrations (GMCs) by Communities of color

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Communities of color						
Communities of Color	Day 1	Vaccine	Negative	Anti N IgG (IU/ml)	374	0.05 (0.05, 0.05)
Communities of Color	Day 1	Vaccine	Negative	Anti RBD IgG (IU/ml)	374	0.80 (0.80, 0.80)
Communities of Color	Day 1	Vaccine	Negative	Anti Spike IgG (IU/ml)	374	0.16 (0.15, 0.16)
Communities of Color	Day 1	Vaccine	Negative	Pseudovirus-nAb ID50	374	5.00 (5.00, 5.00)
Communities of Color	Day 1	Vaccine	Negative	Pseudovirus-nAb ID80	374	5.00 (5.00, 5.00)
Communities of Color	Day 1	Vaccine	Positive	Anti N IgG (IU/ml)	114	0.05 (0.05, 0.05)
Communities of Color	Day 1	Vaccine	Positive	Anti RBD IgG (IU/ml)	114	0.80 (0.79, 0.81)
Communities of Color	Day 1	Vaccine	Positive	Anti Spike IgG (IU/ml)	114	0.15 (0.15, 0.16)
Communities of Color	Day 1	Vaccine	Positive	Pseudovirus-nAb ID50	114	6.99 (5.93, 8.24)
Communities of Color	Day 1	Vaccine	Positive	Pseudovirus-nAb ID80	114	6.86 (5.92, 7.94)
Communities of Color	Day 1	Placebo	Negative	Anti N IgG (IU/ml)	66	0.05 (0.05, 0.05)
Communities of Color	Day 1	Placebo	Negative	Anti RBD IgG (IU/ml)	66	0.80 (0.80, 0.80)
Communities of Color	Day 1	Placebo	Negative	Anti Spike IgG (IU/ml)	66	0.15 (0.15, 0.15)
Communities of Color	Day 1	Placebo	Negative	Pseudovirus-nAb ID50	66	5.00 (5.00, 5.00)
Communities of Color	Day 1	Placebo	Negative	Pseudovirus-nAb ID80	66	5.00 (5.00, 5.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Communities of Color	Day 1	Placebo	Positive	Anti N IgG (IU/ml)	102	0.05 (0.05, 0.05)
Communities of Color	Day 1	Placebo	Positive	Anti RBD IgG (IU/ml)	102	0.80 (0.80, 0.80)
Communities of Color	Day 1	Placebo	Positive	Anti Spike IgG (IU/ml)	102	0.15 (0.15, 0.15)
Communities of Color	Day 1	Placebo	Positive	Pseudovirus-nAb ID50	102	6.35 (5.67, 7.12)
Communities of Color	Day 1	Placebo	Positive	Pseudovirus-nAb ID80	102	6.58 (5.71, 7.58)
Communities of Color	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	374	39.67 (31.26, 50.35)
Communities of Color	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	374	513.48 (413.67, 637.36)
Communities of Color	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	374	234.28 (195.25, 281.12)
Communities of Color	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	374	68.52 (60.59, 77.50)
Communities of Color	Day 29	Vaccine	Negative	Pseudovirus-nAb ID80	374	16.21 (14.25, 18.44)
Communities of Color	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	114	82.98 (53.50, 128.70)
Communities of Color	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	114	1021.22 (652.06, 1599.39)
Communities of Color	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	114	482.79 (323.03, 721.55)
Communities of Color	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	114	138.12 (108.47, 175.87)
Communities of Color	Day 29	Vaccine	Positive	Pseudovirus-nAb ID80	114	31.58 (24.43, 40.82)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Communities of Color	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	66	0.05 (0.05, 0.05)
Communities of Color	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	66	0.80 (0.80, 0.80)
Communities of Color	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	66	0.15 (0.15, 0.15)
Communities of Color	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	66	5.00 (5.00, 5.00)
Communities of Color	Day 29	Placebo	Negative	Pseudovirus-nAb ID80	66	5.03 (4.97, 5.08)
Communities of Color	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	102	22.21 (15.34, 32.14)
Communities of Color	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	102	373.03 (263.76, 527.56)
Communities of Color	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	102	182.13 (136.16, 243.62)
Communities of Color	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	102	44.88 (35.94, 56.04)
Communities of Color	Day 29	Placebo	Positive	Pseudovirus-nAb ID80	102	10.99 (9.18, 13.15)
Communities of Color	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	374	146.25 (108.63, 196.88)
Communities of Color	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	374	4364.14 (3391.49, 5615.73)
Communities of Color	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	374	2968.99 (2387.16, 3692.62)
Communities of Color	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	374	1714.20 (1436.27, 2045.90)
Communities of Color	Day 57	Vaccine	Negative	Pseudovirus-nAb ID80	374	387.24 (334.68, 448.06)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Communities of Color	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	114	484.01 (265.07, 883.79)
Communities of Color	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	114	13734.88 (8600.86, 21933.50)
Communities of Color	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	114	10830.48 (7216.97, 16253.27)
Communities of Color	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	114	5265.34 (3869.12, 7165.39)
Communities of Color	Day 57	Vaccine	Positive	Pseudovirus-nAb ID80	114	1148.93 (884.32, 1492.71)
Communities of Color	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	66	0.05 (0.05, 0.05)
Communities of Color	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	66	0.80 (0.80, 0.80)
Communities of Color	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	66	0.15 (0.15, 0.15)
Communities of Color	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	66	5.00 (5.00, 5.00)
Communities of Color	Day 57	Placebo	Negative	Pseudovirus-nAb ID80	66	5.00 (5.00, 5.00)
Communities of Color	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	102	152.87 (98.17, 238.06)
Communities of Color	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	102	3836.73 (2549.85, 5773.08)
Communities of Color	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	102	2339.82 (1698.97, 3222.40)
Communities of Color	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	102	1351.77 (1030.23, 1773.65)
Communities of Color	Day 57	Placebo	Positive	Pseudovirus-nAb ID80	102	324.34 (245.81, 427.95)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
White Non-Hispanic	Day 1	Vaccine	Negative	Anti N IgG (IU/ml)	355	0.05 (0.05, 0.05)
White Non-Hispanic	Day 1	Vaccine	Negative	Anti RBD IgG (IU/ml)	355	0.80 (0.80, 0.80)
White Non-Hispanic	Day 1	Vaccine	Negative	Anti Spike IgG (IU/ml)	355	0.15 (0.15, 0.15)
White Non-Hispanic	Day 1	Vaccine	Negative	Pseudovirus-nAb ID50	355	5.00 (5.00, 5.00)
White Non-Hispanic	Day 1	Vaccine	Negative	Pseudovirus-nAb ID80	355	5.00 (5.00, 5.00)
White Non-Hispanic	Day 1	Vaccine	Positive	Anti N IgG (IU/ml)	121	0.05 (0.04, 0.06)
White Non-Hispanic	Day 1	Vaccine	Positive	Anti RBD IgG (IU/ml)	121	0.80 (0.80, 0.80)
White Non-Hispanic	Day 1	Vaccine	Positive	Anti Spike IgG (IU/ml)	121	0.16 (0.15, 0.17)
White Non-Hispanic	Day 1	Vaccine	Positive	Pseudovirus-nAb ID50	121	7.83 (6.51, 9.41)
White Non-Hispanic	Day 1	Vaccine	Positive	Pseudovirus-nAb ID80	121	6.76 (5.83, 7.82)
White Non-Hispanic	Day 1	Placebo	Negative	Anti N IgG (IU/ml)	64	0.05 (0.05, 0.05)
White Non-Hispanic	Day 1	Placebo	Negative	Anti RBD IgG (IU/ml)	64	0.80 (0.80, 0.80)
White Non-Hispanic	Day 1	Placebo	Negative	Anti Spike IgG (IU/ml)	64	0.15 (0.15, 0.15)
White Non-Hispanic	Day 1	Placebo	Negative	Pseudovirus-nAb ID50	64	5.00 (5.00, 5.00)
White Non-Hispanic	Day 1	Placebo	Negative	Pseudovirus-nAb ID80	64	5.00 (5.00, 5.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
White Non-Hispanic	Day 1	Placebo	Positive	Anti N IgG (IU/ml)	119	0.05 (0.05, 0.05)
White Non-Hispanic	Day 1	Placebo	Positive	Anti RBD IgG (IU/ml)	119	0.80 (0.80, 0.80)
White Non-Hispanic	Day 1	Placebo	Positive	Anti Spike IgG (IU/ml)	119	0.15 (0.15, 0.15)
White Non-Hispanic	Day 1	Placebo	Positive	Pseudovirus-nAb ID50	119	6.80 (6.02, 7.67)
White Non-Hispanic	Day 1	Placebo	Positive	Pseudovirus-nAb ID80	119	6.86 (5.95, 7.92)
White Non-Hispanic	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	355	35.24 (27.71, 44.82)
White Non-Hispanic	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	355	394.97 (319.03, 488.98)
White Non-Hispanic	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	355	246.00 (210.22, 287.86)
White Non-Hispanic	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	355	63.58 (55.57, 72.74)
White Non-Hispanic	Day 29	Vaccine	Negative	Pseudovirus-nAb ID80	355	17.36 (15.42, 19.54)
White Non-Hispanic	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	121	108.49 (76.64, 153.60)
White Non-Hispanic	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	121	1103.88 (720.93, 1690.25)
White Non-Hispanic	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	121	497.19 (349.12, 708.07)
White Non-Hispanic	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	121	150.52 (126.18, 179.55)
White Non-Hispanic	Day 29	Vaccine	Positive	Pseudovirus-nAb ID80	121	33.02 (27.25, 40.02)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
White Non-Hispanic	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	64	0.05 (0.05, 0.05)
White Non-Hispanic	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	64	0.80 (0.80, 0.80)
White Non-Hispanic	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	64	0.15 (0.15, 0.15)
White Non-Hispanic	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	64	5.08 (4.97, 5.19)
White Non-Hispanic	Day 29	Placebo	Negative	Pseudovirus-nAb ID80	64	5.03 (4.98, 5.07)
White Non-Hispanic	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	119	30.08 (19.98, 45.29)
White Non-Hispanic	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	119	334.14 (244.55, 456.56)
White Non-Hispanic	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	119	193.98 (143.34, 262.51)
White Non-Hispanic	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	119	51.58 (41.19, 64.59)
White Non-Hispanic	Day 29	Placebo	Positive	Pseudovirus-nAb ID80	119	11.31 (9.62, 13.29)
White Non-Hispanic	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	355	154.12 (116.66, 203.61)
White Non-Hispanic	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	355	4647.54 (3662.95, 5896.79)
White Non-Hispanic	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	355	3213.02 (2637.12, 3914.70)
White Non-Hispanic	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	355	1559.07 (1309.74, 1855.86)
White Non-Hispanic	Day 57	Vaccine	Negative	Pseudovirus-nAb ID80	355	366.65 (315.65, 425.89)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
White Non-Hispanic	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	121	524.22 (330.41, 831.70)
White Non-Hispanic	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	121	14740.10 (9467.50, 22949.08)
White Non-Hispanic	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	121	12712.59 (8977.13, 18002.42)
White Non-Hispanic	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	121	5474.91 (3962.27, 7565.02)
White Non-Hispanic	Day 57	Vaccine	Positive	Pseudovirus-nAb ID80	121	1100.91 (824.78, 1469.49)
White Non-Hispanic	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	64	0.05 (0.05, 0.05)
White Non-Hispanic	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	64	0.80 (0.80, 0.80)
White Non-Hispanic	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	64	0.15 (0.15, 0.15)
White Non-Hispanic	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	64	5.04 (4.96, 5.11)
White Non-Hispanic	Day 57	Placebo	Negative	Pseudovirus-nAb ID80	64	5.00 (5.00, 5.00)
White Non-Hispanic	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	119	152.54 (94.61, 245.96)
White Non-Hispanic	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	119	3927.49 (2680.45, 5754.71)
White Non-Hispanic	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	119	2481.87 (1786.06, 3448.74)
White Non-Hispanic	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	119	1385.29 (1014.62, 1891.36)
White Non-Hispanic	Day 57	Placebo	Positive	Pseudovirus-nAb ID80	119	255.56 (199.61, 327.19)

Table 7j. Geometric mean titers (GMTs) and geometric mean concentrations (GMCs) by Age, Communities of color

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Age, Communities of color						
Age < 65 Communities of Color	Day 1	Vaccine	Negative	Anti N IgG (IU/ml)	169	0.05 (0.05, 0.05)
Age < 65 Communities of Color	Day 1	Vaccine	Negative	Anti RBD IgG (IU/ml)	169	0.80 (0.80, 0.80)
Age < 65 Communities of Color	Day 1	Vaccine	Negative	Anti Spike IgG (IU/ml)	169	0.16 (0.15, 0.16)
Age < 65 Communities of Color	Day 1	Vaccine	Negative	Pseudovirus-nAb ID50	169	5.00 (5.00, 5.00)
Age < 65 Communities of Color	Day 1	Vaccine	Negative	Pseudovirus-nAb ID80	169	5.00 (5.00, 5.00)
Age < 65 Communities of Color	Day 1	Vaccine	Positive	Anti N IgG (IU/ml)	63	0.05 (0.05, 0.05)
Age < 65 Communities of Color	Day 1	Vaccine	Positive	Anti RBD IgG (IU/ml)	63	0.80 (0.80, 0.80)
Age < 65 Communities of Color	Day 1	Vaccine	Positive	Anti Spike IgG (IU/ml)	63	0.15 (0.15, 0.15)
Age < 65 Communities of Color	Day 1	Vaccine	Positive	Pseudovirus-nAb ID50	63	7.12 (5.82, 8.71)
Age < 65 Communities of Color	Day 1	Vaccine	Positive	Pseudovirus-nAb ID80	63	7.21 (6.03, 8.61)
Age < 65 Communities of Color	Day 1	Placebo	Negative	Anti N IgG (IU/ml)	31	0.05 (0.05, 0.05)
Age < 65 Communities of Color	Day 1	Placebo	Negative	Anti RBD IgG (IU/ml)	31	0.80 (0.80, 0.80)
Age < 65 Communities of Color	Day 1	Placebo	Negative	Anti Spike IgG (IU/ml)	31	0.15 (0.15, 0.15)
Age < 65 Communities of Color	Day 1	Placebo	Negative	Pseudovirus-nAb ID50	31	5.00 (5.00, 5.00)
Age < 65 Communities of Color	Day 1	Placebo	Negative	Pseudovirus-nAb ID80	31	5.00 (5.00, 5.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Age < 65 Communities of Color	Day 1	Placebo	Positive	Anti N IgG (IU/ml)	58	0.05 (0.05, 0.05)
Age < 65 Communities of Color	Day 1	Placebo	Positive	Anti RBD IgG (IU/ml)	58	0.80 (0.80, 0.80)
Age < 65 Communities of Color	Day 1	Placebo	Positive	Anti Spike IgG (IU/ml)	58	0.15 (0.15, 0.15)
Age < 65 Communities of Color	Day 1	Placebo	Positive	Pseudovirus-nAb ID50	58	6.30 (5.51, 7.20)
Age < 65 Communities of Color	Day 1	Placebo	Positive	Pseudovirus-nAb ID80	58	6.47 (5.46, 7.66)
Age < 65 Communities of Color	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	169	30.27 (22.66, 40.43)
Age < 65 Communities of Color	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	169	403.91 (309.30, 527.47)
Age < 65 Communities of Color	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	169	172.99 (138.47, 216.12)
Age < 65 Communities of Color	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	169	58.89 (50.72, 68.38)
Age < 65 Communities of Color	Day 29	Vaccine	Negative	Pseudovirus-nAb ID80	169	14.67 (12.50, 17.21)
Age < 65 Communities of Color	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	63	62.15 (35.65, 108.36)
Age < 65 Communities of Color	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	63	776.83 (438.20, 1377.17)
Age < 65 Communities of Color	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	63	368.29 (222.18, 610.49)
Age < 65 Communities of Color	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	63	121.06 (89.32, 164.07)
Age < 65 Communities of Color	Day 29	Vaccine	Positive	Pseudovirus-nAb ID80	63	29.99 (21.81, 41.23)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Age < 65 Communities of Color	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	31	0.05 (0.05, 0.05)
Age < 65 Communities of Color	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	31	0.80 (0.80, 0.80)
Age < 65 Communities of Color	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	31	0.15 (0.15, 0.15)
Age < 65 Communities of Color	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	31	5.00 (5.00, 5.00)
Age < 65 Communities of Color	Day 29	Placebo	Negative	Pseudovirus-nAb ID80	31	5.00 (5.00, 5.00)
Age < 65 Communities of Color	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	58	16.48 (10.79, 25.17)
Age < 65 Communities of Color	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	58	283.64 (189.43, 424.70)
Age < 65 Communities of Color	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	58	129.34 (93.01, 179.87)
Age < 65 Communities of Color	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	58	38.45 (29.70, 49.78)
Age < 65 Communities of Color	Day 29	Placebo	Positive	Pseudovirus-nAb ID80	58	9.83 (7.97, 12.12)
Age < 65 Communities of Color	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	169	104.82 (72.42, 151.72)
Age < 65 Communities of Color	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	169	3193.92 (2343.33, 4353.24)
Age < 65 Communities of Color	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	169	2045.52 (1573.98, 2658.31)
Age < 65 Communities of Color	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	169	1440.60 (1157.59, 1792.81)
Age < 65 Communities of Color	Day 57	Vaccine	Negative	Pseudovirus-nAb ID80	169	362.94 (302.88, 434.91)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Age < 65 Communities of Color	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	63	342.95 (161.59, 727.86)
Age < 65 Communities of Color	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	63	9929.37 (5549.08, 17767.33)
Age < 65 Communities of Color	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	63	8216.65 (4938.34, 13671.25)
Age < 65 Communities of Color	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	63	4473.04 (3049.22, 6561.70)
Age < 65 Communities of Color	Day 57	Vaccine	Positive	Pseudovirus-nAb ID80	63	1039.32 (751.43, 1437.49)
Age < 65 Communities of Color	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	31	0.05 (0.05, 0.05)
Age < 65 Communities of Color	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	31	0.80 (0.80, 0.80)
Age < 65 Communities of Color	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	31	0.15 (0.15, 0.15)
Age < 65 Communities of Color	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	31	5.00 (5.00, 5.00)
Age < 65 Communities of Color	Day 57	Placebo	Negative	Pseudovirus-nAb ID80	31	5.00 (5.00, 5.00)
Age < 65 Communities of Color	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	58	116.07 (69.33, 194.32)
Age < 65 Communities of Color	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	58	2649.36 (1659.09, 4230.71)
Age < 65 Communities of Color	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	58	1580.74 (1100.41, 2270.74)
Age < 65 Communities of Color	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	58	1152.23 (837.45, 1585.33)
Age < 65 Communities of Color	Day 57	Placebo	Positive	Pseudovirus-nAb ID80	58	298.95 (214.78, 416.11)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Age < 65 White Non-Hispanic	Day 1	Vaccine	Negative	Anti N IgG (IU/ml)	180	0.05 (0.05, 0.05)
Age < 65 White Non-Hispanic	Day 1	Vaccine	Negative	Anti RBD IgG (IU/ml)	180	0.80 (0.80, 0.80)
Age < 65 White Non-Hispanic	Day 1	Vaccine	Negative	Anti Spike IgG (IU/ml)	180	0.15 (0.15, 0.15)
Age < 65 White Non-Hispanic	Day 1	Vaccine	Negative	Pseudovirus-nAb ID50	180	5.00 (5.00, 5.00)
Age < 65 White Non-Hispanic	Day 1	Vaccine	Negative	Pseudovirus-nAb ID80	180	5.00 (5.00, 5.00)
Age < 65 White Non-Hispanic	Day 1	Vaccine	Positive	Anti N IgG (IU/ml)	57	0.05 (0.04, 0.06)
Age < 65 White Non-Hispanic	Day 1	Vaccine	Positive	Anti RBD IgG (IU/ml)	57	0.80 (0.80, 0.80)
Age < 65 White Non-Hispanic	Day 1	Vaccine	Positive	Anti Spike IgG (IU/ml)	57	0.16 (0.15, 0.17)
Age < 65 White Non-Hispanic	Day 1	Vaccine	Positive	Pseudovirus-nAb ID50	57	8.03 (6.40, 10.08)
Age < 65 White Non-Hispanic	Day 1	Vaccine	Positive	Pseudovirus-nAb ID80	57	6.96 (5.80, 8.35)
Age < 65 White Non-Hispanic	Day 1	Placebo	Negative	Anti N IgG (IU/ml)	32	0.05 (0.05, 0.05)
Age < 65 White Non-Hispanic	Day 1	Placebo	Negative	Anti RBD IgG (IU/ml)	32	0.80 (0.80, 0.80)
Age < 65 White Non-Hispanic	Day 1	Placebo	Negative	Anti Spike IgG (IU/ml)	32	0.15 (0.15, 0.15)
Age < 65 White Non-Hispanic	Day 1	Placebo	Negative	Pseudovirus-nAb ID50	32	5.00 (5.00, 5.00)
Age < 65 White Non-Hispanic	Day 1	Placebo	Negative	Pseudovirus-nAb ID80	32	5.00 (5.00, 5.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Age < 65 White Non-Hispanic	Day 1	Placebo	Positive	Anti N IgG (IU/ml)	64	0.05 (0.05, 0.05)
Age < 65 White Non-Hispanic	Day 1	Placebo	Positive	Anti RBD IgG (IU/ml)	64	0.80 (0.80, 0.80)
Age < 65 White Non-Hispanic	Day 1	Placebo	Positive	Anti Spike IgG (IU/ml)	64	0.15 (0.15, 0.15)
Age < 65 White Non-Hispanic	Day 1	Placebo	Positive	Pseudovirus-nAb ID50	64	6.87 (5.93, 7.97)
Age < 65 White Non-Hispanic	Day 1	Placebo	Positive	Pseudovirus-nAb ID80	64	6.91 (5.81, 8.22)
Age < 65 White Non-Hispanic	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	180	26.41 (19.71, 35.40)
Age < 65 White Non-Hispanic	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	180	288.59 (222.38, 374.51)
Age < 65 White Non-Hispanic	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	180	183.21 (151.54, 221.49)
Age < 65 White Non-Hispanic	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	180	53.76 (45.60, 63.39)
Age < 65 White Non-Hispanic	Day 29	Vaccine	Negative	Pseudovirus-nAb ID80	180	15.97 (13.80, 18.47)
Age < 65 White Non-Hispanic	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	57	99.09 (64.78, 151.58)
Age < 65 White Non-Hispanic	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	57	962.06 (567.84, 1629.96)
Age < 65 White Non-Hispanic	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	57	402.94 (259.92, 624.64)
Age < 65 White Non-Hispanic	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	57	143.41 (115.65, 177.85)
Age < 65 White Non-Hispanic	Day 29	Vaccine	Positive	Pseudovirus-nAb ID80	57	32.14 (25.38, 40.69)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Age < 65 White Non-Hispanic	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	32	0.05 (0.05, 0.05)
Age < 65 White Non-Hispanic	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	32	0.80 (0.80, 0.80)
Age < 65 White Non-Hispanic	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	32	0.15 (0.15, 0.15)
Age < 65 White Non-Hispanic	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	32	5.05 (4.95, 5.16)
Age < 65 White Non-Hispanic	Day 29	Placebo	Negative	Pseudovirus-nAb ID80	32	5.00 (5.00, 5.00)
Age < 65 White Non-Hispanic	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	64	24.26 (14.82, 39.74)
Age < 65 White Non-Hispanic	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	64	245.91 (169.85, 356.03)
Age < 65 White Non-Hispanic	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	64	137.60 (96.05, 197.11)
Age < 65 White Non-Hispanic	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	64	45.44 (34.61, 59.65)
Age < 65 White Non-Hispanic	Day 29	Placebo	Positive	Pseudovirus-nAb ID80	64	9.94 (8.20, 12.05)
Age < 65 White Non-Hispanic	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	180	114.41 (81.44, 160.73)
Age < 65 White Non-Hispanic	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	180	3425.82 (2560.91, 4582.85)
Age < 65 White Non-Hispanic	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	180	2329.12 (1832.57, 2960.22)
Age < 65 White Non-Hispanic	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	180	1279.84 (1033.75, 1584.52)
Age < 65 White Non-Hispanic	Day 57	Vaccine	Negative	Pseudovirus-nAb ID80	180	336.07 (279.44, 404.19)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Age < 65 White Non-Hispanic	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	57	423.58 (240.75, 745.25)
Age < 65 White Non-Hispanic	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	57	12007.49 (6964.67, 20701.60)
Age < 65 White Non-Hispanic	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	57	10101.72 (6601.88, 15456.91)
Age < 65 White Non-Hispanic	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	57	4906.37 (3288.35, 7320.55)
Age < 65 White Non-Hispanic	Day 57	Vaccine	Positive	Pseudovirus-nAb ID80	57	1073.40 (750.55, 1535.13)
Age < 65 White Non-Hispanic	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	32	0.05 (0.05, 0.05)
Age < 65 White Non-Hispanic	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	32	0.80 (0.80, 0.80)
Age < 65 White Non-Hispanic	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	32	0.15 (0.15, 0.15)
Age < 65 White Non-Hispanic	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	32	5.00 (5.00, 5.00)
Age < 65 White Non-Hispanic	Day 57	Placebo	Negative	Pseudovirus-nAb ID80	32	5.00 (5.00, 5.00)
Age < 65 White Non-Hispanic	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	64	109.60 (61.80, 194.39)
Age < 65 White Non-Hispanic	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	64	2752.20 (1746.31, 4337.49)
Age < 65 White Non-Hispanic	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	64	1709.40 (1157.14, 2525.23)
Age < 65 White Non-Hispanic	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	64	1147.38 (787.32, 1672.09)
Age < 65 White Non-Hispanic	Day 57	Placebo	Positive	Pseudovirus-nAb ID80	64	216.97 (161.30, 291.84)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Age ≥ 65 Communities of Color	Day 1	Vaccine	Negative	Anti N IgG (IU/ml)	205	0.05 (0.05, 0.05)
Age ≥ 65 Communities of Color	Day 1	Vaccine	Negative	Anti RBD IgG (IU/ml)	205	0.80 (0.80, 0.80)
Age ≥ 65 Communities of Color	Day 1	Vaccine	Negative	Anti Spike IgG (IU/ml)	205	0.15 (0.15, 0.15)
Age ≥ 65 Communities of Color	Day 1	Vaccine	Negative	Pseudovirus-nAb ID50	205	5.00 (5.00, 5.00)
Age ≥ 65 Communities of Color	Day 1	Vaccine	Negative	Pseudovirus-nAb ID80	205	5.00 (5.00, 5.00)
Age ≥ 65 Communities of Color	Day 1	Vaccine	Positive	Anti N IgG (IU/ml)	51	0.05 (0.05, 0.05)
Age ≥ 65 Communities of Color	Day 1	Vaccine	Positive	Anti RBD IgG (IU/ml)	51	0.83 (0.77, 0.88)
Age ≥ 65 Communities of Color	Day 1	Vaccine	Positive	Anti Spike IgG (IU/ml)	51	0.16 (0.15, 0.16)
Age ≥ 65 Communities of Color	Day 1	Vaccine	Positive	Pseudovirus-nAb ID50	51	6.52 (5.56, 7.64)
Age ≥ 65 Communities of Color	Day 1	Vaccine	Positive	Pseudovirus-nAb ID80	51	5.65 (5.07, 6.30)
Age ≥ 65 Communities of Color	Day 1	Placebo	Negative	Anti N IgG (IU/ml)	35	0.05 (0.05, 0.05)
Age ≥ 65 Communities of Color	Day 1	Placebo	Negative	Anti RBD IgG (IU/ml)	35	0.80 (0.80, 0.80)
Age ≥ 65 Communities of Color	Day 1	Placebo	Negative	Anti Spike IgG (IU/ml)	35	0.15 (0.15, 0.15)
Age ≥ 65 Communities of Color	Day 1	Placebo	Negative	Pseudovirus-nAb ID50	35	5.00 (5.00, 5.00)
Age ≥ 65 Communities of Color	Day 1	Placebo	Negative	Pseudovirus-nAb ID80	35	5.00 (5.00, 5.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Age \geq 65 Communities of Color	Day 1	Placebo	Positive	Anti N IgG (IU/ml)	44	0.05 (0.05, 0.05)
Age \geq 65 Communities of Color	Day 1	Placebo	Positive	Anti RBD IgG (IU/ml)	44	0.80 (0.80, 0.80)
Age \geq 65 Communities of Color	Day 1	Placebo	Positive	Anti Spike IgG (IU/ml)	44	0.15 (0.15, 0.15)
Age \geq 65 Communities of Color	Day 1	Placebo	Positive	Pseudovirus-nAb ID50	44	6.59 (5.50, 7.90)
Age \geq 65 Communities of Color	Day 1	Placebo	Positive	Pseudovirus-nAb ID80	44	7.08 (5.94, 8.44)
Age \geq 65 Communities of Color	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	205	104.78 (82.07, 133.76)
Age \geq 65 Communities of Color	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	205	1215.65 (984.75, 1500.68)
Age \geq 65 Communities of Color	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	205	696.14 (587.18, 825.32)
Age \geq 65 Communities of Color	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	205	118.04 (103.69, 134.39)
Age \geq 65 Communities of Color	Day 29	Vaccine	Negative	Pseudovirus-nAb ID80	205	23.22 (20.69, 26.05)
Age \geq 65 Communities of Color	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	51	255.32 (158.90, 410.26)
Age \geq 65 Communities of Color	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	51	2959.12 (1973.66, 4436.61)
Age \geq 65 Communities of Color	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	51	1383.60 (958.25, 1997.74)
Age \geq 65 Communities of Color	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	51	230.66 (179.67, 296.12)
Age \geq 65 Communities of Color	Day 29	Vaccine	Positive	Pseudovirus-nAb ID80	51	38.63 (29.86, 49.96)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Age ≥ 65 Communities of Color	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	35	0.05 (0.05, 0.05)
Age ≥ 65 Communities of Color	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	35	0.80 (0.80, 0.80)
Age ≥ 65 Communities of Color	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	35	0.15 (0.15, 0.15)
Age ≥ 65 Communities of Color	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	35	5.00 (5.00, 5.00)
Age ≥ 65 Communities of Color	Day 29	Placebo	Negative	Pseudovirus-nAb ID80	35	5.09 (4.91, 5.28)
Age ≥ 65 Communities of Color	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	44	82.14 (48.71, 138.53)
Age ≥ 65 Communities of Color	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	44	1240.53 (807.28, 1906.31)
Age ≥ 65 Communities of Color	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	44	817.24 (571.27, 1169.11)
Age ≥ 65 Communities of Color	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	44	88.46 (66.38, 117.89)
Age ≥ 65 Communities of Color	Day 29	Placebo	Positive	Pseudovirus-nAb ID80	44	17.94 (14.06, 22.89)
Age ≥ 65 Communities of Color	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	205	483.55 (369.19, 633.32)
Age ≥ 65 Communities of Color	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	205	13388.01 (10723.77, 16714.16)
Age ≥ 65 Communities of Color	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	205	11313.95 (9332.04, 13716.77)
Age ≥ 65 Communities of Color	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	205	3200.55 (2718.86, 3767.58)
Age ≥ 65 Communities of Color	Day 57	Vaccine	Negative	Pseudovirus-nAb ID80	205	488.70 (421.66, 566.41)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Age ≥ 65 Communities of Color	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	51	1848.46 (1139.85, 2997.61)
Age ≥ 65 Communities of Color	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	51	48514.16 (32240.57, 73001.92)
Age ≥ 65 Communities of Color	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	51	31710.72 (21622.19, 46506.40)
Age ≥ 65 Communities of Color	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	51	9928.79 (7431.19, 13265.83)
Age ≥ 65 Communities of Color	Day 57	Vaccine	Positive	Pseudovirus-nAb ID80	51	1696.89 (1243.56, 2315.47)
Age ≥ 65 Communities of Color	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	35	0.05 (0.05, 0.05)
Age ≥ 65 Communities of Color	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	35	0.80 (0.80, 0.80)
Age ≥ 65 Communities of Color	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	35	0.15 (0.15, 0.15)
Age ≥ 65 Communities of Color	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	35	5.00 (5.00, 5.00)
Age ≥ 65 Communities of Color	Day 57	Placebo	Negative	Pseudovirus-nAb ID80	35	5.00 (5.00, 5.00)
Age ≥ 65 Communities of Color	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	44	511.69 (278.17, 941.24)
Age ≥ 65 Communities of Color	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	44	19470.54 (11156.25, 33981.13)
Age ≥ 65 Communities of Color	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	44	13069.98 (9048.75, 18878.22)
Age ≥ 65 Communities of Color	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	44	2723.66 (1922.15, 3859.39)
Age ≥ 65 Communities of Color	Day 57	Placebo	Positive	Pseudovirus-nAb ID80	44	463.73 (340.98, 630.67)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Age ≥ 65 White Non-Hispanic	Day 1	Vaccine	Negative	Anti N IgG (IU/ml)	175	0.05 (0.05, 0.05)
Age ≥ 65 White Non-Hispanic	Day 1	Vaccine	Negative	Anti RBD IgG (IU/ml)	175	0.80 (0.80, 0.80)
Age ≥ 65 White Non-Hispanic	Day 1	Vaccine	Negative	Anti Spike IgG (IU/ml)	175	0.15 (0.15, 0.15)
Age ≥ 65 White Non-Hispanic	Day 1	Vaccine	Negative	Pseudovirus-nAb ID50	175	5.00 (5.00, 5.00)
Age ≥ 65 White Non-Hispanic	Day 1	Vaccine	Negative	Pseudovirus-nAb ID80	175	5.00 (5.00, 5.00)
Age ≥ 65 White Non-Hispanic	Day 1	Vaccine	Positive	Anti N IgG (IU/ml)	64	0.05 (0.05, 0.05)
Age ≥ 65 White Non-Hispanic	Day 1	Vaccine	Positive	Anti RBD IgG (IU/ml)	64	0.80 (0.80, 0.80)
Age ≥ 65 White Non-Hispanic	Day 1	Vaccine	Positive	Anti Spike IgG (IU/ml)	64	0.15 (0.15, 0.15)
Age ≥ 65 White Non-Hispanic	Day 1	Vaccine	Positive	Pseudovirus-nAb ID50	64	7.11 (6.03, 8.38)
Age ≥ 65 White Non-Hispanic	Day 1	Vaccine	Positive	Pseudovirus-nAb ID80	64	6.03 (5.39, 6.75)
Age ≥ 65 White Non-Hispanic	Day 1	Placebo	Negative	Anti N IgG (IU/ml)	32	0.05 (0.05, 0.05)
Age ≥ 65 White Non-Hispanic	Day 1	Placebo	Negative	Anti RBD IgG (IU/ml)	32	0.80 (0.80, 0.80)
Age ≥ 65 White Non-Hispanic	Day 1	Placebo	Negative	Anti Spike IgG (IU/ml)	32	0.15 (0.15, 0.15)
Age ≥ 65 White Non-Hispanic	Day 1	Placebo	Negative	Pseudovirus-nAb ID50	32	5.00 (5.00, 5.00)
Age ≥ 65 White Non-Hispanic	Day 1	Placebo	Negative	Pseudovirus-nAb ID80	32	5.00 (5.00, 5.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Age \geq 65 White Non-Hispanic	Day 1	Placebo	Positive	Anti N IgG (IU/ml)	55	0.05 (0.05, 0.05)
Age \geq 65 White Non-Hispanic	Day 1	Placebo	Positive	Anti RBD IgG (IU/ml)	55	0.80 (0.80, 0.80)
Age \geq 65 White Non-Hispanic	Day 1	Placebo	Positive	Anti Spike IgG (IU/ml)	55	0.15 (0.15, 0.15)
Age \geq 65 White Non-Hispanic	Day 1	Placebo	Positive	Pseudovirus-nAb ID50	55	6.49 (5.67, 7.44)
Age \geq 65 White Non-Hispanic	Day 1	Placebo	Positive	Pseudovirus-nAb ID80	55	6.68 (5.72, 7.81)
Age \geq 65 White Non-Hispanic	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	175	107.70 (82.28, 140.97)
Age \geq 65 White Non-Hispanic	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	175	1332.45 (1074.15, 1652.87)
Age \geq 65 White Non-Hispanic	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	175	770.69 (646.15, 919.23)
Age \geq 65 White Non-Hispanic	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	175	121.74 (106.49, 139.16)
Age \geq 65 White Non-Hispanic	Day 29	Vaccine	Negative	Pseudovirus-nAb ID80	175	23.99 (21.33, 26.99)
Age \geq 65 White Non-Hispanic	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	64	154.14 (104.27, 227.86)
Age \geq 65 White Non-Hispanic	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	64	1880.46 (1321.81, 2675.22)
Age \geq 65 White Non-Hispanic	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	64	1122.35 (894.39, 1408.42)
Age \geq 65 White Non-Hispanic	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	64	181.51 (147.82, 222.88)
Age \geq 65 White Non-Hispanic	Day 29	Vaccine	Positive	Pseudovirus-nAb ID80	64	36.69 (29.98, 44.91)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Age ≥ 65 White Non-Hispanic	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	32	0.05 (0.05, 0.05)
Age ≥ 65 White Non-Hispanic	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	32	0.80 (0.80, 0.80)
Age ≥ 65 White Non-Hispanic	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	32	0.15 (0.15, 0.15)
Age ≥ 65 White Non-Hispanic	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	32	5.16 (4.85, 5.49)
Age ≥ 65 White Non-Hispanic	Day 29	Placebo	Negative	Pseudovirus-nAb ID80	32	5.12 (4.89, 5.35)
Age ≥ 65 White Non-Hispanic	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	55	72.44 (45.36, 115.66)
Age ≥ 65 White Non-Hispanic	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	55	1170.26 (803.36, 1704.72)
Age ≥ 65 White Non-Hispanic	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	55	789.91 (580.92, 1074.08)
Age ≥ 65 White Non-Hispanic	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	55	86.65 (68.46, 109.67)
Age ≥ 65 White Non-Hispanic	Day 29	Placebo	Positive	Pseudovirus-nAb ID80	55	19.19 (15.63, 23.57)
Age ≥ 65 White Non-Hispanic	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	175	488.95 (360.75, 662.70)
Age ≥ 65 White Non-Hispanic	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	175	15153.92 (11908.60, 19283.64)
Age ≥ 65 White Non-Hispanic	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	175	11177.87 (9058.01, 13793.85)
Age ≥ 65 White Non-Hispanic	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	175	3349.65 (2822.28, 3975.57)
Age ≥ 65 White Non-Hispanic	Day 57	Vaccine	Negative	Pseudovirus-nAb ID80	175	513.80 (445.45, 592.63)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	GMT/GMC
Age \geq 65 White Non-Hispanic	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	64	1197.04 (733.86, 1952.56)
Age \geq 65 White Non-Hispanic	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	64	32616.52 (21714.57, 48991.88)
Age \geq 65 White Non-Hispanic	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	64	30972.10 (21891.61, 43819.12)
Age \geq 65 White Non-Hispanic	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	64	8371.89 (6372.84, 10998.01)
Age \geq 65 White Non-Hispanic	Day 57	Vaccine	Positive	Pseudovirus-nAb ID80	64	1214.28 (952.09, 1548.67)
Age \geq 65 White Non-Hispanic	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	32	0.05 (0.05, 0.05)
Age \geq 65 White Non-Hispanic	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	32	0.80 (0.80, 0.80)
Age \geq 65 White Non-Hispanic	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	32	0.15 (0.15, 0.15)
Age \geq 65 White Non-Hispanic	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	32	5.18 (4.84, 5.54)
Age \geq 65 White Non-Hispanic	Day 57	Placebo	Negative	Pseudovirus-nAb ID80	32	5.00 (5.00, 5.00)
Age \geq 65 White Non-Hispanic	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	55	589.43 (338.20, 1027.29)
Age \geq 65 White Non-Hispanic	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	55	16808.22 (10724.04, 26344.18)
Age \geq 65 White Non-Hispanic	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	55	11398.41 (8030.79, 16178.20)
Age \geq 65 White Non-Hispanic	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	55	2993.03 (2160.14, 4147.06)
Age \geq 65 White Non-Hispanic	Day 57	Placebo	Positive	Pseudovirus-nAb ID80	55	499.07 (372.15, 669.29)

1.8 Geometric mean titer ratios (GMTRs) or geometric mean concentration ratios (GMCRs) between post-vaccinations/pre-vaccination

Table 8a. Geometric mean titer ratios (GMTRs) or geometric mean concentration ratios (GMCRs) between post-vaccinations/pre-vaccination by All participants

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
All participants								
	D29 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	729	0.05 (0.05, 0.05)	37.12 (31.37, 43.93)	16.87 (14.35, 19.83)
	D29 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	729	0.80 (0.80, 0.80)	443.20 (380.84, 515.77)	153.55 (131.95, 178.69)
	D29 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	729	0.15 (0.15, 0.16)	240.78 (214.08, 270.82)	268.01 (238.29, 301.45)
	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	729	5.00 (5.00, 5.00)	65.70 (59.95, 72.01)	6.96 (6.34, 7.65)
	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	729	5.00 (5.00, 5.00)	16.84 (15.44, 18.38)	2.40 (2.22, 2.60)
	D29 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	235	0.05 (0.05, 0.05)	96.82 (73.87, 126.89)	43.50 (33.25, 56.93)
	D29 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	235	0.80 (0.79, 0.80)	1068.00 (782.37, 1457.90)	370.02 (271.06, 505.10)
	D29 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	235	0.16 (0.15, 0.16)	491.02 (376.15, 640.97)	546.55 (418.69, 713.46)
	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	235	7.46 (6.58, 8.47)	145.12 (125.72, 167.52)	13.74 (11.78, 16.03)
	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	235	6.80 (6.12, 7.55)	32.40 (27.75, 37.83)	3.77 (3.21, 4.44)
	D29 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	130	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
	D29 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	130	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
	D29 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	130	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	130	5.00 (5.00, 5.00)	5.05 (4.98, 5.12)	1.00 (1.00, 1.00)
	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	130	5.00 (5.00, 5.00)	5.03 (4.99, 5.06)	1.00 (1.00, 1.00)
	D29 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	221	0.05 (0.05, 0.05)	26.50 (19.96, 35.18)	11.98 (9.09, 15.78)
	D29 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	221	0.80 (0.80, 0.80)	349.86 (277.95, 440.37)	120.88 (95.88, 152.40)
	D29 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	221	0.15 (0.15, 0.15)	188.94 (152.96, 233.39)	210.31 (170.26, 259.78)
	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	221	6.61 (6.07, 7.20)	48.67 (41.47, 57.12)	4.69 (3.93, 5.58)
	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	221	6.74 (6.09, 7.47)	11.18 (9.92, 12.60)	1.41 (1.24, 1.60)
	D57 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	729	0.05 (0.05, 0.05)	150.61 (122.97, 184.47)	68.16 (55.92, 83.09)
	D57 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	729	0.80 (0.80, 0.80)	4520.91 (3806.95, 5368.76)	1566.31 (1318.95, 1860.05)
	D57 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	729	0.15 (0.15, 0.16)	3103.50 (2687.12, 3584.40)	3454.47 (2991.00, 3989.76)
	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	729	5.00 (5.00, 5.00)	1625.37 (1436.05, 1839.66)	175.72 (155.25, 198.88)
	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	729	5.00 (5.00, 5.00)	375.55 (338.05, 417.22)	52.60 (47.38, 58.39)
	D57 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	235	0.05 (0.05, 0.05)	506.75 (350.49, 732.68)	233.24 (162.67, 334.41)
	D57 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	235	0.80 (0.79, 0.80)	14304.58 (10352.78, 19764.83)	4955.94 (3586.81, 6847.69)
	D57 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	235	0.16 (0.15, 0.16)	11876.45 (9121.26, 15463.89)	13219.56 (10152.78, 17212.70)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	235	7.46 (6.58, 8.47)	5384.92 (4290.47, 6758.56)	509.01 (405.74, 638.56)
	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	235	6.80 (6.12, 7.55)	1121.05 (916.98, 1370.52)	133.48 (109.50, 162.73)
	D57 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	130	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
	D57 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	130	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
	D57 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	130	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	130	5.00 (5.00, 5.00)	5.02 (4.98, 5.07)	1.00 (1.00, 1.00)
	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	130	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
	D57 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	221	0.05 (0.05, 0.05)	152.68 (109.54, 212.81)	67.40 (48.06, 94.52)
	D57 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	221	0.80 (0.80, 0.80)	3889.34 (2945.83, 5135.04)	1347.49 (1020.61, 1779.08)
	D57 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	221	0.15 (0.15, 0.15)	2421.54 (1923.28, 3048.90)	2695.40 (2140.78, 3393.70)
	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	221	6.61 (6.07, 7.20)	1371.19 (1107.92, 1697.02)	139.20 (112.85, 171.70)
	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	221	6.74 (6.09, 7.47)	282.29 (234.94, 339.20)	33.56 (27.70, 40.66)

Table 8b. Geometric mean titer ratios (GMTRs) or geometric mean concentration ratios (GMCRs) between post-vaccinations/pre-vaccination by Age

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Age								
Age < 65	D29 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	349	0.05 (0.05, 0.05)	28.03 (22.78, 34.48)	12.83 (10.52, 15.65)
Age < 65	D29 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	349	0.80 (0.80, 0.80)	334.05 (276.98, 402.88)	115.73 (95.96, 139.58)
Age < 65	D29 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	349	0.15 (0.15, 0.16)	178.69 (154.63, 206.49)	198.90 (172.12, 229.85)
Age < 65	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	349	5.00 (5.00, 5.00)	55.94 (49.96, 62.64)	5.92 (5.27, 6.64)
Age < 65	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	349	5.00 (5.00, 5.00)	15.39 (13.81, 17.14)	2.21 (2.00, 2.44)
Age < 65	D29 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	120	0.05 (0.05, 0.06)	81.28 (58.42, 113.08)	36.61 (26.37, 50.83)
Age < 65	D29 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	120	0.80 (0.80, 0.80)	878.51 (598.18, 1290.20)	304.37 (207.25, 447.00)
Age < 65	D29 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	120	0.16 (0.15, 0.16)	387.84 (279.01, 539.10)	431.70 (310.57, 600.07)
Age < 65	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	120	7.63 (6.53, 8.92)	133.45 (111.98, 159.04)	12.63 (10.47, 15.25)
Age < 65	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	120	7.06 (6.20, 8.04)	31.20 (25.80, 37.75)	3.58 (2.93, 4.37)
Age < 65	D29 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	63	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Age < 65	D29 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	63	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Age < 65	D29 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	63	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Age < 65	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	63	5.00 (5.00, 5.00)	5.04 (4.97, 5.11)	1.00 (1.00, 1.00)
Age < 65	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	63	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Age < 65	D29 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	122	0.05 (0.05, 0.05)	20.62 (14.70, 28.93)	9.36 (6.74, 13.01)
Age < 65	D29 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	122	0.80 (0.80, 0.80)	261.13 (198.73, 343.13)	90.17 (68.48, 118.73)
Age < 65	D29 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	122	0.15 (0.15, 0.15)	134.06 (104.39, 172.16)	149.22 (116.20, 191.63)
Age < 65	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	122	6.62 (5.98, 7.34)	42.35 (34.95, 51.33)	4.07 (3.29, 5.02)
Age < 65	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	122	6.72 (5.94, 7.60)	9.89 (8.58, 11.40)	1.28 (1.10, 1.49)
Age < 65	D57 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	349	0.05 (0.05, 0.05)	110.13 (85.72, 141.50)	50.07 (39.21, 63.93)
Age < 65	D57 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	349	0.80 (0.80, 0.80)	3322.92 (2686.06, 4110.77)	1151.25 (930.61, 1424.21)
Age < 65	D57 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	349	0.15 (0.15, 0.16)	2201.19 (1842.78, 2629.30)	2450.12 (2051.18, 2926.65)
Age < 65	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	349	5.00 (5.00, 5.00)	1347.46 (1155.84, 1570.85)	145.67 (124.96, 169.82)
Age < 65	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	349	5.00 (5.00, 5.00)	347.51 (305.03, 395.91)	48.69 (42.78, 55.41)
Age < 65	D57 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	120	0.05 (0.05, 0.06)	387.24 (246.11, 609.31)	179.69 (115.42, 279.74)
Age < 65	D57 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	120	0.80 (0.80, 0.80)	11076.22 (7440.08, 16489.45)	3837.45 (2577.68, 5712.91)
Age < 65	D57 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	120	0.16 (0.15, 0.16)	9253.13 (6697.07, 12784.76)	10299.57 (7454.44, 14230.59)
Age < 65	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	120	7.63 (6.53, 8.92)	4717.38 (3563.79, 6244.37)	445.55 (336.79, 589.44)
Age < 65	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	120	7.06 (6.20, 8.04)	1058.79 (826.54, 1356.29)	123.67 (96.88, 157.86)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Age < 65	D57 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	63	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Age < 65	D57 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	63	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Age < 65	D57 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	63	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Age < 65	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	63	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Age < 65	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	63	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Age < 65	D57 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	122	0.05 (0.05, 0.05)	112.28 (75.54, 166.89)	49.45 (33.01, 74.08)
Age < 65	D57 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	122	0.80 (0.80, 0.80)	2708.45 (1948.93, 3763.96)	938.36 (675.22, 1304.06)
Age < 65	D57 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	122	0.15 (0.15, 0.15)	1654.04 (1259.60, 2171.99)	1841.09 (1402.05, 2417.62)
Age < 65	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	122	6.62 (5.98, 7.34)	1149.42 (889.63, 1485.07)	117.12 (91.01, 150.72)
Age < 65	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	122	6.72 (5.94, 7.60)	248.29 (199.14, 309.58)	29.67 (23.56, 37.37)
Age ≥ 65	D29 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	380	0.05 (0.05, 0.05)	106.36 (88.47, 127.86)	46.96 (38.99, 56.57)
Age ≥ 65	D29 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	380	0.80 (0.80, 0.80)	1278.10 (1098.06, 1487.67)	442.81 (380.43, 515.42)
Age ≥ 65	D29 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	380	0.15 (0.15, 0.15)	735.91 (650.37, 832.70)	819.13 (723.92, 926.87)
Age ≥ 65	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	380	5.00 (5.00, 5.00)	120.05 (109.29, 131.86)	12.83 (11.65, 14.14)
Age ≥ 65	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	380	5.00 (5.00, 5.00)	23.64 (21.76, 25.68)	3.28 (3.03, 3.56)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Age ≥ 65	D29 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	115	0.05 (0.05, 0.05)	190.90 (141.02, 258.43)	84.97 (62.74, 115.07)
Age ≥ 65	D29 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	115	0.81 (0.79, 0.83)	2278.84 (1746.16, 2974.00)	789.52 (604.97, 1030.37)
Age ≥ 65	D29 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	115	0.15 (0.15, 0.16)	1226.44 (1001.06, 1502.57)	1365.14 (1114.27, 1672.49)
Age ≥ 65	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	115	6.85 (6.10, 7.70)	200.91 (171.37, 235.55)	19.05 (16.14, 22.48)
Age ≥ 65	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	115	5.87 (5.42, 6.35)	37.50 (31.97, 43.98)	4.64 (3.92, 5.48)
Age ≥ 65	D29 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	67	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Age ≥ 65	D29 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	67	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Age ≥ 65	D29 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	67	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Age ≥ 65	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	67	5.00 (5.00, 5.00)	5.09 (4.91, 5.28)	1.00 (1.00, 1.00)
Age ≥ 65	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	67	5.00 (5.00, 5.00)	5.11 (4.96, 5.26)	1.00 (1.00, 1.00)
Age ≥ 65	D29 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	99	0.05 (0.05, 0.05)	76.21 (53.70, 108.14)	33.83 (23.80, 48.08)
Age ≥ 65	D29 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	99	0.80 (0.80, 0.80)	1198.14 (902.26, 1591.04)	415.11 (312.60, 551.23)
Age ≥ 65	D29 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	99	0.15 (0.15, 0.15)	800.83 (634.04, 1011.50)	891.40 (705.74, 1125.89)
Age ≥ 65	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	99	6.53 (5.85, 7.28)	87.38 (72.83, 104.84)	8.53 (7.07, 10.30)
Age ≥ 65	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	99	6.84 (6.09, 7.69)	18.68 (15.96, 21.85)	2.07 (1.74, 2.45)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Age ≥ 65	D57 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	380	0.05 (0.05, 0.05)	486.49 (395.79, 597.97)	216.48 (176.08, 266.15)
Age ≥ 65	D57 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	380	0.80 (0.80, 0.80)	14325.17 (12137.26, 16907.48)	4963.07 (4205.05, 5857.74)
Age ≥ 65	D57 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	380	0.15 (0.15, 0.15)	11239.44 (9729.00, 12984.37)	12510.50 (10829.25, 14452.77)
Age ≥ 65	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	380	5.00 (5.00, 5.00)	3281.13 (2911.97, 3697.09)	354.72 (314.81, 399.69)
Age ≥ 65	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	380	5.00 (5.00, 5.00)	502.25 (453.11, 556.72)	70.24 (63.37, 77.86)
Age ≥ 65	D57 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	115	0.05 (0.05, 0.05)	1439.08 (1015.71, 2038.90)	641.72 (453.23, 908.59)
Age ≥ 65	D57 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	115	0.81 (0.79, 0.83)	38593.74 (28814.02, 51692.79)	13371.12 (9982.86, 17909.40)
Age ≥ 65	D57 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	115	0.15 (0.15, 0.16)	31283.02 (24182.81, 40467.89)	34820.81 (26917.64, 45044.40)
Age ≥ 65	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	115	6.85 (6.10, 7.70)	8999.47 (7367.88, 10992.37)	853.30 (698.81, 1041.96)
Age ≥ 65	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	115	5.87 (5.42, 6.35)	1399.31 (1153.67, 1697.26)	179.54 (148.77, 216.68)
Age ≥ 65	D57 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	67	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Age ≥ 65	D57 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	67	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Age ≥ 65	D57 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	67	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Age ≥ 65	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	67	5.00 (5.00, 5.00)	5.10 (4.91, 5.30)	1.00 (1.00, 1.00)
Age ≥ 65	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	67	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Age ≥ 65	D57 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	99	0.05 (0.05, 0.05)	556.72 (368.56, 840.94)	248.00 (164.18, 374.61)
Age ≥ 65	D57 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	99	0.80 (0.80, 0.80)	17836.18 (12568.45, 25311.74)	6179.49 (4354.44, 8769.46)
Age ≥ 65	D57 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	99	0.15 (0.15, 0.15)	12045.86 (9318.95, 15570.71)	13408.12 (10372.83, 17331.60)
Age ≥ 65	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	99	6.53 (5.85, 7.28)	2881.21 (2266.23, 3663.09)	287.97 (227.39, 364.67)
Age ≥ 65	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	99	6.84 (6.09, 7.69)	484.49 (390.97, 600.39)	56.38 (45.18, 70.35)

Table 8c. Geometric mean titer ratios (GMTRs) or geometric mean concentration ratios (GMCRs) between post-vaccinations/pre-vaccination by Risk for Severe Covid-19

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Risk for Severe Covid-19								
At-risk	D29 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	386	0.05 (0.05, 0.05)	44.28 (37.13, 52.81)	19.66 (16.50, 23.42)
At-risk	D29 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	386	0.80 (0.80, 0.80)	485.46 (414.37, 568.76)	168.19 (143.56, 197.05)
At-risk	D29 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	386	0.15 (0.15, 0.15)	289.13 (252.52, 331.05)	321.83 (281.08, 368.49)
At-risk	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	386	5.00 (5.00, 5.00)	76.50 (69.55, 84.15)	8.11 (7.34, 8.95)
At-risk	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	386	5.00 (5.00, 5.00)	18.47 (16.88, 20.21)	2.62 (2.41, 2.85)
At-risk	D29 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	105	0.05 (0.05, 0.05)	81.33 (53.77, 123.02)	37.90 (25.65, 55.99)
At-risk	D29 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	105	0.80 (0.80, 0.80)	984.44 (689.20, 1406.14)	341.07 (238.78, 487.17)
At-risk	D29 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	105	0.15 (0.15, 0.16)	455.21 (339.71, 609.98)	506.69 (378.13, 678.96)
At-risk	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	105	6.67 (5.96, 7.48)	129.09 (104.45, 159.54)	12.73 (10.30, 15.72)
At-risk	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	105	6.64 (5.91, 7.45)	29.44 (24.18, 35.85)	3.50 (2.90, 4.21)
At-risk	D29 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	67	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
At-risk	D29 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	67	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
At-risk	D29 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	67	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
At-risk	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	67	5.00 (5.00, 5.00)	5.16 (4.94, 5.39)	1.00 (1.00, 1.00)
At-risk	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	67	5.00 (5.00, 5.00)	5.03 (4.97, 5.09)	1.00 (1.00, 1.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
At-risk	D29 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	90	0.05 (0.05, 0.05)	39.68 (28.82, 54.63)	17.65 (12.82, 24.30)
At-risk	D29 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	90	0.80 (0.80, 0.80)	520.13 (381.79, 708.60)	180.20 (132.27, 245.50)
At-risk	D29 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	90	0.15 (0.15, 0.15)	307.79 (234.52, 403.94)	342.60 (261.05, 449.63)
At-risk	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	90	6.16 (5.56, 6.83)	60.07 (50.29, 71.75)	5.92 (4.89, 7.18)
At-risk	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	90	6.58 (5.87, 7.39)	12.59 (10.55, 15.03)	1.62 (1.37, 1.93)
At-risk	D57 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	386	0.05 (0.05, 0.05)	195.52 (156.27, 244.63)	87.75 (70.27, 109.56)
At-risk	D57 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	386	0.80 (0.80, 0.80)	5968.52 (5011.87, 7107.78)	2067.84 (1736.41, 2462.55)
At-risk	D57 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	386	0.15 (0.15, 0.15)	4138.28 (3532.44, 4848.02)	4606.28 (3931.92, 5396.28)
At-risk	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	386	5.00 (5.00, 5.00)	1858.97 (1642.59, 2103.86)	200.97 (177.58, 227.44)
At-risk	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	386	5.00 (5.00, 5.00)	380.45 (341.63, 423.68)	53.21 (47.78, 59.26)
At-risk	D57 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	105	0.05 (0.05, 0.05)	487.62 (294.63, 807.02)	239.66 (154.61, 371.50)
At-risk	D57 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	105	0.80 (0.80, 0.80)	14955.96 (10185.61, 21960.47)	5181.62 (3528.89, 7608.39)
At-risk	D57 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	105	0.15 (0.15, 0.16)	11438.51 (7887.92, 16587.33)	12732.09 (8779.96, 18463.19)
At-risk	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	105	6.67 (5.96, 7.48)	4342.98 (3370.54, 5595.98)	425.00 (328.30, 550.19)
At-risk	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	105	6.64 (5.91, 7.45)	1140.79 (916.59, 1419.83)	135.13 (108.89, 167.70)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
At-risk	D57 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	67	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
At-risk	D57 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	67	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
At-risk	D57 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	67	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
At-risk	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	67	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
At-risk	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	67	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
At-risk	D57 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	90	0.05 (0.05, 0.05)	232.51 (142.22, 380.12)	107.11 (66.74, 171.92)
At-risk	D57 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	90	0.80 (0.80, 0.80)	5149.57 (3527.35, 7517.84)	1784.11 (1222.08, 2604.62)
At-risk	D57 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	90	0.15 (0.15, 0.15)	3830.52 (2888.83, 5079.19)	4263.72 (3215.53, 5653.59)
At-risk	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	90	6.16 (5.56, 6.83)	1675.89 (1293.01, 2172.15)	171.91 (132.87, 222.42)
At-risk	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	90	6.58 (5.87, 7.39)	327.27 (260.71, 410.83)	40.11 (31.95, 50.35)
Not at-risk	D29 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	343	0.05 (0.05, 0.05)	34.66 (27.69, 43.38)	15.89 (12.81, 19.70)
Not at-risk	D29 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	343	0.80 (0.80, 0.80)	427.74 (349.33, 523.75)	148.19 (121.03, 181.46)
Not at-risk	D29 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	343	0.15 (0.15, 0.16)	224.21 (191.82, 262.07)	249.56 (213.51, 291.71)
Not at-risk	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	343	5.00 (5.00, 5.00)	61.92 (54.79, 69.97)	6.56 (5.79, 7.44)
Not at-risk	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	343	5.00 (5.00, 5.00)	16.25 (14.47, 18.25)	2.32 (2.09, 2.58)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Not at-risk	D29 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	130	0.05 (0.05, 0.06)	102.69 (73.52, 143.44)	45.58 (32.60, 63.72)
Not at-risk	D29 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	130	0.80 (0.79, 0.81)	1097.81 (736.60, 1636.14)	380.34 (255.20, 566.85)
Not at-risk	D29 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	130	0.16 (0.15, 0.16)	503.75 (357.38, 710.07)	560.72 (397.79, 790.37)
Not at-risk	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	130	7.75 (6.57, 9.14)	150.98 (126.32, 180.46)	14.10 (11.63, 17.11)
Not at-risk	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	130	6.85 (5.99, 7.84)	33.47 (27.51, 40.73)	3.87 (3.15, 4.77)
Not at-risk	D29 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	63	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Not at-risk	D29 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	63	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Not at-risk	D29 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	63	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Not at-risk	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	63	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Not at-risk	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	63	5.00 (5.00, 5.00)	5.02 (4.98, 5.07)	1.00 (1.00, 1.00)
Not at-risk	D29 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	131	0.05 (0.05, 0.05)	23.49 (16.45, 33.52)	10.67 (7.55, 15.07)
Not at-risk	D29 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	131	0.80 (0.80, 0.80)	310.69 (233.62, 413.18)	107.26 (80.48, 142.96)
Not at-risk	D29 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	131	0.15 (0.15, 0.15)	163.26 (125.47, 212.44)	181.73 (139.66, 236.47)
Not at-risk	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	131	6.74 (6.06, 7.50)	45.70 (37.36, 55.89)	4.37 (3.51, 5.45)
Not at-risk	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	131	6.79 (5.98, 7.72)	10.78 (9.32, 12.49)	1.35 (1.15, 1.58)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Not at-risk	D57 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	343	0.05 (0.05, 0.05)	136.05 (103.98, 178.00)	61.77 (47.53, 80.28)
Not at-risk	D57 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	343	0.80 (0.80, 0.80)	4057.00 (3223.54, 5105.95)	1405.58 (1116.82, 1769.00)
Not at-risk	D57 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	343	0.15 (0.15, 0.16)	2774.24 (2289.82, 3361.15)	3087.98 (2548.77, 3741.26)
Not at-risk	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	343	5.00 (5.00, 5.00)	1542.49 (1306.91, 1820.53)	166.76 (141.29, 196.81)
Not at-risk	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	343	5.00 (5.00, 5.00)	373.66 (324.78, 429.89)	52.36 (45.57, 60.17)
Not at-risk	D57 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	130	0.05 (0.05, 0.06)	513.39 (322.88, 816.29)	231.11 (145.97, 365.89)
Not at-risk	D57 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	130	0.80 (0.79, 0.81)	14090.95 (9320.72, 21302.51)	4881.93 (3229.24, 7380.43)
Not at-risk	D57 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	130	0.16 (0.15, 0.16)	12028.20 (8639.69, 16745.69)	13388.47 (9616.76, 18639.46)
Not at-risk	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	130	7.75 (6.57, 9.14)	5790.79 (4324.99, 7753.37)	541.00 (404.49, 723.57)
Not at-risk	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	130	6.85 (5.99, 7.84)	1114.45 (860.57, 1443.25)	132.93 (103.02, 171.53)
Not at-risk	D57 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	63	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Not at-risk	D57 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	63	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Not at-risk	D57 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	63	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Not at-risk	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	63	5.00 (5.00, 5.00)	5.03 (4.97, 5.10)	1.00 (1.00, 1.00)
Not at-risk	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	63	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Not at-risk	D57 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	131	0.05 (0.05, 0.05)	134.62 (89.67, 202.10)	58.67 (38.68, 88.98)
Not at-risk	D57 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	131	0.80 (0.80, 0.80)	3575.88 (2534.08, 5045.98)	1238.89 (877.95, 1748.22)
Not at-risk	D57 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	131	0.15 (0.15, 0.15)	2110.89 (1581.56, 2817.38)	2349.61 (1760.42, 3136.00)
Not at-risk	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	131	6.74 (6.06, 7.50)	1291.24 (989.33, 1685.29)	130.68 (100.56, 169.81)
Not at-risk	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	131	6.79 (5.98, 7.72)	270.07 (214.81, 339.55)	31.82 (25.03, 40.44)

Table 8d. Geometric mean titer ratios (GMTRs) or geometric mean concentration ratios (GMCRs) between post-vaccinations/pre-vaccination by Age, Risk for Severe Covid-19

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Age, Risk for Severe Covid-19								
Age < 65 At-risk	D29 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	179	0.05 (0.05, 0.05)	24.85 (19.74, 31.29)	11.07 (8.82, 13.89)
Age < 65 At-risk	D29 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	179	0.80 (0.80, 0.80)	259.66 (210.31, 320.59)	89.96 (72.86, 111.07)
Age < 65 At-risk	D29 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	179	0.15 (0.15, 0.15)	156.86 (131.13, 187.64)	174.60 (145.96, 208.86)
Age < 65 At-risk	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	179	5.00 (5.00, 5.00)	56.80 (49.99, 64.54)	6.01 (5.26, 6.86)
Age < 65 At-risk	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	179	5.00 (5.00, 5.00)	15.47 (13.62, 17.57)	2.21 (1.97, 2.49)
Age < 65 At-risk	D29 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	57	0.05 (0.05, 0.05)	58.74 (33.71, 102.37)	28.04 (16.74, 46.97)
Age < 65 At-risk	D29 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	57	0.80 (0.80, 0.80)	680.03 (422.69, 1094.03)	235.60 (146.45, 379.03)
Age < 65 At-risk	D29 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	57	0.15 (0.15, 0.15)	294.98 (198.55, 438.24)	328.34 (221.00, 487.80)
Age < 65 At-risk	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	57	6.59 (5.70, 7.61)	109.03 (81.87, 145.20)	10.95 (8.27, 14.51)
Age < 65 At-risk	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	57	7.16 (6.08, 8.44)	26.36 (20.36, 34.13)	3.06 (2.41, 3.88)
Age < 65 At-risk	D29 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	32	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Age < 65 At-risk	D29 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	32	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Age < 65 At-risk	D29 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	32	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Age < 65 At-risk	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	32	5.00 (5.00, 5.00)	5.15 (4.86, 5.45)	1.00 (1.00, 1.00)
Age < 65 At-risk	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	32	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Age < 65 At-risk	D29 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	56	0.05 (0.05, 0.05)	33.70 (22.51, 50.45)	14.99 (10.01, 22.43)
Age < 65 At-risk	D29 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	56	0.80 (0.80, 0.80)	376.50 (258.33, 548.72)	130.44 (89.50, 190.11)
Age < 65 At-risk	D29 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	56	0.15 (0.15, 0.15)	195.43 (143.27, 266.58)	217.53 (159.48, 296.73)
Age < 65 At-risk	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	56	6.49 (5.66, 7.45)	52.78 (42.24, 65.95)	5.10 (4.01, 6.50)
Age < 65 At-risk	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	56	6.49 (5.68, 7.42)	10.49 (8.44, 13.04)	1.48 (1.21, 1.82)
Age < 65 At-risk	D57 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	179	0.05 (0.05, 0.05)	102.12 (75.24, 138.61)	46.13 (34.13, 62.34)
Age < 65 At-risk	D57 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	179	0.80 (0.80, 0.80)	3391.18 (2684.59, 4283.74)	1174.90 (930.10, 1484.14)
Age < 65 At-risk	D57 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	179	0.15 (0.15, 0.15)	2138.52 (1719.33, 2659.90)	2380.36 (1913.77, 2960.71)
Age < 65 At-risk	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	179	5.00 (5.00, 5.00)	1333.82 (1120.64, 1587.56)	144.20 (121.15, 171.63)
Age < 65 At-risk	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	179	5.00 (5.00, 5.00)	322.74 (276.67, 376.49)	45.14 (38.70, 52.66)
Age < 65 At-risk	D57 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	57	0.05 (0.05, 0.05)	263.98 (132.48, 525.99)	136.53 (76.33, 244.18)
Age < 65 At-risk	D57 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	57	0.80 (0.80, 0.80)	10594.30 (6336.39, 17713.42)	3670.48 (2195.29, 6136.96)
Age < 65 At-risk	D57 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	57	0.15 (0.15, 0.15)	7490.66 (4539.64, 12360.00)	8337.78 (5053.03, 13757.79)
Age < 65 At-risk	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	57	6.59 (5.70, 7.61)	3085.51 (2208.48, 4310.84)	306.58 (218.12, 430.91)
Age < 65 At-risk	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	57	7.16 (6.08, 8.44)	1070.87 (796.19, 1440.30)	121.77 (90.94, 163.05)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Age < 65 At-risk	D57 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	32	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Age < 65 At-risk	D57 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	32	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Age < 65 At-risk	D57 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	32	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Age < 65 At-risk	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	32	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Age < 65 At-risk	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	32	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Age < 65 At-risk	D57 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	56	0.05 (0.05, 0.05)	157.81 (83.47, 298.39)	73.74 (40.10, 135.60)
Age < 65 At-risk	D57 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	56	0.80 (0.80, 0.80)	3047.97 (1940.66, 4787.11)	1056.00 (672.36, 1658.53)
Age < 65 At-risk	D57 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	56	0.15 (0.15, 0.15)	2430.39 (1750.77, 3373.82)	2705.24 (1948.77, 3755.36)
Age < 65 At-risk	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	56	6.49 (5.66, 7.45)	1305.29 (944.80, 1803.34)	132.59 (96.23, 182.70)
Age < 65 At-risk	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	56	6.49 (5.68, 7.42)	287.22 (217.01, 380.14)	36.28 (27.51, 47.84)
Age < 65 Not at-risk	D29 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	170	0.05 (0.05, 0.05)	28.94 (22.42, 37.36)	13.35 (10.46, 17.04)
Age < 65 Not at-risk	D29 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	170	0.80 (0.80, 0.80)	357.29 (283.72, 449.94)	123.79 (98.30, 155.89)
Age < 65 Not at-risk	D29 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	170	0.15 (0.15, 0.16)	185.02 (155.03, 220.81)	205.94 (172.56, 245.78)
Age < 65 Not at-risk	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	170	5.00 (5.00, 5.00)	55.71 (48.47, 64.03)	5.89 (5.11, 6.80)
Age < 65 Not at-risk	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	170	5.00 (5.00, 5.00)	15.36 (13.46, 17.54)	2.21 (1.96, 2.50)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Age < 65 Not at-risk	D29 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	63	0.05 (0.04, 0.06)	88.57 (59.94, 130.90)	39.29 (26.55, 58.12)
Age < 65 Not at-risk	D29 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	63	0.80 (0.80, 0.80)	940.11 (587.96, 1503.17)	325.71 (203.70, 520.79)
Age < 65 Not at-risk	D29 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	63	0.16 (0.15, 0.17)	416.97 (278.69, 623.86)	464.12 (310.21, 694.41)
Age < 65 Not at-risk	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	63	7.93 (6.53, 9.62)	140.79 (114.31, 173.39)	13.12 (10.47, 16.45)
Age < 65 Not at-risk	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	63	7.03 (6.00, 8.25)	32.63 (25.91, 41.10)	3.73 (2.92, 4.76)
Age < 65 Not at-risk	D29 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	31	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Age < 65 Not at-risk	D29 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	31	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Age < 65 Not at-risk	D29 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	31	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Age < 65 Not at-risk	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	31	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Age < 65 Not at-risk	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	31	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Age < 65 Not at-risk	D29 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	66	0.05 (0.05, 0.05)	18.23 (12.09, 27.48)	8.32 (5.58, 12.39)
Age < 65 Not at-risk	D29 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	66	0.80 (0.80, 0.80)	238.21 (171.61, 330.67)	82.19 (59.05, 114.39)
Age < 65 Not at-risk	D29 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	66	0.15 (0.15, 0.15)	121.96 (90.11, 165.06)	135.75 (100.30, 183.73)
Age < 65 Not at-risk	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	66	6.66 (5.88, 7.53)	40.08 (31.72, 50.63)	3.84 (2.97, 4.96)
Age < 65 Not at-risk	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	66	6.78 (5.83, 7.88)	9.75 (8.23, 11.54)	1.24 (1.03, 1.49)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Age < 65 Not at-risk	D57 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	170	0.05 (0.05, 0.05)	112.38 (82.69, 152.73)	51.18 (37.95, 69.01)
Age < 65 Not at-risk	D57 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	170	0.80 (0.80, 0.80)	3304.93 (2542.54, 4295.92)	1145.02 (880.88, 1488.36)
Age < 65 Not at-risk	D57 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	170	0.15 (0.15, 0.16)	2218.23 (1784.62, 2757.19)	2469.09 (1986.44, 3069.00)
Age < 65 Not at-risk	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	170	5.00 (5.00, 5.00)	1351.12 (1118.77, 1631.73)	146.07 (120.95, 176.40)
Age < 65 Not at-risk	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	170	5.00 (5.00, 5.00)	354.44 (302.03, 415.94)	49.68 (42.39, 58.22)
Age < 65 Not at-risk	D57 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	63	0.05 (0.04, 0.06)	428.57 (248.95, 737.76)	193.24 (112.83, 330.96)
Age < 65 Not at-risk	D57 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	63	0.80 (0.80, 0.80)	11207.38 (6903.91, 18193.36)	3882.89 (2391.92, 6303.24)
Age < 65 Not at-risk	D57 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	63	0.16 (0.15, 0.17)	9785.27 (6647.32, 14404.53)	10891.89 (7399.07, 16033.54)
Age < 65 Not at-risk	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	63	7.93 (6.53, 9.62)	5278.25 (3745.85, 7437.55)	491.88 (349.45, 692.37)
Age < 65 Not at-risk	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	63	7.03 (6.00, 8.25)	1055.62 (779.54, 1429.47)	124.18 (92.09, 167.44)
Age < 65 Not at-risk	D57 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	31	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Age < 65 Not at-risk	D57 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	31	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Age < 65 Not at-risk	D57 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	31	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Age < 65 Not at-risk	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	31	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Age < 65 Not at-risk	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	31	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Age < 65 Not at-risk	D57 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	66	0.05 (0.05, 0.05)	103.08 (64.48, 164.79)	44.73 (27.63, 72.41)
Age < 65 Not at-risk	D57 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	66	0.80 (0.80, 0.80)	2629.32 (1769.93, 3905.97)	910.95 (613.21, 1353.26)
Age < 65 Not at-risk	D57 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	66	0.15 (0.15, 0.15)	1501.69 (1079.24, 2089.52)	1671.52 (1201.29, 2325.82)
Age < 65 Not at-risk	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	66	6.66 (5.88, 7.53)	1113.30 (816.50, 1517.97)	113.53 (83.68, 154.02)
Age < 65 Not at-risk	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	66	6.78 (5.83, 7.88)	239.38 (183.32, 312.58)	28.21 (21.32, 37.32)
Age ≥ 65 At-risk	D29 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	207	0.05 (0.05, 0.05)	102.72 (79.51, 132.71)	45.40 (35.07, 58.79)
Age ≥ 65 At-risk	D29 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	207	0.80 (0.80, 0.80)	1208.15 (973.44, 1499.46)	418.57 (337.26, 519.50)
Age ≥ 65 At-risk	D29 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	207	0.15 (0.15, 0.15)	704.80 (588.42, 844.19)	784.50 (654.97, 939.66)
Age ≥ 65 At-risk	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	207	5.00 (5.00, 5.00)	118.06 (103.33, 134.89)	12.55 (10.92, 14.42)
Age ≥ 65 At-risk	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	207	5.00 (5.00, 5.00)	23.90 (21.27, 26.86)	3.36 (3.01, 3.75)
Age ≥ 65 At-risk	D29 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	48	0.05 (0.05, 0.05)	152.42 (89.14, 260.63)	67.76 (39.58, 116.01)
Age ≥ 65 At-risk	D29 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	48	0.80 (0.80, 0.80)	2010.51 (1276.03, 3167.74)	696.56 (442.09, 1097.49)
Age ≥ 65 At-risk	D29 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	48	0.16 (0.15, 0.16)	1051.78 (774.94, 1427.51)	1170.72 (862.58, 1588.94)
Age ≥ 65 At-risk	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	48	6.84 (5.71, 8.19)	178.85 (137.17, 233.19)	17.00 (12.74, 22.68)
Age ≥ 65 At-risk	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	48	5.74 (5.10, 6.45)	36.44 (27.45, 48.37)	4.52 (3.39, 6.03)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Age ≥ 65 At-risk	D29 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	35	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Age ≥ 65 At-risk	D29 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	35	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Age ≥ 65 At-risk	D29 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	35	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Age ≥ 65 At-risk	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	35	5.00 (5.00, 5.00)	5.18 (4.84, 5.55)	1.00 (1.00, 1.00)
Age ≥ 65 At-risk	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	35	5.00 (5.00, 5.00)	5.08 (4.93, 5.23)	1.00 (1.00, 1.00)
Age ≥ 65 At-risk	D29 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	34	0.05 (0.05, 0.05)	58.48 (36.18, 94.50)	26.05 (16.12, 42.10)
Age ≥ 65 At-risk	D29 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	34	0.80 (0.80, 0.80)	1121.05 (698.94, 1798.10)	388.40 (242.15, 622.97)
Age ≥ 65 At-risk	D29 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	34	0.15 (0.15, 0.15)	905.72 (600.50, 1366.09)	1008.15 (668.41, 1520.58)
Age ≥ 65 At-risk	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	34	5.44 (4.85, 6.11)	81.69 (62.81, 106.25)	8.44 (6.40, 11.11)
Age ≥ 65 At-risk	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	34	6.81 (5.45, 8.51)	19.43 (14.95, 25.25)	2.02 (1.49, 2.75)
Age ≥ 65 At-risk	D57 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	207	0.05 (0.05, 0.05)	503.70 (371.04, 683.78)	223.93 (164.86, 304.17)
Age ≥ 65 At-risk	D57 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	207	0.80 (0.80, 0.80)	13601.87 (10654.51, 17364.58)	4712.48 (3691.34, 6016.10)
Age ≥ 65 At-risk	D57 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	207	0.15 (0.15, 0.15)	10828.50 (8897.83, 13178.09)	12053.09 (9904.08, 14668.40)
Age ≥ 65 At-risk	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	207	5.00 (5.00, 5.00)	3015.39 (2572.69, 3534.28)	325.99 (278.13, 382.08)
Age ≥ 65 At-risk	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	207	5.00 (5.00, 5.00)	483.49 (421.46, 554.66)	67.62 (58.95, 77.57)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Age ≥ 65 At-risk	D57 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	48	0.05 (0.05, 0.05)	1594.12 (928.56, 2736.72)	710.12 (413.64, 1219.11)
Age ≥ 65 At-risk	D57 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	48	0.80 (0.80, 0.80)	29097.29 (17725.21, 47765.46)	10081.00 (6141.04, 16548.74)
Age ≥ 65 At-risk	D57 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	48	0.16 (0.15, 0.16)	25896.62 (16633.51, 40318.29)	28825.26 (18514.60, 44877.88)
Age ≥ 65 At-risk	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	48	6.84 (5.71, 8.19)	8401.39 (6134.56, 11505.84)	798.35 (575.22, 1108.03)
Age ≥ 65 At-risk	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	48	5.74 (5.10, 6.45)	1288.94 (967.06, 1717.95)	165.22 (124.66, 218.97)
Age ≥ 65 At-risk	D57 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	35	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Age ≥ 65 At-risk	D57 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	35	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Age ≥ 65 At-risk	D57 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	35	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Age ≥ 65 At-risk	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	35	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Age ≥ 65 At-risk	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	35	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Age ≥ 65 At-risk	D57 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	34	0.05 (0.05, 0.05)	583.94 (318.08, 1072.01)	260.12 (141.69, 477.54)
Age ≥ 65 At-risk	D57 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	34	0.80 (0.80, 0.80)	17905.90 (10279.07, 31191.67)	6203.65 (3561.27, 10806.61)
Age ≥ 65 At-risk	D57 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	34	0.15 (0.15, 0.15)	11292.06 (7474.39, 17059.65)	12569.08 (8319.67, 18988.93)
Age ≥ 65 At-risk	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	34	5.44 (4.85, 6.11)	3035.04 (2093.95, 4399.09)	318.64 (221.00, 459.40)
Age ≥ 65 At-risk	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	34	6.81 (5.45, 8.51)	446.32 (309.08, 644.50)	50.91 (34.53, 75.06)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Age ≥ 65 Not at-risk	D29 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	173	0.05 (0.05, 0.05)	110.83 (85.11, 144.31)	48.88 (37.40, 63.87)
Age ≥ 65 Not at-risk	D29 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	173	0.80 (0.80, 0.80)	1366.03 (1106.49, 1686.44)	473.27 (383.35, 584.28)
Age ≥ 65 Not at-risk	D29 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	173	0.15 (0.15, 0.15)	774.46 (657.17, 912.69)	862.04 (731.49, 1015.90)
Age ≥ 65 Not at-risk	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	173	5.00 (5.00, 5.00)	122.44 (107.44, 139.53)	13.18 (11.54, 15.05)
Age ≥ 65 Not at-risk	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	173	5.00 (5.00, 5.00)	23.33 (20.74, 26.23)	3.19 (2.84, 3.59)
Age ≥ 65 Not at-risk	D29 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	67	0.05 (0.05, 0.05)	224.79 (158.97, 317.88)	100.14 (70.81, 141.60)
Age ≥ 65 Not at-risk	D29 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	67	0.82 (0.78, 0.86)	2495.84 (1808.72, 3444.00)	864.71 (626.65, 1193.20)
Age ≥ 65 Not at-risk	D29 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	67	0.15 (0.15, 0.15)	1371.18 (1046.47, 1796.64)	1526.24 (1164.81, 1999.82)
Age ≥ 65 Not at-risk	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	67	6.86 (5.89, 7.99)	218.62 (180.11, 265.38)	20.70 (17.05, 25.12)
Age ≥ 65 Not at-risk	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	67	5.97 (5.36, 6.64)	38.29 (31.92, 45.93)	4.72 (3.88, 5.75)
Age ≥ 65 Not at-risk	D29 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	32	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Age ≥ 65 Not at-risk	D29 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	32	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Age ≥ 65 Not at-risk	D29 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	32	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Age ≥ 65 Not at-risk	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	32	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Age ≥ 65 Not at-risk	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	32	5.00 (5.00, 5.00)	5.14 (4.87, 5.41)	1.00 (1.00, 1.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Age ≥ 65 Not at-risk	D29 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	65	0.05 (0.05, 0.05)	88.19 (55.19, 140.92)	39.07 (24.38, 62.62)
Age ≥ 65 Not at-risk	D29 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	65	0.80 (0.80, 0.80)	1242.90 (872.59, 1770.35)	430.61 (302.32, 613.35)
Age ≥ 65 Not at-risk	D29 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	65	0.15 (0.15, 0.15)	748.28 (564.73, 991.49)	832.90 (628.59, 1103.61)
Age ≥ 65 Not at-risk	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	65	7.22 (6.21, 8.40)	90.68 (71.20, 115.50)	8.59 (6.70, 11.01)
Age ≥ 65 Not at-risk	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	65	6.86 (6.00, 7.83)	18.27 (15.03, 22.21)	2.09 (1.71, 2.55)
Age ≥ 65 Not at-risk	D57 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	173	0.05 (0.05, 0.05)	466.90 (357.00, 610.64)	207.99 (159.03, 272.02)
Age ≥ 65 Not at-risk	D57 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	173	0.80 (0.80, 0.80)	15229.92 (12252.91, 18930.24)	5276.53 (4245.12, 6558.54)
Age ≥ 65 Not at-risk	D57 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	173	0.15 (0.15, 0.15)	11745.36 (9495.83, 14527.78)	13073.64 (10569.72, 16170.73)
Age ≥ 65 Not at-risk	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	173	5.00 (5.00, 5.00)	3625.61 (3031.34, 4336.38)	391.96 (327.71, 468.80)
Age ≥ 65 Not at-risk	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	173	5.00 (5.00, 5.00)	525.37 (449.78, 613.66)	73.48 (62.91, 85.83)
Age ≥ 65 Not at-risk	D57 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	67	0.05 (0.05, 0.05)	1336.04 (845.46, 2111.28)	596.21 (377.85, 940.77)
Age ≥ 65 Not at-risk	D57 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	67	0.82 (0.78, 0.86)	47378.57 (33515.55, 66975.76)	16414.70 (11611.74, 23204.31)
Age ≥ 65 Not at-risk	D57 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	67	0.15 (0.15, 0.15)	35883.56 (26533.45, 48528.54)	39941.63 (29534.11, 54016.63)
Age ≥ 65 Not at-risk	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	67	6.86 (5.89, 7.99)	9460.24 (7310.11, 12242.79)	895.56 (698.41, 1148.37)
Age ≥ 65 Not at-risk	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	67	5.97 (5.36, 6.64)	1485.33 (1145.19, 1926.50)	190.71 (148.18, 245.44)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Age ≥ 65 Not at-risk	D57 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	32	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Age ≥ 65 Not at-risk	D57 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	32	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Age ≥ 65 Not at-risk	D57 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	32	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Age ≥ 65 Not at-risk	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	32	5.00 (5.00, 5.00)	5.21 (4.81, 5.63)	1.00 (1.00, 1.00)
Age ≥ 65 Not at-risk	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	32	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Age ≥ 65 Not at-risk	D57 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	65	0.05 (0.05, 0.05)	542.25 (314.50, 934.94)	241.55 (140.10, 416.48)
Age ≥ 65 Not at-risk	D57 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	65	0.80 (0.80, 0.80)	17797.85 (11394.08, 27800.70)	6166.21 (3947.57, 9631.78)
Age ≥ 65 Not at-risk	D57 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	65	0.15 (0.15, 0.15)	12482.88 (9007.31, 17299.52)	13894.56 (10025.95, 19255.92)
Age ≥ 65 Not at-risk	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	65	7.22 (6.21, 8.40)	2799.74 (2052.47, 3819.08)	272.33 (200.85, 369.26)
Age ≥ 65 Not at-risk	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	65	6.86 (6.00, 7.83)	506.92 (390.29, 658.41)	59.64 (45.74, 77.76)

Table 8e. Geometric mean titer ratios (GMTRs) or geometric mean concentration ratios (GMCRs) between post-vaccinations/pre-vaccination by Sex

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Sex								
Male	D29 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	323	0.05 (0.05, 0.05)	31.76 (24.28, 41.54)	14.59 (11.32, 18.81)
Male	D29 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	323	0.80 (0.80, 0.80)	421.15 (333.46, 531.91)	145.91 (115.53, 184.29)
Male	D29 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	323	0.15 (0.15, 0.15)	235.93 (196.41, 283.40)	262.61 (218.62, 315.45)
Male	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	323	5.00 (5.00, 5.00)	60.71 (52.79, 69.82)	6.39 (5.53, 7.38)
Male	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	323	5.00 (5.00, 5.00)	15.88 (14.02, 17.99)	2.27 (2.03, 2.55)
Male	D29 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	106	0.05 (0.05, 0.05)	83.75 (56.70, 123.68)	37.11 (25.08, 54.90)
Male	D29 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	106	0.80 (0.80, 0.80)	829.10 (531.48, 1293.39)	287.25 (184.13, 448.11)
Male	D29 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	106	0.15 (0.15, 0.15)	476.21 (334.06, 678.85)	530.06 (371.83, 755.62)
Male	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	106	6.34 (5.68, 7.08)	124.56 (100.78, 153.96)	12.46 (10.01, 15.51)
Male	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	106	6.68 (5.86, 7.61)	33.09 (26.22, 41.75)	4.07 (3.24, 5.11)
Male	D29 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	55	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Male	D29 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	55	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Male	D29 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	55	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Male	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	55	5.00 (5.00, 5.00)	5.05 (4.95, 5.16)	1.00 (1.00, 1.00)
Male	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	55	5.00 (5.00, 5.00)	5.02 (4.98, 5.07)	1.00 (1.00, 1.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Male	D29 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	104	0.05 (0.05, 0.05)	25.51 (16.91, 38.47)	11.75 (7.96, 17.33)
Male	D29 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	104	0.80 (0.80, 0.80)	361.11 (250.22, 521.14)	124.31 (85.65, 180.42)
Male	D29 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	104	0.15 (0.15, 0.15)	182.27 (136.52, 243.36)	202.89 (151.96, 270.88)
Male	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	104	6.75 (5.85, 7.79)	47.14 (37.05, 59.96)	4.48 (3.53, 5.70)
Male	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	104	6.22 (5.55, 6.98)	10.83 (9.01, 13.02)	1.43 (1.19, 1.72)
Male	D57 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	323	0.05 (0.05, 0.05)	140.02 (102.75, 190.82)	63.46 (47.03, 85.63)
Male	D57 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	323	0.80 (0.80, 0.80)	4059.94 (3055.89, 5393.87)	1406.60 (1058.74, 1868.75)
Male	D57 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	323	0.15 (0.15, 0.15)	2809.47 (2274.64, 3470.07)	3127.20 (2531.87, 3862.50)
Male	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	323	5.00 (5.00, 5.00)	1573.61 (1302.29, 1901.47)	170.12 (140.79, 205.56)
Male	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	323	5.00 (5.00, 5.00)	348.77 (295.56, 411.55)	48.93 (41.56, 57.60)
Male	D57 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	106	0.05 (0.05, 0.05)	407.07 (232.95, 711.34)	188.64 (109.71, 324.35)
Male	D57 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	106	0.80 (0.80, 0.80)	15153.95 (9664.15, 23762.26)	5250.21 (3348.23, 8232.63)
Male	D57 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	106	0.15 (0.15, 0.15)	9992.53 (7143.32, 13978.21)	11122.59 (7951.15, 15559.00)
Male	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	106	6.34 (5.68, 7.08)	4778.46 (3457.85, 6603.43)	479.81 (345.84, 665.67)
Male	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	106	6.68 (5.86, 7.61)	1103.04 (808.54, 1504.80)	136.13 (101.01, 183.47)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Male	D57 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	55	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Male	D57 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	55	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Male	D57 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	55	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Male	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	55	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Male	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	55	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Male	D57 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	104	0.05 (0.05, 0.05)	147.52 (85.75, 253.78)	63.88 (36.40, 112.11)
Male	D57 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	104	0.80 (0.80, 0.80)	3704.28 (2321.25, 5911.32)	1283.38 (804.22, 2048.02)
Male	D57 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	104	0.15 (0.15, 0.15)	2332.32 (1669.25, 3258.78)	2596.08 (1858.02, 3627.31)
Male	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	104	6.75 (5.85, 7.79)	1459.90 (1119.20, 1904.33)	141.19 (110.66, 180.14)
Male	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	104	6.22 (5.55, 6.98)	291.86 (222.28, 383.21)	36.00 (27.23, 47.59)
Female	D29 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	406	0.05 (0.05, 0.05)	42.49 (34.27, 52.67)	19.12 (15.50, 23.58)
Female	D29 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	406	0.80 (0.80, 0.80)	463.21 (377.79, 567.95)	160.48 (130.89, 196.77)
Female	D29 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	406	0.15 (0.15, 0.16)	245.07 (209.23, 287.03)	272.78 (232.90, 319.49)
Female	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	406	5.00 (5.00, 5.00)	70.36 (62.22, 79.55)	7.51 (6.62, 8.51)
Female	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	406	5.00 (5.00, 5.00)	17.73 (15.69, 20.02)	2.52 (2.26, 2.82)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Female	D29 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	129	0.05 (0.04, 0.06)	110.62 (75.20, 162.72)	50.34 (34.43, 73.62)
Female	D29 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	129	0.80 (0.79, 0.81)	1347.64 (867.54, 2093.41)	466.90 (300.57, 725.28)
Female	D29 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	129	0.16 (0.15, 0.17)	505.03 (339.38, 751.55)	562.15 (377.76, 836.54)
Female	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	129	8.66 (7.12, 10.54)	166.98 (138.14, 201.85)	15.03 (12.09, 18.70)
Female	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	129	6.91 (5.89, 8.11)	31.79 (25.82, 39.14)	3.52 (2.82, 4.40)
Female	D29 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	75	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Female	D29 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	75	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Female	D29 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	75	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Female	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	75	5.00 (5.00, 5.00)	5.05 (4.96, 5.14)	1.00 (1.00, 1.00)
Female	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	75	5.00 (5.00, 5.00)	5.03 (4.97, 5.08)	1.00 (1.00, 1.00)
Female	D29 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	117	0.05 (0.05, 0.05)	27.25 (18.45, 40.25)	12.15 (8.26, 17.87)
Female	D29 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	117	0.80 (0.80, 0.80)	341.88 (251.58, 464.58)	118.45 (87.16, 160.96)
Female	D29 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	117	0.15 (0.15, 0.15)	193.96 (141.88, 265.15)	215.89 (157.92, 295.13)
Female	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	117	6.50 (5.86, 7.21)	49.82 (40.18, 61.77)	4.84 (3.78, 6.21)
Female	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	117	7.15 (6.14, 8.32)	11.44 (9.74, 13.42)	1.39 (1.16, 1.66)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Female	D57 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	406	0.05 (0.05, 0.05)	160.42 (122.46, 210.14)	72.51 (55.57, 94.62)
Female	D57 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	406	0.80 (0.80, 0.80)	4962.02 (4019.46, 6125.59)	1719.13 (1392.58, 2122.26)
Female	D57 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	406	0.15 (0.15, 0.16)	3382.76 (2759.35, 4147.01)	3765.32 (3071.41, 4616.00)
Female	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	406	5.00 (5.00, 5.00)	1671.55 (1415.87, 1973.40)	180.71 (153.07, 213.34)
Female	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	406	5.00 (5.00, 5.00)	400.39 (350.05, 457.98)	56.00 (48.96, 64.05)
Female	D57 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	129	0.05 (0.04, 0.06)	619.68 (379.42, 1012.08)	283.43 (174.88, 459.37)
Female	D57 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	129	0.80 (0.79, 0.81)	13566.44 (8553.27, 21517.87)	4700.21 (2963.35, 7455.05)
Female	D57 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	129	0.16 (0.15, 0.17)	13918.27 (9287.06, 20858.96)	15492.29 (10337.33, 23217.90)
Female	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	129	8.66 (7.12, 10.54)	6009.55 (4366.34, 8271.17)	537.39 (392.08, 736.56)
Female	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	129	6.91 (5.89, 8.11)	1137.85 (877.16, 1476.01)	131.10 (100.69, 170.70)
Female	D57 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	75	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Female	D57 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	75	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Female	D57 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	75	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Female	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	75	5.00 (5.00, 5.00)	5.04 (4.96, 5.12)	1.00 (1.00, 1.00)
Female	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	75	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Female	D57 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	117	0.05 (0.05, 0.05)	156.55 (103.11, 237.69)	70.08 (46.17, 106.38)
Female	D57 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	117	0.80 (0.80, 0.80)	4029.99 (2840.74, 5717.10)	1396.22 (984.20, 1980.74)
Female	D57 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	117	0.15 (0.15, 0.15)	2488.70 (1787.49, 3464.98)	2770.15 (1989.64, 3856.84)
Female	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	117	6.50 (5.86, 7.21)	1309.97 (954.62, 1797.59)	137.77 (100.10, 189.61)
Female	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	117	7.15 (6.14, 8.32)	275.52 (214.01, 354.73)	31.89 (24.40, 41.68)

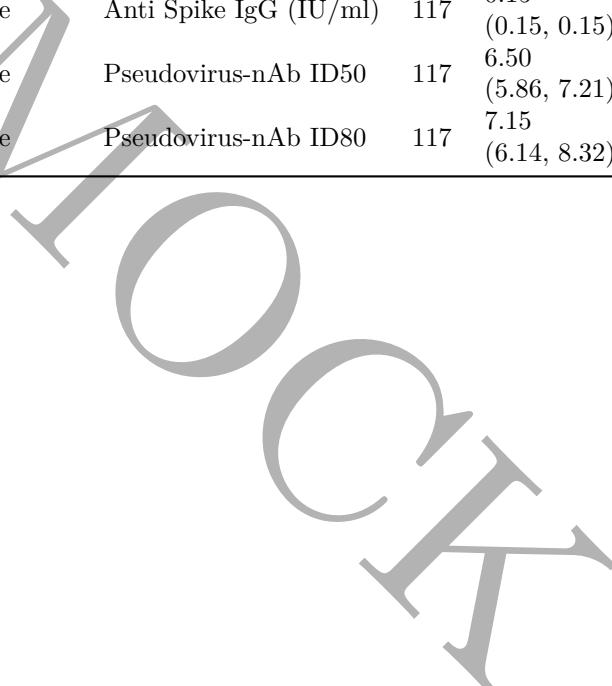


Table 8f. Geometric mean titer ratios (GMTRs) or geometric mean concentration ratios (GMCRs) between post-vaccinations/pre-vaccination by Age, sex

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Age, sex								
Age < 65 Female	D29 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	193	0.05 (0.05, 0.05)	34.48 (26.48, 44.88)	15.60 (12.07, 20.17)
Age < 65 Female	D29 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	193	0.80 (0.80, 0.80)	363.53 (283.05, 466.89)	125.95 (98.07, 161.76)
Age < 65 Female	D29 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	193	0.16 (0.15, 0.16)	183.30 (151.41, 221.91)	204.03 (168.53, 247.01)
Age < 65 Female	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	193	5.00 (5.00, 5.00)	61.90 (53.21, 72.01)	6.60 (5.66, 7.70)
Age < 65 Female	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	193	5.00 (5.00, 5.00)	16.42 (14.11, 19.12)	2.36 (2.06, 2.72)
Age < 65 Female	D29 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	60	0.05 (0.04, 0.07)	97.04 (59.29, 158.82)	44.45 (27.38, 72.16)
Age < 65 Female	D29 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	60	0.80 (0.80, 0.80)	1086.89 (618.32, 1910.58)	376.56 (214.22, 661.93)
Age < 65 Female	D29 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	60	0.16 (0.15, 0.17)	389.46 (234.24, 647.53)	433.50 (260.73, 720.75)
Age < 65 Female	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	60	9.57 (7.47, 12.28)	159.22 (125.17, 202.54)	13.84 (10.49, 18.28)
Age < 65 Female	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	60	7.22 (5.88, 8.86)	30.24 (23.24, 39.35)	3.26 (2.46, 4.31)
Age < 65 Female	D29 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	39	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Age < 65 Female	D29 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	39	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Age < 65 Female	D29 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	39	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Age < 65 Female	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	39	5.00 (5.00, 5.00)	5.06 (4.94, 5.18)	1.00 (1.00, 1.00)
Age < 65 Female	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	39	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Age < 65 Female	D29 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	62	0.05 (0.05, 0.05)	21.56 (13.59, 34.19)	9.62 (6.10, 15.17)
Age < 65 Female	D29 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	62	0.80 (0.80, 0.80)	259.40 (181.71, 370.31)	89.87 (62.95, 128.30)
Age < 65 Female	D29 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	62	0.15 (0.15, 0.15)	142.75 (99.02, 205.78)	158.89 (110.22, 229.06)
Age < 65 Female	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	62	6.54 (5.78, 7.40)	43.50 (33.72, 56.12)	4.19 (3.12, 5.64)
Age < 65 Female	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	62	7.33 (6.10, 8.80)	10.24 (8.49, 12.35)	1.25 (1.02, 1.55)
Age < 65 Female	D57 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	193	0.05 (0.05, 0.05)	122.39 (87.66, 170.89)	55.52 (39.97, 77.11)
Age < 65 Female	D57 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	193	0.80 (0.80, 0.80)	3727.08 (2881.35, 4821.05)	1291.28 (998.27, 1670.29)
Age < 65 Female	D57 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	193	0.16 (0.15, 0.16)	2478.07 (1930.94, 3180.24)	2758.32 (2149.31, 3539.89)
Age < 65 Female	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	193	5.00 (5.00, 5.00)	1429.15 (1163.62, 1755.26)	154.50 (125.80, 189.76)
Age < 65 Female	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	193	5.00 (5.00, 5.00)	379.25 (320.99, 448.09)	53.04 (44.89, 62.67)
Age < 65 Female	D57 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	60	0.05 (0.04, 0.07)	459.00 (246.32, 855.31)	211.53 (114.71, 390.07)
Age < 65 Female	D57 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	60	0.80 (0.80, 0.80)	9191.10 (5152.22, 16396.12)	3184.33 (1785.03, 5680.57)
Age < 65 Female	D57 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	60	0.16 (0.15, 0.17)	11132.13 (6649.51, 18636.61)	12391.06 (7401.51, 20744.22)
Age < 65 Female	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	60	9.57 (7.47, 12.28)	5296.44 (3515.98, 7978.49)	456.43 (305.13, 682.77)
Age < 65 Female	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	60	7.22 (5.88, 8.86)	1099.84 (789.44, 1532.28)	123.20 (87.96, 172.57)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Age < 65 Female	D57 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	39	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Age < 65 Female	D57 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	39	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Age < 65 Female	D57 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	39	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Age < 65 Female	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	39	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Age < 65 Female	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	39	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Age < 65 Female	D57 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	62	0.05 (0.05, 0.05)	121.37 (74.33, 198.18)	54.39 (33.32, 88.78)
Age < 65 Female	D57 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	62	0.80 (0.80, 0.80)	2887.32 (1931.63, 4315.86)	1000.34 (669.23, 1495.27)
Age < 65 Female	D57 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	62	0.15 (0.15, 0.15)	1758.56 (1197.37, 2582.77)	1957.43 (1332.78, 2874.86)
Age < 65 Female	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	62	6.54 (5.78, 7.40)	1110.42 (761.30, 1619.65)	117.18 (80.06, 171.53)
Age < 65 Female	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	62	7.33 (6.10, 8.80)	249.14 (184.26, 336.88)	28.64 (20.79, 39.44)
Age < 65 Male	D29 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	156	0.05 (0.05, 0.05)	22.13 (16.02, 30.58)	10.27 (7.57, 13.92)
Age < 65 Male	D29 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	156	0.80 (0.80, 0.80)	303.34 (228.43, 402.80)	105.09 (79.14, 139.55)
Age < 65 Male	D29 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	156	0.15 (0.15, 0.15)	173.57 (139.37, 216.17)	193.20 (155.13, 240.61)
Age < 65 Male	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	156	5.00 (5.00, 5.00)	49.84 (42.13, 58.95)	5.22 (4.39, 6.21)
Age < 65 Male	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	156	5.00 (5.00, 5.00)	14.29 (12.27, 16.63)	2.05 (1.78, 2.35)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Age < 65 Male	D29 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	60	0.05 (0.05, 0.05)	67.99 (43.02, 107.46)	30.11 (19.01, 47.68)
Age < 65 Male	D29 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	60	0.80 (0.80, 0.80)	708.96 (417.03, 1205.22)	245.62 (144.49, 417.56)
Age < 65 Male	D29 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	60	0.15 (0.15, 0.15)	386.21 (253.47, 588.47)	429.89 (282.14, 655.02)
Age < 65 Male	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	60	6.07 (5.37, 6.86)	111.71 (87.08, 143.30)	11.52 (8.90, 14.91)
Age < 65 Male	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	60	6.90 (5.90, 8.07)	32.21 (24.41, 42.51)	3.94 (3.00, 5.16)
Age < 65 Male	D29 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	24	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Age < 65 Male	D29 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	24	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Age < 65 Male	D29 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	24	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Age < 65 Male	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	24	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Age < 65 Male	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	24	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Age < 65 Male	D29 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	60	0.05 (0.05, 0.05)	19.36 (12.01, 31.22)	9.00 (5.75, 14.10)
Age < 65 Male	D29 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	60	0.80 (0.80, 0.80)	263.60 (171.88, 404.25)	90.59 (58.63, 139.98)
Age < 65 Male	D29 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	60	0.15 (0.15, 0.15)	122.69 (90.14, 166.99)	136.57 (100.34, 185.88)
Age < 65 Male	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	60	6.74 (5.67, 8.03)	40.78 (30.69, 54.21)	3.89 (2.93, 5.17)
Age < 65 Male	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	60	5.95 (5.19, 6.80)	9.42 (7.61, 11.67)	1.32 (1.07, 1.64)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Age < 65 Male	D57 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	156	0.05 (0.05, 0.05)	97.65 (67.09, 142.12)	44.50 (30.97, 63.96)
Age < 65 Male	D57 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	156	0.80 (0.80, 0.80)	2915.22 (2062.08, 4121.32)	1010.00 (714.42, 1427.87)
Age < 65 Male	D57 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	156	0.15 (0.15, 0.15)	1922.98 (1497.22, 2469.80)	2140.45 (1666.55, 2749.11)
Age < 65 Male	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	156	5.00 (5.00, 5.00)	1259.98 (1000.98, 1586.01)	136.21 (108.21, 171.46)
Age < 65 Male	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	156	5.00 (5.00, 5.00)	314.54 (256.58, 385.59)	44.16 (36.13, 53.97)
Age < 65 Male	D57 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	60	0.05 (0.05, 0.05)	326.29 (168.24, 632.83)	152.46 (80.21, 289.78)
Age < 65 Male	D57 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	60	0.80 (0.80, 0.80)	13366.50 (7819.65, 22847.99)	4630.93 (2709.18, 7915.88)
Age < 65 Male	D57 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	60	0.15 (0.15, 0.15)	7680.73 (5186.35, 11374.79)	8549.34 (5772.87, 12661.16)
Age < 65 Male	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	60	6.07 (5.37, 6.86)	4198.01 (2858.43, 6165.39)	434.85 (294.50, 642.10)
Age < 65 Male	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	60	6.90 (5.90, 8.07)	1018.98 (704.36, 1474.14)	124.14 (87.11, 176.90)
Age < 65 Male	D57 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	24	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Age < 65 Male	D57 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	24	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Age < 65 Male	D57 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	24	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Age < 65 Male	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	24	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Age < 65 Male	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	24	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Age < 65 Male	D57 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	60	0.05 (0.05, 0.05)	100.58 (53.28, 189.86)	43.23 (22.34, 83.68)
Age < 65 Male	D57 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	60	0.80 (0.80, 0.80)	2474.57 (1428.21, 4287.53)	857.34 (494.82, 1485.45)
Age < 65 Male	D57 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	60	0.15 (0.15, 0.15)	1516.94 (1053.10, 2185.06)	1688.49 (1172.20, 2432.17)
Age < 65 Male	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	60	6.74 (5.67, 8.03)	1206.82 (882.57, 1650.21)	117.03 (88.04, 155.58)
Age < 65 Male	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	60	5.95 (5.19, 6.80)	247.10 (178.79, 341.51)	31.19 (22.36, 43.51)
Age ≥ 65 Male	D29 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	167	0.05 (0.05, 0.05)	128.60 (97.02, 170.46)	56.94 (42.86, 75.64)
Age ≥ 65 Male	D29 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	167	0.80 (0.80, 0.80)	1500.54 (1218.42, 1847.97)	519.87 (422.13, 640.25)
Age ≥ 65 Male	D29 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	167	0.15 (0.15, 0.15)	774.28 (643.61, 931.49)	861.85 (716.39, 1036.84)
Age ≥ 65 Male	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	167	5.00 (5.00, 5.00)	130.35 (112.96, 150.41)	13.93 (12.02, 16.15)
Age ≥ 65 Male	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	167	5.00 (5.00, 5.00)	23.92 (20.96, 27.29)	3.38 (2.98, 3.83)
Age ≥ 65 Male	D29 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	46	0.05 (0.05, 0.05)	227.26 (133.38, 387.22)	101.02 (59.20, 172.39)
Age ≥ 65 Male	D29 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	46	0.80 (0.80, 0.80)	1755.00 (1137.25, 2708.32)	608.04 (394.01, 938.32)
Age ≥ 65 Male	D29 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	46	0.16 (0.15, 0.16)	1298.82 (912.78, 1848.12)	1445.70 (1016.00, 2057.13)
Age ≥ 65 Male	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	46	7.85 (6.26, 9.84)	209.89 (161.56, 272.66)	18.15 (13.64, 24.17)
Age ≥ 65 Male	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	46	5.69 (5.10, 6.34)	37.62 (29.93, 47.30)	4.78 (3.74, 6.11)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Age ≥ 65 Male	D29 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	31	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Age ≥ 65 Male	D29 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	31	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Age ≥ 65 Male	D29 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	31	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Age ≥ 65 Male	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	31	5.00 (5.00, 5.00)	5.19 (4.82, 5.59)	1.00 (1.00, 1.00)
Age ≥ 65 Male	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	31	5.00 (5.00, 5.00)	5.08 (4.92, 5.25)	1.00 (1.00, 1.00)
Age ≥ 65 Male	D29 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	44	0.05 (0.05, 0.05)	74.13 (42.11, 130.48)	32.91 (18.66, 58.04)
Age ≥ 65 Male	D29 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	44	0.80 (0.80, 0.80)	1221.36 (795.22, 1875.86)	423.15 (275.51, 649.91)
Age ≥ 65 Male	D29 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	44	0.15 (0.15, 0.15)	843.79 (574.25, 1239.87)	939.22 (639.19, 1380.08)
Age ≥ 65 Male	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	44	6.78 (5.69, 8.08)	82.56 (61.68, 110.50)	7.73 (5.76, 10.39)
Age ≥ 65 Male	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	44	7.43 (6.16, 8.96)	18.57 (14.43, 23.89)	1.95 (1.48, 2.58)
Age ≥ 65 Male	D57 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	167	0.05 (0.05, 0.05)	565.38 (415.73, 768.88)	250.65 (183.92, 341.61)
Age ≥ 65 Male	D57 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	167	0.80 (0.80, 0.80)	14638.15 (11395.83, 18802.97)	5071.51 (3948.18, 6514.44)
Age ≥ 65 Male	D57 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	167	0.15 (0.15, 0.15)	12193.67 (9813.06, 15151.81)	13572.65 (10922.82, 16865.32)
Age ≥ 65 Male	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	167	5.00 (5.00, 5.00)	3721.04 (3121.74, 4435.39)	402.27 (337.49, 479.50)
Age ≥ 65 Male	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	167	5.00 (5.00, 5.00)	520.26 (445.63, 607.40)	72.76 (62.33, 84.95)

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Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Age ≥ 65 Male	D57 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	46	0.05 (0.05, 0.05)	1174.50 (638.45, 2160.59)	523.20 (284.41, 962.47)
Age ≥ 65 Male	D57 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	46	0.80 (0.80, 0.80)	27645.81 (18017.17, 42420.13)	9578.12 (6242.20, 14696.81)
Age ≥ 65 Male	D57 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	46	0.16 (0.15, 0.16)	35242.24 (24322.08, 51065.36)	39227.79 (27072.66, 56840.34)
Age ≥ 65 Male	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	46	7.85 (6.26, 9.84)	8886.03 (6372.40, 12391.19)	768.63 (547.43, 1079.22)
Age ≥ 65 Male	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	46	5.69 (5.10, 6.34)	1612.43 (1184.09, 2195.72)	211.76 (155.35, 288.65)
Age ≥ 65 Male	D57 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	31	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Age ≥ 65 Male	D57 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	31	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Age ≥ 65 Male	D57 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	31	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Age ≥ 65 Male	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	31	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Age ≥ 65 Male	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	31	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Age ≥ 65 Male	D57 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	44	0.05 (0.05, 0.05)	649.87 (347.81, 1214.27)	289.49 (154.94, 540.91)
Age ≥ 65 Male	D57 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	44	0.80 (0.80, 0.80)	17659.17 (10704.15, 29133.22)	6118.17 (3708.54, 10093.45)
Age ≥ 65 Male	D57 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	44	0.15 (0.15, 0.15)	12331.93 (8264.49, 18401.18)	13726.54 (9199.12, 20482.17)
Age ≥ 65 Male	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	44	6.78 (5.69, 8.08)	3050.74 (2115.34, 4399.77)	291.93 (206.56, 412.59)
Age ≥ 65 Male	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	44	7.43 (6.16, 8.96)	556.00 (396.66, 779.36)	62.66 (43.89, 89.46)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Age ≥ 65 Female	D29 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	213	0.05 (0.05, 0.05)	90.94 (71.50, 115.67)	40.06 (31.40, 51.12)
Age ≥ 65 Female	D29 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	213	0.80 (0.80, 0.80)	1119.66 (902.31, 1389.37)	387.92 (312.61, 481.36)
Age ≥ 65 Female	D29 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	213	0.15 (0.15, 0.15)	705.69 (597.80, 833.05)	785.50 (665.41, 927.26)
Age ≥ 65 Female	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	213	5.00 (5.00, 5.00)	112.16 (99.17, 126.86)	11.99 (10.56, 13.62)
Age ≥ 65 Female	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	213	5.00 (5.00, 5.00)	23.41 (21.07, 26.00)	3.21 (2.89, 3.56)
Age ≥ 65 Female	D29 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	69	0.05 (0.05, 0.05)	169.66 (118.71, 242.47)	75.58 (52.88, 108.01)
Age ≥ 65 Female	D29 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	69	0.82 (0.78, 0.86)	2719.29 (1947.39, 3797.17)	942.12 (674.69, 1315.56)
Age ≥ 65 Female	D29 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	69	0.15 (0.15, 0.15)	1179.78 (924.24, 1505.95)	1313.20 (1028.77, 1676.26)
Age ≥ 65 Female	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	69	6.25 (5.57, 7.03)	195.06 (159.65, 238.33)	19.68 (16.10, 24.05)
Age ≥ 65 Female	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	69	5.99 (5.36, 6.70)	37.42 (30.08, 46.55)	4.54 (3.63, 5.69)
Age ≥ 65 Female	D29 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	36	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Age ≥ 65 Female	D29 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	36	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Age ≥ 65 Female	D29 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	36	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Age ≥ 65 Female	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	36	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Age ≥ 65 Female	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	36	5.00 (5.00, 5.00)	5.13 (4.88, 5.38)	1.00 (1.00, 1.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Age ≥ 65 Female	D29 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	55	0.05 (0.05, 0.05)	77.96 (50.38, 120.63)	34.61 (22.31, 53.67)
Age ≥ 65 Female	D29 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	55	0.80 (0.80, 0.80)	1179.42 (809.76, 1717.82)	408.62 (280.55, 595.15)
Age ≥ 65 Female	D29 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	55	0.15 (0.15, 0.15)	767.22 (577.24, 1019.73)	853.98 (642.52, 1135.05)
Age ≥ 65 Female	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	55	6.33 (5.52, 7.25)	91.54 (72.82, 115.08)	9.25 (7.28, 11.75)
Age ≥ 65 Female	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	55	6.39 (5.53, 7.39)	18.77 (15.40, 22.86)	2.16 (1.76, 2.65)
Age ≥ 65 Female	D57 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	213	0.05 (0.05, 0.05)	429.77 (325.87, 566.80)	191.83 (145.59, 252.75)
Age ≥ 65 Female	D57 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	213	0.80 (0.80, 0.80)	14072.05 (11281.54, 17552.78)	4875.38 (3908.58, 6081.31)
Age ≥ 65 Female	D57 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	213	0.15 (0.15, 0.15)	10508.78 (8668.29, 12740.06)	11697.22 (9648.58, 14180.83)
Age ≥ 65 Female	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	213	5.00 (5.00, 5.00)	2957.68 (2517.86, 3474.34)	319.75 (272.20, 375.60)
Age ≥ 65 Female	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	213	5.00 (5.00, 5.00)	487.86 (425.05, 559.96)	68.23 (59.45, 78.32)
Age ≥ 65 Female	D57 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	69	0.05 (0.05, 0.05)	1651.11 (1091.18, 2498.37)	736.78 (487.70, 1113.07)
Age ≥ 65 Female	D57 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	69	0.82 (0.78, 0.86)	48365.86 (32814.61, 71287.04)	16756.75 (11368.89, 24697.99)
Age ≥ 65 Female	D57 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	69	0.15 (0.15, 0.15)	28859.88 (20342.32, 40943.83)	32123.64 (22642.83, 45574.17)
Age ≥ 65 Female	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	69	6.25 (5.57, 7.03)	9077.03 (7077.98, 11640.68)	915.82 (718.46, 1167.39)
Age ≥ 65 Female	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	69	5.99 (5.36, 6.70)	1271.34 (994.72, 1624.89)	160.57 (127.30, 202.53)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Age ≥ 65 Female	D57 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	36	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Age ≥ 65 Female	D57 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	36	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Age ≥ 65 Female	D57 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	36	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Age ≥ 65 Female	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	36	5.00 (5.00, 5.00)	5.19 (4.83, 5.58)	1.00 (1.00, 1.00)
Age ≥ 65 Female	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	36	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Age ≥ 65 Female	D57 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	55	0.05 (0.05, 0.05)	490.34 (284.62, 844.76)	218.43 (126.79, 376.31)
Age ≥ 65 Female	D57 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	55	0.80 (0.80, 0.80)	17982.74 (11056.43, 29248.05)	6230.27 (3830.59, 10133.23)
Age ≥ 65 Female	D57 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	55	0.15 (0.15, 0.15)	11816.09 (8475.02, 16474.29)	13152.37 (9433.46, 18337.37)
Age ≥ 65 Female	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	55	6.33 (5.52, 7.25)	2749.17 (2006.18, 3767.34)	284.75 (206.40, 392.86)
Age ≥ 65 Female	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	55	6.39 (5.53, 7.39)	432.74 (330.18, 567.15)	51.70 (39.27, 68.06)

Table 8g. Geometric mean titer ratios (GMTRs) or geometric mean concentration ratios (GMCRs) between post-vaccinations/pre-vaccination by Hispanic or Latino ethnicity

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Hispanic or Latino ethnicity								
Hispanic or Latino	D29 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	102	0.05 (0.05, 0.05)	40.80 (27.75, 59.99)	17.62 (11.80, 26.32)
Hispanic or Latino	D29 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	102	0.80 (0.80, 0.80)	532.54 (357.23, 793.89)	184.50 (123.77, 275.05)
Hispanic or Latino	D29 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	102	0.15 (0.15, 0.15)	255.10 (179.21, 363.14)	283.95 (199.47, 404.21)
Hispanic or Latino	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	102	5.00 (5.00, 5.00)	73.01 (58.78, 90.68)	7.74 (6.12, 9.80)
Hispanic or Latino	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	102	5.00 (5.00, 5.00)	15.89 (12.43, 20.31)	2.20 (1.75, 2.76)
Hispanic or Latino	D29 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	27	0.05 (0.05, 0.05)	107.30 (56.41, 204.09)	47.49 (24.85, 90.73)
Hispanic or Latino	D29 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	27	0.80 (0.80, 0.80)	1413.37 (713.41, 2800.12)	489.68 (247.17, 970.13)
Hispanic or Latino	D29 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	27	0.16 (0.15, 0.16)	659.83 (386.25, 1127.18)	734.45 (429.93, 1254.65)
Hispanic or Latino	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	27	6.52 (5.36, 7.93)	161.02 (113.59, 228.25)	17.41 (12.28, 24.68)
Hispanic or Latino	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	27	6.09 (4.79, 7.74)	41.64 (33.95, 51.07)	4.83 (3.64, 6.42)
Hispanic or Latino	D29 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	24	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Hispanic or Latino	D29 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	24	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Hispanic or Latino	D29 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	24	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Hispanic or Latino	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	24	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Hispanic or Latino	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	24	5.00 (5.00, 5.00)	5.07 (4.94, 5.20)	1.00 (1.00, 1.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Hispanic or Latino	D29 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	29	0.05 (0.05, 0.05)	22.15 (13.44, 36.52)	9.45 (5.50, 16.23)
Hispanic or Latino	D29 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	29	0.80 (0.80, 0.80)	440.31 (255.52, 758.73)	152.55 (88.53, 262.87)
Hispanic or Latino	D29 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	29	0.15 (0.15, 0.15)	185.78 (111.10, 310.67)	206.79 (123.66, 345.80)
Hispanic or Latino	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	29	6.73 (5.23, 8.66)	53.61 (41.46, 69.31)	5.27 (3.87, 7.18)
Hispanic or Latino	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	29	6.06 (5.22, 7.04)	11.92 (8.90, 15.96)	1.47 (1.14, 1.89)
Hispanic or Latino	D57 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	102	0.05 (0.05, 0.05)	139.35 (77.80, 249.59)	63.04 (35.61, 111.58)
Hispanic or Latino	D57 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	102	0.80 (0.80, 0.80)	4323.88 (2651.13, 7052.09)	1498.05 (918.50, 2443.25)
Hispanic or Latino	D57 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	102	0.15 (0.15, 0.15)	3221.32 (2085.72, 4975.19)	3585.61 (2321.60, 5537.83)
Hispanic or Latino	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	102	5.00 (5.00, 5.00)	1779.38 (1190.06, 2660.52)	192.37 (128.66, 287.62)
Hispanic or Latino	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	102	5.00 (5.00, 5.00)	414.41 (309.15, 555.52)	57.96 (43.24, 77.69)
Hispanic or Latino	D57 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	27	0.05 (0.05, 0.05)	913.96 (528.78, 1579.70)	407.13 (235.55, 703.70)
Hispanic or Latino	D57 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	27	0.80 (0.80, 0.80)	21288.68 (13278.70, 34130.44)	7375.64 (4600.51, 11824.78)
Hispanic or Latino	D57 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	27	0.16 (0.15, 0.16)	19793.04 (11686.30, 33523.39)	22031.43 (13007.90, 37314.54)
Hispanic or Latino	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	27	6.52 (5.36, 7.93)	5714.43 (3500.78, 9327.84)	617.78 (378.46, 1008.42)
Hispanic or Latino	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	27	6.09 (4.79, 7.74)	1186.09 (829.28, 1696.42)	142.56 (101.87, 199.49)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Hispanic or Latino	D57 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	24	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Hispanic or Latino	D57 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	24	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Hispanic or Latino	D57 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	24	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Hispanic or Latino	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	24	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Hispanic or Latino	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	24	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Hispanic or Latino	D57 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	29	0.05 (0.05, 0.05)	233.14 (105.33, 516.04)	103.85 (46.92, 229.88)
Hispanic or Latino	D57 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	29	0.80 (0.80, 0.80)	4928.44 (2153.65, 11278.31)	1707.50 (746.15, 3907.46)
Hispanic or Latino	D57 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	29	0.15 (0.15, 0.15)	3282.13 (2084.73, 5167.27)	3653.31 (2320.50, 5751.64)
Hispanic or Latino	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	29	6.73 (5.23, 8.66)	1813.26 (1057.52, 3109.08)	179.80 (102.96, 313.99)
Hispanic or Latino	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	29	6.06 (5.22, 7.04)	411.02 (255.89, 660.19)	50.65 (31.53, 81.38)
Not Hispanic or Latino	D29 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	600	0.05 (0.05, 0.05)	35.35 (29.35, 42.58)	16.18 (13.55, 19.32)
Not Hispanic or Latino	D29 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	600	0.80 (0.80, 0.80)	419.97 (356.05, 495.36)	145.50 (123.36, 171.62)
Not Hispanic or Latino	D29 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	600	0.15 (0.15, 0.16)	234.29 (206.58, 265.70)	260.78 (229.95, 295.75)
Not Hispanic or Latino	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	600	5.00 (5.00, 5.00)	63.69 (57.53, 70.52)	6.75 (6.08, 7.49)
Not Hispanic or Latino	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	600	5.00 (5.00, 5.00)	16.50 (15.03, 18.12)	2.37 (2.17, 2.58)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Not Hispanic or Latino	D29 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	200	0.05 (0.05, 0.06)	95.64 (71.13, 128.59)	43.04 (32.07, 57.76)
Not Hispanic or Latino	D29 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	200	0.80 (0.79, 0.80)	1038.68 (738.90, 1460.09)	359.86 (256.00, 505.86)
Not Hispanic or Latino	D29 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	200	0.16 (0.15, 0.16)	479.07 (357.59, 641.84)	533.25 (398.03, 714.42)
Not Hispanic or Latino	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	200	7.61 (6.62, 8.76)	143.67 (122.83, 168.04)	13.40 (11.33, 15.84)
Not Hispanic or Latino	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	200	6.91 (6.16, 7.75)	31.53 (26.58, 37.41)	3.66 (3.07, 4.38)
Not Hispanic or Latino	D29 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	103	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Not Hispanic or Latino	D29 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	103	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Not Hispanic or Latino	D29 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	103	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Not Hispanic or Latino	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	103	5.00 (5.00, 5.00)	5.06 (4.98, 5.14)	1.00 (1.00, 1.00)
Not Hispanic or Latino	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	103	5.00 (5.00, 5.00)	5.02 (4.98, 5.06)	1.00 (1.00, 1.00)
Not Hispanic or Latino	D29 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	184	0.05 (0.05, 0.05)	26.76 (19.46, 36.80)	12.24 (9.00, 16.64)
Not Hispanic or Latino	D29 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	184	0.80 (0.80, 0.80)	343.51 (265.55, 444.37)	118.64 (91.52, 153.78)
Not Hispanic or Latino	D29 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	184	0.15 (0.15, 0.15)	189.36 (149.58, 239.72)	210.77 (166.49, 266.83)
Not Hispanic or Latino	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	184	6.62 (6.03, 7.27)	47.99 (40.01, 57.57)	4.60 (3.77, 5.60)
Not Hispanic or Latino	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	184	6.81 (6.07, 7.64)	11.07 (9.71, 12.62)	1.39 (1.20, 1.60)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Not Hispanic or Latino	D57 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	600	0.05 (0.05, 0.05)	145.82 (117.37, 181.17)	66.04 (53.45, 81.59)
Not Hispanic or Latino	D57 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	600	0.80 (0.80, 0.80)	4354.05 (3613.72, 5246.05)	1508.50 (1252.01, 1817.54)
Not Hispanic or Latino	D57 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	600	0.15 (0.15, 0.16)	2991.41 (2561.23, 3493.84)	3329.70 (2850.88, 3888.95)
Not Hispanic or Latino	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	600	5.00 (5.00, 5.00)	1582.87 (1384.91, 1809.14)	171.12 (149.72, 195.58)
Not Hispanic or Latino	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	600	5.00 (5.00, 5.00)	360.83 (322.11, 404.21)	50.55 (45.17, 56.57)
Not Hispanic or Latino	D57 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	200	0.05 (0.05, 0.06)	478.96 (319.16, 718.75)	221.29 (148.84, 328.99)
Not Hispanic or Latino	D57 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	200	0.80 (0.79, 0.80)	13558.26 (9493.76, 19362.88)	4697.37 (3289.19, 6708.43)
Not Hispanic or Latino	D57 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	200	0.16 (0.15, 0.16)	11289.31 (8456.34, 15071.35)	12566.01 (9412.66, 16775.77)
Not Hispanic or Latino	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	200	7.61 (6.62, 8.76)	5353.54 (4171.75, 6870.12)	498.17 (388.52, 638.77)
Not Hispanic or Latino	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	200	6.91 (6.16, 7.75)	1128.90 (904.81, 1408.51)	133.82 (107.55, 166.51)
Not Hispanic or Latino	D57 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	103	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Not Hispanic or Latino	D57 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	103	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Not Hispanic or Latino	D57 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	103	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Not Hispanic or Latino	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	103	5.00 (5.00, 5.00)	5.03 (4.97, 5.08)	1.00 (1.00, 1.00)
Not Hispanic or Latino	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	103	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Not Hispanic or Latino	D57 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	184	0.05 (0.05, 0.05)	142.91 (98.40, 207.54)	62.98 (43.05, 92.15)
Not Hispanic or Latino	D57 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	184	0.80 (0.80, 0.80)	3699.78 (2729.76, 5014.49)	1281.82 (945.75, 1737.31)
Not Hispanic or Latino	D57 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	184	0.15 (0.15, 0.15)	2343.66 (1802.98, 3046.48)	2608.71 (2006.88, 3391.00)
Not Hispanic or Latino	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	184	6.62 (6.03, 7.27)	1323.41 (1043.34, 1678.67)	134.27 (106.34, 169.54)
Not Hispanic or Latino	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	184	6.81 (6.07, 7.64)	264.59 (215.98, 324.12)	31.36 (25.42, 38.69)
Not reported and unknown	D29 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	27	0.05 (0.05, 0.05)	97.76 (38.35, 249.21)	43.55 (17.08, 111.01)
Not reported and unknown	D29 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	27	0.80 (0.80, 0.80)	987.50 (369.02, 2642.52)	342.13 (127.85, 915.52)
Not reported and unknown	D29 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	27	0.15 (0.15, 0.15)	407.61 (172.33, 964.07)	453.70 (191.82, 1073.10)
Not reported and unknown	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	27	5.00 (5.00, 5.00)	104.56 (69.35, 157.63)	11.30 (7.50, 17.04)
Not reported and unknown	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	27	5.00 (5.00, 5.00)	35.03 (22.86, 53.69)	4.81 (3.13, 7.39)
Not reported and unknown	D29 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	8	0.05 (0.05, 0.05)	108.70 (32.37, 365.02)	48.42 (14.42, 162.60)
Not reported and unknown	D29 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	8	0.80 (0.80, 0.80)	1137.99 (515.83, 2510.55)	394.27 (178.71, 869.80)
Not reported and unknown	D29 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	8	0.15 (0.15, 0.15)	425.27 (157.10, 1151.20)	473.37 (174.87, 1281.38)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Not reported and unknown	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	8	5.39 (4.65, 6.24)	147.00 (74.56, 289.84)	15.89 (8.06, 31.33)
Not reported and unknown	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	8	5.31 (4.72, 5.98)	38.03 (24.62, 58.74)	4.95 (2.91, 8.40)
Not reported and unknown	D29 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	3	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Not reported and unknown	D29 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	3	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Not reported and unknown	D29 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	3	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Not reported and unknown	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	3	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Not reported and unknown	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	3	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Not reported and unknown	D29 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	8	0.05 (0.05, 0.05)	32.66 (8.12, 131.42)	13.40 (3.04, 59.03)
Not reported and unknown	D29 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	8	0.80 (0.80, 0.80)	298.11 (113.00, 786.48)	103.28 (39.15, 272.48)
Not reported and unknown	D29 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	8	0.15 (0.15, 0.15)	188.13 (69.83, 506.84)	209.40 (77.73, 564.15)
Not reported and unknown	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	8	6.05 (4.30, 8.50)	51.36 (25.69, 102.66)	5.25 (2.43, 11.32)
Not reported and unknown	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	8	7.02 (4.48, 11.00)	11.66 (5.87, 23.19)	1.63 (0.77, 3.45)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Not reported and unknown	D57 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	27	0.05 (0.05, 0.05)	458.16 (112.69, 1862.68)	204.09 (50.20, 829.76)
Not reported and unknown	D57 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	27	0.80 (0.80, 0.80)	14145.70 (6491.68, 30824.19)	4900.90 (2249.10, 10679.30)
Not reported and unknown	D57 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	27	0.15 (0.15, 0.15)	7218.10 (3205.53, 16253.42)	8034.39 (3568.05, 18091.52)
Not reported and unknown	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	27	5.00 (5.00, 5.00)	2409.80 (1454.27, 3993.17)	260.52 (157.22, 431.69)
Not reported and unknown	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	27	5.00 (5.00, 5.00)	773.58 (400.45, 1494.41)	108.19 (56.01, 209.01)
Not reported and unknown	D57 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	8	0.05 (0.05, 0.05)	525.75 (135.74, 2036.37)	234.20 (60.47, 907.13)
Not reported and unknown	D57 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	8	0.80 (0.80, 0.80)	29350.40 (10569.31, 81504.44)	10168.69 (3661.83, 28237.89)
Not reported and unknown	D57 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	8	0.15 (0.15, 0.15)	13311.14 (5833.17, 30375.71)	14816.50 (6492.84, 33810.89)
Not reported and unknown	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	8	5.39 (4.65, 6.24)	5444.52 (2960.61, 10012.39)	588.60 (320.07, 1082.42)
Not reported and unknown	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	8	5.31 (4.72, 5.98)	647.50 (369.11, 1135.86)	90.56 (51.62, 158.86)
Not reported and unknown	D57 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	3	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Not reported and unknown	D57 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	3	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Not reported and unknown	D57 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	3	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Not reported and unknown	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	3	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Not reported and unknown	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	3	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Not reported and unknown	D57 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	8	0.05 (0.05, 0.05)	211.67 (77.64, 577.13)	94.29 (34.58, 257.09)
Not reported and unknown	D57 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	8	0.80 (0.80, 0.80)	5981.02 (1637.39, 21847.40)	2072.18 (567.29, 7569.21)
Not reported and unknown	D57 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	8	0.15 (0.15, 0.15)	2305.46 (939.60, 5656.83)	2566.19 (1045.86, 6296.56)
Not reported and unknown	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	8	6.05 (4.30, 8.50)	1453.97 (653.72, 3233.84)	157.19 (70.67, 349.60)
Not reported and unknown	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	8	7.02 (4.48, 11.00)	423.55 (197.72, 907.33)	49.27 (17.92, 135.49)

Table 8h. Geometric mean titer ratios (GMTRs) or geometric mean concentration ratios (GMCRs) between post-vaccinations/pre-vaccination by Race

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Race								
White Non-Hispanic	D29 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	355	0.05 (0.05, 0.05)	35.24 (27.71, 44.82)	16.18 (12.86, 20.35)
White Non-Hispanic	D29 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	355	0.80 (0.80, 0.80)	394.97 (319.03, 488.98)	136.84 (110.53, 169.41)
White Non-Hispanic	D29 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	355	0.15 (0.15, 0.15)	246.00 (210.22, 287.86)	273.82 (234.00, 320.41)
White Non-Hispanic	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	355	5.00 (5.00, 5.00)	63.58 (55.57, 72.74)	6.74 (5.88, 7.73)
White Non-Hispanic	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	355	5.00 (5.00, 5.00)	17.36 (15.42, 19.54)	2.49 (2.23, 2.77)
White Non-Hispanic	D29 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	121	0.05 (0.04, 0.06)	108.49 (76.64, 153.60)	48.98 (34.74, 69.07)
White Non-Hispanic	D29 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	121	0.80 (0.80, 0.80)	1103.88 (720.93, 1690.25)	382.45 (249.77, 585.60)
White Non-Hispanic	D29 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	121	0.16 (0.15, 0.17)	497.19 (349.12, 708.07)	553.42 (388.60, 788.14)
White Non-Hispanic	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	121	7.83 (6.51, 9.41)	150.52 (126.18, 179.55)	14.25 (11.62, 17.46)
White Non-Hispanic	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	121	6.76 (5.83, 7.82)	33.02 (27.25, 40.02)	3.80 (3.03, 4.76)
White Non-Hispanic	D29 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	64	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
White Non-Hispanic	D29 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	64	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
White Non-Hispanic	D29 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	64	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
White Non-Hispanic	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	64	5.00 (5.00, 5.00)	5.08 (4.97, 5.19)	1.00 (1.00, 1.00)
White Non-Hispanic	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	64	5.00 (5.00, 5.00)	5.03 (4.98, 5.07)	1.00 (1.00, 1.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
White Non-Hispanic	D29 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	119	0.05 (0.05, 0.05)	30.08 (19.98, 45.29)	13.75 (9.27, 20.41)
White Non-Hispanic	D29 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	119	0.80 (0.80, 0.80)	334.14 (244.55, 456.56)	115.77 (84.72, 158.18)
White Non-Hispanic	D29 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	119	0.15 (0.15, 0.15)	193.98 (143.34, 262.51)	215.92 (159.55, 292.20)
White Non-Hispanic	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	119	6.80 (6.02, 7.67)	51.58 (41.19, 64.59)	4.90 (3.81, 6.30)
White Non-Hispanic	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	119	6.86 (5.95, 7.92)	11.31 (9.62, 13.29)	1.40 (1.16, 1.67)
White Non-Hispanic	D57 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	355	0.05 (0.05, 0.05)	154.12 (116.66, 203.61)	69.16 (52.60, 90.94)
White Non-Hispanic	D57 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	355	0.80 (0.80, 0.80)	4647.54 (3662.95, 5896.79)	1610.18 (1269.06, 2042.99)
White Non-Hispanic	D57 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	355	0.15 (0.15, 0.15)	3213.02 (2637.12, 3914.70)	3576.38 (2935.35, 4357.41)
White Non-Hispanic	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	355	5.00 (5.00, 5.00)	1559.07 (1309.74, 1855.86)	168.55 (141.59, 200.63)
White Non-Hispanic	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	355	5.00 (5.00, 5.00)	366.65 (315.65, 425.89)	51.41 (44.34, 59.61)
White Non-Hispanic	D57 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	121	0.05 (0.04, 0.06)	524.22 (330.41, 831.70)	242.37 (154.53, 380.14)
White Non-Hispanic	D57 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	121	0.80 (0.80, 0.80)	14740.10 (9467.50, 22949.08)	5106.83 (3280.10, 7950.90)
White Non-Hispanic	D57 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	121	0.16 (0.15, 0.17)	12712.59 (8977.13, 18002.42)	14150.26 (9992.35, 20038.31)
White Non-Hispanic	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	121	7.83 (6.51, 9.41)	5474.91 (3962.27, 7565.02)	518.07 (373.57, 718.47)
White Non-Hispanic	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	121	6.76 (5.83, 7.82)	1100.91 (824.78, 1469.49)	130.33 (97.14, 174.87)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
White Non-Hispanic	D57 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	64	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
White Non-Hispanic	D57 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	64	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
White Non-Hispanic	D57 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	64	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
White Non-Hispanic	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	64	5.00 (5.00, 5.00)	5.04 (4.96, 5.11)	1.00 (1.00, 1.00)
White Non-Hispanic	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	64	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
White Non-Hispanic	D57 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	119	0.05 (0.05, 0.05)	152.54 (94.61, 245.96)	66.47 (40.67, 108.63)
White Non-Hispanic	D57 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	119	0.80 (0.80, 0.80)	3927.49 (2680.45, 5754.71)	1360.71 (928.66, 1993.77)
White Non-Hispanic	D57 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	119	0.15 (0.15, 0.15)	2481.87 (1786.06, 3448.74)	2762.54 (1988.05, 3838.76)
White Non-Hispanic	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	119	6.80 (6.02, 7.67)	1385.29 (1014.62, 1891.36)	141.04 (103.95, 191.36)
White Non-Hispanic	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	119	6.86 (5.95, 7.92)	255.56 (199.61, 327.19)	30.24 (23.47, 38.97)
Black or African American	D29 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	179	0.05 (0.05, 0.05)	55.46 (37.89, 81.20)	24.60 (16.71, 36.19)
Black or African American	D29 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	179	0.80 (0.80, 0.80)	654.99 (449.84, 953.70)	226.93 (155.85, 330.42)
Black or African American	D29 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	179	0.16 (0.15, 0.16)	279.61 (207.34, 377.07)	311.24 (230.79, 419.72)
Black or African American	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	179	5.00 (5.00, 5.00)	78.49 (64.80, 95.08)	8.24 (6.71, 10.13)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Black or African American	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	179	5.00 (5.00, 5.00)	18.35 (14.88, 22.64)	2.61 (2.14, 3.19)
Black or African American	D29 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	60	0.05 (0.05, 0.06)	48.88 (29.56, 80.83)	21.87 (13.21, 36.21)
Black or African American	D29 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	60	0.81 (0.79, 0.83)	588.25 (340.65, 1015.81)	203.80 (118.02, 351.93)
Black or African American	D29 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	60	0.15 (0.15, 0.15)	355.76 (229.56, 551.33)	395.99 (255.52, 613.68)
Black or African American	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	60	6.89 (5.62, 8.44)	107.85 (83.43, 139.40)	10.24 (7.96, 13.16)
Black or African American	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	60	6.42 (5.57, 7.40)	25.05 (19.51, 32.16)	3.01 (2.30, 3.94)
Black or African American	D29 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	36	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Black or African American	D29 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	36	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Black or African American	D29 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	36	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Black or African American	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	36	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Black or African American	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	36	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Black or African American	D29 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	46	0.05 (0.05, 0.05)	28.06 (13.60, 57.88)	13.07 (6.58, 25.96)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Black or African American	D29 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	46	0.80 (0.80, 0.80)	400.28 (206.02, 777.70)	136.64 (69.15, 269.99)
Black or African American	D29 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	46	0.15 (0.15, 0.15)	213.97 (130.19, 351.65)	238.16 (144.91, 391.42)
Black or African American	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	46	6.20 (5.23, 7.35)	50.71 (32.88, 78.22)	5.01 (3.27, 7.69)
Black or African American	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	46	6.71 (5.48, 8.21)	11.81 (8.74, 15.95)	1.51 (1.08, 2.11)
Black or African American	D57 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	179	0.05 (0.05, 0.05)	150.89 (90.31, 252.09)	71.00 (43.66, 115.47)
Black or African American	D57 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	179	0.80 (0.80, 0.80)	5695.95 (3714.07, 8735.38)	1973.41 (1286.77, 3026.45)
Black or African American	D57 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	179	0.16 (0.15, 0.16)	3772.70 (2751.01, 5173.82)	4199.35 (3062.13, 5758.93)
Black or African American	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	179	5.00 (5.00, 5.00)	1884.66 (1472.16, 2412.74)	203.75 (159.15, 260.84)
Black or African American	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	179	5.00 (5.00, 5.00)	456.83 (355.72, 586.68)	63.89 (49.75, 82.05)
Black or African American	D57 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	60	0.05 (0.05, 0.06)	336.90 (161.02, 704.90)	159.44 (79.70, 318.96)
Black or African American	D57 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	60	0.81 (0.79, 0.83)	10144.16 (5885.16, 17485.33)	3514.53 (2038.96, 6057.94)
Black or African American	D57 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	60	0.15 (0.15, 0.15)	7620.70 (4463.98, 13009.68)	8482.52 (4968.82, 14480.94)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Black or African American	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	60	6.89 (5.62, 8.44)	4756.75 (3291.21, 6874.88)	448.01 (311.76, 643.82)
Black or African American	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	60	6.42 (5.57, 7.40)	955.84 (725.22, 1259.81)	120.33 (91.16, 158.85)
Black or African American	D57 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	36	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Black or African American	D57 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	36	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Black or African American	D57 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	36	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Black or African American	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	36	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Black or African American	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	36	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Black or African American	D57 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	46	0.05 (0.05, 0.05)	168.98 (80.56, 354.44)	74.71 (35.39, 157.73)
Black or African American	D57 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	46	0.80 (0.80, 0.80)	4777.64 (2321.51, 9832.31)	1655.25 (804.31, 3406.49)
Black or African American	D57 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	46	0.15 (0.15, 0.15)	2547.31 (1414.73, 4586.59)	2835.38 (1574.72, 5105.28)
Black or African American	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	46	6.20 (5.23, 7.35)	1474.31 (886.58, 2451.67)	145.49 (88.04, 240.44)
Black or African American	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	46	6.71 (5.48, 8.21)	339.08 (214.15, 536.89)	40.52 (24.55, 66.89)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Asian	D29 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	65	0.05 (0.05, 0.05)	20.21 (11.90, 34.31)	9.79 (6.30, 15.22)
Asian	D29 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	65	0.80 (0.80, 0.80)	306.82 (208.97, 450.49)	106.30 (72.40, 156.07)
Asian	D29 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	65	0.15 (0.15, 0.15)	191.25 (136.42, 268.11)	212.87 (151.85, 298.43)
Asian	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	65	5.00 (5.00, 5.00)	51.21 (38.09, 68.83)	5.47 (4.09, 7.31)
Asian	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	65	5.00 (5.00, 5.00)	11.87 (9.31, 15.13)	1.85 (1.53, 2.24)
Asian	D29 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	21	0.05 (0.05, 0.05)	198.70 (72.43, 545.04)	88.87 (32.47, 243.24)
Asian	D29 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	21	0.80 (0.80, 0.80)	2742.86 (1015.19, 7410.68)	950.29 (351.72, 2567.49)
Asian	D29 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	21	0.15 (0.15, 0.15)	827.49 (259.64, 2637.27)	921.07 (289.00, 2935.52)
Asian	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	21	7.61 (4.86, 11.92)	205.31 (109.09, 386.41)	18.25 (9.73, 34.23)
Asian	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	21	8.96 (5.97, 13.43)	44.46 (21.23, 93.09)	4.80 (2.67, 8.63)
Asian	D29 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	8	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Asian	D29 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	8	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Asian	D29 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	8	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Asian	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	8	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Asian	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	8	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Asian	D29 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	19	0.05 (0.05, 0.05)	13.09 (8.15, 21.02)	5.60 (3.28, 9.57)
Asian	D29 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	19	0.80 (0.80, 0.80)	333.60 (200.62, 554.75)	115.58 (69.51, 192.20)
Asian	D29 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	19	0.15 (0.15, 0.15)	159.55 (80.72, 315.40)	177.60 (89.84, 351.07)
Asian	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	19	6.74 (5.24, 8.66)	31.41 (23.13, 42.65)	3.14 (2.15, 4.59)
Asian	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	19	5.89 (4.85, 7.15)	8.09 (5.93, 11.04)	1.26 (1.01, 1.59)
Asian	D57 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	65	0.05 (0.05, 0.05)	117.46 (67.55, 204.23)	52.32 (30.09, 90.98)
Asian	D57 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	65	0.80 (0.80, 0.80)	2604.10 (1572.83, 4311.55)	902.21 (544.92, 1493.77)
Asian	D57 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	65	0.15 (0.15, 0.15)	1924.68 (1140.86, 3247.01)	2142.34 (1269.88, 3614.21)
Asian	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	65	5.00 (5.00, 5.00)	1418.14 (967.95, 2077.72)	153.31 (104.64, 224.62)
Asian	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	65	5.00 (5.00, 5.00)	309.07 (244.89, 390.07)	43.23 (34.25, 54.55)
Asian	D57 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	21	0.05 (0.05, 0.05)	740.64 (146.74, 3738.26)	329.93 (65.37, 1665.26)
Asian	D57 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	21	0.80 (0.80, 0.80)	20107.97 (5518.83, 73263.78)	6966.57 (1912.05, 25382.85)
Asian	D57 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	21	0.15 (0.15, 0.15)	16678.70 (6408.01, 43411.15)	18564.89 (7132.69, 48320.51)
Asian	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	21	7.61 (4.86, 11.92)	7145.54 (3161.17, 16151.85)	635.28 (290.36, 1389.91)
Asian	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	21	8.96 (5.97, 13.43)	1812.50 (896.47, 3664.56)	189.79 (101.56, 354.66)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Asian	D57 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	8	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Asian	D57 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	8	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Asian	D57 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	8	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Asian	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	8	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Asian	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	8	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Asian	D57 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	19	0.05 (0.05, 0.05)	100.63 (45.87, 220.77)	47.40 (22.48, 99.94)
Asian	D57 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	19	0.80 (0.80, 0.80)	2285.08 (1154.21, 4523.93)	791.68 (399.89, 1567.35)
Asian	D57 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	19	0.15 (0.15, 0.15)	1680.86 (1094.85, 2580.54)	1870.95 (1218.66, 2872.38)
Asian	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	19	6.74 (5.24, 8.66)	1098.48 (805.10, 1498.77)	118.75 (87.04, 162.03)
Asian	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	19	5.89 (4.85, 7.15)	226.57 (119.20, 430.65)	30.32 (16.01, 57.43)
American Indian or Alaska Native	D29 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	14	0.05 (0.05, 0.05)	77.41 (26.93, 222.53)	34.48 (11.99, 99.13)
American Indian or Alaska Native	D29 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	14	0.80 (0.80, 0.80)	679.09 (286.64, 1608.85)	235.28 (99.31, 557.40)
American Indian or Alaska Native	D29 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	14	0.15 (0.15, 0.15)	314.52 (109.57, 902.79)	350.09 (121.97, 1004.88)
American Indian or Alaska Native	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	14	5.00 (5.00, 5.00)	96.01 (52.38, 175.96)	10.38 (5.66, 19.02)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
American Indian or Alaska Native	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	14	5.00 (5.00, 5.00)	23.07 (16.11, 33.04)	2.82 (1.67, 4.77)
American Indian or Alaska Native	D29 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	4	0.05 (0.05, 0.05)	74.84 (19.84, 282.24)	33.34 (8.84, 125.73)
American Indian or Alaska Native	D29 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	4	0.80 (0.80, 0.80)	1197.39 (373.03, 3843.51)	414.84 (129.24, 1331.61)
American Indian or Alaska Native	D29 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	4	0.15 (0.15, 0.15)	1095.18 (300.15, 3996.10)	1219.04 (334.09, 4448.02)
American Indian or Alaska Native	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	4	11.88 (4.95, 28.50)	158.37 (90.62, 276.77)	10.89 (6.87, 17.27)
American Indian or Alaska Native	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	4	10.23 (3.62, 28.89)	22.04 (8.55, 56.80)	1.68 (0.75, 3.76)
American Indian or Alaska Native	D29 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	2	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
American Indian or Alaska Native	D29 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	2	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
American Indian or Alaska Native	D29 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	2	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
American Indian or Alaska Native	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	2	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
American Indian or Alaska Native	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	2	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
American Indian or Alaska Native	D29 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	5	0.05 (0.05, 0.05)	16.03 (6.92, 37.14)	7.14 (3.08, 16.55)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
American Indian or Alaska Native	D29 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	5	0.80 (0.80, 0.80)	251.40 (82.20, 768.90)	87.10 (28.48, 266.39)
American Indian or Alaska Native	D29 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	5	0.15 (0.15, 0.15)	95.89 (55.95, 164.34)	106.73 (62.28, 182.92)
American Indian or Alaska Native	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	5	5.00 (5.00, 5.00)	24.31 (16.12, 36.66)	2.32 (1.27, 4.22)
American Indian or Alaska Native	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	5	5.43 (4.58, 6.43)	10.86 (5.43, 21.72)	1.67 (0.95, 2.94)
American Indian or Alaska Native	D57 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	14	0.05 (0.05, 0.05)	281.66 (75.54, 1050.21)	127.77 (34.62, 471.64)
American Indian or Alaska Native	D57 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	14	0.80 (0.80, 0.80)	5593.50 (2829.52, 11057.46)	1937.92 (980.31, 3830.95)
American Indian or Alaska Native	D57 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	14	0.15 (0.15, 0.15)	6286.29 (3342.72, 11821.93)	6997.20 (3720.75, 13158.87)
American Indian or Alaska Native	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	14	5.00 (5.00, 5.00)	1908.00 (1118.65, 3254.33)	206.27 (120.93, 351.82)
American Indian or Alaska Native	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	14	5.00 (5.00, 5.00)	578.65 (407.08, 822.51)	80.93 (56.93, 115.04)
American Indian or Alaska Native	D57 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	4	0.05 (0.05, 0.05)	782.24 (228.10, 2682.53)	348.46 (101.61, 1194.97)
American Indian or Alaska Native	D57 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	4	0.80 (0.80, 0.80)	56196.52 (16644.50, 189735.23)	19469.75 (5766.63, 65735.35)
American Indian or Alaska Native	D57 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	4	0.15 (0.15, 0.15)	6516.58 (3016.49, 14077.93)	7253.54 (3357.62, 15670.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
American Indian or Alaska Native	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	4	11.88 (4.95, 28.50)	2970.66 (1761.75, 5009.14)	204.35 (72.47, 576.17)
American Indian or Alaska Native	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	4	10.23 (3.62, 28.89)	1211.79 (816.03, 1799.50)	94.11 (39.02, 226.96)
American Indian or Alaska Native	D57 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	2	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
American Indian or Alaska Native	D57 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	2	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
American Indian or Alaska Native	D57 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	2	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
American Indian or Alaska Native	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	2	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
American Indian or Alaska Native	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	2	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
American Indian or Alaska Native	D57 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	5	0.05 (0.05, 0.05)	110.49 (12.57, 971.23)	49.22 (5.60, 432.65)
American Indian or Alaska Native	D57 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	5	0.80 (0.80, 0.80)	4202.15 (2129.06, 8293.83)	1455.87 (737.63, 2873.47)
American Indian or Alaska Native	D57 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	5	0.15 (0.15, 0.15)	840.76 (181.70, 3890.41)	935.84 (202.24, 4330.38)
American Indian or Alaska Native	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	5	5.00 (5.00, 5.00)	1055.68 (610.36, 1825.91)	114.13 (65.99, 197.40)
American Indian or Alaska Native	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	5	5.43 (4.58, 6.43)	356.35 (233.91, 542.87)	46.95 (32.21, 68.45)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Native Hawaiian or Other Pacific Islander	D29 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	9	0.05 (0.05, 0.05)	36.88 (24.07, 56.51)	15.93 (9.91, 25.61)
Native Hawaiian or Other Pacific Islander	D29 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	9	0.80 (0.80, 0.80)	490.37 (137.38, 1750.34)	169.89 (47.60, 606.42)
Native Hawaiian or Other Pacific Islander	D29 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	9	0.15 (0.15, 0.15)	98.78 (46.39, 210.37)	109.96 (51.63, 234.16)
Native Hawaiian or Other Pacific Islander	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	9	5.00 (5.00, 5.00)	47.64 (36.87, 61.56)	5.15 (3.99, 6.65)
Native Hawaiian or Other Pacific Islander	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	9	5.00 (5.00, 5.00)	22.37 (16.54, 30.27)	3.13 (2.32, 4.23)
Native Hawaiian or Other Pacific Islander	D29 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	4	0.05 (0.05, 0.05)	30.33 (1.55, 594.77)	13.57 (0.70, 264.82)
Native Hawaiian or Other Pacific Islander	D29 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	4	0.80 (0.80, 0.80)	281.46 (39.88, 1986.25)	97.52 (13.82, 688.15)
Native Hawaiian or Other Pacific Islander	D29 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	4	0.15 (0.15, 0.15)	144.84 (45.64, 459.64)	161.22 (50.80, 511.62)
Native Hawaiian or Other Pacific Islander	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	4	5.00 (5.00, 5.00)	77.60 (22.78, 264.36)	8.39 (2.46, 28.58)
Native Hawaiian or Other Pacific Islander	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	4	6.01 (4.28, 8.46)	11.72 (4.43, 31.05)	1.96 (0.91, 4.24)
Native Hawaiian or Other Pacific Islander	D29 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	3	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Native Hawaiian or Other Pacific Islander	D29 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	3	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Native Hawaiian or Other Pacific Islander	D29 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	3	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Native Hawaiian or Other Pacific Islander	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	3	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Native Hawaiian or Other Pacific Islander	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	3	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Native Hawaiian or Other Pacific Islander	D29 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	4	0.05 (0.05, 0.05)	105.08 (32.09, 344.09)	46.81 (14.30, 153.28)
Native Hawaiian or Other Pacific Islander	D29 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	4	0.80 (0.80, 0.80)	508.66 (129.81, 1993.10)	176.23 (44.98, 690.52)
Native Hawaiian or Other Pacific Islander	D29 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	4	0.15 (0.15, 0.15)	382.34 (160.18, 912.66)	425.58 (178.29, 1015.88)
Native Hawaiian or Other Pacific Islander	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	4	8.11 (3.43, 19.16)	101.90 (57.72, 179.88)	7.78 (4.58, 13.24)
Native Hawaiian or Other Pacific Islander	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	4	6.78 (4.30, 10.69)	17.10 (7.58, 38.55)	2.26 (1.00, 5.10)
Native Hawaiian or Other Pacific Islander	D57 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	9	0.05 (0.05, 0.05)	95.31 (62.05, 146.39)	42.46 (27.64, 65.21)
Native Hawaiian or Other Pacific Islander	D57 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	9	0.80 (0.80, 0.80)	5688.25 (2944.78, 10987.66)	1970.74 (1020.24, 3806.77)
Native Hawaiian or Other Pacific Islander	D57 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	9	0.15 (0.15, 0.15)	3083.19 (1707.05, 5568.71)	3431.87 (1900.10, 6198.47)
Native Hawaiian or Other Pacific Islander	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	9	5.00 (5.00, 5.00)	4221.96 (2721.75, 6549.07)	456.43 (294.24, 708.01)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Native Hawaiian or Other Pacific Islander	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	9	5.00 (5.00, 5.00)	557.69 (326.12, 953.69)	78.00 (45.61, 133.38)
Native Hawaiian or Other Pacific Islander	D57 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	4	0.05 (0.05, 0.05)	63.66 (1.87, 2172.90)	24.61 (0.62, 980.29)
Native Hawaiian or Other Pacific Islander	D57 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	4	0.80 (0.80, 0.80)	2888.45 (112.52, 74146.61)	1000.73 (38.98, 25688.71)
Native Hawaiian or Other Pacific Islander	D57 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	4	0.15 (0.15, 0.15)	2885.78 (250.00, 33311.47)	3212.13 (278.27, 37078.66)
Native Hawaiian or Other Pacific Islander	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	4	5.00 (5.00, 5.00)	2158.72 (713.43, 6531.87)	233.37 (77.13, 706.15)
Native Hawaiian or Other Pacific Islander	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	4	6.01 (4.28, 8.46)	460.31 (109.93, 1927.56)	64.38 (15.37, 269.59)
Native Hawaiian or Other Pacific Islander	D57 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	3	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Native Hawaiian or Other Pacific Islander	D57 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	3	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Native Hawaiian or Other Pacific Islander	D57 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	3	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Native Hawaiian or Other Pacific Islander	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	3	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Native Hawaiian or Other Pacific Islander	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	3	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Native Hawaiian or Other Pacific Islander	D57 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	4	0.05 (0.05, 0.05)	303.44 (60.14, 1531.08)	135.17 (26.79, 682.04)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Native Hawaiian or Other Pacific Islander	D57 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	4	0.80 (0.80, 0.80)	4655.70 (916.97, 23638.23)	1613.01 (317.69, 8189.66)
Native Hawaiian or Other Pacific Islander	D57 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	4	0.15 (0.15, 0.15)	5717.57 (3166.03, 10325.41)	6364.17 (3524.08, 11493.11)
Native Hawaiian or Other Pacific Islander	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	4	8.11 (3.43, 19.16)	1479.70 (357.79, 6119.53)	113.04 (25.46, 501.84)
Native Hawaiian or Other Pacific Islander	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	4	6.78 (4.30, 10.69)	457.37 (108.53, 1927.42)	63.97 (15.18, 269.57)
Multiracial	D29 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	54	0.05 (0.05, 0.05)	32.19 (19.27, 53.77)	14.07 (8.33, 23.76)
Multiracial	D29 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	54	0.80 (0.80, 0.80)	483.76 (303.99, 769.82)	167.60 (105.32, 266.71)
Multiracial	D29 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	54	0.15 (0.15, 0.15)	199.74 (135.40, 294.66)	222.33 (150.71, 327.98)
Multiracial	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	54	5.00 (5.00, 5.00)	67.47 (53.40, 85.24)	7.16 (5.50, 9.32)
Multiracial	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	54	5.00 (5.00, 5.00)	15.40 (11.37, 20.87)	2.15 (1.62, 2.86)
Multiracial	D29 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	11	0.05 (0.05, 0.05)	82.74 (31.50, 217.37)	36.86 (14.03, 96.83)
Multiracial	D29 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	11	0.80 (0.80, 0.80)	942.70 (399.68, 2223.45)	326.60 (138.47, 770.33)
Multiracial	D29 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	11	0.16 (0.15, 0.17)	709.05 (389.80, 1289.78)	789.24 (433.88, 1435.64)
Multiracial	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	11	6.78 (4.96, 9.28)	136.07 (75.58, 245.00)	13.71 (7.82, 24.03)
Multiracial	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	11	5.47 (4.58, 6.53)	44.03 (32.14, 60.33)	5.73 (4.32, 7.59)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Multiracial	D29 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	11	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Multiracial	D29 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	11	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Multiracial	D29 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	11	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Multiracial	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	11	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Multiracial	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	11	5.00 (5.00, 5.00)	5.15 (4.85, 5.47)	1.00 (1.00, 1.00)
Multiracial	D29 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	14	0.05 (0.05, 0.05)	14.02 (7.57, 25.97)	5.74 (2.87, 11.50)
Multiracial	D29 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	14	0.80 (0.80, 0.80)	268.61 (122.01, 591.34)	93.06 (42.27, 204.87)
Multiracial	D29 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	14	0.15 (0.15, 0.15)	101.43 (54.23, 189.71)	112.90 (60.36, 211.17)
Multiracial	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	14	7.12 (4.86, 10.41)	44.49 (31.78, 62.28)	4.18 (2.67, 6.56)
Multiracial	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	14	5.39 (4.84, 5.99)	8.53 (6.02, 12.08)	1.33 (1.04, 1.70)
Multiracial	D57 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	54	0.05 (0.05, 0.05)	141.16 (73.25, 272.01)	62.88 (32.63, 121.17)
Multiracial	D57 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	54	0.80 (0.80, 0.80)	3972.32 (2511.55, 6282.68)	1376.24 (870.15, 2176.69)
Multiracial	D57 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	54	0.15 (0.15, 0.15)	2606.08 (1698.34, 3999.00)	2900.80 (1890.41, 4451.24)
Multiracial	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	54	5.00 (5.00, 5.00)	1328.58 (794.46, 2221.80)	143.63 (85.89, 240.19)
Multiracial	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	54	5.00 (5.00, 5.00)	346.68 (246.92, 486.75)	48.49 (34.53, 68.08)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Multiracial	D57 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	11	0.05 (0.05, 0.05)	813.41 (346.85, 1907.60)	362.35 (154.51, 849.77)
Multiracial	D57 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	11	0.80 (0.80, 0.80)	25580.64 (14495.43, 45143.12)	8862.63 (5022.06, 15640.21)
Multiracial	D57 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	11	0.16 (0.15, 0.17)	25123.24 (13478.89, 46827.12)	27964.43 (15003.21, 52122.79)
Multiracial	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	11	6.78 (4.96, 9.28)	5797.09 (3447.88, 9746.92)	583.96 (369.04, 924.04)
Multiracial	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	11	5.47 (4.58, 6.53)	1515.58 (775.21, 2963.03)	197.18 (103.71, 374.91)
Multiracial	D57 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	11	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Multiracial	D57 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	11	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Multiracial	D57 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	11	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Multiracial	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	11	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Multiracial	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	11	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Multiracial	D57 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	14	0.05 (0.05, 0.05)	86.14 (29.93, 247.92)	38.37 (13.33, 110.44)
Multiracial	D57 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	14	0.80 (0.80, 0.80)	2349.76 (832.16, 6634.98)	814.09 (288.31, 2298.74)
Multiracial	D57 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	14	0.15 (0.15, 0.15)	2308.72 (1410.06, 3780.10)	2569.81 (1569.53, 4207.60)
Multiracial	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	14	7.12 (4.86, 10.41)	853.22 (519.52, 1401.27)	82.18 (51.73, 130.55)
Multiracial	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	14	5.39 (4.84, 5.99)	264.54 (160.77, 435.27)	36.25 (22.04, 59.61)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Other	D29 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	20	0.05 (0.05, 0.05)	31.08 (13.85, 69.75)	12.92 (5.40, 30.90)
Other	D29 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	20	0.80 (0.80, 0.80)	306.49 (155.50, 604.08)	106.19 (53.87, 209.29)
Other	D29 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	20	0.15 (0.15, 0.15)	118.03 (55.75, 249.87)	131.38 (62.06, 278.12)
Other	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	20	5.00 (5.00, 5.00)	52.95 (31.08, 90.23)	5.51 (3.13, 9.71)
Other	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	20	5.00 (5.00, 5.00)	12.05 (7.73, 18.78)	1.71 (1.19, 2.46)
Other	D29 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	4	0.05 (0.05, 0.05)	312.76 (118.41, 826.10)	139.32 (52.75, 368.00)
Other	D29 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	4	0.80 (0.80, 0.80)	2176.38 (833.38, 5683.65)	754.03 (288.73, 1969.15)
Other	D29 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	4	0.15 (0.15, 0.15)	626.61 (288.80, 1359.57)	697.47 (321.46, 1513.32)
Other	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	4	5.83 (4.38, 7.75)	219.94 (158.93, 304.36)	23.78 (17.18, 32.90)
Other	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	4	6.58 (3.94, 10.99)	50.48 (43.86, 58.11)	5.78 (3.52, 9.50)
Other	D29 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	3	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Other	D29 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	3	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Other	D29 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	3	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Other	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	3	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Other	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	3	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Other	D29 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	5	0.05 (0.05, 0.05)	43.18 (19.74, 94.48)	19.24 (8.79, 42.09)
Other	D29 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	5	0.80 (0.80, 0.80)	359.52 (154.25, 837.95)	124.56 (53.44, 290.32)
Other	D29 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	5	0.15 (0.15, 0.15)	245.70 (138.67, 435.35)	273.49 (154.35, 484.58)
Other	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	5	5.77 (4.26, 7.81)	83.36 (51.84, 134.03)	8.24 (5.51, 12.30)
Other	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	5	21.85 (10.38, 46.01)	17.82 (11.41, 27.81)	0.74 (0.41, 1.31)
Other	D57 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	20	0.05 (0.05, 0.05)	80.19 (21.64, 297.13)	37.36 (11.01, 126.81)
Other	D57 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	20	0.80 (0.80, 0.80)	1630.51 (702.16, 3786.27)	564.90 (243.27, 1311.79)
Other	D57 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	20	0.15 (0.15, 0.15)	1144.96 (384.77, 3407.00)	1274.44 (428.29, 3792.30)
Other	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	20	5.00 (5.00, 5.00)	1386.65 (588.36, 3268.04)	149.91 (63.61, 353.30)
Other	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	20	5.00 (5.00, 5.00)	154.43 (104.27, 228.74)	21.60 (14.58, 31.99)
Other	D57 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	4	0.05 (0.05, 0.05)	1455.44 (553.52, 3826.96)	648.34 (246.57, 1704.77)
Other	D57 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	4	0.80 (0.80, 0.80)	24179.61 (11117.33, 52589.40)	8377.23 (3851.69, 18220.04)
Other	D57 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	4	0.15 (0.15, 0.15)	40495.39 (24369.97, 67290.88)	45075.02 (27125.97, 74900.81)
Other	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	4	5.83 (4.38, 7.75)	9012.47 (1263.33, 64293.79)	974.32 (136.58, 6950.68)
Other	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	4	6.58 (3.94, 10.99)	1054.69 (690.09, 1611.91)	120.72 (63.97, 227.84)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Other	D57 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	3	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Other	D57 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	3	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Other	D57 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	3	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Other	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	3	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Other	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	3	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Other	D57 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	5	0.05 (0.05, 0.05)	192.12 (96.40, 382.85)	85.58 (42.94, 170.55)
Other	D57 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	5	0.80 (0.80, 0.80)	3902.46 (1161.82, 13108.00)	1352.04 (402.52, 4541.38)
Other	D57 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	5	0.15 (0.15, 0.15)	6512.28 (3474.00, 12207.76)	7248.76 (3866.88, 13588.34)
Other	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	5	5.77 (4.26, 7.81)	1103.58 (731.21, 1665.57)	109.05 (78.21, 152.05)
Other	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	5	21.85 (10.38, 46.01)	415.45 (304.95, 565.98)	17.49 (7.22, 42.36)
Not reported and unknown	D29 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	3	0.05 (0.05, 0.05)	26.62 (2.54, 278.95)	9.23 (0.65, 130.26)
Not reported and unknown	D29 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	3	0.80 (0.80, 0.80)	199.75 (32.25, 1237.27)	69.20 (11.17, 428.66)
Not reported and unknown	D29 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	3	0.15 (0.15, 0.15)	169.76 (13.00, 2217.59)	188.96 (14.46, 2468.38)
Not reported and unknown	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	3	5.00 (5.00, 5.00)	71.93 (19.49, 265.43)	7.78 (2.11, 28.70)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Not reported and unknown	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	3	5.00 (5.00, 5.00)	16.14 (8.14, 32.01)	1.64 (0.68, 3.95)
Not reported and unknown	D29 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	3	0.05 (0.05, 0.05)	57.55 (11.31, 292.79)	25.64 (5.04, 130.43)
Not reported and unknown	D29 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	3	0.80 (0.80, 0.80)	831.28 (77.06, 8967.08)	288.01 (26.70, 3106.72)
Not reported and unknown	D29 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	3	0.15 (0.15, 0.15)	363.95 (115.66, 1145.24)	405.10 (128.74, 1274.76)
Not reported and unknown	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	3	5.00 (5.00, 5.00)	105.43 (32.49, 342.14)	11.40 (3.51, 36.99)
Not reported and unknown	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	3	5.00 (5.00, 5.00)	37.80 (17.25, 82.86)	5.29 (2.41, 11.59)
Not reported and unknown	D29 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	1	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Not reported and unknown	D29 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	1	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Not reported and unknown	D29 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	1	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Not reported and unknown	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	1	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Not reported and unknown	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	1	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Not reported and unknown	D29 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	1	0.05 (0.05, 0.05)	8.80 (8.80, 8.80)	3.92 (3.92, 3.92)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Not reported and unknown	D29 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	1	0.80 (0.80, 0.80)	548.62 (548.62, 548.62)	190.07 (190.07, 190.07)
Not reported and unknown	D29 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	1	0.15 (0.15, 0.15)	210.69 (210.69, 210.69)	234.52 (234.52, 234.52)
Not reported and unknown	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	1	5.00 (5.00, 5.00)	36.41 (36.41, 36.41)	3.94 (3.94, 3.94)
Not reported and unknown	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	1	15.21 (15.21, 15.21)	12.20 (12.20, 12.20)	0.47 (0.47, 0.47)
Not reported and unknown	D57 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	3	0.05 (0.05, 0.05)	76.82 (18.42, 320.39)	34.22 (8.20, 142.72)
Not reported and unknown	D57 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	3	0.80 (0.80, 0.80)	1652.83 (110.81, 24653.74)	572.64 (38.39, 8541.49)
Not reported and unknown	D57 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	3	0.15 (0.15, 0.15)	1786.79 (124.31, 25683.59)	1988.86 (138.36, 28588.14)
Not reported and unknown	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	3	5.00 (5.00, 5.00)	1797.25 (640.05, 5046.68)	194.30 (69.19, 545.59)
Not reported and unknown	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	3	5.00 (5.00, 5.00)	222.15 (111.59, 442.24)	31.07 (15.61, 61.85)
Not reported and unknown	D57 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	3	0.05 (0.05, 0.05)	663.23 (86.30, 5097.15)	295.45 (38.44, 2270.60)
Not reported and unknown	D57 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	3	0.80 (0.80, 0.80)	13807.51 (2037.10, 93587.47)	4783.73 (705.77, 32424.16)
Not reported and unknown	D57 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	3	0.15 (0.15, 0.15)	9816.92 (851.36, 113197.19)	10927.12 (947.64, 125998.65)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Not reported and unknown	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	3	5.00 (5.00, 5.00)	3660.93 (1522.47, 8803.04)	395.78 (164.59, 951.68)
Not reported and unknown	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	3	5.00 (5.00, 5.00)	933.08 (427.27, 2037.68)	130.50 (59.76, 284.99)
Not reported and unknown	D57 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	1	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Not reported and unknown	D57 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	1	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Not reported and unknown	D57 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	1	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Not reported and unknown	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	1	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Not reported and unknown	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	1	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Not reported and unknown	D57 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	1	0.05 (0.05, 0.05)	1265.35 (1265.35, 1265.35)	563.67 (563.67, 563.67)
Not reported and unknown	D57 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	1	0.80 (0.80, 0.80)	34488.07 (34488.07, 34488.07)	11948.68 (11948.68, 11948.68)
Not reported and unknown	D57 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	1	0.15 (0.15, 0.15)	1454.26 (1454.26, 1454.26)	1618.72 (1618.72, 1618.72)
Not reported and unknown	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	1	5.00 (5.00, 5.00)	1097.99 (1097.99, 1097.99)	118.70 (118.70, 118.70)
Not reported and unknown	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	1	15.21 (15.21, 15.21)	155.49 (155.49, 155.49)	10.22 (10.22, 10.22)

Table 8i. Geometric mean titer ratios (GMTRs) or geometric mean concentration ratios (GMCRs) between post-vaccinations/pre-vaccination by Communities of color

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Communities of color								
Communities of Color	D29 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	374	0.05 (0.05, 0.05)	39.67 (31.26, 50.35)	17.79 (14.12, 22.41)
Communities of Color	D29 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	374	0.80 (0.80, 0.80)	513.48 (413.67, 637.36)	177.90 (143.32, 220.82)
Communities of Color	D29 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	374	0.16 (0.15, 0.16)	234.28 (195.25, 281.12)	260.78 (217.33, 312.91)
Communities of Color	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	374	5.00 (5.00, 5.00)	68.52 (60.59, 77.50)	7.26 (6.38, 8.25)
Communities of Color	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	374	5.00 (5.00, 5.00)	16.21 (14.25, 18.44)	2.30 (2.05, 2.59)
Communities of Color	D29 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	114	0.05 (0.05, 0.05)	82.98 (53.50, 128.70)	37.04 (23.88, 57.46)
Communities of Color	D29 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	114	0.80 (0.79, 0.81)	1021.22 (652.06, 1599.39)	353.81 (225.91, 554.12)
Communities of Color	D29 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	114	0.15 (0.15, 0.16)	482.79 (323.03, 721.55)	537.38 (359.56, 803.15)
Communities of Color	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	114	6.99 (5.93, 8.24)	138.12 (108.47, 175.87)	13.09 (10.34, 16.58)
Communities of Color	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	114	6.86 (5.92, 7.94)	31.58 (24.43, 40.82)	3.74 (2.98, 4.69)
Communities of Color	D29 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	66	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Communities of Color	D29 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	66	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Communities of Color	D29 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	66	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Communities of Color	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	66	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Communities of Color	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	66	5.00 (5.00, 5.00)	5.03 (4.97, 5.08)	1.00 (1.00, 1.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Communities of Color	D29 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	102	0.05 (0.05, 0.05)	22.21 (15.34, 32.14)	9.88 (6.85, 14.26)
Communities of Color	D29 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	102	0.80 (0.80, 0.80)	373.03 (263.76, 527.56)	128.40 (90.25, 182.68)
Communities of Color	D29 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	102	0.15 (0.15, 0.15)	182.13 (136.16, 243.62)	202.73 (151.56, 271.17)
Communities of Color	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	102	6.35 (5.67, 7.12)	44.88 (35.94, 56.04)	4.41 (3.50, 5.56)
Communities of Color	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	102	6.58 (5.71, 7.58)	10.99 (9.18, 13.15)	1.42 (1.19, 1.69)
Communities of Color	D57 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	374	0.05 (0.05, 0.05)	146.25 (108.63, 196.88)	66.91 (50.18, 89.21)
Communities of Color	D57 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	374	0.80 (0.80, 0.80)	4364.14 (3391.49, 5615.73)	1511.99 (1175.01, 1945.62)
Communities of Color	D57 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	374	0.16 (0.15, 0.16)	2968.99 (2387.16, 3692.62)	3304.75 (2657.13, 4110.22)
Communities of Color	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	374	5.00 (5.00, 5.00)	1714.20 (1436.27, 2045.90)	185.32 (155.27, 221.18)
Communities of Color	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	374	5.00 (5.00, 5.00)	387.24 (334.68, 448.06)	54.16 (46.81, 62.67)
Communities of Color	D57 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	114	0.05 (0.05, 0.05)	484.01 (265.07, 883.79)	221.41 (122.80, 399.19)
Communities of Color	D57 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	114	0.80 (0.79, 0.81)	13734.88 (8600.86, 21933.50)	4758.56 (2979.84, 7599.05)
Communities of Color	D57 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	114	0.15 (0.15, 0.16)	10830.48 (7216.97, 16253.27)	12055.30 (8033.13, 18091.36)
Communities of Color	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	114	6.99 (5.93, 8.24)	5265.34 (3869.12, 7165.39)	496.97 (368.61, 670.03)
Communities of Color	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	114	6.86 (5.92, 7.94)	1148.93 (884.32, 1492.71)	137.88 (108.52, 175.17)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Communities of Color	D57 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	66	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Communities of Color	D57 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	66	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Communities of Color	D57 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	66	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Communities of Color	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	66	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Communities of Color	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	66	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Communities of Color	D57 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	102	0.05 (0.05, 0.05)	152.87 (98.17, 238.06)	68.71 (44.19, 106.83)
Communities of Color	D57 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	102	0.80 (0.80, 0.80)	3836.73 (2549.85, 5773.08)	1329.27 (883.42, 2000.13)
Communities of Color	D57 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	102	0.15 (0.15, 0.15)	2339.82 (1698.97, 3222.40)	2604.43 (1891.10, 3586.82)
Communities of Color	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	102	6.35 (5.67, 7.12)	1351.77 (1030.23, 1773.65)	136.68 (104.34, 179.04)
Communities of Color	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	102	6.58 (5.71, 7.58)	324.34 (245.81, 427.95)	38.81 (28.78, 52.33)
White Non-Hispanic	D29 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	355	0.05 (0.05, 0.05)	35.24 (27.71, 44.82)	16.18 (12.86, 20.35)
White Non-Hispanic	D29 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	355	0.80 (0.80, 0.80)	394.97 (319.03, 488.98)	136.84 (110.53, 169.41)
White Non-Hispanic	D29 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	355	0.15 (0.15, 0.15)	246.00 (210.22, 287.86)	273.82 (234.00, 320.41)
White Non-Hispanic	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	355	5.00 (5.00, 5.00)	63.58 (55.57, 72.74)	6.74 (5.88, 7.73)
White Non-Hispanic	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	355	5.00 (5.00, 5.00)	17.36 (15.42, 19.54)	2.49 (2.23, 2.77)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
White Non-Hispanic	D29 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	121	0.05 (0.04, 0.06)	108.49 (76.64, 153.60)	48.98 (34.74, 69.07)
White Non-Hispanic	D29 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	121	0.80 (0.80, 0.80)	1103.88 (720.93, 1690.25)	382.45 (249.77, 585.60)
White Non-Hispanic	D29 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	121	0.16 (0.15, 0.17)	497.19 (349.12, 708.07)	553.42 (388.60, 788.14)
White Non-Hispanic	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	121	7.83 (6.51, 9.41)	150.52 (126.18, 179.55)	14.25 (11.62, 17.46)
White Non-Hispanic	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	121	6.76 (5.83, 7.82)	33.02 (27.25, 40.02)	3.80 (3.03, 4.76)
White Non-Hispanic	D29 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	64	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
White Non-Hispanic	D29 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	64	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
White Non-Hispanic	D29 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	64	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
White Non-Hispanic	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	64	5.00 (5.00, 5.00)	5.08 (4.97, 5.19)	1.00 (1.00, 1.00)
White Non-Hispanic	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	64	5.00 (5.00, 5.00)	5.03 (4.98, 5.07)	1.00 (1.00, 1.00)
White Non-Hispanic	D29 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	119	0.05 (0.05, 0.05)	30.08 (19.98, 45.29)	13.75 (9.27, 20.41)
White Non-Hispanic	D29 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	119	0.80 (0.80, 0.80)	334.14 (244.55, 456.56)	115.77 (84.72, 158.18)
White Non-Hispanic	D29 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	119	0.15 (0.15, 0.15)	193.98 (143.34, 262.51)	215.92 (159.55, 292.20)
White Non-Hispanic	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	119	6.80 (6.02, 7.67)	51.58 (41.19, 64.59)	4.90 (3.81, 6.30)
White Non-Hispanic	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	119	6.86 (5.95, 7.92)	11.31 (9.62, 13.29)	1.40 (1.16, 1.67)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
White Non-Hispanic	D57 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	355	0.05 (0.05, 0.05)	154.12 (116.66, 203.61)	69.16 (52.60, 90.94)
White Non-Hispanic	D57 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	355	0.80 (0.80, 0.80)	4647.54 (3662.95, 5896.79)	1610.18 (1269.06, 2042.99)
White Non-Hispanic	D57 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	355	0.15 (0.15, 0.15)	3213.02 (2637.12, 3914.70)	3576.38 (2935.35, 4357.41)
White Non-Hispanic	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	355	5.00 (5.00, 5.00)	1559.07 (1309.74, 1855.86)	168.55 (141.59, 200.63)
White Non-Hispanic	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	355	5.00 (5.00, 5.00)	366.65 (315.65, 425.89)	51.41 (44.34, 59.61)
White Non-Hispanic	D57 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	121	0.05 (0.04, 0.06)	524.22 (330.41, 831.70)	242.37 (154.53, 380.14)
White Non-Hispanic	D57 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	121	0.80 (0.80, 0.80)	14740.10 (9467.50, 22949.08)	5106.83 (3280.10, 7950.90)
White Non-Hispanic	D57 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	121	0.16 (0.15, 0.17)	12712.59 (8977.13, 18002.42)	14150.26 (9992.35, 20038.31)
White Non-Hispanic	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	121	7.83 (6.51, 9.41)	5474.91 (3962.27, 7565.02)	518.07 (373.57, 718.47)
White Non-Hispanic	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	121	6.76 (5.83, 7.82)	1100.91 (824.78, 1469.49)	130.33 (97.14, 174.87)
White Non-Hispanic	D57 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	64	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
White Non-Hispanic	D57 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	64	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
White Non-Hispanic	D57 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	64	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
White Non-Hispanic	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	64	5.00 (5.00, 5.00)	5.04 (4.96, 5.11)	1.00 (1.00, 1.00)
White Non-Hispanic	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	64	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
White Non-Hispanic	D57 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	119	0.05 (0.05, 0.05)	152.54 (94.61, 245.96)	66.47 (40.67, 108.63)
White Non-Hispanic	D57 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	119	0.80 (0.80, 0.80)	3927.49 (2680.45, 5754.71)	1360.71 (928.66, 1993.77)
White Non-Hispanic	D57 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	119	0.15 (0.15, 0.15)	2481.87 (1786.06, 3448.74)	2762.54 (1988.05, 3838.76)
White Non-Hispanic	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	119	6.80 (6.02, 7.67)	1385.29 (1014.62, 1891.36)	141.04 (103.95, 191.36)
White Non-Hispanic	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	119	6.86 (5.95, 7.92)	255.56 (199.61, 327.19)	30.24 (23.47, 38.97)

Table 8j. Geometric mean titer ratios (GMTRs) or geometric mean concentration ratios (GMCRs) between post-vaccinations/pre-vaccination by Age, Communities of color

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Age, Communities of color								
Age < 65 Communities of Color	D29 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	169	0.05 (0.05, 0.05)	30.27 (22.66, 40.43)	13.62 (10.29, 18.02)
Age < 65 Communities of Color	D29 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	169	0.80 (0.80, 0.80)	403.91 (309.30, 527.47)	139.94 (107.16, 182.75)
Age < 65 Communities of Color	D29 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	169	0.16 (0.15, 0.16)	172.99 (138.47, 216.12)	192.56 (154.13, 240.56)
Age < 65 Communities of Color	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	169	5.00 (5.00, 5.00)	58.89 (50.72, 68.38)	6.22 (5.32, 7.27)
Age < 65 Communities of Color	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	169	5.00 (5.00, 5.00)	14.67 (12.50, 17.21)	2.10 (1.82, 2.44)
Age < 65 Communities of Color	D29 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	63	0.05 (0.05, 0.05)	62.15 (35.65, 108.36)	27.76 (15.92, 48.40)
Age < 65 Communities of Color	D29 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	63	0.80 (0.80, 0.80)	776.83 (438.20, 1377.17)	269.14 (151.82, 477.13)
Age < 65 Communities of Color	D29 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	63	0.15 (0.15, 0.15)	368.29 (222.18, 610.49)	409.94 (247.31, 679.52)
Age < 65 Communities of Color	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	63	7.12 (5.82, 8.71)	121.06 (89.32, 164.07)	11.33 (8.42, 15.25)
Age < 65 Communities of Color	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	63	7.21 (6.03, 8.61)	29.99 (21.81, 41.23)	3.50 (2.65, 4.63)
Age < 65 Communities of Color	D29 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	31	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Age < 65 Communities of Color	D29 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	31	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Age < 65 Communities of Color	D29 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	31	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Age < 65 Communities of Color	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	31	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Age < 65 Communities of Color	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	31	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Age < 65 Communities of Color	D29 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	58	0.05 (0.05, 0.05)	16.48 (10.79, 25.17)	7.32 (4.81, 11.12)
Age < 65 Communities of Color	D29 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	58	0.80 (0.80, 0.80)	283.64 (189.43, 424.70)	97.49 (64.61, 147.11)
Age < 65 Communities of Color	D29 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	58	0.15 (0.15, 0.15)	129.34 (93.01, 179.87)	143.97 (103.53, 200.21)
Age < 65 Communities of Color	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	58	6.30 (5.51, 7.20)	38.45 (29.70, 49.78)	3.82 (2.91, 5.00)
Age < 65 Communities of Color	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	58	6.47 (5.46, 7.66)	9.83 (7.97, 12.12)	1.31 (1.07, 1.61)
Age < 65 Communities of Color	D57 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	169	0.05 (0.05, 0.05)	104.82 (72.42, 151.72)	48.32 (33.81, 69.06)
Age < 65 Communities of Color	D57 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	169	0.80 (0.80, 0.80)	3193.92 (2343.33, 4353.24)	1106.56 (811.87, 1508.22)
Age < 65 Communities of Color	D57 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	169	0.16 (0.15, 0.16)	2045.52 (1573.98, 2658.31)	2276.84 (1751.99, 2958.94)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Age < 65 Communities of Color	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	169	5.00 (5.00, 5.00)	1440.60 (1157.59, 1792.81)	155.74 (125.14, 193.82)
Age < 65 Communities of Color	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	169	5.00 (5.00, 5.00)	362.94 (302.88, 434.91)	50.76 (42.36, 60.83)
Age < 65 Communities of Color	D57 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	63	0.05 (0.05, 0.05)	342.95 (161.59, 727.86)	157.96 (75.66, 329.76)
Age < 65 Communities of Color	D57 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	63	0.80 (0.80, 0.80)	9929.37 (5549.08, 17767.33)	3440.11 (1922.53, 6155.64)
Age < 65 Communities of Color	D57 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	63	0.15 (0.15, 0.15)	8216.65 (4938.34, 13671.25)	9145.87 (5496.82, 15217.33)
Age < 65 Communities of Color	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	63	7.12 (5.82, 8.71)	4473.04 (3049.22, 6561.70)	416.55 (287.57, 603.39)
Age < 65 Communities of Color	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	63	7.21 (6.03, 8.61)	1039.32 (751.43, 1437.49)	122.02 (90.84, 163.91)
Age < 65 Communities of Color	D57 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	31	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Age < 65 Communities of Color	D57 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	31	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Age < 65 Communities of Color	D57 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	31	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Age < 65 Communities of Color	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	31	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Age < 65 Communities of Color	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	31	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Age < 65 Communities of Color	D57 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	58	0.05 (0.05, 0.05)	116.07 (69.33, 194.32)	52.28 (31.28, 87.36)
Age < 65 Communities of Color	D57 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	58	0.80 (0.80, 0.80)	2649.36 (1659.09, 4230.71)	917.89 (574.80, 1465.77)
Age < 65 Communities of Color	D57 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	58	0.15 (0.15, 0.15)	1580.74 (1100.41, 2270.74)	1759.51 (1224.85, 2527.54)
Age < 65 Communities of Color	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	58	6.30 (5.51, 7.20)	1152.23 (837.45, 1585.33)	117.79 (85.75, 161.79)
Age < 65 Communities of Color	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	58	6.47 (5.46, 7.66)	298.95 (214.78, 416.11)	36.18 (25.30, 51.74)
Age < 65 White Non-Hispanic	D29 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	180	0.05 (0.05, 0.05)	26.41 (19.71, 35.40)	12.26 (9.28, 16.19)
Age < 65 White Non-Hispanic	D29 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	180	0.80 (0.80, 0.80)	288.59 (222.38, 374.51)	99.99 (77.05, 129.75)
Age < 65 White Non-Hispanic	D29 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	180	0.15 (0.15, 0.15)	183.21 (151.54, 221.49)	203.93 (168.68, 246.54)
Age < 65 White Non-Hispanic	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	180	5.00 (5.00, 5.00)	53.76 (45.60, 63.39)	5.69 (4.82, 6.73)
Age < 65 White Non-Hispanic	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	180	5.00 (5.00, 5.00)	15.97 (13.80, 18.47)	2.30 (2.01, 2.63)
Age < 65 White Non-Hispanic	D29 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	57	0.05 (0.04, 0.06)	99.09 (64.78, 151.58)	44.91 (29.51, 68.34)
Age < 65 White Non-Hispanic	D29 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	57	0.80 (0.80, 0.80)	962.06 (567.84, 1629.96)	333.31 (196.73, 564.71)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Age < 65 White Non-Hispanic	D29 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	57	0.16 (0.15, 0.17)	402.94 (259.92, 624.64)	448.50 (289.31, 695.28)
Age < 65 White Non-Hispanic	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	57	8.03 (6.40, 10.08)	143.41 (115.65, 177.85)	13.69 (10.67, 17.56)
Age < 65 White Non-Hispanic	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	57	6.96 (5.80, 8.35)	32.14 (25.38, 40.69)	3.64 (2.75, 4.81)
Age < 65 White Non-Hispanic	D29 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	32	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Age < 65 White Non-Hispanic	D29 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	32	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Age < 65 White Non-Hispanic	D29 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	32	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Age < 65 White Non-Hispanic	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	32	5.00 (5.00, 5.00)	5.05 (4.95, 5.16)	1.00 (1.00, 1.00)
Age < 65 White Non-Hispanic	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	32	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Age < 65 White Non-Hispanic	D29 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	64	0.05 (0.05, 0.05)	24.26 (14.82, 39.74)	11.19 (6.96, 17.99)
Age < 65 White Non-Hispanic	D29 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	64	0.80 (0.80, 0.80)	245.91 (169.85, 356.03)	85.20 (58.85, 123.35)
Age < 65 White Non-Hispanic	D29 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	64	0.15 (0.15, 0.15)	137.60 (96.05, 197.11)	153.16 (106.91, 219.40)
Age < 65 White Non-Hispanic	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	64	6.87 (5.93, 7.97)	45.44 (34.61, 59.65)	4.26 (3.14, 5.78)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Age < 65 White Non-Hispanic	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	64	6.91 (5.81, 8.22)	9.94 (8.20, 12.05)	1.26 (1.02, 1.57)
Age < 65 White Non-Hispanic	D57 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	180	0.05 (0.05, 0.05)	114.41 (81.44, 160.73)	51.46 (36.85, 71.85)
Age < 65 White Non-Hispanic	D57 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	180	0.80 (0.80, 0.80)	3425.82 (2560.91, 4582.85)	1186.90 (887.25, 1587.77)
Age < 65 White Non-Hispanic	D57 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	180	0.15 (0.15, 0.15)	2329.12 (1832.57, 2960.22)	2592.52 (2039.81, 3295.00)
Age < 65 White Non-Hispanic	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	180	5.00 (5.00, 5.00)	1279.84 (1033.75, 1584.52)	138.36 (111.76, 171.30)
Age < 65 White Non-Hispanic	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	180	5.00 (5.00, 5.00)	336.07 (279.44, 404.19)	47.15 (39.30, 56.58)
Age < 65 White Non-Hispanic	D57 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	57	0.05 (0.04, 0.06)	423.58 (240.75, 745.25)	197.64 (114.01, 342.60)
Age < 65 White Non-Hispanic	D57 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	57	0.80 (0.80, 0.80)	12007.49 (6964.67, 20701.60)	4160.09 (2412.97, 7172.24)
Age < 65 White Non-Hispanic	D57 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	57	0.16 (0.15, 0.17)	10101.72 (6601.88, 15456.91)	11244.12 (7348.48, 17204.94)
Age < 65 White Non-Hispanic	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	57	8.03 (6.40, 10.08)	4906.37 (3288.35, 7320.55)	468.26 (312.39, 701.91)
Age < 65 White Non-Hispanic	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	57	6.96 (5.80, 8.35)	1073.40 (750.55, 1535.13)	124.90 (86.76, 179.80)
Age < 65 White Non-Hispanic	D57 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	32	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Age < 65 White Non-Hispanic	D57 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	32	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Age < 65 White Non-Hispanic	D57 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	32	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Age < 65 White Non-Hispanic	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	32	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Age < 65 White Non-Hispanic	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	32	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Age < 65 White Non-Hispanic	D57 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	64	0.05 (0.05, 0.05)	109.60 (61.80, 194.39)	47.50 (26.33, 85.71)
Age < 65 White Non-Hispanic	D57 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	64	0.80 (0.80, 0.80)	2752.20 (1746.31, 4337.49)	953.52 (605.02, 1502.76)
Age < 65 White Non-Hispanic	D57 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	64	0.15 (0.15, 0.15)	1709.40 (1157.14, 2525.23)	1902.72 (1288.00, 2810.81)
Age < 65 White Non-Hispanic	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	64	6.87 (5.93, 7.97)	1147.38 (787.32, 1672.09)	116.64 (80.63, 168.73)
Age < 65 White Non-Hispanic	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	64	6.91 (5.81, 8.22)	216.97 (161.30, 291.84)	25.69 (18.95, 34.82)
Age ≥ 65 Communities of Color	D29 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	205	0.05 (0.05, 0.05)	104.78 (82.07, 133.76)	46.40 (36.27, 59.36)
Age ≥ 65 Communities of Color	D29 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	205	0.80 (0.80, 0.80)	1215.65 (984.75, 1500.68)	421.17 (341.18, 519.92)
Age ≥ 65 Communities of Color	D29 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	205	0.15 (0.15, 0.15)	696.14 (587.18, 825.32)	774.87 (653.58, 918.66)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Age ≥ 65 Communities of Color	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	205	5.00 (5.00, 5.00)	118.04 (103.69, 134.39)	12.66 (11.08, 14.45)
Age ≥ 65 Communities of Color	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	205	5.00 (5.00, 5.00)	23.22 (20.69, 26.05)	3.18 (2.84, 3.57)
Age ≥ 65 Communities of Color	D29 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	51	0.05 (0.05, 0.05)	255.32 (158.90, 410.26)	113.74 (70.78, 182.76)
Age ≥ 65 Communities of Color	D29 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	51	0.83 (0.77, 0.88)	2959.12 (1973.66, 4436.61)	1025.21 (683.79, 1537.10)
Age ≥ 65 Communities of Color	D29 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	51	0.16 (0.15, 0.16)	1383.60 (958.25, 1997.74)	1540.07 (1066.62, 2223.66)
Age ≥ 65 Communities of Color	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	51	6.52 (5.56, 7.64)	230.66 (179.67, 296.12)	22.94 (18.02, 29.21)
Age ≥ 65 Communities of Color	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	51	5.65 (5.07, 6.30)	38.63 (29.86, 49.96)	4.84 (3.71, 6.30)
Age ≥ 65 Communities of Color	D29 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	35	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Age ≥ 65 Communities of Color	D29 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	35	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Age ≥ 65 Communities of Color	D29 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	35	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Age ≥ 65 Communities of Color	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	35	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Age ≥ 65 Communities of Color	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	35	5.00 (5.00, 5.00)	5.09 (4.91, 5.28)	1.00 (1.00, 1.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Age ≥ 65 Communities of Color	D29 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	44	0.05 (0.05, 0.05)	82.14 (48.71, 138.53)	36.89 (21.98, 61.89)
Age ≥ 65 Communities of Color	D29 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	44	0.80 (0.80, 0.80)	1240.53 (807.28, 1906.31)	429.79 (279.69, 660.46)
Age ≥ 65 Communities of Color	D29 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	44	0.15 (0.15, 0.15)	817.24 (571.27, 1169.11)	909.66 (635.87, 1301.33)
Age ≥ 65 Communities of Color	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	44	6.59 (5.50, 7.90)	88.46 (66.38, 117.89)	8.33 (6.18, 11.22)
Age ≥ 65 Communities of Color	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	44	7.08 (5.94, 8.44)	17.94 (14.06, 22.89)	2.00 (1.54, 2.61)
Age ≥ 65 Communities of Color	D57 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	205	0.05 (0.05, 0.05)	483.55 (369.19, 633.32)	215.28 (164.34, 282.01)
Age ≥ 65 Communities of Color	D57 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	205	0.80 (0.80, 0.80)	13388.01 (10723.77, 16714.16)	4638.39 (3715.34, 5790.76)
Age ≥ 65 Communities of Color	D57 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	205	0.15 (0.15, 0.15)	11313.95 (9332.04, 13716.77)	12593.44 (10387.40, 15268.00)
Age ≥ 65 Communities of Color	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	205	5.00 (5.00, 5.00)	3200.55 (2718.86, 3767.58)	346.01 (293.93, 407.31)
Age ≥ 65 Communities of Color	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	205	5.00 (5.00, 5.00)	488.70 (421.66, 566.41)	68.35 (58.97, 79.22)
Age ≥ 65 Communities of Color	D57 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	51	0.05 (0.05, 0.05)	1848.46 (1139.85, 2997.61)	823.42 (507.76, 1335.33)
Age ≥ 65 Communities of Color	D57 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	51	0.83 (0.77, 0.88)	48514.16 (32240.57, 73001.92)	16808.14 (11170.01, 25292.12)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Age ≥ 65 Communities of Color	D57 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	51	0.16 (0.15, 0.16)	31710.72 (21622.19, 46506.40)	35296.89 (24067.44, 51765.81)
Age ≥ 65 Communities of Color	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	51	6.52 (5.56, 7.64)	9928.79 (7431.19, 13265.83)	987.46 (743.20, 1311.99)
Age ≥ 65 Communities of Color	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	51	5.65 (5.07, 6.30)	1696.89 (1243.56, 2315.47)	221.77 (165.50, 297.18)
Age ≥ 65 Communities of Color	D57 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	35	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Age ≥ 65 Communities of Color	D57 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	35	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Age ≥ 65 Communities of Color	D57 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	35	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Age ≥ 65 Communities of Color	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	35	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Age ≥ 65 Communities of Color	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	35	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Age ≥ 65 Communities of Color	D57 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	44	0.05 (0.05, 0.05)	511.69 (278.17, 941.24)	227.94 (123.92, 419.29)
Age ≥ 65 Communities of Color	D57 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	44	0.80 (0.80, 0.80)	19470.54 (11156.25, 33981.13)	6745.73 (3865.18, 11773.05)
Age ≥ 65 Communities of Color	D57 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	44	0.15 (0.15, 0.15)	13069.98 (9048.75, 18878.22)	14548.06 (10072.07, 21013.16)
Age ≥ 65 Communities of Color	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	44	6.59 (5.50, 7.90)	2723.66 (1922.15, 3859.39)	262.45 (183.39, 375.61)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Age ≥ 65 Communities of Color	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	44	7.08 (5.94, 8.44)	463.73 (340.98, 630.67)	52.76 (38.55, 72.23)
Age ≥ 65 White Non-Hispanic	D29 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	175	0.05 (0.05, 0.05)	107.70 (82.28, 140.97)	47.44 (36.13, 62.29)
Age ≥ 65 White Non-Hispanic	D29 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	175	0.80 (0.80, 0.80)	1332.45 (1074.15, 1652.87)	461.64 (372.15, 572.65)
Age ≥ 65 White Non-Hispanic	D29 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	175	0.15 (0.15, 0.15)	770.69 (646.15, 919.23)	857.85 (719.23, 1023.19)
Age ≥ 65 White Non-Hispanic	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	175	5.00 (5.00, 5.00)	121.74 (106.49, 139.16)	12.98 (11.30, 14.92)
Age ≥ 65 White Non-Hispanic	D29 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	175	5.00 (5.00, 5.00)	23.99 (21.33, 26.99)	3.37 (3.01, 3.77)
Age ≥ 65 White Non-Hispanic	D29 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	64	0.05 (0.05, 0.05)	154.14 (104.27, 227.86)	68.56 (46.33, 101.45)
Age ≥ 65 White Non-Hispanic	D29 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	64	0.80 (0.80, 0.80)	1880.46 (1321.81, 2675.22)	651.50 (457.95, 926.85)
Age ≥ 65 White Non-Hispanic	D29 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	64	0.15 (0.15, 0.15)	1122.35 (894.39, 1408.42)	1249.28 (995.54, 1567.70)
Age ≥ 65 White Non-Hispanic	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	64	7.11 (6.03, 8.38)	181.51 (147.82, 222.88)	16.62 (13.28, 20.79)
Age ≥ 65 White Non-Hispanic	D29 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	64	6.03 (5.39, 6.75)	36.69 (29.98, 44.91)	4.49 (3.62, 5.57)
Age ≥ 65 White Non-Hispanic	D29 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	32	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Age ≥ 65 White Non-Hispanic	D29 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	32	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Age ≥ 65 White Non-Hispanic	D29 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	32	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Age ≥ 65 White Non-Hispanic	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	32	5.00 (5.00, 5.00)	5.16 (4.85, 5.49)	1.00 (1.00, 1.00)
Age ≥ 65 White Non-Hispanic	D29 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	32	5.00 (5.00, 5.00)	5.12 (4.89, 5.35)	1.00 (1.00, 1.00)
Age ≥ 65 White Non-Hispanic	D29 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	55	0.05 (0.05, 0.05)	72.44 (45.36, 115.66)	31.90 (19.87, 51.23)
Age ≥ 65 White Non-Hispanic	D29 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	55	0.80 (0.80, 0.80)	1170.26 (803.36, 1704.72)	405.45 (278.33, 590.62)
Age ≥ 65 White Non-Hispanic	D29 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	55	0.15 (0.15, 0.15)	789.91 (580.92, 1074.08)	879.24 (646.62, 1195.55)
Age ≥ 65 White Non-Hispanic	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	55	6.49 (5.67, 7.44)	86.65 (68.46, 109.67)	8.67 (6.80, 11.05)
Age ≥ 65 White Non-Hispanic	D29 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	55	6.68 (5.72, 7.81)	19.19 (15.63, 23.57)	2.11 (1.69, 2.63)
Age ≥ 65 White Non-Hispanic	D57 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	175	0.05 (0.05, 0.05)	488.95 (360.75, 662.70)	217.48 (160.39, 294.90)
Age ≥ 65 White Non-Hispanic	D57 fold-rise over D1	Vaccine	Negative	Anti RBD IgG (IU/ml)	175	0.80 (0.80, 0.80)	15153.92 (11908.60, 19283.64)	5250.20 (4125.83, 6680.98)
Age ≥ 65 White Non-Hispanic	D57 fold-rise over D1	Vaccine	Negative	Anti Spike IgG (IU/ml)	175	0.15 (0.15, 0.15)	11177.87 (9058.01, 13793.85)	12441.98 (10082.38, 15353.79)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Age ≥ 65 White Non-Hispanic	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID50	175	5.00 (5.00, 5.00)	3349.65 (2822.28, 3975.57)	362.12 (305.11, 429.79)
Age ≥ 65 White Non-Hispanic	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	175	5.00 (5.00, 5.00)	513.80 (445.45, 592.63)	71.86 (62.30, 82.89)
Age ≥ 65 White Non-Hispanic	D57 fold-rise over D1	Vaccine	Positive	Anti N IgG (IU/ml)	64	0.05 (0.05, 0.05)	1197.04 (733.86, 1952.56)	534.19 (327.95, 870.13)
Age ≥ 65 White Non-Hispanic	D57 fold-rise over D1	Vaccine	Positive	Anti RBD IgG (IU/ml)	64	0.80 (0.80, 0.80)	32616.52 (21714.57, 48991.88)	11300.27 (7523.19, 16973.65)
Age ≥ 65 White Non-Hispanic	D57 fold-rise over D1	Vaccine	Positive	Anti Spike IgG (IU/ml)	64	0.15 (0.15, 0.15)	30972.10 (21891.61, 43819.12)	34474.73 (24367.33, 48774.62)
Age ≥ 65 White Non-Hispanic	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	64	7.11 (6.03, 8.38)	8371.89 (6372.84, 10998.01)	766.41 (582.56, 1008.27)
Age ≥ 65 White Non-Hispanic	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID80	64	6.03 (5.39, 6.75)	1214.28 (952.09, 1548.67)	153.70 (120.60, 195.88)
Age ≥ 65 White Non-Hispanic	D57 fold-rise over D1	Placebo	Negative	Anti N IgG (IU/ml)	32	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Age ≥ 65 White Non-Hispanic	D57 fold-rise over D1	Placebo	Negative	Anti RBD IgG (IU/ml)	32	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Age ≥ 65 White Non-Hispanic	D57 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	32	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Age ≥ 65 White Non-Hispanic	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID50	32	5.00 (5.00, 5.00)	5.18 (4.84, 5.54)	1.00 (1.00, 1.00)
Age ≥ 65 White Non-Hispanic	D57 fold-rise over D1	Placebo	Negative	Pseudovirus-nAb ID80	32	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Age ≥ 65 White Non-Hispanic	D57 fold-rise over D1	Placebo	Positive	Anti N IgG (IU/ml)	55	0.05 (0.05, 0.05)	589.43 (338.20, 1027.29)	262.57 (150.66, 457.62)
Age ≥ 65 White Non-Hispanic	D57 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	55	0.80 (0.80, 0.80)	16808.22 (10724.04, 26344.18)	5823.35 (3715.43, 9127.16)
Age ≥ 65 White Non-Hispanic	D57 fold-rise over D1	Placebo	Positive	Anti Spike IgG (IU/ml)	55	0.15 (0.15, 0.15)	11398.41 (8030.79, 16178.20)	12687.46 (8939.00, 18007.79)
Age ≥ 65 White Non-Hispanic	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID50	55	6.49 (5.67, 7.44)	2993.03 (2160.14, 4147.06)	306.63 (224.30, 419.19)
Age ≥ 65 White Non-Hispanic	D57 fold-rise over D1	Placebo	Positive	Pseudovirus-nAb ID80	55	6.68 (5.72, 7.81)	499.07 (372.15, 669.29)	58.96 (43.48, 79.96)

1.9 The ratios of GMTs/GMCs between groups

Table 9a. The ratios of GMTs/GMCs between groups by Age

Group 1 vs 2	Visit	Arm	Baseline SARS-CoV-2	Marker	Group 1 GMT/GMC	Group 2 GMT/GMC	Ratios of GMT/GMC
Age							
Age ≥ 65 vs Age < 65	Day 1	Vaccine	Negative	Anti N IgG (IU/ml)	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Age ≥ 65 vs Age < 65	Day 1	Vaccine	Negative	Anti RBD IgG (IU/ml)	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Age ≥ 65 vs Age < 65	Day 1	Vaccine	Negative	Anti Spike IgG (IU/ml)	0.15 (0.15, 0.15)	0.15 (0.15, 0.16)	1.00 (0.99, 1.00)
Age ≥ 65 vs Age < 65	Day 1	Vaccine	Negative	Pseudovirus-nAb ID50	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Age ≥ 65 vs Age < 65	Day 1	Vaccine	Negative	Pseudovirus-nAb ID80	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Age ≥ 65 vs Age < 65	Day 1	Vaccine	Positive	Anti N IgG (IU/ml)	0.05 (0.05, 0.05)	0.05 (0.05, 0.06)	0.94 (0.84, 1.05)
Age ≥ 65 vs Age < 65	Day 1	Vaccine	Positive	Anti RBD IgG (IU/ml)	0.81 (0.79, 0.83)	0.80 (0.80, 0.80)	1.02 (0.99, 1.05)
Age ≥ 65 vs Age < 65	Day 1	Vaccine	Positive	Anti Spike IgG (IU/ml)	0.15 (0.15, 0.16)	0.16 (0.15, 0.16)	0.99 (0.94, 1.03)
Age ≥ 65 vs Age < 65	Day 1	Vaccine	Positive	Pseudovirus-nAb ID50	6.85 (6.10, 7.70)	7.63 (6.53, 8.92)	0.90 (0.74, 1.09)
Age ≥ 65 vs Age < 65	Day 1	Vaccine	Positive	Pseudovirus-nAb ID80	5.87 (5.42, 6.35)	7.06 (6.20, 8.04)	0.83 (0.71, 0.97)
Age ≥ 65 vs Age < 65	Day 1	Placebo	Negative	Anti N IgG (IU/ml)	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Age ≥ 65 vs Age < 65	Day 1	Placebo	Negative	Anti RBD IgG (IU/ml)	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Age ≥ 65 vs Age < 65	Day 1	Placebo	Negative	Anti Spike IgG (IU/ml)	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)

(continued)

Group 1 vs 2	Visit	Arm	Baseline SARS-CoV-2	Marker	Group 1 GMT/GMC	Group 2 GMT/GMC	Ratios of GMT/GMC
Age ≥ 65 vs Age < 65	Day 1	Placebo	Negative	Pseudovirus-nAb ID50	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Age ≥ 65 vs Age < 65	Day 1	Placebo	Negative	Pseudovirus-nAb ID80	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Age ≥ 65 vs Age < 65	Day 1	Placebo	Positive	Anti N IgG (IU/ml)	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (0.99, 1.02)
Age ≥ 65 vs Age < 65	Day 1	Placebo	Positive	Anti RBD IgG (IU/ml)	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Age ≥ 65 vs Age < 65	Day 1	Placebo	Positive	Anti Spike IgG (IU/ml)	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Age ≥ 65 vs Age < 65	Day 1	Placebo	Positive	Pseudovirus-nAb ID50	6.53 (5.85, 7.28)	6.62 (5.98, 7.34)	0.99 (0.85, 1.14)
Age ≥ 65 vs Age < 65	Day 1	Placebo	Positive	Pseudovirus-nAb ID80	6.84 (6.09, 7.69)	6.72 (5.94, 7.60)	1.02 (0.86, 1.21)
Age ≥ 65 vs Age < 65	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	106.36 (88.47, 127.86)	28.03 (22.78, 34.48)	3.79 (2.88, 5.01)
Age ≥ 65 vs Age < 65	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	1278.10 (1098.06, 1487.67)	334.05 (276.98, 402.88)	3.83 (3.01, 4.87)
Age ≥ 65 vs Age < 65	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	735.91 (650.37, 832.70)	178.69 (154.63, 206.49)	4.12 (3.40, 4.98)
Age ≥ 65 vs Age < 65	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	120.05 (109.29, 131.86)	55.94 (49.96, 62.64)	2.15 (1.85, 2.49)
Age ≥ 65 vs Age < 65	Day 29	Vaccine	Negative	Pseudovirus-nAb ID80	23.64 (21.76, 25.68)	15.39 (13.81, 17.14)	1.54 (1.34, 1.76)
Age ≥ 65 vs Age < 65	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	190.90 (141.02, 258.43)	81.28 (58.42, 113.08)	2.35 (1.50, 3.68)
Age ≥ 65 vs Age < 65	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	2278.84 (1746.16, 2974.00)	878.51 (598.18, 1290.20)	2.59 (1.63, 4.14)
Age ≥ 65 vs Age < 65	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	1226.44 (1001.06, 1502.57)	387.84 (279.01, 539.10)	3.16 (2.15, 4.66)

(continued)

Group 1 vs 2	Visit	Arm	Baseline SARS-CoV-2	Marker	Group 1 GMT/GMC	Group 2 GMT/GMC	Ratios of GMT/GMC
Age ≥ 65 vs Age < 65	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	200.91 (171.37, 235.55)	133.45 (111.98, 159.04)	1.51 (1.19, 1.91)
Age ≥ 65 vs Age < 65	Day 29	Vaccine	Positive	Pseudovirus-nAb ID80	37.50 (31.97, 43.98)	31.20 (25.80, 37.75)	1.20 (0.94, 1.54)
Age ≥ 65 vs Age < 65	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Age ≥ 65 vs Age < 65	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Age ≥ 65 vs Age < 65	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Age ≥ 65 vs Age < 65	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	5.09 (4.91, 5.28)	5.04 (4.97, 5.11)	1.01 (0.97, 1.05)
Age ≥ 65 vs Age < 65	Day 29	Placebo	Negative	Pseudovirus-nAb ID80	5.11 (4.96, 5.26)	5.00 (5.00, 5.00)	1.02 (0.99, 1.05)
Age ≥ 65 vs Age < 65	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	76.21 (53.70, 108.14)	20.62 (14.70, 28.93)	3.70 (2.27, 6.01)
Age ≥ 65 vs Age < 65	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	1198.14 (902.26, 1591.04)	261.13 (198.73, 343.13)	4.59 (3.09, 6.80)
Age ≥ 65 vs Age < 65	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	800.83 (634.04, 1011.50)	134.06 (104.39, 172.16)	5.97 (4.24, 8.41)
Age ≥ 65 vs Age < 65	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	87.38 (72.83, 104.84)	42.35 (34.95, 51.33)	2.06 (1.58, 2.69)
Age ≥ 65 vs Age < 65	Day 29	Placebo	Positive	Pseudovirus-nAb ID80	18.68 (15.96, 21.85)	9.89 (8.58, 11.40)	1.89 (1.53, 2.33)
Age ≥ 65 vs Age < 65	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	486.49 (395.79, 597.97)	110.13 (85.72, 141.50)	4.42 (3.19, 6.11)
Age ≥ 65 vs Age < 65	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	14325.17 (12137.26, 16907.48)	3322.92 (2686.06, 4110.77)	4.31 (3.29, 5.65)
Age ≥ 65 vs Age < 65	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	11239.44 (9729.00, 12984.37)	2201.19 (1842.78, 2629.30)	5.11 (4.06, 6.42)

(continued)

Group 1 vs 2	Visit	Arm	Baseline SARS-CoV-2	Marker	Group 1 GMT/GMC	Group 2 GMT/GMC	Ratios of GMT/GMC
Age ≥ 65 vs Age < 65	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	3281.13 (2911.97, 3697.09)	1347.46 (1155.84, 1570.85)	2.44 (2.00, 2.96)
Age ≥ 65 vs Age < 65	Day 57	Vaccine	Negative	Pseudovirus-nAb ID80	502.25 (453.11, 556.72)	347.51 (305.03, 395.91)	1.45 (1.22, 1.71)
Age ≥ 65 vs Age < 65	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	1439.08 (1015.71, 2038.90)	387.24 (246.11, 609.31)	3.72 (2.10, 6.58)
Age ≥ 65 vs Age < 65	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	38593.74 (28814.02, 51692.79)	11076.22 (7440.08, 16489.45)	3.48 (2.13, 5.71)
Age ≥ 65 vs Age < 65	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	31283.02 (24182.81, 40467.89)	9253.13 (6697.07, 12784.76)	3.38 (2.24, 5.11)
Age ≥ 65 vs Age < 65	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	8999.47 (7367.88, 10992.37)	4717.38 (3563.79, 6244.37)	1.91 (1.35, 2.69)
Age ≥ 65 vs Age < 65	Day 57	Vaccine	Positive	Pseudovirus-nAb ID80	1399.31 (1153.67, 1697.26)	1058.79 (826.54, 1356.29)	1.32 (0.97, 1.81)
Age ≥ 65 vs Age < 65	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Age ≥ 65 vs Age < 65	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Age ≥ 65 vs Age < 65	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Age ≥ 65 vs Age < 65	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	5.10 (4.91, 5.30)	5.00 (5.00, 5.00)	1.02 (0.98, 1.06)
Age ≥ 65 vs Age < 65	Day 57	Placebo	Negative	Pseudovirus-nAb ID80	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Age ≥ 65 vs Age < 65	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	556.72 (368.56, 840.94)	112.28 (75.54, 166.89)	4.96 (2.80, 8.79)
Age ≥ 65 vs Age < 65	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	17836.18 (12568.45, 25311.74)	2708.45 (1948.93, 3763.96)	6.59 (4.07, 10.65)
Age ≥ 65 vs Age < 65	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	12045.86 (9318.95, 15570.71)	1654.04 (1259.60, 2171.99)	7.28 (5.01, 10.59)

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Group 1 vs 2	Visit	Arm	Baseline SARS-CoV-2	Marker	Group 1 GMT/GMC	Group 2 GMT/GMC	Ratios of GMT/GMC
Age \geq 65 vs Age < 65	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	2881.21 (2266.23, 3663.09)	1149.42 (889.63, 1485.07)	2.51 (1.76, 3.56)
Age \geq 65 vs Age < 65	Day 57	Placebo	Positive	Pseudovirus-nAb ID80	484.49 (390.97, 600.39)	248.29 (199.14, 309.58)	1.95 (1.43, 2.65)

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Table 9b. The ratios of GMTs/GMCs between groups by Risk for Severe Covid-19

Group 1 vs 2	Visit	Arm	Baseline SARS-CoV-2	Marker	Group 1 GMT/GMC	Group 2 GMT/GMC	Ratios of GMT/GMC
Risk for Severe Covid-19							
At-risk vs Not at-risk	Day 1	Vaccine	Negative	Anti N IgG (IU/ml)	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
At-risk vs Not at-risk	Day 1	Vaccine	Negative	Anti RBD IgG (IU/ml)	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
At-risk vs Not at-risk	Day 1	Vaccine	Negative	Anti Spike IgG (IU/ml)	0.15 (0.15, 0.15)	0.15 (0.15, 0.16)	1.00 (0.99, 1.00)
At-risk vs Not at-risk	Day 1	Vaccine	Negative	Pseudovirus-nAb ID50	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
At-risk vs Not at-risk	Day 1	Vaccine	Negative	Pseudovirus-nAb ID80	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
At-risk vs Not at-risk	Day 1	Vaccine	Positive	Anti N IgG (IU/ml)	0.05 (0.05, 0.05)	0.05 (0.05, 0.06)	0.94 (0.84, 1.06)
At-risk vs Not at-risk	Day 1	Vaccine	Positive	Anti RBD IgG (IU/ml)	0.80 (0.80, 0.80)	0.80 (0.79, 0.81)	1.00 (0.99, 1.00)
At-risk vs Not at-risk	Day 1	Vaccine	Positive	Anti Spike IgG (IU/ml)	0.15 (0.15, 0.16)	0.16 (0.15, 0.16)	0.98 (0.94, 1.03)
At-risk vs Not at-risk	Day 1	Vaccine	Positive	Pseudovirus-nAb ID50	6.67 (5.96, 7.48)	7.75 (6.57, 9.14)	0.86 (0.70, 1.05)
At-risk vs Not at-risk	Day 1	Vaccine	Positive	Pseudovirus-nAb ID80	6.64 (5.91, 7.45)	6.85 (5.99, 7.84)	0.97 (0.81, 1.16)
At-risk vs Not at-risk	Day 1	Placebo	Negative	Anti N IgG (IU/ml)	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
At-risk vs Not at-risk	Day 1	Placebo	Negative	Anti RBD IgG (IU/ml)	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
At-risk vs Not at-risk	Day 1	Placebo	Negative	Anti Spike IgG (IU/ml)	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
At-risk vs Not at-risk	Day 1	Placebo	Negative	Pseudovirus-nAb ID50	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
At-risk vs Not at-risk	Day 1	Placebo	Negative	Pseudovirus-nAb ID80	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)

(continued)

Group 1 vs 2	Visit	Arm	Baseline SARS-CoV-2	Marker	Group 1 GMT/GMC	Group 2 GMT/GMC	Ratios of GMT/GMC
At-risk vs Not at-risk	Day 1	Placebo	Positive	Anti N IgG (IU/ml)	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.01 (0.98, 1.04)
At-risk vs Not at-risk	Day 1	Placebo	Positive	Anti RBD IgG (IU/ml)	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
At-risk vs Not at-risk	Day 1	Placebo	Positive	Anti Spike IgG (IU/ml)	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
At-risk vs Not at-risk	Day 1	Placebo	Positive	Pseudovirus-nAb ID50	6.16 (5.56, 6.83)	6.74 (6.06, 7.50)	0.91 (0.79, 1.06)
At-risk vs Not at-risk	Day 1	Placebo	Positive	Pseudovirus-nAb ID80	6.58 (5.87, 7.39)	6.79 (5.98, 7.72)	0.97 (0.82, 1.15)
At-risk vs Not at-risk	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	44.28 (37.13, 52.81)	34.66 (27.69, 43.38)	1.28 (0.96, 1.70)
At-risk vs Not at-risk	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	485.46 (414.37, 568.76)	427.74 (349.33, 523.75)	1.13 (0.88, 1.47)
At-risk vs Not at-risk	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	289.13 (252.52, 331.05)	224.21 (191.82, 262.07)	1.29 (1.05, 1.59)
At-risk vs Not at-risk	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	76.50 (69.55, 84.15)	61.92 (54.79, 69.97)	1.24 (1.06, 1.44)
At-risk vs Not at-risk	Day 29	Vaccine	Negative	Pseudovirus-nAb ID80	18.47 (16.88, 20.21)	16.25 (14.47, 18.25)	1.14 (0.98, 1.32)
At-risk vs Not at-risk	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	81.33 (53.77, 123.02)	102.69 (73.52, 143.44)	0.79 (0.46, 1.35)
At-risk vs Not at-risk	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	984.44 (689.20, 1406.14)	1097.81 (736.60, 1636.14)	0.90 (0.52, 1.53)
At-risk vs Not at-risk	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	455.21 (339.71, 609.98)	503.75 (357.38, 710.07)	0.90 (0.57, 1.42)
At-risk vs Not at-risk	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	129.09 (104.45, 159.54)	150.98 (126.32, 180.46)	0.86 (0.65, 1.13)
At-risk vs Not at-risk	Day 29	Vaccine	Positive	Pseudovirus-nAb ID80	29.44 (24.18, 35.85)	33.47 (27.51, 40.73)	0.88 (0.67, 1.16)

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Group 1 vs 2	Visit	Arm	Baseline SARS-CoV-2	Marker	Group 1 GMT/GMC	Group 2 GMT/GMC	Ratios of GMT/GMC
At-risk vs Not at-risk	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
At-risk vs Not at-risk	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
At-risk vs Not at-risk	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
At-risk vs Not at-risk	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	5.16 (4.94, 5.39)	5.00 (5.00, 5.00)	1.03 (0.99, 1.08)
At-risk vs Not at-risk	Day 29	Placebo	Negative	Pseudovirus-nAb ID80	5.03 (4.97, 5.09)	5.02 (4.98, 5.07)	1.00 (0.99, 1.02)
At-risk vs Not at-risk	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	39.68 (28.82, 54.63)	23.49 (16.45, 33.52)	1.69 (1.05, 2.73)
At-risk vs Not at-risk	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	520.13 (381.79, 708.60)	310.69 (233.62, 413.18)	1.67 (1.10, 2.56)
At-risk vs Not at-risk	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	307.79 (234.52, 403.94)	163.26 (125.47, 212.44)	1.89 (1.29, 2.76)
At-risk vs Not at-risk	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	60.07 (50.29, 71.75)	45.70 (37.36, 55.89)	1.31 (1.00, 1.72)
At-risk vs Not at-risk	Day 29	Placebo	Positive	Pseudovirus-nAb ID80	12.59 (10.55, 15.03)	10.78 (9.32, 12.49)	1.17 (0.93, 1.47)
At-risk vs Not at-risk	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	195.52 (156.27, 244.63)	136.05 (103.98, 178.00)	1.44 (1.01, 2.04)
At-risk vs Not at-risk	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	5968.52 (5011.87, 7107.78)	4057.00 (3223.54, 5105.95)	1.47 (1.10, 1.97)
At-risk vs Not at-risk	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	4138.28 (3532.44, 4848.02)	2774.24 (2289.82, 3361.15)	1.49 (1.16, 1.92)
At-risk vs Not at-risk	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	1858.97 (1642.59, 2103.86)	1542.49 (1306.91, 1820.53)	1.21 (0.98, 1.48)
At-risk vs Not at-risk	Day 57	Vaccine	Negative	Pseudovirus-nAb ID80	380.45 (341.63, 423.68)	373.66 (324.78, 429.89)	1.02 (0.85, 1.22)

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Group 1 vs 2	Visit	Arm	Baseline SARS-CoV-2	Marker	Group 1 GMT/GMC	Group 2 GMT/GMC	Ratios of GMT/GMC
At-risk vs Not at-risk	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	487.62 (294.63, 807.02)	513.39 (322.88, 816.29)	0.95 (0.48, 1.89)
At-risk vs Not at-risk	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	14955.96 (10185.61, 21960.47)	14090.95 (9320.72, 21302.51)	1.06 (0.60, 1.87)
At-risk vs Not at-risk	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	11438.51 (7887.92, 16587.33)	12028.20 (8639.69, 16745.69)	0.95 (0.58, 1.57)
At-risk vs Not at-risk	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	4342.98 (3370.54, 5595.98)	5790.79 (4324.99, 7753.37)	0.75 (0.51, 1.10)
At-risk vs Not at-risk	Day 57	Vaccine	Positive	Pseudovirus-nAb ID80	1140.79 (916.59, 1419.83)	1114.45 (860.57, 1443.25)	1.02 (0.73, 1.44)
At-risk vs Not at-risk	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
At-risk vs Not at-risk	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
At-risk vs Not at-risk	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
At-risk vs Not at-risk	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	5.00 (5.00, 5.00)	5.03 (4.97, 5.10)	0.99 (0.98, 1.01)
At-risk vs Not at-risk	Day 57	Placebo	Negative	Pseudovirus-nAb ID80	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
At-risk vs Not at-risk	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	232.51 (142.22, 380.12)	134.62 (89.67, 202.10)	1.73 (0.91, 3.27)
At-risk vs Not at-risk	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	5149.57 (3527.35, 7517.84)	3575.88 (2534.08, 5045.98)	1.44 (0.86, 2.41)
At-risk vs Not at-risk	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	3830.52 (2888.83, 5079.19)	2110.89 (1581.56, 2817.38)	1.81 (1.21, 2.73)
At-risk vs Not at-risk	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	1675.89 (1293.01, 2172.15)	1291.24 (989.33, 1685.29)	1.30 (0.89, 1.88)
At-risk vs Not at-risk	Day 57	Placebo	Positive	Pseudovirus-nAb ID80	327.27 (260.71, 410.83)	270.07 (214.81, 339.55)	1.21 (0.88, 1.67)

Table 9c. The ratios of GMTs/GMCs between groups by Age < 65, Risk for Severe Covid-19

Group 1 vs 2	Visit	Arm	Baseline SARS-CoV-2	Marker	Group 1 GMT/GMC	Group 2 GMT/GMC	Ratios of GMT/GMC
Age < 65, Risk for Severe Covid-19							
Age < 65 At-risk vs Age < 65 Not at-risk	Day 1	Vaccine	Negative	Anti N IgG (IU/ml)	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Age < 65 At-risk vs Age < 65 Not at-risk	Day 1	Vaccine	Negative	Anti RBD IgG (IU/ml)	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Age < 65 At-risk vs Age < 65 Not at-risk	Day 1	Vaccine	Negative	Anti Spike IgG (IU/ml)	0.15 (0.15, 0.15)	0.15 (0.15, 0.16)	0.99 (0.98, 1.01)
Age < 65 At-risk vs Age < 65 Not at-risk	Day 1	Vaccine	Negative	Pseudovirus-nAb ID50	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Age < 65 At-risk vs Age < 65 Not at-risk	Day 1	Vaccine	Negative	Pseudovirus-nAb ID80	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Age < 65 At-risk vs Age < 65 Not at-risk	Day 1	Vaccine	Positive	Anti N IgG (IU/ml)	0.05 (0.05, 0.05)	0.05 (0.04, 0.06)	0.94 (0.82, 1.08)
Age < 65 At-risk vs Age < 65 Not at-risk	Day 1	Vaccine	Positive	Anti RBD IgG (IU/ml)	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Age < 65 At-risk vs Age < 65 Not at-risk	Day 1	Vaccine	Positive	Anti Spike IgG (IU/ml)	0.15 (0.15, 0.15)	0.16 (0.15, 0.17)	0.97 (0.93, 1.03)
Age < 65 At-risk vs Age < 65 Not at-risk	Day 1	Vaccine	Positive	Pseudovirus-nAb ID50	6.59 (5.70, 7.61)	7.93 (6.53, 9.62)	0.83 (0.65, 1.06)
Age < 65 At-risk vs Age < 65 Not at-risk	Day 1	Vaccine	Positive	Pseudovirus-nAb ID80	7.16 (6.08, 8.44)	7.03 (6.00, 8.25)	1.02 (0.81, 1.28)
Age < 65 At-risk vs Age < 65 Not at-risk	Day 1	Placebo	Negative	Anti N IgG (IU/ml)	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)

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Group 1 vs 2	Visit	Arm	Baseline SARS-CoV-2	Marker	Group 1 GMT/GMC	Group 2 GMT/GMC	Ratios of GMT/GMC
Age < 65 At-risk vs Age < 65 Not at-risk	Day 1	Placebo	Negative	Anti RBD IgG (IU/ml)	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Age < 65 At-risk vs Age < 65 Not at-risk	Day 1	Placebo	Negative	Anti Spike IgG (IU/ml)	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Age < 65 At-risk vs Age < 65 Not at-risk	Day 1	Placebo	Negative	Pseudovirus-nAb ID50	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Age < 65 At-risk vs Age < 65 Not at-risk	Day 1	Placebo	Negative	Pseudovirus-nAb ID80	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Age < 65 At-risk vs Age < 65 Not at-risk	Day 1	Placebo	Positive	Anti N IgG (IU/ml)	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.02 (0.98, 1.07)
Age < 65 At-risk vs Age < 65 Not at-risk	Day 1	Placebo	Positive	Anti RBD IgG (IU/ml)	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Age < 65 At-risk vs Age < 65 Not at-risk	Day 1	Placebo	Positive	Anti Spike IgG (IU/ml)	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Age < 65 At-risk vs Age < 65 Not at-risk	Day 1	Placebo	Positive	Pseudovirus-nAb ID50	6.49 (5.66, 7.45)	6.66 (5.88, 7.53)	0.98 (0.81, 1.17)
Age < 65 At-risk vs Age < 65 Not at-risk	Day 1	Placebo	Positive	Pseudovirus-nAb ID80	6.49 (5.68, 7.42)	6.78 (5.83, 7.88)	0.96 (0.78, 1.17)
Age < 65 At-risk vs Age < 65 Not at-risk	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	24.85 (19.74, 31.29)	28.94 (22.42, 37.36)	0.86 (0.61, 1.21)
Age < 65 At-risk vs Age < 65 Not at-risk	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	259.66 (210.31, 320.59)	357.29 (283.72, 449.94)	0.73 (0.53, 0.99)
Age < 65 At-risk vs Age < 65 Not at-risk	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	156.86 (131.13, 187.64)	185.02 (155.03, 220.81)	0.85 (0.66, 1.09)

(continued)

Group 1 vs 2	Visit	Arm	Baseline SARS-CoV-2	Marker	Group 1 GMT/GMC	Group 2 GMT/GMC	Ratios of GMT/GMC
Age < 65 At-risk vs Age < 65 Not at-risk	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	56.80 (49.99, 64.54)	55.71 (48.47, 64.03)	1.02 (0.84, 1.23)
Age < 65 At-risk vs Age < 65 Not at-risk	Day 29	Vaccine	Negative	Pseudovirus-nAb ID80	15.47 (13.62, 17.57)	15.36 (13.46, 17.54)	1.01 (0.84, 1.21)
Age < 65 At-risk vs Age < 65 Not at-risk	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	58.74 (33.71, 102.37)	88.57 (59.94, 130.90)	0.66 (0.34, 1.31)
Age < 65 At-risk vs Age < 65 Not at-risk	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	680.03 (422.69, 1094.03)	940.11 (587.96, 1503.17)	0.72 (0.37, 1.41)
Age < 65 At-risk vs Age < 65 Not at-risk	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	294.98 (198.55, 438.24)	416.97 (278.69, 623.86)	0.71 (0.40, 1.24)
Age < 65 At-risk vs Age < 65 Not at-risk	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	109.03 (81.87, 145.20)	140.79 (114.31, 173.39)	0.77 (0.54, 1.10)
Age < 65 At-risk vs Age < 65 Not at-risk	Day 29	Vaccine	Positive	Pseudovirus-nAb ID80	26.36 (20.36, 34.13)	32.63 (25.91, 41.10)	0.81 (0.57, 1.14)
Age < 65 At-risk vs Age < 65 Not at-risk	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Age < 65 At-risk vs Age < 65 Not at-risk	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Age < 65 At-risk vs Age < 65 Not at-risk	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Age < 65 At-risk vs Age < 65 Not at-risk	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	5.15 (4.86, 5.45)	5.00 (5.00, 5.00)	1.03 (0.97, 1.09)
Age < 65 At-risk vs Age < 65 Not at-risk	Day 29	Placebo	Negative	Pseudovirus-nAb ID80	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)

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Group 1 vs 2	Visit	Arm	Baseline SARS-CoV-2	Marker	Group 1 GMT/GMC	Group 2 GMT/GMC	Ratios of GMT/GMC
Age < 65 At-risk vs Age < 65 Not at-risk	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	33.70 (22.51, 50.45)	18.23 (12.09, 27.48)	1.85 (1.04, 3.29)
Age < 65 At-risk vs Age < 65 Not at-risk	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	376.50 (258.33, 548.72)	238.21 (171.61, 330.67)	1.58 (0.96, 2.60)
Age < 65 At-risk vs Age < 65 Not at-risk	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	195.43 (143.27, 266.58)	121.96 (90.11, 165.06)	1.60 (1.04, 2.47)
Age < 65 At-risk vs Age < 65 Not at-risk	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	52.78 (42.24, 65.95)	40.08 (31.72, 50.63)	1.32 (0.95, 1.82)
Age < 65 At-risk vs Age < 65 Not at-risk	Day 29	Placebo	Positive	Pseudovirus-nAb ID80	10.49 (8.44, 13.04)	9.75 (8.23, 11.54)	1.08 (0.82, 1.42)
Age < 65 At-risk vs Age < 65 Not at-risk	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	102.12 (75.24, 138.61)	112.38 (82.69, 152.73)	0.91 (0.59, 1.40)
Age < 65 At-risk vs Age < 65 Not at-risk	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	3391.18 (2684.59, 4283.74)	3304.93 (2542.54, 4295.92)	1.03 (0.72, 1.46)
Age < 65 At-risk vs Age < 65 Not at-risk	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	2138.52 (1719.33, 2659.90)	2218.23 (1784.62, 2757.19)	0.96 (0.71, 1.31)
Age < 65 At-risk vs Age < 65 Not at-risk	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	1333.82 (1120.64, 1587.56)	1351.12 (1118.77, 1631.73)	0.99 (0.76, 1.28)
Age < 65 At-risk vs Age < 65 Not at-risk	Day 57	Vaccine	Negative	Pseudovirus-nAb ID80	322.74 (276.67, 376.49)	354.44 (302.03, 415.94)	0.91 (0.73, 1.14)
Age < 65 At-risk vs Age < 65 Not at-risk	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	263.98 (132.48, 525.99)	428.57 (248.95, 737.76)	0.62 (0.26, 1.48)
Age < 65 At-risk vs Age < 65 Not at-risk	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	10594.30 (6336.39, 17713.42)	11207.38 (6903.91, 18193.36)	0.95 (0.47, 1.92)

(continued)

Group 1 vs 2	Visit	Arm	Baseline SARS-CoV-2	Marker	Group 1 GMT/GMC	Group 2 GMT/GMC	Ratios of GMT/GMC
Age < 65 At-risk vs Age < 65 Not at-risk	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	7490.66 (4539.64, 12360.00)	9785.27 (6647.32, 14404.53)	0.77 (0.41, 1.44)
Age < 65 At-risk vs Age < 65 Not at-risk	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	3085.51 (2208.48, 4310.84)	5278.25 (3745.85, 7437.55)	0.58 (0.36, 0.94)
Age < 65 At-risk vs Age < 65 Not at-risk	Day 57	Vaccine	Positive	Pseudovirus-nAb ID80	1070.87 (796.19, 1440.30)	1055.62 (779.54, 1429.47)	1.01 (0.66, 1.55)
Age < 65 At-risk vs Age < 65 Not at-risk	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Age < 65 At-risk vs Age < 65 Not at-risk	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Age < 65 At-risk vs Age < 65 Not at-risk	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Age < 65 At-risk vs Age < 65 Not at-risk	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Age < 65 At-risk vs Age < 65 Not at-risk	Day 57	Placebo	Negative	Pseudovirus-nAb ID80	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Age < 65 At-risk vs Age < 65 Not at-risk	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	157.81 (83.47, 298.39)	103.08 (64.48, 164.79)	1.53 (0.69, 3.38)
Age < 65 At-risk vs Age < 65 Not at-risk	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	3047.97 (1940.66, 4787.11)	2629.32 (1769.93, 3905.97)	1.16 (0.64, 2.11)
Age < 65 At-risk vs Age < 65 Not at-risk	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	2430.39 (1750.77, 3373.82)	1501.69 (1079.24, 2089.52)	1.62 (1.02, 2.58)
Age < 65 At-risk vs Age < 65 Not at-risk	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	1305.29 (944.80, 1803.34)	1113.30 (816.50, 1517.97)	1.17 (0.75, 1.83)

(continued)

Group 1 vs 2	Visit	Arm	Baseline SARS-CoV-2	Marker	Group 1 GMT/GMC	Group 2 GMT/GMC	Ratios of GMT/GMC
Age < 65 At-risk vs Age < 65 Not at-risk	Day 57	Placebo	Positive	Pseudovirus-nAb ID80	287.22 (217.01, 380.14)	239.38 (183.32, 312.58)	1.20 (0.81, 1.77)

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Table 9d. The ratios of GMTs/GMCs between groups by Age ≥ 65 , Risk for Severe Covid-19

Group 1 vs 2	Visit	Arm	Baseline SARS-CoV-2	Marker	Group 1 GMT/GMC	Group 2 GMT/GMC	Ratios of GMT/GMC
Age ≥ 65, Risk for Severe Covid-19							
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 1	Vaccine	Negative	Anti N IgG (IU/ml)	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 1	Vaccine	Negative	Anti RBD IgG (IU/ml)	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 1	Vaccine	Negative	Anti Spike IgG (IU/ml)	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 1	Vaccine	Negative	Pseudovirus-nAb ID50	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 1	Vaccine	Negative	Pseudovirus-nAb ID80	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 1	Vaccine	Positive	Anti N IgG (IU/ml)	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	0.97 (0.94, 1.01)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 1	Vaccine	Positive	Anti RBD IgG (IU/ml)	0.80 (0.80, 0.80)	0.82 (0.78, 0.86)	0.97 (0.93, 1.03)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 1	Vaccine	Positive	Anti Spike IgG (IU/ml)	0.16 (0.15, 0.16)	0.15 (0.15, 0.15)	1.01 (0.99, 1.04)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 1	Vaccine	Positive	Pseudovirus-nAb ID50	6.84 (5.71, 8.19)	6.86 (5.89, 7.99)	1.00 (0.79, 1.26)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 1	Vaccine	Positive	Pseudovirus-nAb ID80	5.74 (5.10, 6.45)	5.97 (5.36, 6.64)	0.96 (0.82, 1.13)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 1	Placebo	Negative	Anti N IgG (IU/ml)	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)

(continued)

Group 1 vs 2	Visit	Arm	Baseline SARS-CoV-2	Marker	Group 1 GMT/GMC	Group 2 GMT/GMC	Ratios of GMT/GMC
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 1	Placebo	Negative	Anti RBD IgG (IU/ml)	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 1	Placebo	Negative	Anti Spike IgG (IU/ml)	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 1	Placebo	Negative	Pseudovirus-nAb ID50	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 1	Placebo	Negative	Pseudovirus-nAb ID80	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 1	Placebo	Positive	Anti N IgG (IU/ml)	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	0.99 (0.97, 1.01)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 1	Placebo	Positive	Anti RBD IgG (IU/ml)	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 1	Placebo	Positive	Anti Spike IgG (IU/ml)	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 1	Placebo	Positive	Pseudovirus-nAb ID50	5.44 (4.85, 6.11)	7.22 (6.21, 8.40)	0.75 (0.62, 0.91)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 1	Placebo	Positive	Pseudovirus-nAb ID80	6.81 (5.45, 8.51)	6.86 (6.00, 7.83)	0.99 (0.77, 1.29)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	102.72 (79.51, 132.71)	110.83 (85.11, 144.31)	0.93 (0.64, 1.34)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	1208.15 (973.44, 1499.46)	1366.03 (1106.49, 1686.44)	0.88 (0.65, 1.20)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	704.80 (588.42, 844.19)	774.46 (657.17, 912.69)	0.91 (0.71, 1.16)

(continued)

Group 1 vs 2	Visit	Arm	Baseline SARS-CoV-2	Marker	Group 1 GMT/GMC	Group 2 GMT/GMC	Ratios of GMT/GMC
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	118.06 (103.33, 134.89)	122.44 (107.44, 139.53)	0.96 (0.80, 1.16)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 29	Vaccine	Negative	Pseudovirus-nAb ID80	23.90 (21.27, 26.86)	23.33 (20.74, 26.23)	1.02 (0.87, 1.21)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	152.42 (89.14, 260.63)	224.79 (158.97, 317.88)	0.68 (0.36, 1.29)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	2010.51 (1276.03, 3167.74)	2495.84 (1808.72, 3444.00)	0.81 (0.46, 1.41)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	1051.78 (774.94, 1427.51)	1371.18 (1046.47, 1796.64)	0.77 (0.51, 1.15)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	178.85 (137.17, 233.19)	218.62 (180.11, 265.38)	0.82 (0.59, 1.14)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 29	Vaccine	Positive	Pseudovirus-nAb ID80	36.44 (27.45, 48.37)	38.29 (31.92, 45.93)	0.95 (0.68, 1.33)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	5.18 (4.84, 5.55)	5.00 (5.00, 5.00)	1.04 (0.97, 1.11)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 29	Placebo	Negative	Pseudovirus-nAb ID80	5.08 (4.93, 5.23)	5.14 (4.87, 5.41)	0.99 (0.93, 1.05)

(continued)

Group 1 vs 2	Visit	Arm	Baseline SARS-CoV-2	Marker	Group 1 GMT/GMC	Group 2 GMT/GMC	Ratios of GMT/GMC
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	58.48 (36.18, 94.50)	88.19 (55.19, 140.92)	0.66 (0.34, 1.30)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	1121.05 (698.94, 1798.10)	1242.90 (872.59, 1770.35)	0.90 (0.50, 1.63)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	905.72 (600.50, 1366.09)	748.28 (564.73, 991.49)	1.21 (0.74, 1.99)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	81.69 (62.81, 106.25)	90.68 (71.20, 115.50)	0.90 (0.63, 1.29)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 29	Placebo	Positive	Pseudovirus-nAb ID80	19.43 (14.95, 25.25)	18.27 (15.03, 22.21)	1.06 (0.77, 1.47)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	503.70 (371.04, 683.78)	466.90 (357.00, 610.64)	1.08 (0.72, 1.62)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	13601.87 (10654.51, 17364.58)	15229.92 (12252.91, 18930.24)	0.89 (0.64, 1.24)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	10828.50 (8897.83, 13178.09)	11745.36 (9495.83, 14527.78)	0.92 (0.69, 1.23)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	3015.39 (2572.69, 3534.28)	3625.61 (3031.34, 4336.38)	0.83 (0.65, 1.06)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 57	Vaccine	Negative	Pseudovirus-nAb ID80	483.49 (421.46, 554.66)	525.37 (449.78, 613.66)	0.92 (0.75, 1.13)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	1594.12 (928.56, 2736.72)	1336.04 (845.46, 2111.28)	1.19 (0.59, 2.43)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	29097.29 (17725.21, 47765.46)	47378.57 (33515.55, 66975.76)	0.61 (0.34, 1.12)

(continued)

Group 1 vs 2	Visit	Arm	Baseline SARS-CoV-2	Marker	Group 1 GMT/GMC	Group 2 GMT/GMC	Ratios of GMT/GMC
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	25896.62 (16633.51, 40318.29)	35883.56 (26533.45, 48528.54)	0.72 (0.42, 1.23)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	8401.39 (6134.56, 11505.84)	9460.24 (7310.11, 12242.79)	0.89 (0.59, 1.33)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 57	Vaccine	Positive	Pseudovirus-nAb ID80	1288.94 (967.06, 1717.95)	1485.33 (1145.19, 1926.50)	0.87 (0.59, 1.28)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	5.00 (5.00, 5.00)	5.21 (4.81, 5.63)	0.96 (0.89, 1.04)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 57	Placebo	Negative	Pseudovirus-nAb ID80	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	583.94 (318.08, 1072.01)	542.25 (314.50, 934.94)	1.08 (0.48, 2.43)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	17905.90 (10279.07, 31191.67)	17797.85 (11394.08, 27800.70)	1.01 (0.50, 2.04)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	11292.06 (7474.39, 17059.65)	12482.88 (9007.31, 17299.52)	0.90 (0.53, 1.53)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	3035.04 (2093.95, 4399.09)	2799.74 (2052.47, 3819.08)	1.08 (0.67, 1.76)

(continued)

Group 1 vs 2	Visit	Arm	Baseline SARS-CoV-2	Marker	Group 1 GMT/GMC	Group 2 GMT/GMC	Ratios of GMT/GMC
Age \geq 65 At-risk vs Age \geq 65 Not at-risk	Day 57	Placebo	Positive	Pseudovirus-nAb ID80	446.32 (309.08, 644.50)	506.92 (390.29, 658.41)	0.88 (0.56, 1.38)

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Table 9e. The ratios of GMTs/GMCs between groups by Sex

Group 1 vs 2	Visit	Arm	Baseline SARS-CoV-2	Marker	Group 1 GMT/GMC	Group 2 GMT/GMC	Ratios of GMT/GMC
Sex							
Male vs Female	Day 1	Vaccine	Negative	Anti N IgG (IU/ml)	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Male vs Female	Day 1	Vaccine	Negative	Anti RBD IgG (IU/ml)	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Male vs Female	Day 1	Vaccine	Negative	Anti Spike IgG (IU/ml)	0.15 (0.15, 0.15)	0.15 (0.15, 0.16)	0.99 (0.98, 1.01)
Male vs Female	Day 1	Vaccine	Negative	Pseudovirus-nAb ID50	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Male vs Female	Day 1	Vaccine	Negative	Pseudovirus-nAb ID80	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Male vs Female	Day 1	Vaccine	Positive	Anti N IgG (IU/ml)	0.05 (0.05, 0.05)	0.05 (0.04, 0.06)	0.93 (0.79, 1.09)
Male vs Female	Day 1	Vaccine	Positive	Anti RBD IgG (IU/ml)	0.80 (0.80, 0.80)	0.80 (0.79, 0.81)	0.99 (0.98, 1.01)
Male vs Female	Day 1	Vaccine	Positive	Anti Spike IgG (IU/ml)	0.15 (0.15, 0.15)	0.16 (0.15, 0.17)	0.97 (0.91, 1.03)
Male vs Female	Day 1	Vaccine	Positive	Pseudovirus-nAb ID50	6.34 (5.68, 7.08)	8.66 (7.12, 10.54)	0.73 (0.59, 0.91)
Male vs Female	Day 1	Vaccine	Positive	Pseudovirus-nAb ID80	6.68 (5.86, 7.61)	6.91 (5.89, 8.11)	0.97 (0.79, 1.19)
Male vs Female	Day 1	Placebo	Negative	Anti N IgG (IU/ml)	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Male vs Female	Day 1	Placebo	Negative	Anti RBD IgG (IU/ml)	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Male vs Female	Day 1	Placebo	Negative	Anti Spike IgG (IU/ml)	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Male vs Female	Day 1	Placebo	Negative	Pseudovirus-nAb ID50	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Male vs Female	Day 1	Placebo	Negative	Pseudovirus-nAb ID80	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)

(continued)

Group 1 vs 2	Visit	Arm	Baseline SARS-CoV-2	Marker	Group 1 GMT/GMC	Group 2 GMT/GMC	Ratios of GMT/GMC
Male vs Female	Day 1	Placebo	Positive	Anti N IgG (IU/ml)	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.01 (0.99, 1.03)
Male vs Female	Day 1	Placebo	Positive	Anti RBD IgG (IU/ml)	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Male vs Female	Day 1	Placebo	Positive	Anti Spike IgG (IU/ml)	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Male vs Female	Day 1	Placebo	Positive	Pseudovirus-nAb ID50	6.75 (5.85, 7.79)	6.50 (5.86, 7.21)	1.04 (0.87, 1.24)
Male vs Female	Day 1	Placebo	Positive	Pseudovirus-nAb ID80	6.22 (5.55, 6.98)	7.15 (6.14, 8.32)	0.87 (0.72, 1.05)
Male vs Female	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	31.76 (24.28, 41.54)	42.49 (34.27, 52.67)	0.75 (0.53, 1.06)
Male vs Female	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	421.15 (333.46, 531.91)	463.21 (377.79, 567.95)	0.91 (0.66, 1.25)
Male vs Female	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	235.93 (196.41, 283.40)	245.07 (209.23, 287.03)	0.96 (0.75, 1.23)
Male vs Female	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	60.71 (52.79, 69.82)	70.36 (62.22, 79.55)	0.86 (0.71, 1.04)
Male vs Female	Day 29	Vaccine	Negative	Pseudovirus-nAb ID80	15.88 (14.02, 17.99)	17.73 (15.69, 20.02)	0.90 (0.75, 1.07)
Male vs Female	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	83.75 (56.70, 123.68)	110.62 (75.20, 162.72)	0.76 (0.43, 1.32)
Male vs Female	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	829.10 (531.48, 1293.39)	1347.64 (867.54, 2093.41)	0.62 (0.33, 1.16)
Male vs Female	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	476.21 (334.06, 678.85)	505.03 (339.38, 751.55)	0.94 (0.55, 1.61)
Male vs Female	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	124.56 (100.78, 153.96)	166.98 (138.14, 201.85)	0.75 (0.56, 0.99)
Male vs Female	Day 29	Vaccine	Positive	Pseudovirus-nAb ID80	33.09 (26.22, 41.75)	31.79 (25.82, 39.14)	1.04 (0.76, 1.42)

(continued)

Group 1 vs 2	Visit	Arm	Baseline SARS-CoV-2	Marker	Group 1 GMT/GMC	Group 2 GMT/GMC	Ratios of GMT/GMC
Male vs Female	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Male vs Female	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Male vs Female	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Male vs Female	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	5.05 (4.95, 5.16)	5.05 (4.96, 5.14)	1.00 (0.97, 1.03)
Male vs Female	Day 29	Placebo	Negative	Pseudovirus-nAb ID80	5.02 (4.98, 5.07)	5.03 (4.97, 5.08)	1.00 (0.99, 1.01)
Male vs Female	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	25.51 (16.91, 38.47)	27.25 (18.45, 40.25)	0.94 (0.53, 1.65)
Male vs Female	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	361.11 (250.22, 521.14)	341.88 (251.58, 464.58)	1.06 (0.65, 1.72)
Male vs Female	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	182.27 (136.52, 243.36)	193.96 (141.88, 265.15)	0.94 (0.60, 1.46)
Male vs Female	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	47.14 (37.05, 59.96)	49.82 (40.18, 61.77)	0.95 (0.68, 1.31)
Male vs Female	Day 29	Placebo	Positive	Pseudovirus-nAb ID80	10.83 (9.01, 13.02)	11.44 (9.74, 13.42)	0.95 (0.74, 1.21)
Male vs Female	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	140.02 (102.75, 190.82)	160.42 (122.46, 210.14)	0.87 (0.58, 1.32)
Male vs Female	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	4059.94 (3055.89, 5393.87)	4962.02 (4019.46, 6125.59)	0.82 (0.57, 1.17)
Male vs Female	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	2809.47 (2274.64, 3470.07)	3382.76 (2759.35, 4147.01)	0.83 (0.62, 1.12)
Male vs Female	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	1573.61 (1302.29, 1901.47)	1671.55 (1415.87, 1973.40)	0.94 (0.73, 1.21)
Male vs Female	Day 57	Vaccine	Negative	Pseudovirus-nAb ID80	348.77 (295.56, 411.55)	400.39 (350.05, 457.98)	0.87 (0.70, 1.08)

(continued)

Group 1 vs 2	Visit	Arm	Baseline SARS-CoV-2	Marker	Group 1 GMT/GMC	Group 2 GMT/GMC	Ratios of GMT/GMC
Male vs Female	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	407.07 (232.95, 711.34)	619.68 (379.42, 1012.08)	0.66 (0.31, 1.38)
Male vs Female	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	15153.95 (9664.15, 23762.26)	13566.44 (8553.27, 21517.87)	1.12 (0.59, 2.13)
Male vs Female	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	9992.53 (7143.32, 13978.21)	13918.27 (9287.06, 20858.96)	0.72 (0.42, 1.22)
Male vs Female	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	4778.46 (3457.85, 6603.43)	6009.55 (4366.34, 8271.17)	0.80 (0.50, 1.25)
Male vs Female	Day 57	Vaccine	Positive	Pseudovirus-nAb ID80	1103.04 (808.54, 1504.80)	1137.85 (877.16, 1476.01)	0.97 (0.65, 1.45)
Male vs Female	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Male vs Female	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Male vs Female	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Male vs Female	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	5.00 (5.00, 5.00)	5.04 (4.96, 5.12)	0.99 (0.98, 1.01)
Male vs Female	Day 57	Placebo	Negative	Pseudovirus-nAb ID80	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Male vs Female	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	147.52 (85.75, 253.78)	156.55 (103.11, 237.69)	0.94 (0.47, 1.87)
Male vs Female	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	3704.28 (2321.25, 5911.32)	4029.99 (2840.74, 5717.10)	0.92 (0.51, 1.66)
Male vs Female	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	2332.32 (1669.25, 3258.78)	2488.70 (1787.49, 3464.98)	0.94 (0.58, 1.52)
Male vs Female	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	1459.90 (1119.20, 1904.33)	1309.97 (954.62, 1797.59)	1.11 (0.73, 1.69)
Male vs Female	Day 57	Placebo	Positive	Pseudovirus-nAb ID80	291.86 (222.28, 383.21)	275.52 (214.01, 354.73)	1.06 (0.73, 1.54)

Table 9f. The ratios of GMTs/GMCs between groups by Hispanic or Latino ethnicity

Group 1 vs 2	Visit	Arm	Baseline SARS-CoV-2	Marker	Group 1 GMT/GMC	Group 2 GMT/GMC	Ratios of GMT/GMC
Hispanic or Latino ethnicity							
Hispanic or Latino vs Not Hispanic or Latino	Day 1	Vaccine	Negative	Anti N IgG (IU/ml)	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Hispanic or Latino vs Not Hispanic or Latino	Day 1	Vaccine	Negative	Anti RBD IgG (IU/ml)	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Hispanic or Latino vs Not Hispanic or Latino	Day 1	Vaccine	Negative	Anti Spike IgG (IU/ml)	0.15 (0.15, 0.15)	0.15 (0.15, 0.16)	1.00 (0.99, 1.00)
Hispanic or Latino vs Not Hispanic or Latino	Day 1	Vaccine	Negative	Pseudovirus-nAb ID50	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Hispanic or Latino vs Not Hispanic or Latino	Day 1	Vaccine	Negative	Pseudovirus-nAb ID80	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Hispanic or Latino vs Not Hispanic or Latino	Day 1	Vaccine	Positive	Anti N IgG (IU/ml)	0.05 (0.05, 0.05)	0.05 (0.05, 0.06)	0.93 (0.85, 1.02)
Hispanic or Latino vs Not Hispanic or Latino	Day 1	Vaccine	Positive	Anti RBD IgG (IU/ml)	0.80 (0.80, 0.80)	0.80 (0.79, 0.80)	1.00 (0.99, 1.00)
Hispanic or Latino vs Not Hispanic or Latino	Day 1	Vaccine	Positive	Anti Spike IgG (IU/ml)	0.16 (0.15, 0.16)	0.16 (0.15, 0.16)	1.00 (0.95, 1.04)
Hispanic or Latino vs Not Hispanic or Latino	Day 1	Vaccine	Positive	Pseudovirus-nAb ID50	6.52 (5.36, 7.93)	7.61 (6.62, 8.76)	0.86 (0.67, 1.09)
Hispanic or Latino vs Not Hispanic or Latino	Day 1	Vaccine	Positive	Pseudovirus-nAb ID80	6.09 (4.79, 7.74)	6.91 (6.16, 7.75)	0.88 (0.68, 1.15)
Hispanic or Latino vs Not Hispanic or Latino	Day 1	Placebo	Negative	Anti N IgG (IU/ml)	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)

(continued)

Group 1 vs 2	Visit	Arm	Baseline SARS-CoV-2	Marker	Group 1 GMT/GMC	Group 2 GMT/GMC	Ratios of GMT/GMC
Hispanic or Latino vs Not Hispanic or Latino	Day 1	Placebo	Negative	Anti RBD IgG (IU/ml)	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Hispanic or Latino vs Not Hispanic or Latino	Day 1	Placebo	Negative	Anti Spike IgG (IU/ml)	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Hispanic or Latino vs Not Hispanic or Latino	Day 1	Placebo	Negative	Pseudovirus-nAb ID50	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Hispanic or Latino vs Not Hispanic or Latino	Day 1	Placebo	Negative	Pseudovirus-nAb ID80	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Hispanic or Latino vs Not Hispanic or Latino	Day 1	Placebo	Positive	Anti N IgG (IU/ml)	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	0.99 (0.99, 1.00)
Hispanic or Latino vs Not Hispanic or Latino	Day 1	Placebo	Positive	Anti RBD IgG (IU/ml)	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Hispanic or Latino vs Not Hispanic or Latino	Day 1	Placebo	Positive	Anti Spike IgG (IU/ml)	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Hispanic or Latino vs Not Hispanic or Latino	Day 1	Placebo	Positive	Pseudovirus-nAb ID50	6.73 (5.23, 8.66)	6.62 (6.03, 7.27)	1.02 (0.78, 1.33)
Hispanic or Latino vs Not Hispanic or Latino	Day 1	Placebo	Positive	Pseudovirus-nAb ID80	6.06 (5.22, 7.04)	6.81 (6.07, 7.64)	0.89 (0.74, 1.08)
Hispanic or Latino vs Not Hispanic or Latino	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	40.80 (27.75, 59.99)	35.35 (29.35, 42.58)	1.15 (0.75, 1.77)
Hispanic or Latino vs Not Hispanic or Latino	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	532.54 (357.23, 793.89)	419.97 (356.05, 495.36)	1.27 (0.82, 1.95)
Hispanic or Latino vs Not Hispanic or Latino	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	255.10 (179.21, 363.14)	234.29 (206.58, 265.70)	1.09 (0.75, 1.59)

(continued)

Group 1 vs 2	Visit	Arm	Baseline SARS-CoV-2	Marker	Group 1 GMT/GMC	Group 2 GMT/GMC	Ratios of GMT/GMC
Hispanic or Latino vs Not Hispanic or Latino	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	73.01 (58.78, 90.68)	63.69 (57.53, 70.52)	1.15 (0.90, 1.46)
Hispanic or Latino vs Not Hispanic or Latino	Day 29	Vaccine	Negative	Pseudovirus-nAb ID80	15.89 (12.43, 20.31)	16.50 (15.03, 18.12)	0.96 (0.74, 1.25)
Hispanic or Latino vs Not Hispanic or Latino	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	107.30 (56.41, 204.09)	95.64 (71.13, 128.59)	1.12 (0.55, 2.29)
Hispanic or Latino vs Not Hispanic or Latino	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	1413.37 (713.41, 2800.12)	1038.68 (738.90, 1460.09)	1.36 (0.63, 2.92)
Hispanic or Latino vs Not Hispanic or Latino	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	659.83 (386.25, 1127.18)	479.07 (357.59, 641.84)	1.38 (0.75, 2.54)
Hispanic or Latino vs Not Hispanic or Latino	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	161.02 (113.59, 228.25)	143.67 (122.83, 168.04)	1.12 (0.76, 1.65)
Hispanic or Latino vs Not Hispanic or Latino	Day 29	Vaccine	Positive	Pseudovirus-nAb ID80	41.64 (33.95, 51.07)	31.53 (26.58, 37.41)	1.32 (1.01, 1.72)
Hispanic or Latino vs Not Hispanic or Latino	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Hispanic or Latino vs Not Hispanic or Latino	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Hispanic or Latino vs Not Hispanic or Latino	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Hispanic or Latino vs Not Hispanic or Latino	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	5.00 (5.00, 5.00)	5.06 (4.98, 5.14)	0.99 (0.97, 1.00)
Hispanic or Latino vs Not Hispanic or Latino	Day 29	Placebo	Negative	Pseudovirus-nAb ID80	5.07 (4.94, 5.20)	5.02 (4.98, 5.06)	1.01 (0.98, 1.04)

(continued)

Group 1 vs 2	Visit	Arm	Baseline SARS-CoV-2	Marker	Group 1 GMT/GMC	Group 2 GMT/GMC	Ratios of GMT/GMC
Hispanic or Latino vs Not Hispanic or Latino	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	22.15 (13.44, 36.52)	26.76 (19.46, 36.80)	0.83 (0.45, 1.51)
Hispanic or Latino vs Not Hispanic or Latino	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	440.31 (255.52, 758.73)	343.51 (265.55, 444.37)	1.28 (0.70, 2.34)
Hispanic or Latino vs Not Hispanic or Latino	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	185.78 (111.10, 310.67)	189.36 (149.58, 239.72)	0.98 (0.55, 1.74)
Hispanic or Latino vs Not Hispanic or Latino	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	53.61 (41.46, 69.31)	47.99 (40.01, 57.57)	1.12 (0.81, 1.54)
Hispanic or Latino vs Not Hispanic or Latino	Day 29	Placebo	Positive	Pseudovirus-nAb ID80	11.92 (8.90, 15.96)	11.07 (9.71, 12.62)	1.08 (0.78, 1.48)
Hispanic or Latino vs Not Hispanic or Latino	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	139.35 (77.80, 249.59)	145.82 (117.37, 181.17)	0.96 (0.51, 1.78)
Hispanic or Latino vs Not Hispanic or Latino	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	4323.88 (2651.13, 7052.09)	4354.05 (3613.72, 5246.05)	0.99 (0.59, 1.68)
Hispanic or Latino vs Not Hispanic or Latino	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	3221.32 (2085.72, 4975.19)	2991.41 (2561.23, 3493.84)	1.08 (0.68, 1.71)
Hispanic or Latino vs Not Hispanic or Latino	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	1779.38 (1190.06, 2660.52)	1582.87 (1384.91, 1809.14)	1.12 (0.74, 1.72)
Hispanic or Latino vs Not Hispanic or Latino	Day 57	Vaccine	Negative	Pseudovirus-nAb ID80	414.41 (309.15, 555.52)	360.83 (322.11, 404.21)	1.15 (0.84, 1.57)
Hispanic or Latino vs Not Hispanic or Latino	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	913.96 (528.78, 1579.70)	478.96 (319.16, 718.75)	1.91 (0.96, 3.77)
Hispanic or Latino vs Not Hispanic or Latino	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	21288.68 (13278.70, 34130.44)	13558.26 (9493.76, 19362.88)	1.57 (0.87, 2.84)

(continued)

Group 1 vs 2	Visit	Arm	Baseline SARS-CoV-2	Marker	Group 1 GMT/GMC	Group 2 GMT/GMC	Ratios of GMT/GMC
Hispanic or Latino vs Not Hispanic or Latino	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	19793.04 (11686.30, 33523.39)	11289.31 (8456.34, 15071.35)	1.75 (0.96, 3.21)
Hispanic or Latino vs Not Hispanic or Latino	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	5714.43 (3500.78, 9327.84)	5353.54 (4171.75, 6870.12)	1.07 (0.62, 1.85)
Hispanic or Latino vs Not Hispanic or Latino	Day 57	Vaccine	Positive	Pseudovirus-nAb ID80	1186.09 (829.28, 1696.42)	1128.90 (904.81, 1408.51)	1.05 (0.69, 1.60)
Hispanic or Latino vs Not Hispanic or Latino	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Hispanic or Latino vs Not Hispanic or Latino	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Hispanic or Latino vs Not Hispanic or Latino	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Hispanic or Latino vs Not Hispanic or Latino	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	5.00 (5.00, 5.00)	5.03 (4.97, 5.08)	0.99 (0.98, 1.01)
Hispanic or Latino vs Not Hispanic or Latino	Day 57	Placebo	Negative	Pseudovirus-nAb ID80	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Hispanic or Latino vs Not Hispanic or Latino	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	233.14 (105.33, 516.04)	142.91 (98.40, 207.54)	1.63 (0.68, 3.93)
Hispanic or Latino vs Not Hispanic or Latino	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	4928.44 (2153.65, 11278.31)	3699.78 (2729.76, 5014.49)	1.33 (0.55, 3.23)
Hispanic or Latino vs Not Hispanic or Latino	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	3282.13 (2084.73, 5167.27)	2343.66 (1802.98, 3046.48)	1.40 (0.82, 2.38)
Hispanic or Latino vs Not Hispanic or Latino	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	1813.26 (1057.52, 3109.08)	1323.41 (1043.34, 1678.67)	1.37 (0.76, 2.47)

(continued)

Group 1 vs 2	Visit	Arm	Baseline SARS-CoV-2	Marker	Group 1 GMT/GMC	Group 2 GMT/GMC	Ratios of GMT/GMC
Hispanic or Latino vs Not Hispanic or Latino	Day 57	Placebo	Positive	Pseudovirus-nAb ID80	411.02 (255.89, 660.19)	264.59 (215.98, 324.12)	1.55 (0.93, 2.60)

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Table 9g. The ratios of GMTs/GMCs between groups by Communities of color

Group 1 vs 2	Visit	Arm	Baseline SARS-CoV-2	Marker	Group 1 GMT/GMC	Group 2 GMT/GMC	Ratios of GMT/GMC
Communities of color							
Communities of Color vs White Non-Hispanic	Day 1	Vaccine	Negative	Anti N IgG (IU/ml)	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Communities of Color vs White Non-Hispanic	Day 1	Vaccine	Negative	Anti RBD IgG (IU/ml)	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Communities of Color vs White Non-Hispanic	Day 1	Vaccine	Negative	Anti Spike IgG (IU/ml)	0.16 (0.15, 0.16)	0.15 (0.15, 0.15)	1.01 (0.99, 1.02)
Communities of Color vs White Non-Hispanic	Day 1	Vaccine	Negative	Pseudovirus-nAb ID50	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Communities of Color vs White Non-Hispanic	Day 1	Vaccine	Negative	Pseudovirus-nAb ID80	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Communities of Color vs White Non-Hispanic	Day 1	Vaccine	Positive	Anti N IgG (IU/ml)	0.05 (0.05, 0.05)	0.05 (0.04, 0.06)	0.97 (0.84, 1.13)
Communities of Color vs White Non-Hispanic	Day 1	Vaccine	Positive	Anti RBD IgG (IU/ml)	0.80 (0.79, 0.81)	0.80 (0.80, 0.80)	1.01 (0.99, 1.02)
Communities of Color vs White Non-Hispanic	Day 1	Vaccine	Positive	Anti Spike IgG (IU/ml)	0.15 (0.15, 0.16)	0.16 (0.15, 0.17)	0.97 (0.92, 1.03)
Communities of Color vs White Non-Hispanic	Day 1	Vaccine	Positive	Pseudovirus-nAb ID50	6.99 (5.93, 8.24)	7.83 (6.51, 9.41)	0.89 (0.70, 1.14)
Communities of Color vs White Non-Hispanic	Day 1	Vaccine	Positive	Pseudovirus-nAb ID80	6.86 (5.92, 7.94)	6.76 (5.83, 7.82)	1.01 (0.82, 1.25)
Communities of Color vs White Non-Hispanic	Day 1	Placebo	Negative	Anti N IgG (IU/ml)	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)

(continued)

Group 1 vs 2	Visit	Arm	Baseline SARS-CoV-2	Marker	Group 1 GMT/GMC	Group 2 GMT/GMC	Ratios of GMT/GMC
Communities of Color vs White Non-Hispanic	Day 1	Placebo	Negative	Anti RBD IgG (IU/ml)	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Communities of Color vs White Non-Hispanic	Day 1	Placebo	Negative	Anti Spike IgG (IU/ml)	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Communities of Color vs White Non-Hispanic	Day 1	Placebo	Negative	Pseudovirus-nAb ID50	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Communities of Color vs White Non-Hispanic	Day 1	Placebo	Negative	Pseudovirus-nAb ID80	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Communities of Color vs White Non-Hispanic	Day 1	Placebo	Positive	Anti N IgG (IU/ml)	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (0.98, 1.01)
Communities of Color vs White Non-Hispanic	Day 1	Placebo	Positive	Anti RBD IgG (IU/ml)	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Communities of Color vs White Non-Hispanic	Day 1	Placebo	Positive	Anti Spike IgG (IU/ml)	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Communities of Color vs White Non-Hispanic	Day 1	Placebo	Positive	Pseudovirus-nAb ID50	6.35 (5.67, 7.12)	6.80 (6.02, 7.67)	0.93 (0.79, 1.10)
Communities of Color vs White Non-Hispanic	Day 1	Placebo	Positive	Pseudovirus-nAb ID80	6.58 (5.71, 7.58)	6.86 (5.95, 7.92)	0.96 (0.78, 1.17)
Communities of Color vs White Non-Hispanic	Day 29	Vaccine	Negative	Anti N IgG (IU/ml)	39.67 (31.26, 50.35)	35.24 (27.71, 44.82)	1.13 (0.80, 1.59)
Communities of Color vs White Non-Hispanic	Day 29	Vaccine	Negative	Anti RBD IgG (IU/ml)	513.48 (413.67, 637.36)	394.97 (319.03, 488.98)	1.30 (0.96, 1.77)
Communities of Color vs White Non-Hispanic	Day 29	Vaccine	Negative	Anti Spike IgG (IU/ml)	234.28 (195.25, 281.12)	246.00 (210.22, 287.86)	0.95 (0.75, 1.22)

(continued)

Group 1 vs 2	Visit	Arm	Baseline SARS-CoV-2	Marker	Group 1 GMT/GMC	Group 2 GMT/GMC	Ratios of GMT/GMC
Communities of Color vs White Non-Hispanic	Day 29	Vaccine	Negative	Pseudovirus-nAb ID50	68.52 (60.59, 77.50)	63.58 (55.57, 72.74)	1.08 (0.90, 1.30)
Communities of Color vs White Non-Hispanic	Day 29	Vaccine	Negative	Pseudovirus-nAb ID80	16.21 (14.25, 18.44)	17.36 (15.42, 19.54)	0.93 (0.78, 1.11)
Communities of Color vs White Non-Hispanic	Day 29	Vaccine	Positive	Anti N IgG (IU/ml)	82.98 (53.50, 128.70)	108.49 (76.64, 153.60)	0.76 (0.44, 1.34)
Communities of Color vs White Non-Hispanic	Day 29	Vaccine	Positive	Anti RBD IgG (IU/ml)	1021.22 (652.06, 1599.39)	1103.88 (720.93, 1690.25)	0.93 (0.50, 1.71)
Communities of Color vs White Non-Hispanic	Day 29	Vaccine	Positive	Anti Spike IgG (IU/ml)	482.79 (323.03, 721.55)	497.19 (349.12, 708.07)	0.97 (0.57, 1.65)
Communities of Color vs White Non-Hispanic	Day 29	Vaccine	Positive	Pseudovirus-nAb ID50	138.12 (108.47, 175.87)	150.52 (126.18, 179.55)	0.92 (0.68, 1.24)
Communities of Color vs White Non-Hispanic	Day 29	Vaccine	Positive	Pseudovirus-nAb ID80	31.58 (24.43, 40.82)	33.02 (27.25, 40.02)	0.96 (0.69, 1.32)
Communities of Color vs White Non-Hispanic	Day 29	Placebo	Negative	Anti N IgG (IU/ml)	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Communities of Color vs White Non-Hispanic	Day 29	Placebo	Negative	Anti RBD IgG (IU/ml)	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Communities of Color vs White Non-Hispanic	Day 29	Placebo	Negative	Anti Spike IgG (IU/ml)	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Communities of Color vs White Non-Hispanic	Day 29	Placebo	Negative	Pseudovirus-nAb ID50	5.00 (5.00, 5.00)	5.08 (4.97, 5.19)	0.98 (0.96, 1.01)
Communities of Color vs White Non-Hispanic	Day 29	Placebo	Negative	Pseudovirus-nAb ID80	5.03 (4.97, 5.08)	5.03 (4.98, 5.07)	1.00 (0.99, 1.01)

(continued)

Group 1 vs 2	Visit	Arm	Baseline SARS-CoV-2	Marker	Group 1 GMT/GMC	Group 2 GMT/GMC	Ratios of GMT/GMC
Communities of Color vs White Non-Hispanic	Day 29	Placebo	Positive	Anti N IgG (IU/ml)	22.21 (15.34, 32.14)	30.08 (19.98, 45.29)	0.74 (0.42, 1.29)
Communities of Color vs White Non-Hispanic	Day 29	Placebo	Positive	Anti RBD IgG (IU/ml)	373.03 (263.76, 527.56)	334.14 (244.55, 456.56)	1.12 (0.70, 1.79)
Communities of Color vs White Non-Hispanic	Day 29	Placebo	Positive	Anti Spike IgG (IU/ml)	182.13 (136.16, 243.62)	193.98 (143.34, 262.51)	0.94 (0.61, 1.44)
Communities of Color vs White Non-Hispanic	Day 29	Placebo	Positive	Pseudovirus-nAb ID50	44.88 (35.94, 56.04)	51.58 (41.19, 64.59)	0.87 (0.63, 1.20)
Communities of Color vs White Non-Hispanic	Day 29	Placebo	Positive	Pseudovirus-nAb ID80	10.99 (9.18, 13.15)	11.31 (9.62, 13.29)	0.97 (0.76, 1.24)
Communities of Color vs White Non-Hispanic	Day 57	Vaccine	Negative	Anti N IgG (IU/ml)	146.25 (108.63, 196.88)	154.12 (116.66, 203.61)	0.95 (0.63, 1.43)
Communities of Color vs White Non-Hispanic	Day 57	Vaccine	Negative	Anti RBD IgG (IU/ml)	4364.14 (3391.49, 5615.73)	4647.54 (3662.95, 5896.79)	0.94 (0.66, 1.33)
Communities of Color vs White Non-Hispanic	Day 57	Vaccine	Negative	Anti Spike IgG (IU/ml)	2968.99 (2387.16, 3692.62)	3213.02 (2637.12, 3914.70)	0.92 (0.68, 1.25)
Communities of Color vs White Non-Hispanic	Day 57	Vaccine	Negative	Pseudovirus-nAb ID50	1714.20 (1436.27, 2045.90)	1559.07 (1309.74, 1855.86)	1.10 (0.86, 1.41)
Communities of Color vs White Non-Hispanic	Day 57	Vaccine	Negative	Pseudovirus-nAb ID80	387.24 (334.68, 448.06)	366.65 (315.65, 425.89)	1.06 (0.86, 1.30)
Communities of Color vs White Non-Hispanic	Day 57	Vaccine	Positive	Anti N IgG (IU/ml)	484.01 (265.07, 883.79)	524.22 (330.41, 831.70)	0.92 (0.43, 1.97)
Communities of Color vs White Non-Hispanic	Day 57	Vaccine	Positive	Anti RBD IgG (IU/ml)	13734.88 (8600.86, 21933.50)	14740.10 (9467.50, 22949.08)	0.93 (0.49, 1.77)

(continued)

Group 1 vs 2	Visit	Arm	Baseline SARS-CoV-2	Marker	Group 1 GMT/GMC	Group 2 GMT/GMC	Ratios of GMT/GMC
Communities of Color vs White Non-Hispanic	Day 57	Vaccine	Positive	Anti Spike IgG (IU/ml)	10830.48 (7216.97, 16253.27)	12712.59 (8977.13, 18002.42)	0.85 (0.50, 1.45)
Communities of Color vs White Non-Hispanic	Day 57	Vaccine	Positive	Pseudovirus-nAb ID50	5265.34 (3869.12, 7165.39)	5474.91 (3962.27, 7565.02)	0.96 (0.62, 1.50)
Communities of Color vs White Non-Hispanic	Day 57	Vaccine	Positive	Pseudovirus-nAb ID80	1148.93 (884.32, 1492.71)	1100.91 (824.78, 1469.49)	1.04 (0.71, 1.54)
Communities of Color vs White Non-Hispanic	Day 57	Placebo	Negative	Anti N IgG (IU/ml)	0.05 (0.05, 0.05)	0.05 (0.05, 0.05)	1.00 (1.00, 1.00)
Communities of Color vs White Non-Hispanic	Day 57	Placebo	Negative	Anti RBD IgG (IU/ml)	0.80 (0.80, 0.80)	0.80 (0.80, 0.80)	1.00 (1.00, 1.00)
Communities of Color vs White Non-Hispanic	Day 57	Placebo	Negative	Anti Spike IgG (IU/ml)	0.15 (0.15, 0.15)	0.15 (0.15, 0.15)	1.00 (1.00, 1.00)
Communities of Color vs White Non-Hispanic	Day 57	Placebo	Negative	Pseudovirus-nAb ID50	5.00 (5.00, 5.00)	5.04 (4.96, 5.11)	0.99 (0.98, 1.01)
Communities of Color vs White Non-Hispanic	Day 57	Placebo	Negative	Pseudovirus-nAb ID80	5.00 (5.00, 5.00)	5.00 (5.00, 5.00)	1.00 (1.00, 1.00)
Communities of Color vs White Non-Hispanic	Day 57	Placebo	Positive	Anti N IgG (IU/ml)	152.87 (98.17, 238.06)	152.54 (94.61, 245.96)	1.00 (0.52, 1.93)
Communities of Color vs White Non-Hispanic	Day 57	Placebo	Positive	Anti RBD IgG (IU/ml)	3836.73 (2549.85, 5773.08)	3927.49 (2680.45, 5754.71)	0.98 (0.56, 1.72)
Communities of Color vs White Non-Hispanic	Day 57	Placebo	Positive	Anti Spike IgG (IU/ml)	2339.82 (1698.97, 3222.40)	2481.87 (1786.06, 3448.74)	0.94 (0.59, 1.50)
Communities of Color vs White Non-Hispanic	Day 57	Placebo	Positive	Pseudovirus-nAb ID50	1351.77 (1030.23, 1773.65)	1385.29 (1014.62, 1891.36)	0.98 (0.64, 1.48)

(continued)

Group 1 vs 2	Visit	Arm	Baseline SARS-CoV-2	Marker	Group 1 GMT/GMC	Group 2 GMT/GMC	Ratios of GMT/GMC
Communities of Color vs White Non-Hispanic	Day 57	Placebo	Positive	Pseudovirus-nAb ID80	324.34 (245.81, 427.95)	255.56 (199.61, 327.19)	1.27 (0.87, 1.84)

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1.10 Differences in the responder rates, 2FRs, 4FRs between the groups

Table 10a. Differences in the responder rates, 2FRs, 4FRs between the groups by Arm

Comparison	Baseline SARS-CoV-2	Arm	Visit	Marker	Responder	% 2-Fold Rise	% 4-Fold Rise
Arm							
Vaccine vs Placebo	Negative	-	Day 29	Anti N IgG (IU/ml)	0.88 (0.84, 0.91)	0.88 (0.84, 0.91)	0.79 (0.74, 0.83)
Vaccine vs Placebo	Negative	-	Day 29	Anti RBD IgG (IU/ml)	1 (1, 1)	1 (1, 1)	1 (0.99, 1)
Vaccine vs Placebo	Negative	-	Day 29	Anti Spike IgG (IU/ml)	1 (1, 1)	1 (1, 1)	1 (1, 1)
Vaccine vs Placebo	Negative	-	Day 29	Pseudovirus-nAb ID50	0.9 (0.86, 0.93)	0.9 (0.86, 0.93)	0.74 (0.69, 0.78)
Vaccine vs Placebo	Negative	-	Day 29	Pseudovirus-nAb ID80	0.62 (0.57, 0.66)	0.62 (0.57, 0.66)	0.28 (0.24, 0.33)
Vaccine vs Placebo	Positive	-	Day 29	Anti N IgG (IU/ml)	0.09 (0.03, 0.17)	0.09 (0.03, 0.17)	0.23 (0.15, 0.32)
Vaccine vs Placebo	Positive	-	Day 29	Anti RBD IgG (IU/ml)	0.01 (0, 0.05)	0.01 (0, 0.05)	0 (-0.01, 0.05)
Vaccine vs Placebo	Positive	-	Day 29	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Vaccine vs Placebo	Positive	-	Day 29	Pseudovirus-nAb ID50	0.2 (0.11, 0.28)	0.2 (0.13, 0.28)	0.34 (0.24, 0.43)
Vaccine vs Placebo	Positive	-	Day 29	Pseudovirus-nAb ID80	0.39 (0.27, 0.49)	0.41 (0.3, 0.51)	0.43 (0.33, 0.53)
Vaccine vs Placebo	Negative	-	Day 57	Anti N IgG (IU/ml)	0.96 (0.93, 0.97)	0.96 (0.93, 0.97)	0.9 (0.87, 0.93)
Vaccine vs Placebo	Negative	-	Day 57	Anti RBD IgG (IU/ml)	1 (1, 1)	1 (1, 1)	1 (1, 1)
Vaccine vs Placebo	Negative	-	Day 57	Anti Spike IgG (IU/ml)	1 (1, 1)	1 (1, 1)	1 (1, 1)

(continued)

Comparison	Baseline SARS-CoV-2	Arm	Visit	Marker	Responder	% 2-Fold Rise	% 4-Fold Rise
Vaccine vs Placebo	Negative	-	Day 57	Pseudovirus-nAb ID50	1 (1, 1)	1 (1, 1)	1 (1, 1)
Vaccine vs Placebo	Negative	-	Day 57	Pseudovirus-nAb ID80	1 (0.97, 1)	1 (0.97, 1)	0.99 (0.97, 1)
Vaccine vs Placebo	Positive	-	Day 57	Anti N IgG (IU/ml)	0.03 (-0.01, 0.1)	0.03 (-0.01, 0.1)	0.05 (-0.02, 0.12)
Vaccine vs Placebo	Positive	-	Day 57	Anti RBD IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (-0.02, 0)
Vaccine vs Placebo	Positive	-	Day 57	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Vaccine vs Placebo	Positive	-	Day 57	Pseudovirus-nAb ID50	0 (0, 0)	0 (0, 0)	0.01 (0, 0.05)
Vaccine vs Placebo	Positive	-	Day 57	Pseudovirus-nAb ID80	0 (0, 0)	0 (0, 0)	0.03 (0.01, 0.08)

Percentages are calculated for the whole per-protocol group/subgroup, using inverse probability weighting.

Table 10b. Differences in the responder rates, 2FRs, 4FRs between the groups by Baseline SARS-CoV-2

Comparison	Baseline SARS-CoV-2	Arm	Visit	Marker	Responder	% 2-Fold Rise	% 4-Fold Rise
Baseline SARS-CoV-2							
Positive vs Negative	-	Vaccine	Day 29	Anti N IgG (IU/ml)	0.08 (0.03, 0.12)	0.08 (0.03, 0.12)	0.15 (0.09, 0.2)
Positive vs Negative	-	Placebo	Day 29	Anti N IgG (IU/ml)	0.86 (0.79, 0.92)	0.86 (0.79, 0.92)	0.71 (0.62, 0.78)
Positive vs Negative	-	Vaccine	Day 29	Anti RBD IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (-0.02, 0)
Positive vs Negative	-	Placebo	Day 29	Anti RBD IgG (IU/ml)	0.99 (0.95, 1)	0.99 (0.95, 1)	0.99 (0.95, 1)
Positive vs Negative	-	Vaccine	Day 29	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Positive vs Negative	-	Placebo	Day 29	Anti Spike IgG (IU/ml)	1 (1, 1)	1 (1, 1)	1 (1, 1)
Positive vs Negative	-	Vaccine	Day 29	Pseudovirus-nAb ID50	0.06 (0.01, 0.11)	0.08 (0.04, 0.12)	0.17 (0.1, 0.23)
Positive vs Negative	-	Placebo	Day 29	Pseudovirus-nAb ID50	0.77 (0.68, 0.84)	0.78 (0.7, 0.85)	0.57 (0.49, 0.66)
Positive vs Negative	-	Vaccine	Day 29	Pseudovirus-nAb ID80	0.12 (0.03, 0.21)	0.16 (0.06, 0.24)	0.25 (0.16, 0.35)
Positive vs Negative	-	Placebo	Day 29	Pseudovirus-nAb ID80	0.35 (0.28, 0.43)	0.36 (0.28, 0.44)	0.1 (0.07, 0.15)
Positive vs Negative	-	Vaccine	Day 57	Anti N IgG (IU/ml)	0.02 (-0.02, 0.05)	0.02 (-0.02, 0.05)	0.06 (0, 0.1)
Positive vs Negative	-	Placebo	Day 57	Anti N IgG (IU/ml)	0.95 (0.88, 0.98)	0.95 (0.88, 0.98)	0.92 (0.85, 0.95)
Positive vs Negative	-	Vaccine	Day 57	Anti RBD IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (-0.02, 0)
Positive vs Negative	-	Placebo	Day 57	Anti RBD IgG (IU/ml)	1 (1, 1)	1 (1, 1)	1 (1, 1)
Positive vs Negative	-	Vaccine	Day 57	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)

(continued)

Comparison	Baseline SARS-CoV-2	Arm	Visit	Marker	Responder	% 2-Fold Rise	% 4-Fold Rise
Positive vs Negative	-	Placebo	Day 57	Anti Spike IgG (IU/ml)	1 (1, 1)	1 (1, 1)	1 (1, 1)
Positive vs Negative	-	Vaccine	Day 57	Pseudovirus-nAb ID50	0 (0, 0)	0 (0, 0)	0 (0, 0)
Positive vs Negative	-	Placebo	Day 57	Pseudovirus-nAb ID50	1 (1, 1)	1 (1, 1)	0.99 (0.95, 1)
Positive vs Negative	-	Vaccine	Day 57	Pseudovirus-nAb ID80	0 (0, 0.03)	0 (0, 0.03)	0.01 (0, 0.03)
Positive vs Negative	-	Placebo	Day 57	Pseudovirus-nAb ID80	1 (1, 1)	1 (1, 1)	0.97 (0.92, 0.99)

Percentages are calculated for the whole per-protocol group/subgroup, using inverse probability weighting.

Table 10c. Differences in the responder rates, 2FRs, 4FRs between the groups by Age

Comparison	Baseline SARS-CoV-2	Arm	Visit	Marker	Responder	% 2-Fold Rise	% 4-Fold Rise
Age							
Age ≥ 65 vs Age < 65	Negative	Vaccine	Day 29	Anti N IgG (IU/ml)	0.1 (0.05, 0.15)	0.1 (0.05, 0.15)	0.16 (0.1, 0.22)
Age ≥ 65 vs Age < 65	Negative	Placebo	Day 29	Anti N IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age ≥ 65 vs Age < 65	Negative	Vaccine	Day 29	Anti RBD IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0.01)
Age ≥ 65 vs Age < 65	Negative	Placebo	Day 29	Anti RBD IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age ≥ 65 vs Age < 65	Negative	Vaccine	Day 29	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age ≥ 65 vs Age < 65	Negative	Placebo	Day 29	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age ≥ 65 vs Age < 65	Negative	Vaccine	Day 29	Pseudovirus-nAb ID50	0.09 (0.05, 0.14)	0.09 (0.05, 0.14)	0.21 (0.15, 0.28)
Age ≥ 65 vs Age < 65	Negative	Placebo	Day 29	Pseudovirus-nAb ID50	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age ≥ 65 vs Age < 65	Negative	Vaccine	Day 29	Pseudovirus-nAb ID80	0.2 (0.12, 0.27)	0.2 (0.12, 0.27)	0.21 (0.13, 0.28)
Age ≥ 65 vs Age < 65	Negative	Placebo	Day 29	Pseudovirus-nAb ID80	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age ≥ 65 vs Age < 65	Positive	Vaccine	Day 29	Anti N IgG (IU/ml)	0.04 (-0.02, 0.09)	0.04 (-0.02, 0.09)	0.04 (-0.03, 0.09)
Age ≥ 65 vs Age < 65	Positive	Placebo	Day 29	Anti N IgG (IU/ml)	0.12 (0.03, 0.21)	0.12 (0.03, 0.21)	0.21 (0.09, 0.33)
Age ≥ 65 vs Age < 65	Positive	Vaccine	Day 29	Anti RBD IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0.03)
Age ≥ 65 vs Age < 65	Positive	Placebo	Day 29	Anti RBD IgG (IU/ml)	0.01 (0, 0.07)	0.01 (0, 0.07)	0.01 (0, 0.07)
Age ≥ 65 vs Age < 65	Positive	Vaccine	Day 29	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)

(continued)

Comparison	Baseline SARS-CoV-2	Arm	Visit	Marker	Responder	% 2-Fold Rise	% 4-Fold Rise
Age ≥ 65 vs Age < 65	Positive	Placebo	Day 29	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age ≥ 65 vs Age < 65	Positive	Vaccine	Day 29	Pseudovirus-nAb ID50	0.02 (-0.04, 0.09)	0.01 (-0.05, 0.05)	0.07 (-0.01, 0.14)
Age ≥ 65 vs Age < 65	Positive	Placebo	Day 29	Pseudovirus-nAb ID50	0.2 (0.09, 0.31)	0.19 (0.09, 0.3)	0.31 (0.17, 0.43)
Age ≥ 65 vs Age < 65	Positive	Vaccine	Day 29	Pseudovirus-nAb ID80	0.1 (-0.02, 0.22)	0.09 (-0.02, 0.21)	0.07 (-0.07, 0.21)
Age ≥ 65 vs Age < 65	Positive	Placebo	Day 29	Pseudovirus-nAb ID80	0.21 (0.06, 0.34)	0.25 (0.1, 0.38)	0.12 (0.03, 0.22)
Age ≥ 65 vs Age < 65	Negative	Vaccine	Day 57	Anti N IgG (IU/ml)	0.04 (0.01, 0.08)	0.04 (0.01, 0.08)	0.08 (0.04, 0.13)
Age ≥ 65 vs Age < 65	Negative	Placebo	Day 57	Anti N IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age ≥ 65 vs Age < 65	Negative	Vaccine	Day 57	Anti RBD IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age ≥ 65 vs Age < 65	Negative	Placebo	Day 57	Anti RBD IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age ≥ 65 vs Age < 65	Negative	Vaccine	Day 57	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age ≥ 65 vs Age < 65	Negative	Placebo	Day 57	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age ≥ 65 vs Age < 65	Negative	Vaccine	Day 57	Pseudovirus-nAb ID50	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age ≥ 65 vs Age < 65	Negative	Placebo	Day 57	Pseudovirus-nAb ID50	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age ≥ 65 vs Age < 65	Negative	Vaccine	Day 57	Pseudovirus-nAb ID80	0 (0, 0.03)	0 (0, 0.03)	0.01 (-0.01, 0.03)
Age ≥ 65 vs Age < 65	Negative	Placebo	Day 57	Pseudovirus-nAb ID80	0 (0, 0)	0 (0, 0)	0 (0, 0)

(continued)

Comparison	Baseline SARS-CoV-2	Arm	Visit	Marker	Responder	% 2-Fold Rise	% 4-Fold Rise
Age \geq 65 vs Age < 65	Positive	Vaccine	Day 57	Anti N IgG (IU/ml)	0.02 (-0.04, 0.06)	0.02 (-0.04, 0.06)	0.03 (-0.03, 0.1)
Age \geq 65 vs Age < 65	Positive	Placebo	Day 57	Anti N IgG (IU/ml)	0.07 (0.03, 0.15)	0.07 (0.03, 0.15)	0.09 (0.01, 0.17)
Age \geq 65 vs Age < 65	Positive	Vaccine	Day 57	Anti RBD IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0.03)
Age \geq 65 vs Age < 65	Positive	Placebo	Day 57	Anti RBD IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age \geq 65 vs Age < 65	Positive	Vaccine	Day 57	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age \geq 65 vs Age < 65	Positive	Placebo	Day 57	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age \geq 65 vs Age < 65	Positive	Vaccine	Day 57	Pseudovirus-nAb ID50	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age \geq 65 vs Age < 65	Positive	Placebo	Day 57	Pseudovirus-nAb ID50	0 (0, 0)	0 (0, 0)	0.01 (0, 0.07)
Age \geq 65 vs Age < 65	Positive	Vaccine	Day 57	Pseudovirus-nAb ID80	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age \geq 65 vs Age < 65	Positive	Placebo	Day 57	Pseudovirus-nAb ID80	0 (0, 0)	0 (0, 0)	0.03 (0.01, 0.1)

Percentages are calculated for the whole per-protocol group/subgroup, using inverse probability weighting.

Table 10d. Differences in the responder rates, 2FRs, 4FRs between the groups by Risk for Severe Covid-19

Comparison	Baseline SARS-CoV-2	Arm	Visit	Marker	Responder	% 2-Fold Rise	% 4-Fold Rise
Risk for Severe Covid-19							
At-risk vs Not at-risk	Negative	Vaccine	Day 29	Anti N IgG (IU/ml)	0.03 (-0.03, 0.09)	0.03 (-0.03, 0.09)	0 (-0.07, 0.07)
At-risk vs Not at-risk	Negative	Placebo	Day 29	Anti N IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
At-risk vs Not at-risk	Negative	Vaccine	Day 29	Anti RBD IgG (IU/ml)	0 (0, 0)	0 (0, 0)	-0.01 (-0.02, 0)
At-risk vs Not at-risk	Negative	Placebo	Day 29	Anti RBD IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
At-risk vs Not at-risk	Negative	Vaccine	Day 29	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
At-risk vs Not at-risk	Negative	Placebo	Day 29	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
At-risk vs Not at-risk	Negative	Vaccine	Day 29	Pseudovirus-nAb ID50	0.03 (-0.02, 0.08)	0.03 (-0.02, 0.08)	0.04 (-0.03, 0.12)
At-risk vs Not at-risk	Negative	Placebo	Day 29	Pseudovirus-nAb ID50	0 (0, 0)	0 (0, 0)	0 (0, 0)
At-risk vs Not at-risk	Negative	Vaccine	Day 29	Pseudovirus-nAb ID80	0.05 (-0.03, 0.13)	0.05 (-0.03, 0.13)	0.04 (-0.04, 0.11)
At-risk vs Not at-risk	Negative	Placebo	Day 29	Pseudovirus-nAb ID80	0 (0, 0)	0 (0, 0)	0 (0, 0)
At-risk vs Not at-risk	Positive	Vaccine	Day 29	Anti N IgG (IU/ml)	-0.08 (-0.16, -0.01)	-0.08 (-0.16, -0.01)	-0.11 (-0.2, -0.04)
At-risk vs Not at-risk	Positive	Placebo	Day 29	Anti N IgG (IU/ml)	0.09 (-0.01, 0.2)	0.09 (-0.01, 0.2)	0.19 (0.05, 0.31)
At-risk vs Not at-risk	Positive	Vaccine	Day 29	Anti RBD IgG (IU/ml)	0 (0, 0)	0 (0, 0)	-0.01 (-0.08, 0)
At-risk vs Not at-risk	Positive	Placebo	Day 29	Anti RBD IgG (IU/ml)	0.01 (0, 0.07)	0.01 (0, 0.07)	0.01 (0, 0.07)
At-risk vs Not at-risk	Positive	Vaccine	Day 29	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)

(continued)

Comparison	Baseline SARS-CoV-2	Arm	Visit	Marker	Responder	% 2-Fold Rise	% 4-Fold Rise
At-risk vs Not at-risk	Positive	Placebo	Day 29	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
At-risk vs Not at-risk	Positive	Vaccine	Day 29	Pseudovirus-nAb ID50	-0.03 (-0.1, 0.06)	-0.03 (-0.1, 0.02)	-0.04 (-0.13, 0.06)
At-risk vs Not at-risk	Positive	Placebo	Day 29	Pseudovirus-nAb ID50	0.16 (0.03, 0.28)	0.15 (0.03, 0.27)	0.13 (-0.02, 0.27)
At-risk vs Not at-risk	Positive	Vaccine	Day 29	Pseudovirus-nAb ID80	-0.07 (-0.2, 0.07)	-0.03 (-0.16, 0.1)	-0.19 (-0.33, -0.04)
At-risk vs Not at-risk	Positive	Placebo	Day 29	Pseudovirus-nAb ID80	0.04 (-0.1, 0.18)	0.03 (-0.11, 0.17)	0.14 (0.04, 0.24)
At-risk vs Not at-risk	Negative	Vaccine	Day 57	Anti N IgG (IU/ml)	-0.01 (-0.04, 0.04)	-0.01 (-0.04, 0.04)	0.01 (-0.04, 0.06)
At-risk vs Not at-risk	Negative	Placebo	Day 57	Anti N IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
At-risk vs Not at-risk	Negative	Vaccine	Day 57	Anti RBD IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
At-risk vs Not at-risk	Negative	Placebo	Day 57	Anti RBD IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
At-risk vs Not at-risk	Negative	Vaccine	Day 57	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
At-risk vs Not at-risk	Negative	Placebo	Day 57	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
At-risk vs Not at-risk	Negative	Vaccine	Day 57	Pseudovirus-nAb ID50	0 (0, 0)	0 (0, 0)	0 (0, 0)
At-risk vs Not at-risk	Negative	Placebo	Day 57	Pseudovirus-nAb ID50	0 (0, 0)	0 (0, 0)	0 (0, 0)
At-risk vs Not at-risk	Negative	Vaccine	Day 57	Pseudovirus-nAb ID80	0.01 (0, 0.04)	0.01 (0, 0.04)	0.01 (-0.01, 0.04)
At-risk vs Not at-risk	Negative	Placebo	Day 57	Pseudovirus-nAb ID80	0 (0, 0)	0 (0, 0)	0 (0, 0)

(continued)

Comparison	Baseline SARS-CoV-2	Arm	Visit	Marker	Responder	% 2-Fold Rise	% 4-Fold Rise
At-risk vs Not at-risk	Positive	Vaccine	Day 57	Anti N IgG (IU/ml)	-0.02 (-0.09, 0.03)	-0.02 (-0.09, 0.03)	0 (-0.07, 0.08)
At-risk vs Not at-risk	Positive	Placebo	Day 57	Anti N IgG (IU/ml)	0.04 (-0.05, 0.12)	0.04 (-0.05, 0.12)	0.03 (-0.07, 0.12)
At-risk vs Not at-risk	Positive	Vaccine	Day 57	Anti RBD IgG (IU/ml)	0 (0, 0)	0 (0, 0)	-0.01 (-0.08, 0)
At-risk vs Not at-risk	Positive	Placebo	Day 57	Anti RBD IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
At-risk vs Not at-risk	Positive	Vaccine	Day 57	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
At-risk vs Not at-risk	Positive	Placebo	Day 57	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
At-risk vs Not at-risk	Positive	Vaccine	Day 57	Pseudovirus-nAb ID50	0 (0, 0)	0 (0, 0)	0 (0, 0)
At-risk vs Not at-risk	Positive	Placebo	Day 57	Pseudovirus-nAb ID50	0 (0, 0)	0 (0, 0)	0.01 (0, 0.07)
At-risk vs Not at-risk	Positive	Vaccine	Day 57	Pseudovirus-nAb ID80	0 (0, 0)	0 (0, 0)	0 (0, 0)
At-risk vs Not at-risk	Positive	Placebo	Day 57	Pseudovirus-nAb ID80	0 (0, 0)	0 (0, 0)	0 (-0.07, 0.09)

Percentages are calculated for the whole per-protocol group/subgroup, using inverse probability weighting.

Table 10e. Differences in the responder rates, 2FRs, 4FRs between the groups by Age < 65, Risk for Severe Covid-19

Comparison	Baseline SARS-CoV-2	Arm	Visit	Marker	Responder	% 2-Fold Rise	% 4-Fold Rise
Age < 65, Risk for Severe Covid-19							
Age < 65 At-risk vs Age < 65 Not at-risk	Negative	Vaccine	Day 29	Anti N IgG (IU/ml)	0 (-0.07, 0.08)	0 (-0.07, 0.08)	-0.06 (-0.15, 0.04)
Age < 65 At-risk vs Age < 65 Not at-risk	Negative	Placebo	Day 29	Anti N IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age < 65 At-risk vs Age < 65 Not at-risk	Negative	Vaccine	Day 29	Anti RBD IgG (IU/ml)	0 (0, 0)	0 (0, 0)	-0.01 (-0.03, 0)
Age < 65 At-risk vs Age < 65 Not at-risk	Negative	Placebo	Day 29	Anti RBD IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age < 65 At-risk vs Age < 65 Not at-risk	Negative	Vaccine	Day 29	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age < 65 At-risk vs Age < 65 Not at-risk	Negative	Placebo	Day 29	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age < 65 At-risk vs Age < 65 Not at-risk	Negative	Vaccine	Day 29	Pseudovirus-nAb ID50	0.02 (-0.05, 0.09)	0.02 (-0.05, 0.09)	0 (-0.1, 0.1)
Age < 65 At-risk vs Age < 65 Not at-risk	Negative	Placebo	Day 29	Pseudovirus-nAb ID50	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age < 65 At-risk vs Age < 65 Not at-risk	Negative	Vaccine	Day 29	Pseudovirus-nAb ID80	-0.01 (-0.12, 0.09)	-0.01 (-0.12, 0.09)	-0.03 (-0.12, 0.06)
Age < 65 At-risk vs Age < 65 Not at-risk	Negative	Placebo	Day 29	Pseudovirus-nAb ID80	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age < 65 At-risk vs Age < 65 Not at-risk	Positive	Vaccine	Day 29	Anti N IgG (IU/ml)	-0.11 (-0.23, -0.02)	-0.11 (-0.23, -0.02)	-0.15 (-0.28, -0.05)

(continued)

Comparison	Baseline SARS-CoV-2	Arm	Visit	Marker	Responder	% 2-Fold Rise	% 4-Fold Rise
Age < 65 At-risk vs Age < 65 Not at-risk	Positive	Placebo	Day 29	Anti N IgG (IU/ml)	0.08 (-0.05, 0.21)	0.08 (-0.05, 0.21)	0.22 (0.05, 0.37)
Age < 65 At-risk vs Age < 65 Not at-risk	Positive	Vaccine	Day 29	Anti RBD IgG (IU/ml)	0 (0, 0)	0 (0, 0)	-0.02 (-0.12, 0)
Age < 65 At-risk vs Age < 65 Not at-risk	Positive	Placebo	Day 29	Anti RBD IgG (IU/ml)	0.01 (0, 0.08)	0.01 (0, 0.08)	0.01 (0, 0.08)
Age < 65 At-risk vs Age < 65 Not at-risk	Positive	Vaccine	Day 29	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age < 65 At-risk vs Age < 65 Not at-risk	Positive	Placebo	Day 29	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age < 65 At-risk vs Age < 65 Not at-risk	Positive	Vaccine	Day 29	Pseudovirus-nAb ID50	-0.04 (-0.15, 0.07)	-0.04 (-0.15, 0.03)	-0.05 (-0.18, 0.07)
Age < 65 At-risk vs Age < 65 Not at-risk	Positive	Placebo	Day 29	Pseudovirus-nAb ID50	0.16 (0, 0.3)	0.16 (0, 0.3)	0.11 (-0.08, 0.28)
Age < 65 At-risk vs Age < 65 Not at-risk	Positive	Vaccine	Day 29	Pseudovirus-nAb ID80	-0.11 (-0.28, 0.07)	-0.05 (-0.21, 0.12)	-0.26 (-0.42, -0.07)
Age < 65 At-risk vs Age < 65 Not at-risk	Positive	Placebo	Day 29	Pseudovirus-nAb ID80	0.01 (-0.16, 0.18)	0.01 (-0.16, 0.18)	0.14 (0.02, 0.27)
Age < 65 At-risk vs Age < 65 Not at-risk	Negative	Vaccine	Day 57	Anti N IgG (IU/ml)	-0.02 (-0.07, 0.03)	-0.02 (-0.07, 0.03)	-0.01 (-0.08, 0.06)
Age < 65 At-risk vs Age < 65 Not at-risk	Negative	Placebo	Day 57	Anti N IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age < 65 At-risk vs Age < 65 Not at-risk	Negative	Vaccine	Day 57	Anti RBD IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)

(continued)

Comparison	Baseline SARS-CoV-2	Arm	Visit	Marker	Responder	% 2-Fold Rise	% 4-Fold Rise
Age < 65 At-risk vs Age < 65 Not at-risk	Negative	Placebo	Day 57	Anti RBD IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age < 65 At-risk vs Age < 65 Not at-risk	Negative	Vaccine	Day 57	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age < 65 At-risk vs Age < 65 Not at-risk	Negative	Placebo	Day 57	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age < 65 At-risk vs Age < 65 Not at-risk	Negative	Vaccine	Day 57	Pseudovirus-nAb ID50	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age < 65 At-risk vs Age < 65 Not at-risk	Negative	Placebo	Day 57	Pseudovirus-nAb ID50	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age < 65 At-risk vs Age < 65 Not at-risk	Negative	Vaccine	Day 57	Pseudovirus-nAb ID80	0.01 (0, 0.04)	0.01 (0, 0.04)	0.01 (-0.03, 0.04)
Age < 65 At-risk vs Age < 65 Not at-risk	Negative	Placebo	Day 57	Pseudovirus-nAb ID80	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age < 65 At-risk vs Age < 65 Not at-risk	Positive	Vaccine	Day 57	Anti N IgG (IU/ml)	-0.03 (-0.14, 0.03)	-0.03 (-0.14, 0.03)	-0.01 (-0.12, 0.09)
Age < 65 At-risk vs Age < 65 Not at-risk	Positive	Placebo	Day 57	Anti N IgG (IU/ml)	0.04 (-0.07, 0.14)	0.04 (-0.07, 0.14)	0.01 (-0.12, 0.13)
Age < 65 At-risk vs Age < 65 Not at-risk	Positive	Vaccine	Day 57	Anti RBD IgG (IU/ml)	0 (0, 0)	0 (0, 0)	-0.02 (-0.12, 0)
Age < 65 At-risk vs Age < 65 Not at-risk	Positive	Placebo	Day 57	Anti RBD IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age < 65 At-risk vs Age < 65 Not at-risk	Positive	Vaccine	Day 57	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)

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Comparison	Baseline SARS-CoV-2	Arm	Visit	Marker	Responder	% 2-Fold Rise	% 4-Fold Rise
Age < 65 At-risk vs Age < 65 Not at-risk	Positive	Placebo	Day 57	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age < 65 At-risk vs Age < 65 Not at-risk	Positive	Vaccine	Day 57	Pseudovirus-nAb ID50	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age < 65 At-risk vs Age < 65 Not at-risk	Positive	Placebo	Day 57	Pseudovirus-nAb ID50	0 (0, 0)	0 (0, 0)	0.01 (0, 0.08)
Age < 65 At-risk vs Age < 65 Not at-risk	Positive	Vaccine	Day 57	Pseudovirus-nAb ID80	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age < 65 At-risk vs Age < 65 Not at-risk	Positive	Placebo	Day 57	Pseudovirus-nAb ID80	0 (0, 0)	0 (0, 0)	0 (-0.11, 0.1)

Percentages are calculated for the whole per-protocol group/subgroup, using inverse probability weighting.

Table 10f. Differences in the responder rates, 2FRs, 4FRs between the groups by Age ≥ 65 , Risk for Severe Covid-19

Comparison	Baseline SARS-CoV-2	Arm	Visit	Marker	Responder	% 2-Fold Rise	% 4-Fold Rise
Age ≥ 65, Risk for Severe Covid-19							
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Negative	Vaccine	Day 29	Anti N IgG (IU/ml)	-0.02 (-0.06, 0.03)	-0.02 (-0.06, 0.03)	-0.04 (-0.1, 0.02)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Negative	Placebo	Day 29	Anti N IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Negative	Vaccine	Day 29	Anti RBD IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Negative	Placebo	Day 29	Anti RBD IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Negative	Vaccine	Day 29	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Negative	Placebo	Day 29	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Negative	Vaccine	Day 29	Pseudovirus-nAb ID50	-0.04 (-0.08, 0.01)	-0.04 (-0.08, 0.01)	-0.05 (-0.11, 0.02)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Negative	Placebo	Day 29	Pseudovirus-nAb ID50	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Negative	Vaccine	Day 29	Pseudovirus-nAb ID80	0.01 (-0.08, 0.1)	0.01 (-0.08, 0.1)	0.01 (-0.09, 0.11)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Negative	Placebo	Day 29	Pseudovirus-nAb ID80	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk	Positive	Vaccine	Day 29	Anti N IgG (IU/ml)	-0.02 (-0.14, 0)	-0.02 (-0.14, 0)	-0.05 (-0.17, 0.04)

(continued)

Comparison	Baseline SARS-CoV-2	Arm	Visit	Marker	Responder	% 2-Fold Rise	% 4-Fold Rise
Age \geq 65 At-risk vs Age \geq 65 Not at-risk	Positive	Placebo	Day 29	Anti N IgG (IU/ml)	0.06 (0.02, 0.16)	0.06 (0.02, 0.16)	0 (-0.18, 0.14)
Age \geq 65 At-risk vs Age \geq 65 Not at-risk	Positive	Vaccine	Day 29	Anti RBD IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age \geq 65 At-risk vs Age \geq 65 Not at-risk	Positive	Placebo	Day 29	Anti RBD IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age \geq 65 At-risk vs Age \geq 65 Not at-risk	Positive	Vaccine	Day 29	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age \geq 65 At-risk vs Age \geq 65 Not at-risk	Positive	Placebo	Day 29	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age \geq 65 At-risk vs Age \geq 65 Not at-risk	Positive	Vaccine	Day 29	Pseudovirus-nAb ID50	-0.01 (-0.13, 0.09)	-0.02 (-0.14, 0)	-0.05 (-0.17, 0.05)
Age \geq 65 At-risk vs Age \geq 65 Not at-risk	Positive	Placebo	Day 29	Pseudovirus-nAb ID50	0.06 (-0.12, 0.17)	0.04 (-0.13, 0.15)	0.05 (-0.14, 0.19)
Age \geq 65 At-risk vs Age \geq 65 Not at-risk	Positive	Vaccine	Day 29	Pseudovirus-nAb ID80	-0.05 (-0.21, 0.1)	-0.06 (-0.21, 0.08)	-0.11 (-0.29, 0.08)
Age \geq 65 At-risk vs Age \geq 65 Not at-risk	Positive	Placebo	Day 29	Pseudovirus-nAb ID80	0.01 (-0.2, 0.21)	-0.06 (-0.26, 0.15)	0.08 (-0.09, 0.27)
Age \geq 65 At-risk vs Age \geq 65 Not at-risk	Negative	Vaccine	Day 57	Anti N IgG (IU/ml)	-0.02 (-0.05, -0.01)	-0.02 (-0.05, -0.01)	-0.03 (-0.08, 0.01)
Age \geq 65 At-risk vs Age \geq 65 Not at-risk	Negative	Placebo	Day 57	Anti N IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age \geq 65 At-risk vs Age \geq 65 Not at-risk	Negative	Vaccine	Day 57	Anti RBD IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)

(continued)

Comparison	Baseline SARS-CoV-2	Arm	Visit	Marker	Responder	% 2-Fold Rise	% 4-Fold Rise
Age \geq 65 At-risk vs Age \geq 65 Not at-risk	Negative	Placebo	Day 57	Anti RBD IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age \geq 65 At-risk vs Age \geq 65 Not at-risk	Negative	Vaccine	Day 57	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age \geq 65 At-risk vs Age \geq 65 Not at-risk	Negative	Placebo	Day 57	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age \geq 65 At-risk vs Age \geq 65 Not at-risk	Negative	Vaccine	Day 57	Pseudovirus-nAb ID50	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age \geq 65 At-risk vs Age \geq 65 Not at-risk	Negative	Placebo	Day 57	Pseudovirus-nAb ID50	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age \geq 65 At-risk vs Age \geq 65 Not at-risk	Negative	Vaccine	Day 57	Pseudovirus-nAb ID80	0 (0, 0)	0 (0, 0)	(-0.02, 0.04)
Age \geq 65 At-risk vs Age \geq 65 Not at-risk	Negative	Placebo	Day 57	Pseudovirus-nAb ID80	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age \geq 65 At-risk vs Age \geq 65 Not at-risk	Positive	Vaccine	Day 57	Anti N IgG (IU/ml)	0.02 (0, 0.11)	0.02 (0, 0.11)	0.02 (0, 0.11)
Age \geq 65 At-risk vs Age \geq 65 Not at-risk	Positive	Placebo	Day 57	Anti N IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0.02 (0, 0.11)
Age \geq 65 At-risk vs Age \geq 65 Not at-risk	Positive	Vaccine	Day 57	Anti RBD IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age \geq 65 At-risk vs Age \geq 65 Not at-risk	Positive	Placebo	Day 57	Anti RBD IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age \geq 65 At-risk vs Age \geq 65 Not at-risk	Positive	Vaccine	Day 57	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)

(continued)

Comparison	Baseline SARS-CoV-2	Arm	Visit	Marker	Responder	% 2-Fold Rise	% 4-Fold Rise
Age \geq 65 At-risk vs Age \geq 65 Not at-risk	Positive	Placebo	Day 57	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age \geq 65 At-risk vs Age \geq 65 Not at-risk	Positive	Vaccine	Day 57	Pseudovirus-nAb ID50	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age \geq 65 At-risk vs Age \geq 65 Not at-risk	Positive	Placebo	Day 57	Pseudovirus-nAb ID50	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age \geq 65 At-risk vs Age \geq 65 Not at-risk	Positive	Vaccine	Day 57	Pseudovirus-nAb ID80	0 (0, 0)	0 (0, 0)	0 (0, 0)
Age \geq 65 At-risk vs Age \geq 65 Not at-risk	Positive	Placebo	Day 57	Pseudovirus-nAb ID80	0 (0, 0)	0 (0, 0)	0 (0, 0)

Percentages are calculated for the whole per-protocol group/subgroup, using inverse probability weighting.

Table 10g. Differences in the responder rates, 2FRs, 4FRs between the groups by Sex

Comparison	Baseline SARS-CoV-2	Arm	Visit	Marker	Responder	% 2-Fold Rise	% 4-Fold Rise
Sex							
Male vs Female	Negative	Vaccine	Day 29	Anti N IgG (IU/ml)	-0.08 (-0.15, -0.01)	-0.08 (-0.15, -0.01)	-0.07 (-0.16, 0.01)
Male vs Female	Negative	Placebo	Day 29	Anti N IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Male vs Female	Negative	Vaccine	Day 29	Anti RBD IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (-0.01, 0.01)
Male vs Female	Negative	Placebo	Day 29	Anti RBD IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Male vs Female	Negative	Vaccine	Day 29	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Male vs Female	Negative	Placebo	Day 29	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Male vs Female	Negative	Vaccine	Day 29	Pseudovirus-nAb ID50	-0.03 (-0.1, 0.04)	-0.03 (-0.1, 0.04)	-0.07 (-0.16, 0.02)
Male vs Female	Negative	Placebo	Day 29	Pseudovirus-nAb ID50	0 (0, 0)	0 (0, 0)	0 (0, 0)
Male vs Female	Negative	Vaccine	Day 29	Pseudovirus-nAb ID80	-0.05 (-0.14, 0.05)	-0.05 (-0.14, 0.05)	-0.03 (-0.12, 0.06)
Male vs Female	Negative	Placebo	Day 29	Pseudovirus-nAb ID80	0 (0, 0)	0 (0, 0)	0 (0, 0)
Male vs Female	Positive	Vaccine	Day 29	Anti N IgG (IU/ml)	-0.02 (-0.09, 0.04)	-0.02 (-0.09, 0.04)	-0.05 (-0.12, 0.02)
Male vs Female	Positive	Placebo	Day 29	Anti N IgG (IU/ml)	0.01 (-0.13, 0.14)	0.01 (-0.13, 0.14)	-0.01 (-0.17, 0.15)
Male vs Female	Positive	Vaccine	Day 29	Anti RBD IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0.01 (0, 0.04)
Male vs Female	Positive	Placebo	Day 29	Anti RBD IgG (IU/ml)	-0.02 (-0.12, 0)	-0.02 (-0.12, 0)	-0.02 (-0.12, 0)
Male vs Female	Positive	Vaccine	Day 29	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)

(continued)

Comparison	Baseline SARS-CoV-2	Arm	Visit	Marker	Responder	% 2-Fold Rise	% 4-Fold Rise
Male vs Female	Positive	Placebo	Day 29	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Male vs Female	Positive	Vaccine	Day 29	Pseudovirus-nAb ID50	0.02 (-0.05, 0.12)	-0.01 (-0.07, 0.03)	-0.05 (-0.16, 0.06)
Male vs Female	Positive	Placebo	Day 29	Pseudovirus-nAb ID50	0.01 (-0.15, 0.16)	0.04 (-0.12, 0.19)	-0.05 (-0.22, 0.12)
Male vs Female	Positive	Vaccine	Day 29	Pseudovirus-nAb ID80	0.04 (-0.12, 0.19)	0.05 (-0.1, 0.19)	0.08 (-0.1, 0.24)
Male vs Female	Positive	Placebo	Day 29	Pseudovirus-nAb ID80	-0.06 (-0.21, 0.1)	-0.06 (-0.21, 0.09)	0.09 (0, 0.18)
Male vs Female	Negative	Vaccine	Day 57	Anti N IgG (IU/ml)	-0.01 (-0.06, 0.03)	-0.01 (-0.06, 0.03)	0 (-0.07, 0.06)
Male vs Female	Negative	Placebo	Day 57	Anti N IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Male vs Female	Negative	Vaccine	Day 57	Anti RBD IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Male vs Female	Negative	Placebo	Day 57	Anti RBD IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Male vs Female	Negative	Vaccine	Day 57	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Male vs Female	Negative	Placebo	Day 57	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Male vs Female	Negative	Vaccine	Day 57	Pseudovirus-nAb ID50	0 (0, 0)	0 (0, 0)	0 (0, 0)
Male vs Female	Negative	Placebo	Day 57	Pseudovirus-nAb ID50	0 (0, 0)	0 (0, 0)	0 (0, 0)
Male vs Female	Negative	Vaccine	Day 57	Pseudovirus-nAb ID80	-0.01 (-0.06, 0)	-0.01 (-0.06, 0)	-0.01 (-0.06, 0)
Male vs Female	Negative	Placebo	Day 57	Pseudovirus-nAb ID80	0 (0, 0)	0 (0, 0)	0 (0, 0)

(continued)

Comparison	Baseline SARS-CoV-2	Arm	Visit	Marker	Responder	% 2-Fold Rise	% 4-Fold Rise
Male vs Female	Positive	Vaccine	Day 57	Anti N IgG (IU/ml)	0.01 (-0.06, 0.06)	0.01 (-0.06, 0.06)	-0.02 (-0.14, 0.04)
Male vs Female	Positive	Placebo	Day 57	Anti N IgG (IU/ml)	-0.09 (-0.22, 0)	-0.09 (-0.22, 0)	-0.06 (-0.19, 0.05)
Male vs Female	Positive	Vaccine	Day 57	Anti RBD IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0.01 (0, 0.04)
Male vs Female	Positive	Placebo	Day 57	Anti RBD IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Male vs Female	Positive	Vaccine	Day 57	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Male vs Female	Positive	Placebo	Day 57	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Male vs Female	Positive	Vaccine	Day 57	Pseudovirus-nAb ID50	0 (0, 0)	0 (0, 0)	0 (0, 0)
Male vs Female	Positive	Placebo	Day 57	Pseudovirus-nAb ID50	0 (0, 0)	0 (0, 0)	-0.02 (-0.12, 0)
Male vs Female	Positive	Vaccine	Day 57	Pseudovirus-nAb ID80	0 (0, 0)	0 (0, 0)	0 (0, 0)
Male vs Female	Positive	Placebo	Day 57	Pseudovirus-nAb ID80	0 (0, 0)	0 (0, 0)	0.04 (-0.02, 0.13)

Percentages are calculated for the whole per-protocol group/subgroup, using inverse probability weighting.

Table 10h. Differences in the responder rates, 2FRs, 4FRs between the groups by Hispanic or Latino ethnicity

Comparison	Baseline SARS-CoV-2	Arm	Visit	Marker	Responder	% 2-Fold Rise	% 4-Fold Rise
Hispanic or Latino ethnicity							
Hispanic or Latino vs Not Hispanic or Latino	Negative	Vaccine	Day 29	Anti N IgG (IU/ml)	0 (-0.14, 0.08)	0 (-0.14, 0.08)	0.07 (-0.07, 0.16)
Hispanic or Latino vs Not Hispanic or Latino	Negative	Placebo	Day 29	Anti N IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Hispanic or Latino vs Not Hispanic or Latino	Negative	Vaccine	Day 29	Anti RBD IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0.01)
Hispanic or Latino vs Not Hispanic or Latino	Negative	Placebo	Day 29	Anti RBD IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Hispanic or Latino vs Not Hispanic or Latino	Negative	Vaccine	Day 29	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Hispanic or Latino vs Not Hispanic or Latino	Negative	Placebo	Day 29	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Hispanic or Latino vs Not Hispanic or Latino	Negative	Vaccine	Day 29	Pseudovirus-nAb ID50	0.03 (-0.11, 0.1)	0.03 (-0.11, 0.1)	0.06 (-0.09, 0.17)
Hispanic or Latino vs Not Hispanic or Latino	Negative	Placebo	Day 29	Pseudovirus-nAb ID50	0 (0, 0)	0 (0, 0)	0 (0, 0)
Hispanic or Latino vs Not Hispanic or Latino	Negative	Vaccine	Day 29	Pseudovirus-nAb ID80	-0.07 (-0.22, 0.08)	-0.07 (-0.22, 0.08)	-0.04 (-0.14, 0.09)
Hispanic or Latino vs Not Hispanic or Latino	Negative	Placebo	Day 29	Pseudovirus-nAb ID80	0 (0, 0)	0 (0, 0)	0 (0, 0)
Hispanic or Latino vs Not Hispanic or Latino	Positive	Vaccine	Day 29	Anti N IgG (IU/ml)	0.01 (-0.18, 0.06)	0.01 (-0.18, 0.06)	0 (-0.18, 0.06)

(continued)

Comparison	Baseline SARS-CoV-2	Arm	Visit	Marker	Responder	% 2-Fold Rise	% 4-Fold Rise
Hispanic or Latino vs Not Hispanic or Latino	Positive	Placebo	Day 29	Anti N IgG (IU/ml)	0.01 (-0.26, 0.14)	0.01 (-0.26, 0.14)	0.01 (-0.27, 0.2)
Hispanic or Latino vs Not Hispanic or Latino	Positive	Vaccine	Day 29	Anti RBD IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0.02)
Hispanic or Latino vs Not Hispanic or Latino	Positive	Placebo	Day 29	Anti RBD IgG (IU/ml)	0.01 (0, 0.06)	0.01 (0, 0.06)	0.01 (0, 0.06)
Hispanic or Latino vs Not Hispanic or Latino	Positive	Vaccine	Day 29	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Hispanic or Latino vs Not Hispanic or Latino	Positive	Placebo	Day 29	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Hispanic or Latino vs Not Hispanic or Latino	Positive	Vaccine	Day 29	Pseudovirus-nAb ID50	0.04 (0.02, 0.09)	0.02 (0.01, 0.05)	0.06 (-0.13, 0.13)
Hispanic or Latino vs Not Hispanic or Latino	Positive	Placebo	Day 29	Pseudovirus-nAb ID50	0.16 (-0.15, 0.28)	0.14 (-0.17, 0.26)	-0.11 (-0.33, 0.12)
Hispanic or Latino vs Not Hispanic or Latino	Positive	Vaccine	Day 29	Pseudovirus-nAb ID80	0.11 (-0.14, 0.25)	0.11 (-0.15, 0.24)	0.1 (-0.15, 0.31)
Hispanic or Latino vs Not Hispanic or Latino	Positive	Placebo	Day 29	Pseudovirus-nAb ID80	0.01 (-0.19, 0.26)	0.02 (-0.18, 0.27)	0.01 (-0.07, 0.16)
Hispanic or Latino vs Not Hispanic or Latino	Negative	Vaccine	Day 57	Anti N IgG (IU/ml)	0 (-0.12, 0.05)	0 (-0.12, 0.05)	-0.01 (-0.13, 0.06)
Hispanic or Latino vs Not Hispanic or Latino	Negative	Placebo	Day 57	Anti N IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Hispanic or Latino vs Not Hispanic or Latino	Negative	Vaccine	Day 57	Anti RBD IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)

(continued)

Comparison	Baseline SARS-CoV-2	Arm	Visit	Marker	Responder	% 2-Fold Rise	% 4-Fold Rise
Hispanic or Latino vs Not Hispanic or Latino	Negative	Placebo	Day 57	Anti RBD IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Hispanic or Latino vs Not Hispanic or Latino	Negative	Vaccine	Day 57	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Hispanic or Latino vs Not Hispanic or Latino	Negative	Placebo	Day 57	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Hispanic or Latino vs Not Hispanic or Latino	Negative	Vaccine	Day 57	Pseudovirus-nAb ID50	0 (0, 0)	0 (0, 0)	0 (0, 0)
Hispanic or Latino vs Not Hispanic or Latino	Negative	Placebo	Day 57	Pseudovirus-nAb ID50	0 (0, 0)	0 (0, 0)	0 (0, 0)
Hispanic or Latino vs Not Hispanic or Latino	Negative	Vaccine	Day 57	Pseudovirus-nAb ID80	0 (0, 0.03)	0 (0, 0.03)	0.01 (0, 0.03)
Hispanic or Latino vs Not Hispanic or Latino	Negative	Placebo	Day 57	Pseudovirus-nAb ID80	0 (0, 0)	0 (0, 0)	0 (0, 0)
Hispanic or Latino vs Not Hispanic or Latino	Positive	Vaccine	Day 57	Anti N IgG (IU/ml)	0.03 (0.01, 0.06)	0.03 (0.01, 0.06)	0.04 (0.02, 0.1)
Hispanic or Latino vs Not Hispanic or Latino	Positive	Placebo	Day 57	Anti N IgG (IU/ml)	0.06 (0.03, 0.14)	0.06 (0.03, 0.14)	0.01 (-0.33, 0.11)
Hispanic or Latino vs Not Hispanic or Latino	Positive	Vaccine	Day 57	Anti RBD IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0.02)
Hispanic or Latino vs Not Hispanic or Latino	Positive	Placebo	Day 57	Anti RBD IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Hispanic or Latino vs Not Hispanic or Latino	Positive	Vaccine	Day 57	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)

(continued)

Comparison	Baseline SARS-CoV-2	Arm	Visit	Marker	Responder	% 2-Fold Rise	% 4-Fold Rise
Hispanic or Latino vs Not Hispanic or Latino	Positive	Placebo	Day 57	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Hispanic or Latino vs Not Hispanic or Latino	Positive	Vaccine	Day 57	Pseudovirus-nAb ID50	0 (0, 0)	0 (0, 0)	0 (0, 0)
Hispanic or Latino vs Not Hispanic or Latino	Positive	Placebo	Day 57	Pseudovirus-nAb ID50	0 (0, 0)	0 (0, 0)	0.01 (0, 0.06)
Hispanic or Latino vs Not Hispanic or Latino	Positive	Vaccine	Day 57	Pseudovirus-nAb ID80	0 (0, 0)	0 (0, 0)	0 (0, 0)
Hispanic or Latino vs Not Hispanic or Latino	Positive	Placebo	Day 57	Pseudovirus-nAb ID80	0 (0, 0)	0 (0, 0)	0.03 (0.01, 0.1)

Percentages are calculated for the whole per-protocol group/subgroup, using inverse probability weighting.

Table 10i. Differences in the responder rates, 2FRs, 4FRs between the groups by Communities of color

Comparison	Baseline SARS-CoV-2	Arm	Visit	Marker	Responder	% 2-Fold Rise	% 4-Fold Rise
Communities of color							
Communities of Color vs White Non-Hispanic	Negative	Vaccine	Day 29	Anti N IgG (IU/ml)	0.01 (-0.06, 0.08)	0.01 (-0.06, 0.08)	0.06 (-0.02, 0.14)
Communities of Color vs White Non-Hispanic	Negative	Placebo	Day 29	Anti N IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Communities of Color vs White Non-Hispanic	Negative	Vaccine	Day 29	Anti RBD IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (-0.01, 0)
Communities of Color vs White Non-Hispanic	Negative	Placebo	Day 29	Anti RBD IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Communities of Color vs White Non-Hispanic	Negative	Vaccine	Day 29	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Communities of Color vs White Non-Hispanic	Negative	Placebo	Day 29	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Communities of Color vs White Non-Hispanic	Negative	Vaccine	Day 29	Pseudovirus-nAb ID50	0.03 (-0.04, 0.1)	0.03 (-0.04, 0.1)	0.05 (-0.04, 0.14)
Communities of Color vs White Non-Hispanic	Negative	Placebo	Day 29	Pseudovirus-nAb ID50	0 (0, 0)	0 (0, 0)	0 (0, 0)
Communities of Color vs White Non-Hispanic	Negative	Vaccine	Day 29	Pseudovirus-nAb ID80	-0.07 (-0.17, 0.03)	-0.07 (-0.17, 0.03)	-0.04 (-0.13, 0.05)
Communities of Color vs White Non-Hispanic	Negative	Placebo	Day 29	Pseudovirus-nAb ID80	0 (0, 0)	0 (0, 0)	0 (0, 0)
Communities of Color vs White Non-Hispanic	Positive	Vaccine	Day 29	Anti N IgG (IU/ml)	-0.05 (-0.13, 0)	-0.05 (-0.13, 0)	-0.09 (-0.17, -0.03)

(continued)

Comparison	Baseline SARS-CoV-2	Arm	Visit	Marker	Responder	% 2-Fold Rise	% 4-Fold Rise
Communities of Color vs White Non-Hispanic	Positive	Placebo	Day 29	Anti N IgG (IU/ml)	-0.05 (-0.18, 0.09)	-0.05 (-0.18, 0.09)	0.02 (-0.14, 0.18)
Communities of Color vs White Non-Hispanic	Positive	Vaccine	Day 29	Anti RBD IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0.01 (0, 0.04)
Communities of Color vs White Non-Hispanic	Positive	Placebo	Day 29	Anti RBD IgG (IU/ml)	-0.02 (-0.13, 0)	-0.02 (-0.13, 0)	-0.02 (-0.13, 0)
Communities of Color vs White Non-Hispanic	Positive	Vaccine	Day 29	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Communities of Color vs White Non-Hispanic	Positive	Placebo	Day 29	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Communities of Color vs White Non-Hispanic	Positive	Vaccine	Day 29	Pseudovirus-nAb ID50	0.01 (-0.06, 0.1)	-0.01 (-0.08, 0.03)	-0.08 (-0.2, 0.02)
Communities of Color vs White Non-Hispanic	Positive	Placebo	Day 29	Pseudovirus-nAb ID50	0.02 (-0.13, 0.17)	0 (-0.15, 0.15)	-0.13 (-0.29, 0.04)
Communities of Color vs White Non-Hispanic	Positive	Vaccine	Day 29	Pseudovirus-nAb ID80	-0.03 (-0.17, 0.13)	-0.04 (-0.19, 0.11)	0.03 (-0.14, 0.19)
Communities of Color vs White Non-Hispanic	Positive	Placebo	Day 29	Pseudovirus-nAb ID80	0 (-0.15, 0.16)	0 (-0.15, 0.16)	0.03 (-0.05, 0.13)
Communities of Color vs White Non-Hispanic	Negative	Vaccine	Day 57	Anti N IgG (IU/ml)	0.01 (-0.03, 0.06)	0.01 (-0.03, 0.06)	0 (-0.06, 0.06)
Communities of Color vs White Non-Hispanic	Negative	Placebo	Day 57	Anti N IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Communities of Color vs White Non-Hispanic	Negative	Vaccine	Day 57	Anti RBD IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)

(continued)

Comparison	Baseline SARS-CoV-2	Arm	Visit	Marker	Responder	% 2-Fold Rise	% 4-Fold Rise
Communities of Color vs White Non-Hispanic	Negative	Placebo	Day 57	Anti RBD IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Communities of Color vs White Non-Hispanic	Negative	Vaccine	Day 57	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Communities of Color vs White Non-Hispanic	Negative	Placebo	Day 57	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Communities of Color vs White Non-Hispanic	Negative	Vaccine	Day 57	Pseudovirus-nAb ID50	0 (0, 0)	0 (0, 0)	0 (0, 0)
Communities of Color vs White Non-Hispanic	Negative	Placebo	Day 57	Pseudovirus-nAb ID50	0 (0, 0)	0 (0, 0)	0 (0, 0)
Communities of Color vs White Non-Hispanic	Negative	Vaccine	Day 57	Pseudovirus-nAb ID80	0.01 (0, 0.05)	0.01 (0, 0.05)	0.02 (0, 0.05)
Communities of Color vs White Non-Hispanic	Negative	Placebo	Day 57	Pseudovirus-nAb ID80	0 (0, 0)	0 (0, 0)	0 (0, 0)
Communities of Color vs White Non-Hispanic	Positive	Vaccine	Day 57	Anti N IgG (IU/ml)	-0.02 (-0.1, 0.02)	-0.02 (-0.1, 0.02)	-0.05 (-0.17, 0)
Communities of Color vs White Non-Hispanic	Positive	Placebo	Day 57	Anti N IgG (IU/ml)	0.02 (-0.09, 0.13)	0.02 (-0.09, 0.13)	0.03 (-0.09, 0.14)
Communities of Color vs White Non-Hispanic	Positive	Vaccine	Day 57	Anti RBD IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0.01 (0, 0.04)
Communities of Color vs White Non-Hispanic	Positive	Placebo	Day 57	Anti RBD IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Communities of Color vs White Non-Hispanic	Positive	Vaccine	Day 57	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)

(continued)

Comparison	Baseline SARS-CoV-2	Arm	Visit	Marker	Responder	% 2-Fold Rise	% 4-Fold Rise
Communities of Color vs White Non-Hispanic	Positive	Placebo	Day 57	Anti Spike IgG (IU/ml)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Communities of Color vs White Non-Hispanic	Positive	Vaccine	Day 57	Pseudovirus-nAb ID50	0 (0, 0)	0 (0, 0)	0 (0, 0)
Communities of Color vs White Non-Hispanic	Positive	Placebo	Day 57	Pseudovirus-nAb ID50	0 (0, 0)	0 (0, 0)	-0.02 (-0.13, 0)
Communities of Color vs White Non-Hispanic	Positive	Vaccine	Day 57	Pseudovirus-nAb ID80	0 (0, 0)	0 (0, 0)	0 (0, 0)
Communities of Color vs White Non-Hispanic	Positive	Placebo	Day 57	Pseudovirus-nAb ID80	0 (0, 0)	0 (0, 0)	0.04 (-0.02, 0.13)

Percentages are calculated for the whole per-protocol group/subgroup, using inverse probability weighting.

1.11 Antibody levels in the baseline SARS-CoV-2 negative per-protocol cohort (vaccine vs. placebo)

Table 11. Antibody levels in the baseline SARS-CoV-2 negative per-protocol cohort (vaccine vs. placebo)

Visit	Marker	Baseline SARS-CoV-2 Negative						Comparison	
		N	Resp rate	Vaccine GMT/GMC	N	Resp rate	Placebo GMT/GMC	Resp Rate Difference	GMTR/ GMCR
Day 29	Anti N IgG (IU/ml)	729	9844.7/11196 = 87.9% (84.0%, 91.0%)	37.12 (31.37, 43.93)	130	0/11196 = 0.0% (0.0%, 0.0%)	0.05 (0.05, 0.05)	0.88 (0.84, 0.91)	791.98 (669.25, 937.21)
Day 29	Anti RBD IgG (IU/ml)	729	11196/11196 = 100.0% (100.0%, 100.0%)	443.20 (380.84, 515.77)	130	0/11196 = 0.0% (0.0%, 0.0%)	0.80 (0.80, 0.80)	1 (1, 1)	556.21 (477.95, 647.28)
Day 29	Anti Spike IgG (IU/ml)	729	11196/11196 = 100.0% (100.0%, 100.0%)	240.78 (214.08, 270.82)	130	0/11196 = 0.0% (0.0%, 0.0%)	0.15 (0.15, 0.15)	1 (1, 1)	1565.55 (1391.91, 1760.86)
Day 29	Pseudovirus-nAb ID50	729	10095.1/11196 = 90.2% (86.5%, 92.9%)	65.70 (59.95, 72.01)	130	0/11196 = 0.0% (0.0%, 0.0%)	5.05 (4.98, 5.12)	0.9 (0.86, 0.93)	13.01 (11.86, 14.28)
Day 29	Pseudovirus-nAb ID80	729	6889.8/11196 = 61.5% (56.5%, 66.3%)	16.84 (15.44, 18.38)	130	0/11196 = 0.0% (0.0%, 0.0%)	5.03 (4.99, 5.06)	0.62 (0.57, 0.66)	3.35 (3.07, 3.66)
Day 57	Anti N IgG (IU/ml)	729	10722/11196 = 95.8% (93.1%, 97.4%)	150.61 (122.97, 184.47)	130	0/11196 = 0.0% (0.0%, 0.0%)	0.05 (0.05, 0.05)	0.96 (0.93, 0.97)	3213.25 (2623.42, 3935.69)
Day 57	Anti RBD IgG (IU/ml)	729	11196/11196 = 100.0% (100.0%, 100.0%)	4520.91 (3806.95, 5368.76)	130	0/11196 = 0.0% (0.0%, 0.0%)	0.80 (0.80, 0.80)	1 (1, 1)	5673.66 (4777.65, 6737.70)
Day 57	Anti Spike IgG (IU/ml)	729	11196/11196 = 100.0% (100.0%, 100.0%)	3103.50 (2687.12, 3584.40)	130	0/11196 = 0.0% (0.0%, 0.0%)	0.15 (0.15, 0.15)	1 (1, 1)	20178.79 (17471.49, 23305.59)
Day 57	Pseudovirus-nAb ID50	729	11196/11196 = 100.0% (100.0%, 100.0%)	1625.37 (1436.05, 1839.66)	130	0/11196 = 0.0% (0.0%, 0.0%)	5.02 (4.98, 5.07)	1 (1, 1)	323.53 (285.75, 366.32)
Day 57	Pseudovirus-nAb ID80	729	11152.3/11196 = 99.6% (97.3%, 99.9%)	375.55 (338.05, 417.22)	130	0/11196 = 0.0% (0.0%, 0.0%)	5.00 (5.00, 5.00)	1 (0.97, 1)	75.11 (67.61, 83.44)

Percentages are calculated for the whole per-protocol group/subgroup, using inverse probability weighting.

1.12 Antibody levels in the baseline SARS-CoV-2 positive per-protocol cohort (vaccine vs. placebo)

Table 12. Antibody levels in the baseline SARS-CoV-2 positive per-protocol cohort (vaccine vs. placebo)

Visit	Marker	Baseline SARS-CoV-2 Positive							
		Vaccine				Placebo			
		N	Resp rate	GMT/GMC	N	Resp rate	GMT/GMC	Resp Rate Difference	GMTR/GMCR
Day 29	Anti N IgG (IU/ml)	235	1092/1142 = 95.6% (92.2%, 97.6%)	96.82 (73.87, 126.89)	221	927.3/1073 = 86.4% (79.0%, 91.5%)	26.50 (19.96, 35.18)	0.09 (0.03, 0.17)	3.65 (2.47, 5.41)
Day 29	Anti RBD IgG (IU/ml)	235	1142/1142 = 100.0% (100.0%, 100.0%)	1068.00 (782.37, 1457.90)	221	1064.7/1073 = 99.2% (94.6%, 99.9%)	349.86 (277.95, 440.37)	0.01 (0, 0.05)	3.05 (2.07, 4.50)
Day 29	Anti Spike IgG (IU/ml)	235	1142/1142 = 100.0% (100.0%, 100.0%)	491.02 (376.15, 640.97)	221	1073/1073 = 100.0% (100.0%, 100.0%)	188.94 (152.96, 233.39)	0 (0, 0)	2.60 (1.85, 3.65)
Day 29	Pseudovirus-nAb ID50	235	1102.1/1142 = 96.5% (91.6%, 98.6%)	145.12 (125.72, 167.52)	221	824/1073 = 76.8% (68.3%, 83.5%)	48.67 (41.47, 57.12)	0.2 (0.11, 0.28)	2.98 (2.40, 3.70)
Day 29	Pseudovirus-nAb ID80	235	845.2/1142 = 74.0% (65.6%, 80.9%)	32.40 (27.75, 37.83)	221	377.2/1073 = 35.2% (27.7%, 43.4%)	11.18 (9.92, 12.60)	0.39 (0.27, 0.49)	2.90 (2.38, 3.53)
Day 57	Anti N IgG (IU/ml)	235	1115.7/1142 = 97.7% (94.6%, 99.0%)	506.75 (350.49, 732.68)	221	1014.2/1073 = 94.5% (88.2%, 97.5%)	152.68 (109.54, 212.81)	0.03 (-0.01, 0.1)	3.32 (2.02, 5.45)
Day 57	Anti RBD IgG (IU/ml)	235	1142/1142 = 100.0% (100.0%, 100.0%)	14304.58 (10352.78, 19764.83)	221	1073/1073 = 100.0% (100.0%, 100.0%)	3889.34 (2945.83, 5135.04)	0 (0, 0)	3.68 (2.40, 5.63)
Day 57	Anti Spike IgG (IU/ml)	235	1142/1142 = 100.0% (100.0%, 100.0%)	11876.45 (9121.26, 15463.89)	221	1073/1073 = 100.0% (100.0%, 100.0%)	2421.54 (1923.28, 3048.90)	0 (0, 0)	4.90 (3.45, 6.96)
Day 57	Pseudovirus-nAb ID50	235	1142/1142 = 100.0% (100.0%, 100.0%)	5384.92 (4290.47, 6758.56)	221	1073/1073 = 100.0% (100.0%, 100.0%)	1371.19 (1107.92, 1697.02)	0 (0, 0)	3.93 (2.88, 5.36)
Day 57	Pseudovirus-nAb ID80	235	1142/1142 = 100.0% (100.0%, 100.0%)	1121.05 (916.98, 1370.52)	221	1073/1073 = 100.0% (100.0%, 100.0%)	282.29 (234.94, 339.20)	0 (0, 0)	3.97 (3.02, 5.21)

Percentages are calculated for the whole per-protocol group/subgroup, using inverse probability weighting.

1.13 Antibody levels in the per-protocol cohort (vaccine recipients)

Table 13. Antibody levels in the per-protocol cohort (vaccine recipients)

Visit	Marker	Vaccine Recipients						Comparison	
		Baseline SARS-CoV-2 Positive			Baseline SARS-CoV-2 Negative				
N	Resp rate	GMT/GMC	N	Resp rate	GMT/GMC	Resp Rate Difference	GMTR/GMCR		
Day 29	Anti N IgG (IU/ml)	235	1092/1142 = 95.6% (92.2%, 97.6%)	96.82 (73.87, 126.89)	729	9844.7/11196 = 87.9% (84.0%, 91.0%)	37.12 (31.37, 43.93)	0.08 (0.03, 0.12)	2.61 (1.90, 3.59)
Day 29	Anti RBD IgG (IU/ml)	235	1142/1142 = 100.0% (100.0%, 100.0%)	1068.00 (782.37, 1457.90)	729	11196/11196 = 100.0% (100.0%, 100.0%)	443.20 (380.84, 515.77)	0 (0, 0)	2.41 (1.70, 3.41)
Day 29	Anti Spike IgG (IU/ml)	235	1142/1142 = 100.0% (100.0%, 100.0%)	491.02 (376.15, 640.97)	729	11196/11196 = 100.0% (100.0%, 100.0%)	240.78 (214.08, 270.82)	0 (0, 0)	2.04 (1.52, 2.73)
Day 29	Pseudovirus-nAb ID50	235	1102.1/1142 = 96.5% (91.6%, 98.6%)	145.12 (125.72, 167.52)	729	10095.1/11196 = 90.2% (86.5%, 92.9%)	65.70 (59.95, 72.01)	0.06 (0.01, 0.11)	2.21 (1.86, 2.62)
Day 29	Pseudovirus-nAb ID80	235	845.2/1142 = 74.0% (65.6%, 80.9%)	32.40 (27.75, 37.83)	729	6889.8/11196 = 61.5% (56.5%, 66.3%)	16.84 (15.44, 18.38)	0.12 (0.03, 0.21)	1.92 (1.61, 2.30)
Day 57	Anti N IgG (IU/ml)	235	1115.7/1142 = 97.7% (94.6%, 99.0%)	506.75 (350.49, 732.68)	729	10722/11196 = 95.8% (93.1%, 97.4%)	150.61 (122.97, 184.47)	0.02 (-0.02, 0.05)	3.36 (2.21, 5.12)
Day 57	Anti RBD IgG (IU/ml)	235	1142/1142 = 100.0% (100.0%, 100.0%)	14304.58 (10352.78, 19764.83)	729	11196/11196 = 100.0% (100.0%, 100.0%)	4520.91 (3806.95, 5368.76)	0 (0, 0)	3.16 (2.19, 4.56)
Day 57	Anti Spike IgG (IU/ml)	235	1142/1142 = 100.0% (100.0%, 100.0%)	11876.45 (9121.26, 15463.89)	729	11196/11196 = 100.0% (100.0%, 100.0%)	3103.50 (2687.12, 3584.40)	0 (0, 0)	3.83 (2.83, 5.17)
Day 57	Pseudovirus-nAb ID50	235	1142/1142 = 100.0% (100.0%, 100.0%)	5384.92 (4290.47, 6758.56)	729	11196/11196 = 100.0% (100.0%, 100.0%)	1625.37 (1436.05, 1839.66)	0 (0, 0)	3.31 (2.56, 4.29)
Day 57	Pseudovirus-nAb ID80	235	1142/1142 = 100.0% (100.0%, 100.0%)	1121.05 (916.98, 1370.52)	729	11152.3/11196 = 99.6% (97.3%, 99.9%)	375.55 (338.05, 417.22)	0 (0, 0.03)	2.99 (2.38, 3.75)

Percentages are calculated for the whole per-protocol group/subgroup, using inverse probability weighting.

1.14 Antibody levels in the per-protocol cohort (placebo recipients)

Table 14. Antibody levels in the per-protocol cohort (placebo recipients)

Visit	Marker	N	Placebo Recipients					Comparison	
			Baseline SARS-CoV-2 Positive		Baseline SARS-CoV-2 Negative		Resp Rate Difference		
			Resp rate	GMT/GMC	N	Resp rate	GMT/GMC		
Day 29	Anti N IgG (IU/ml)	221	927.3/1073 = 86.4% (79.0%, 91.5%)	26.50 (19.96, 35.18)	130	0/11196 = 0.0% (0.0%, 0.0%)	0.05 (0.05, 0.05)	0.86 (0.79, 0.92)	565.40 (425.91, 750.59)
Day 29	Anti RBD IgG (IU/ml)	221	1064.7/1073 = 99.2% (94.6%, 99.9%)	349.86 (277.95, 440.37)	130	0/11196 = 0.0% (0.0%, 0.0%)	0.80 (0.80, 0.80)	0.99 (0.95, 1)	439.06 (348.82, 552.65)
Day 29	Anti Spike IgG (IU/ml)	221	1073/1073 = 100.0% (100.0%, 100.0%)	188.94 (152.96, 233.39)	130	0/11196 = 0.0% (0.0%, 0.0%)	0.15 (0.15, 0.15)	1 (1, 1)	1228.50 (994.55, 1517.48)
Day 29	Pseudovirus-nAb ID50	221	824/1073 = 76.8% (68.3%, 83.5%)	48.67 (41.47, 57.12)	130	0/11196 = 0.0% (0.0%, 0.0%)	5.05 (4.98, 5.12)	0.77 (0.68, 0.84)	9.64 (8.21, 11.32)
Day 29	Pseudovirus-nAb ID80	221	377.2/1073 = 35.2% (27.7%, 43.4%)	11.18 (9.92, 12.60)	130	0/11196 = 0.0% (0.0%, 0.0%)	5.03 (4.99, 5.06)	0.35 (0.28, 0.43)	2.22 (1.97, 2.51)
Day 57	Anti N IgG (IU/ml)	221	1014.2/1073 = 94.5% (88.2%, 97.5%)	152.68 (109.54, 212.81)	130	0/11196 = 0.0% (0.0%, 0.0%)	0.05 (0.05, 0.05)	0.95 (0.88, 0.98)	3257.42 (2337.03, 4540.28)
Day 57	Anti RBD IgG (IU/ml)	221	1073/1073 = 100.0% (100.0%, 100.0%)	3889.34 (2945.83, 5135.04)	130	0/11196 = 0.0% (0.0%, 0.0%)	0.80 (0.80, 0.80)	1 (1, 1)	4881.06 (3696.97, 6444.39)
Day 57	Anti Spike IgG (IU/ml)	221	1073/1073 = 100.0% (100.0%, 100.0%)	2421.54 (1923.28, 3048.90)	130	0/11196 = 0.0% (0.0%, 0.0%)	0.15 (0.15, 0.15)	1 (1, 1)	15744.76 (12505.06, 19823.78)
Day 57	Pseudovirus-nAb ID50	221	1073/1073 = 100.0% (100.0%, 100.0%)	1371.19 (1107.92, 1697.02)	130	0/11196 = 0.0% (0.0%, 0.0%)	5.02 (4.98, 5.07)	1 (1, 1)	272.94 (220.49, 337.86)
Day 57	Pseudovirus-nAb ID80	221	1073/1073 = 100.0% (100.0%, 100.0%)	282.29 (234.94, 339.20)	130	0/11196 = 0.0% (0.0%, 0.0%)	5.00 (5.00, 5.00)	1 (1, 1)	56.46 (46.99, 67.84)

Percentages are calculated for the whole per-protocol group/subgroup, using inverse probability weighting.

MOCK

Chapter 2

Graphical Description of Immunogenicity Data

2.1 Pairs plots of antibody markers for overall per-protocol cohort

2.1.1 Baseline SARS-CoV-2 Negative

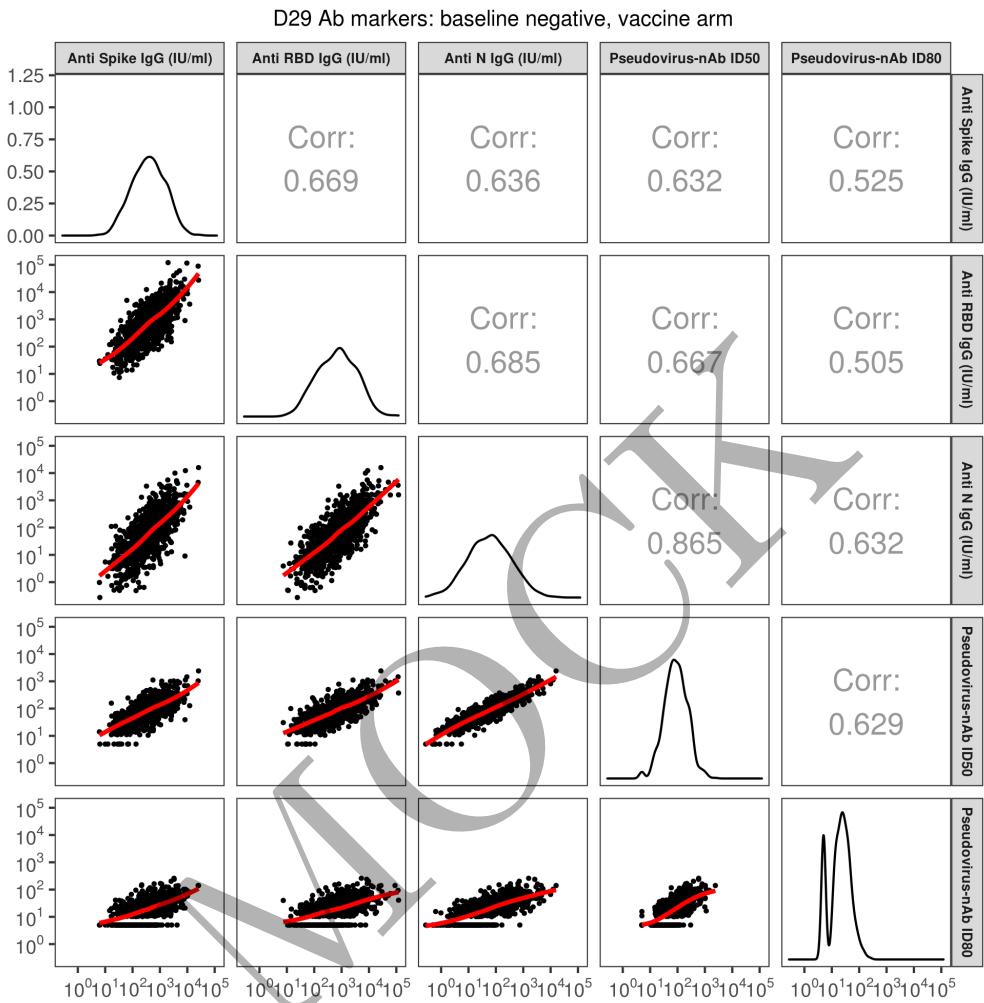


Figure 2.1: Pair plots of D29 Ab markers: baseline negative vaccine arm

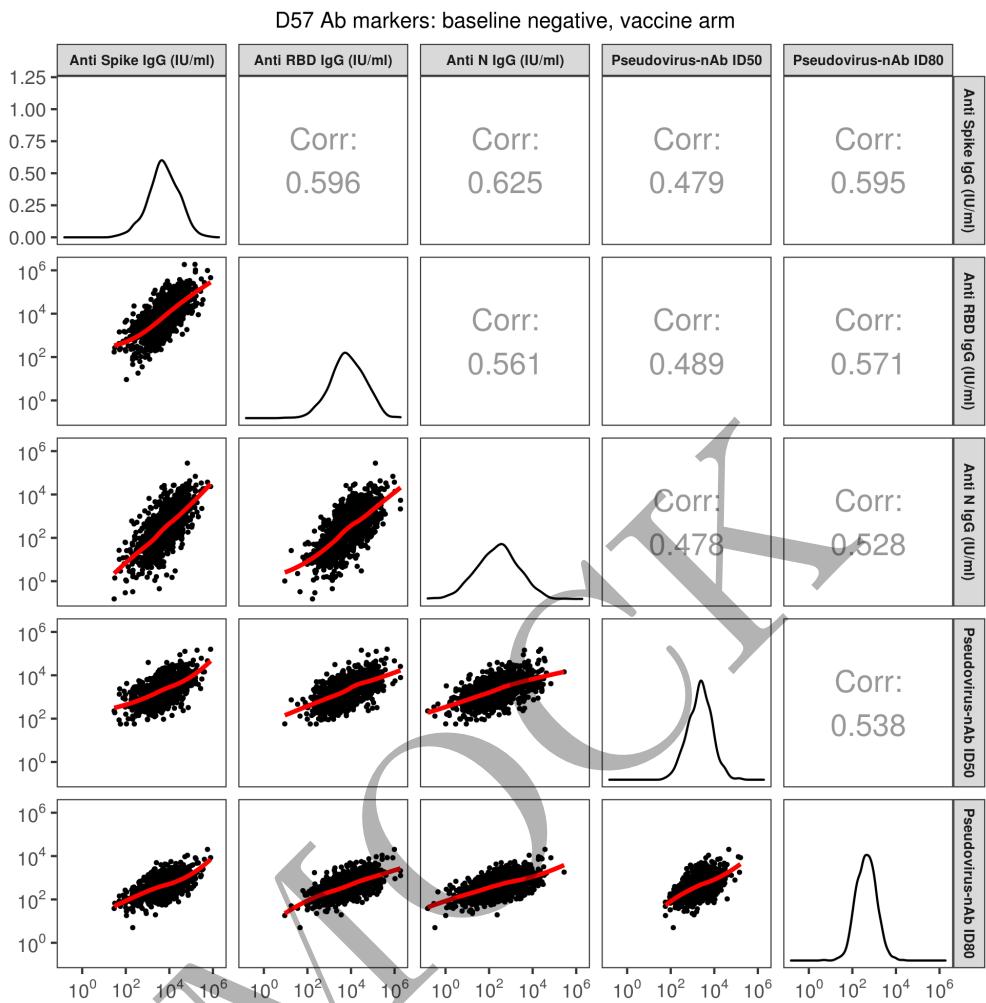


Figure 2.2: Pair plots of D57 Ab markers: baseline negative vaccine arm

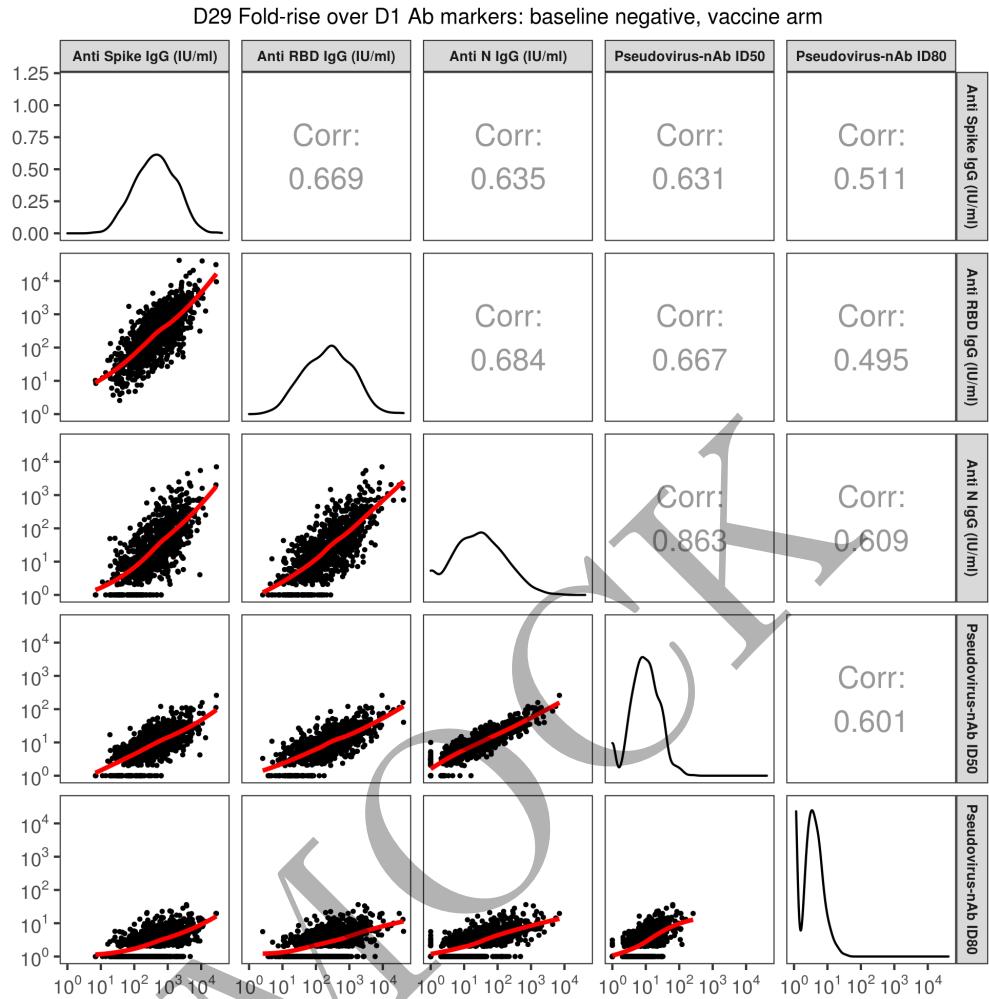


Figure 2.3: Pair plots of D29 fold-rise over D1 Ab markers: baseline negative vaccine arm

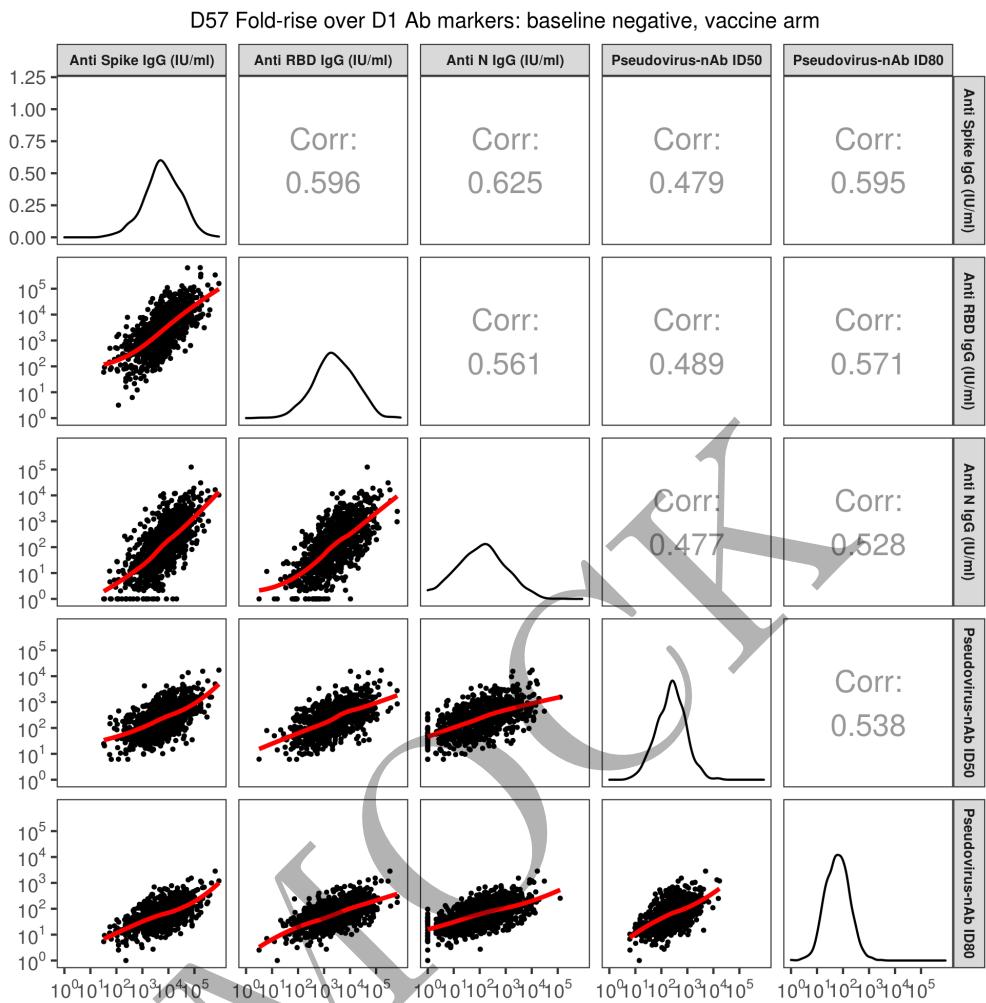


Figure 2.4: Pair plots of D57 fold-rise over D1 Ab markers: baseline negative vaccine arm

Binding Antibody to N: baseline negative vaccine arm

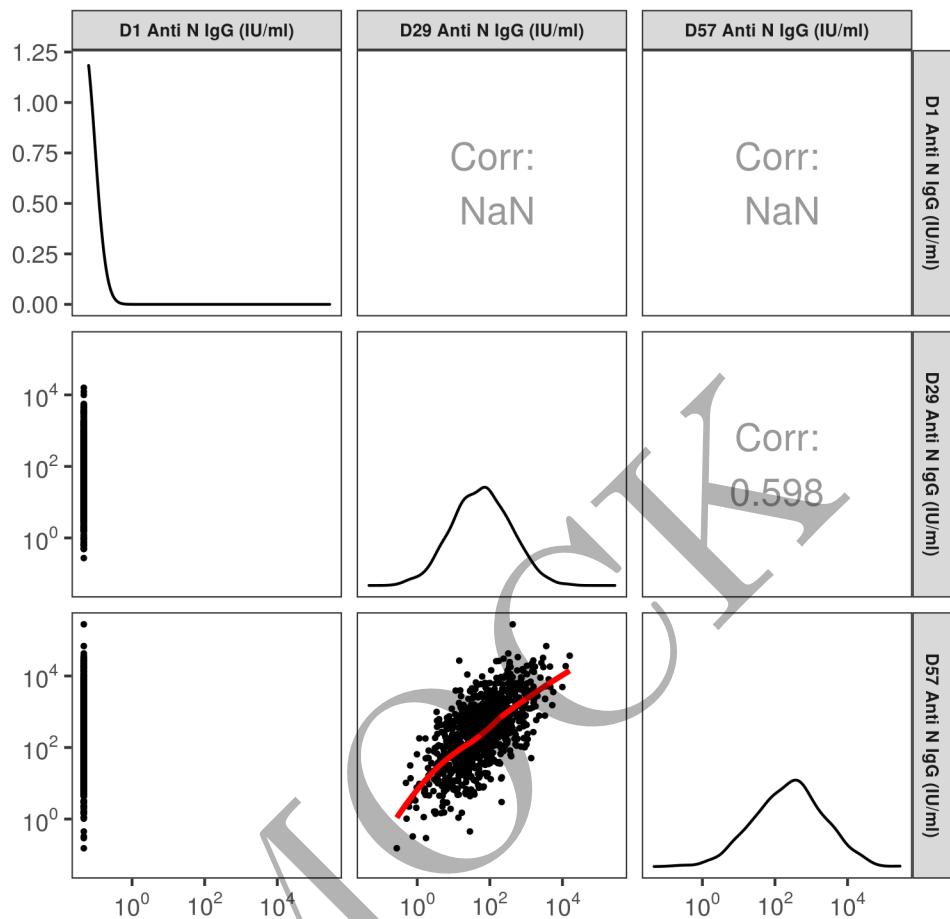


Figure 2.5: Pair plots of D1, D29 and D57 Binding Antibody to N: baseline negative vaccine arm

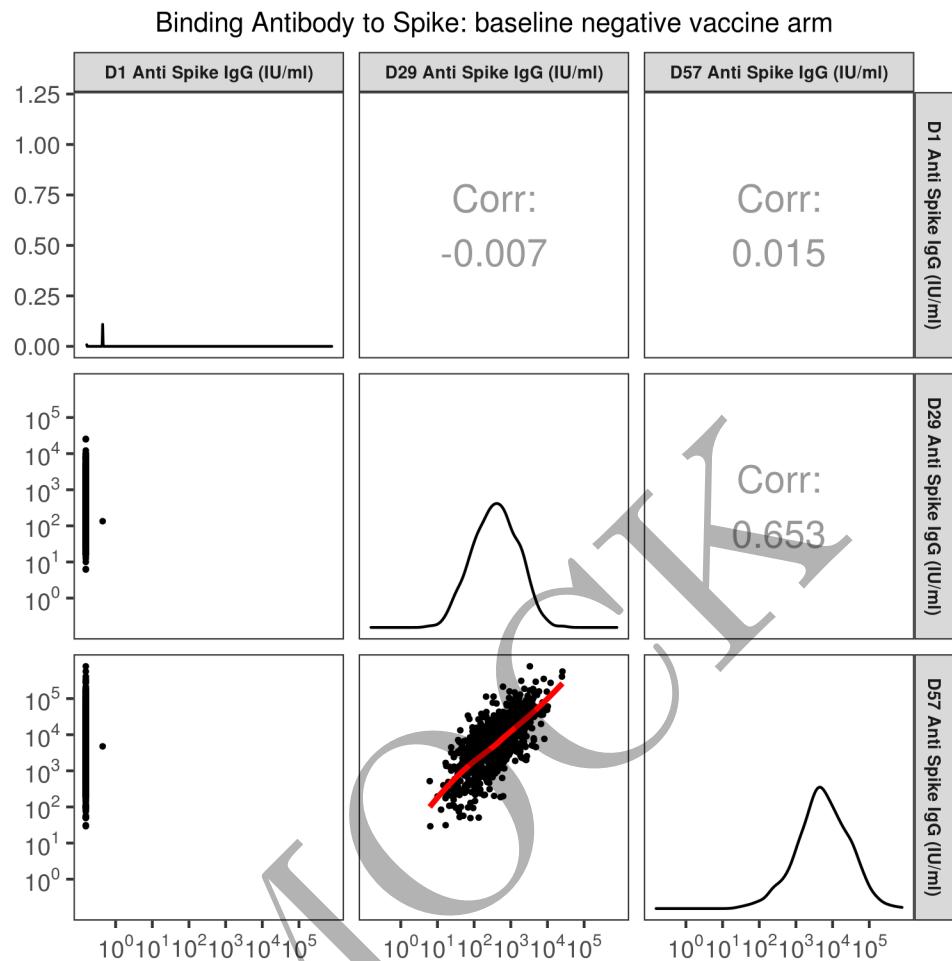


Figure 2.6: Pair plots of D1, D29 and D57 Binding Antibody to Spike: baseline negative vaccine arm

Binding Antibody to RBD: baseline negative vaccine arm

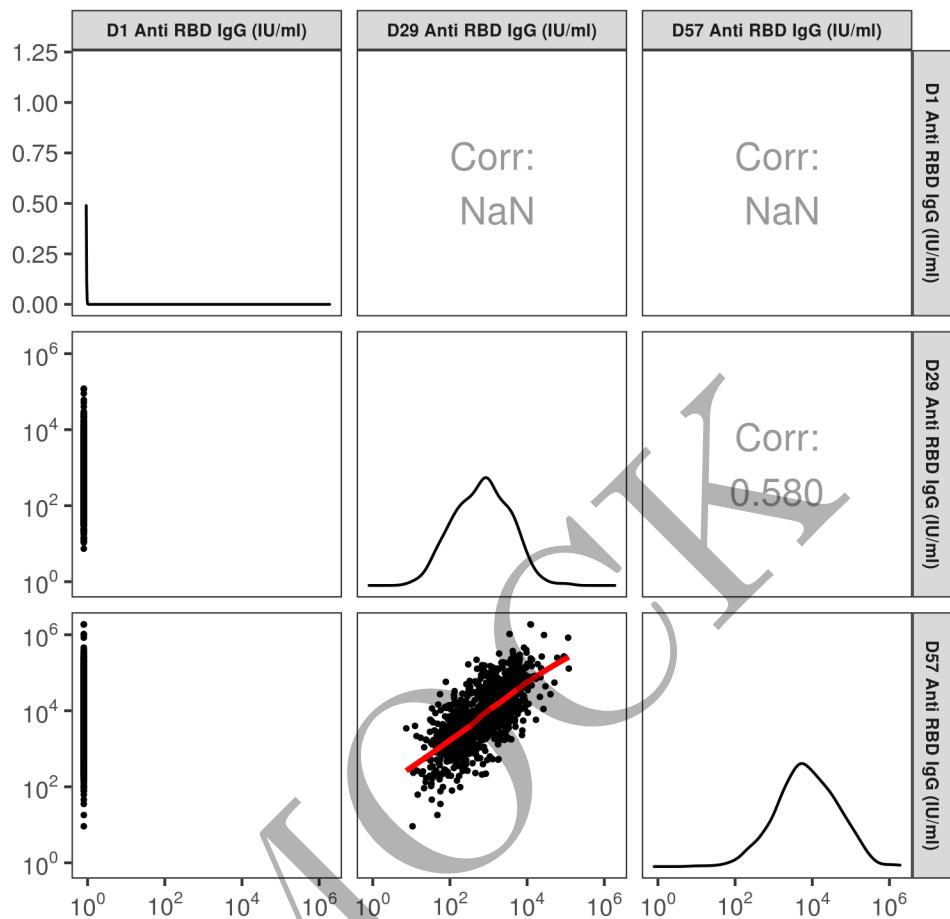


Figure 2.7: Pair plots of D1, D29 and D57 Binding Antibody to RBD: baseline negative vaccine arm

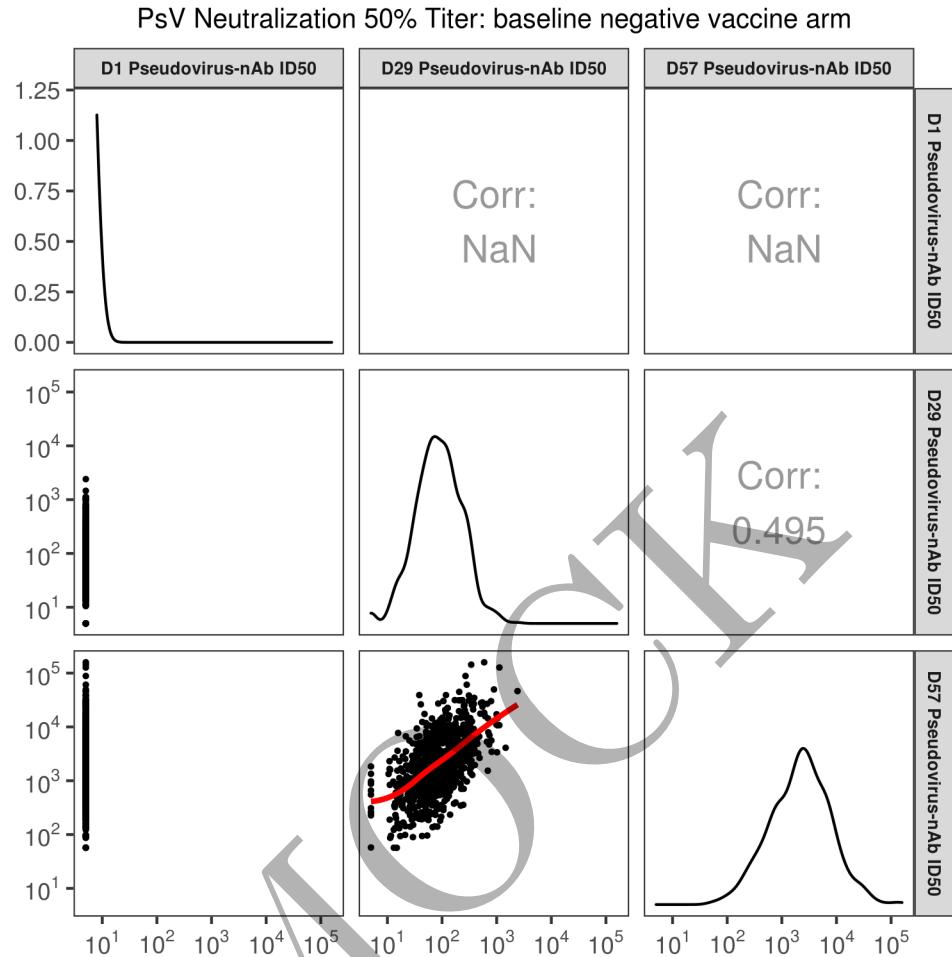


Figure 2.8: Pair plots of D1, D29 and D57 nAb Neutralization 50% Titer: baseline negative vaccine arm

PsV Neutralization 80% Titer: baseline negative vaccine arm

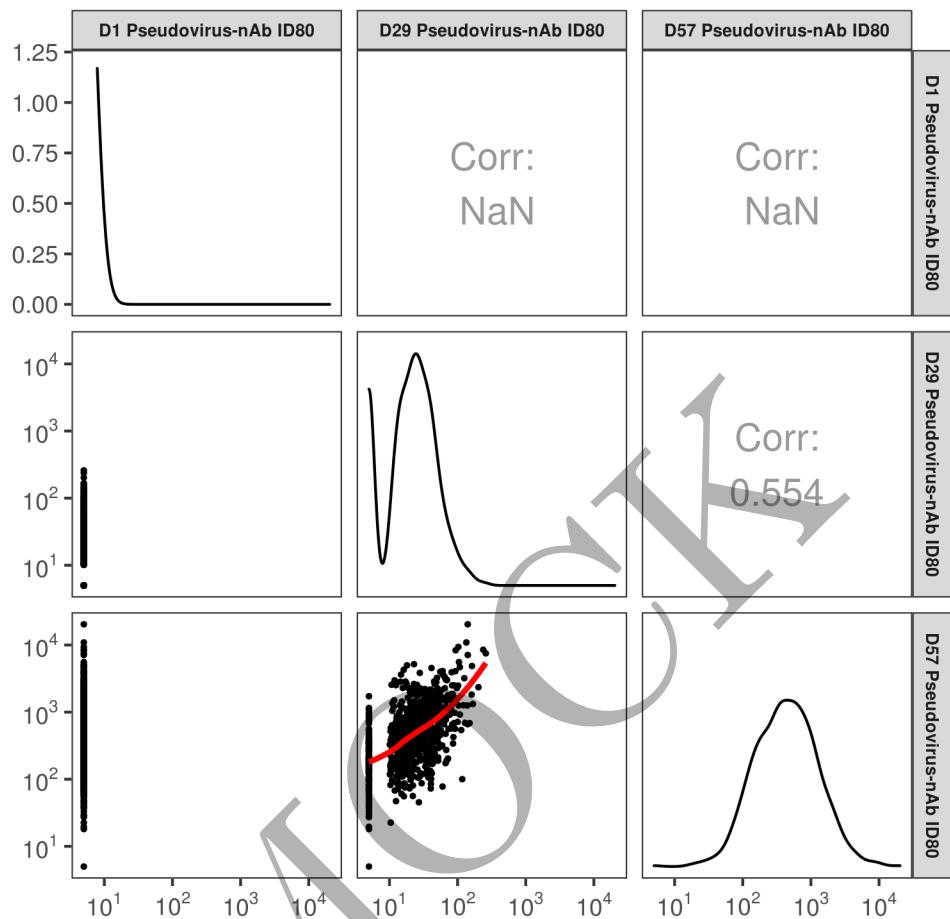


Figure 2.9: Pair plots of D1, D29 and D57 nAb Neutralization 80% Titer: Baseline negative vaccine arm

2.1.2 Baseline SARS-CoV-2 Positive

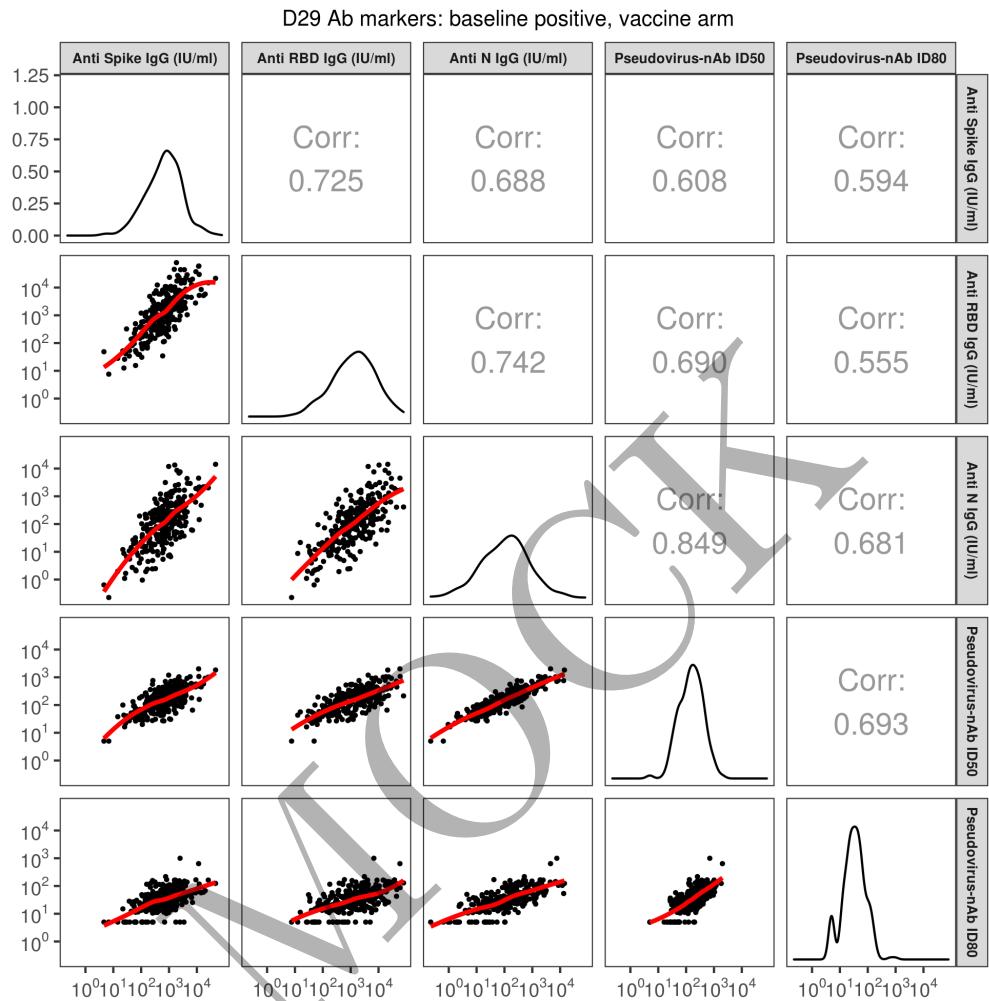


Figure 2.10: Pair plots of D29 Ab markers: baseline positive vaccine arm

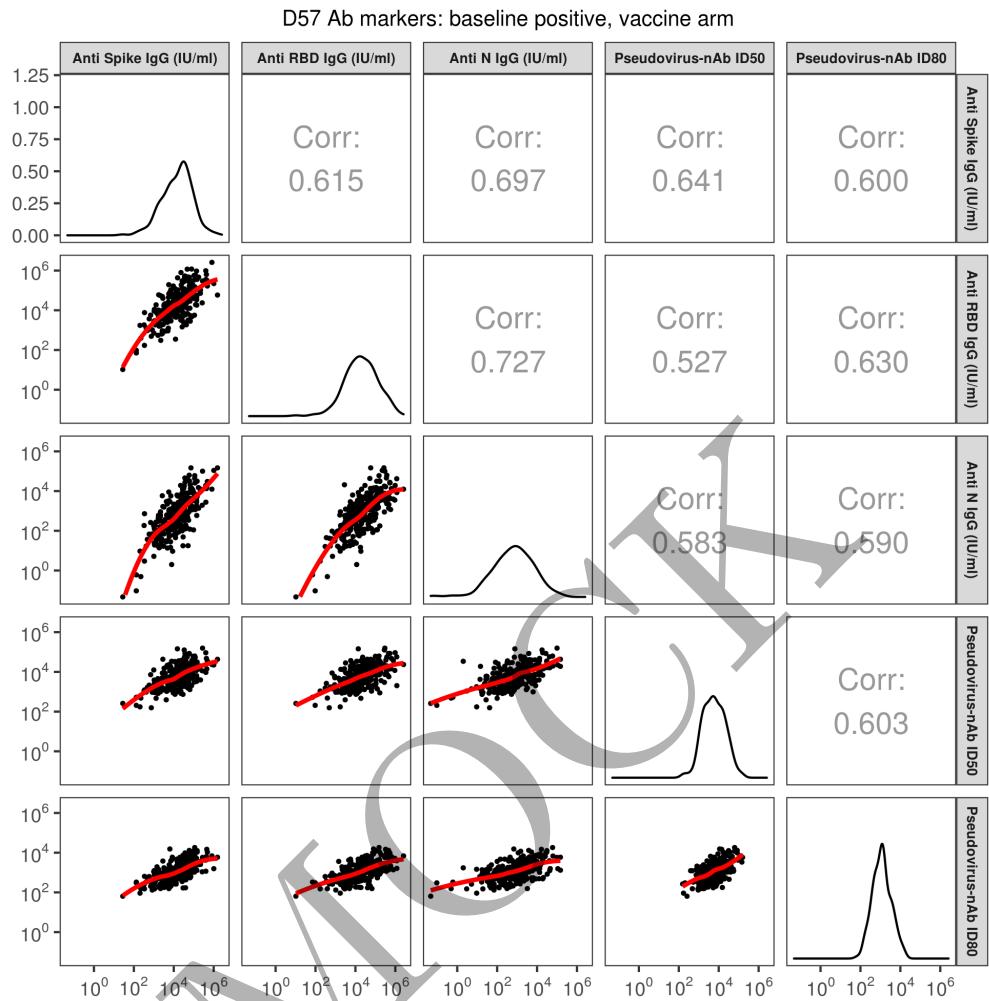


Figure 2.11: Pair plots of D57 Ab markers: baseline positive vaccine arm

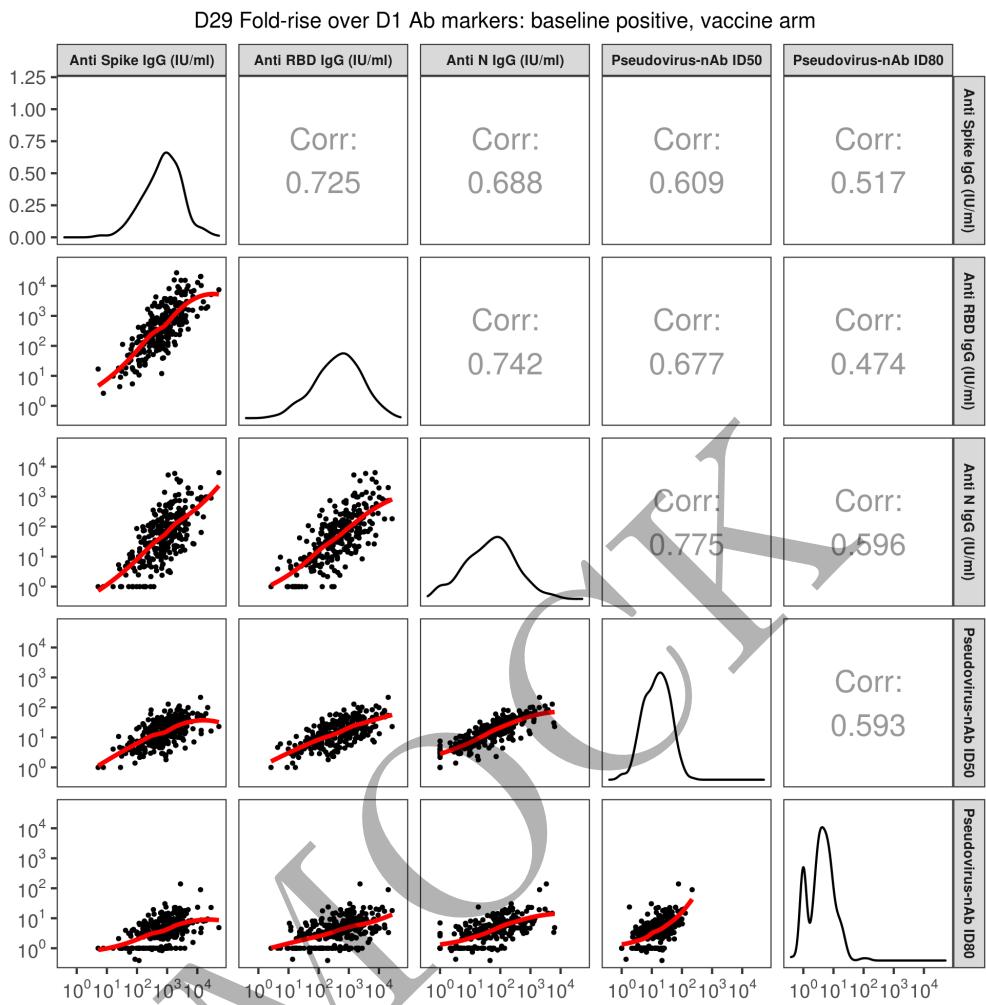


Figure 2.12: Pair plots of D29 fold-rise over D1 Ab markers: baseline positive vaccine arm

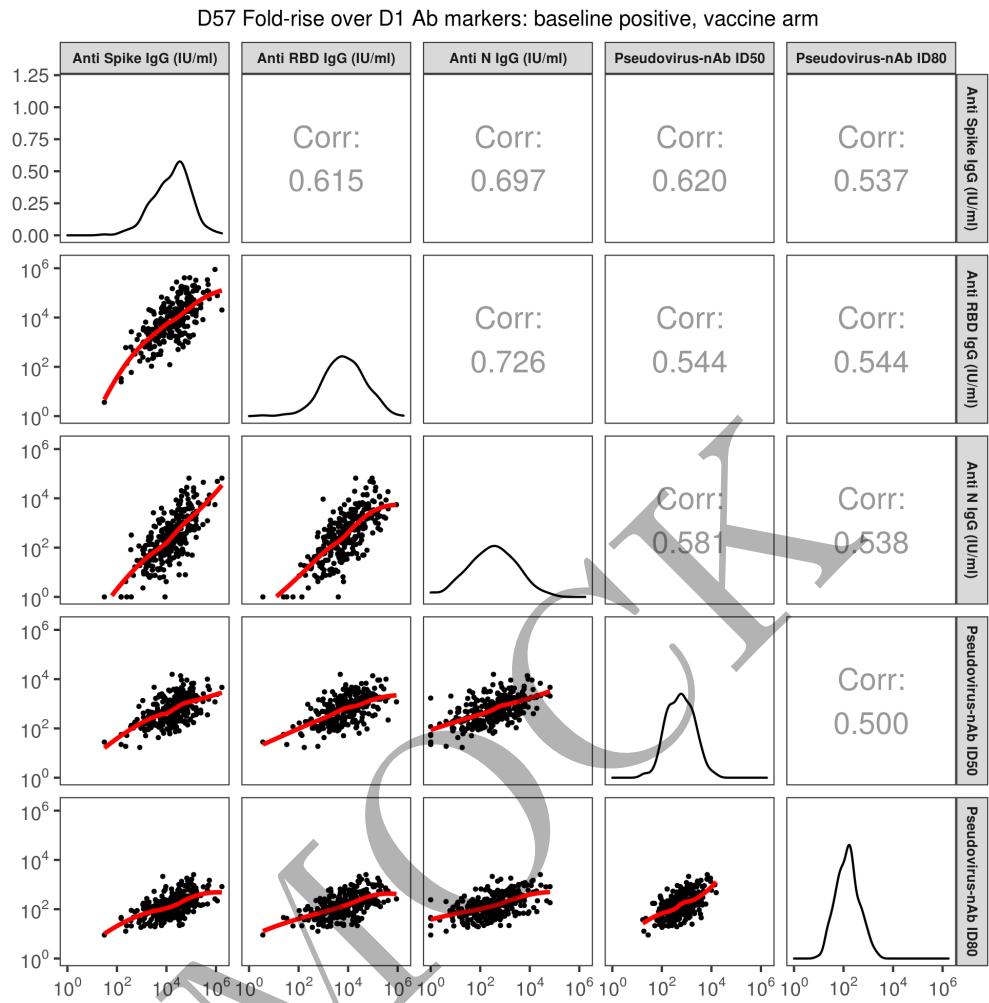


Figure 2.13: Pair plots of D57 fold-rise over D1 Ab markers: baseline positive vaccine arm

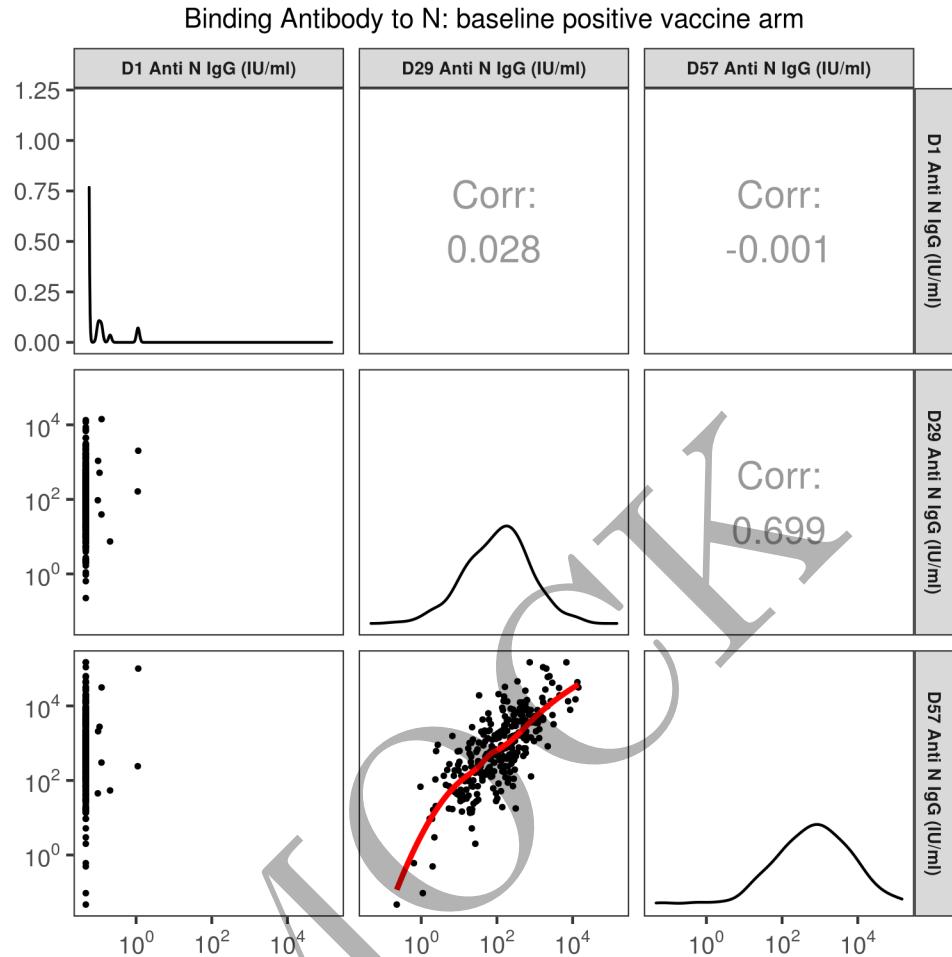


Figure 2.14: Pair plots of D1, D29 and D57 Binding Antibody to N: baseline positive vaccine arm

Binding Antibody to Spike: baseline positive vaccine arm

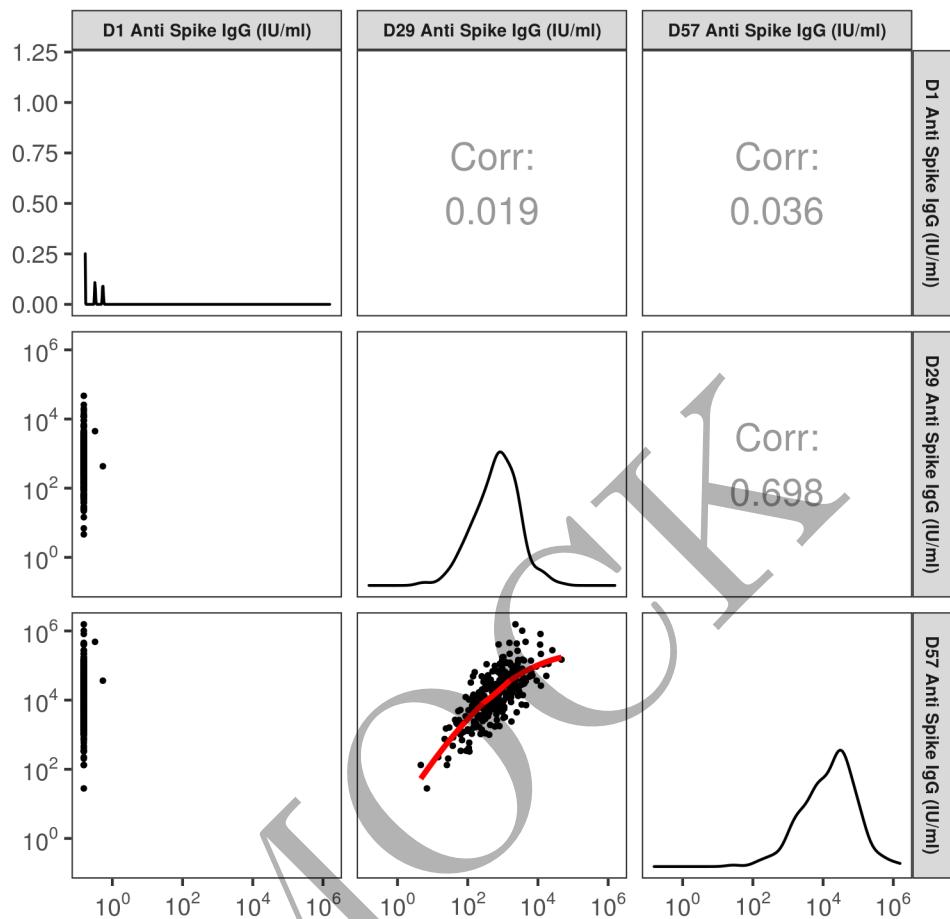


Figure 2.15: Pair plots of D1, D29 and D57 Binding Antibody to Spike: baseline positive vaccine arm

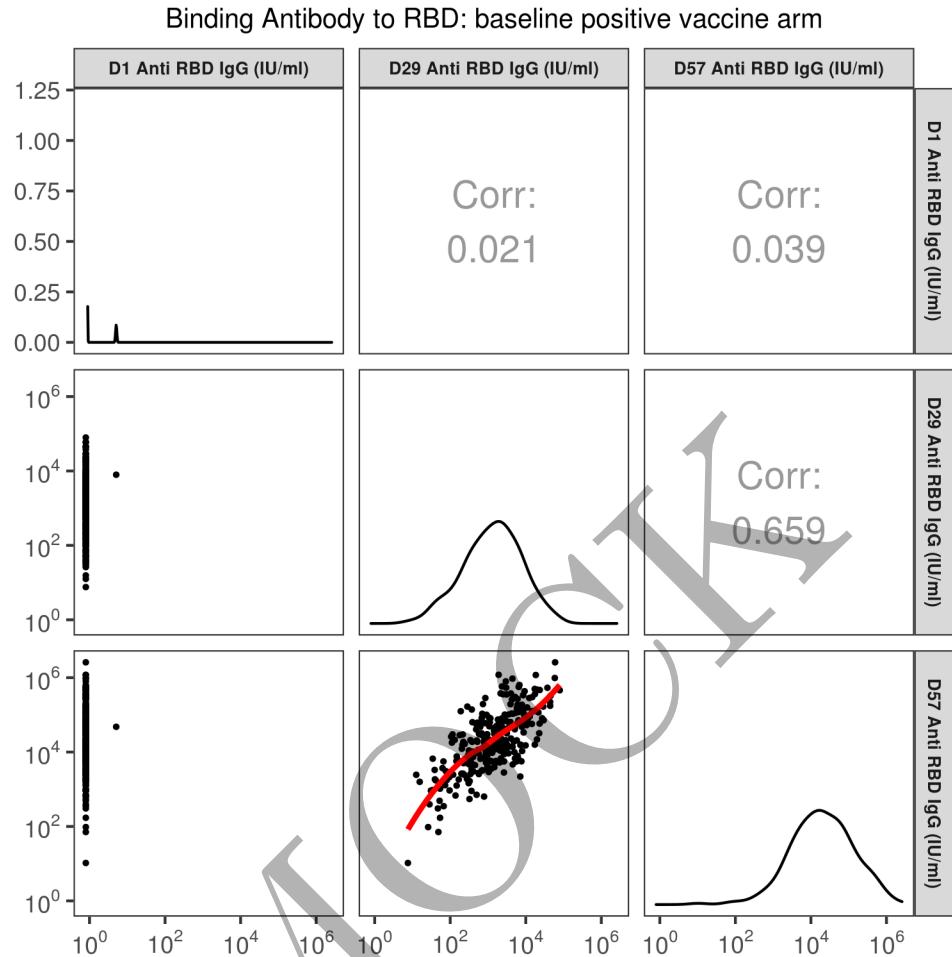


Figure 2.16: Pair plots of D1, D29 and D57 Binding Antibody to RBD: baseline positive vaccine arm

PsV Neutralization 50% Titer: baseline positive vaccine arm

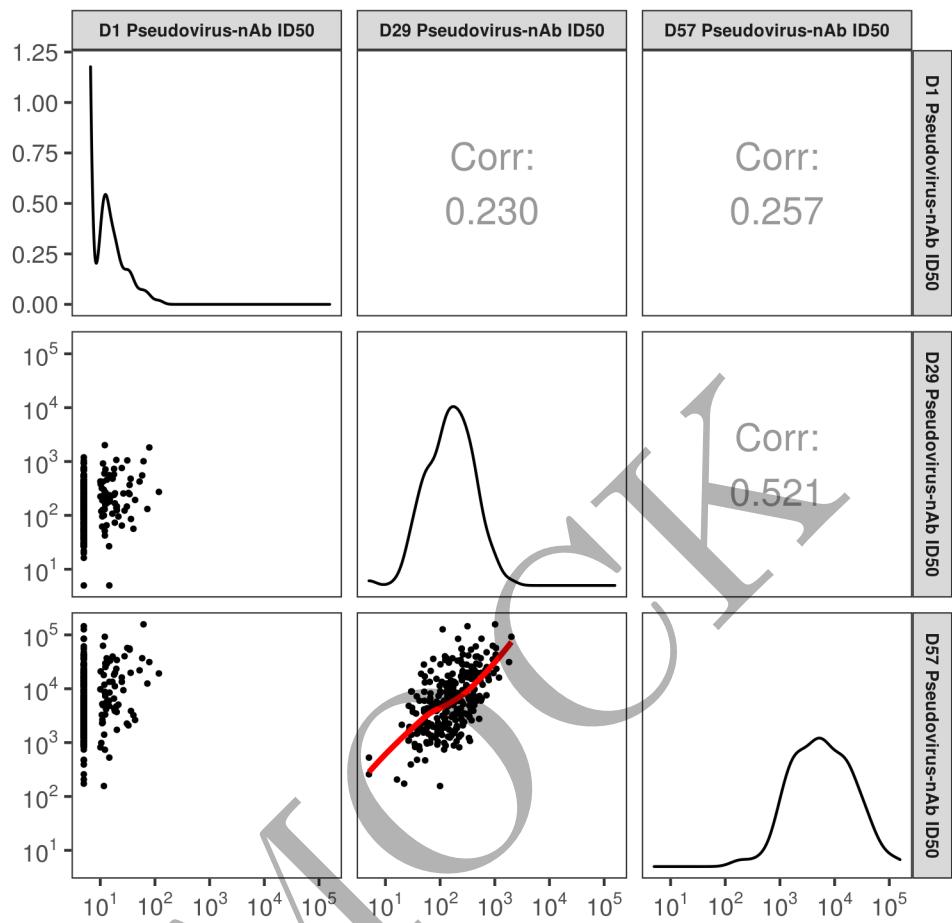


Figure 2.17: Pair plots of D1, D29 and D57 nAb Neutralization 50% Titer: baseline positive vaccine arm

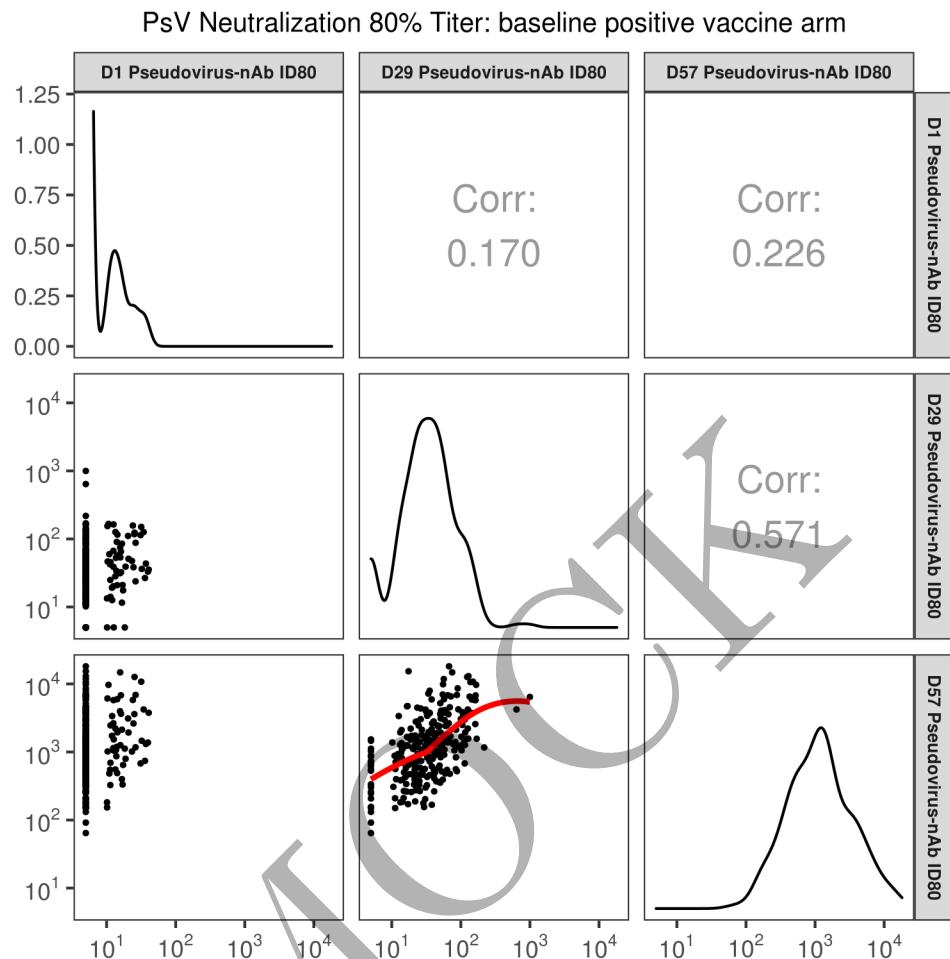


Figure 2.18: Pair plots of D1, D29 and D57 nAb Neutralization 80% Titer: Baseline positive vaccine arm

2.2 RCDF plots of antibody markers for overall per-protocol cohort

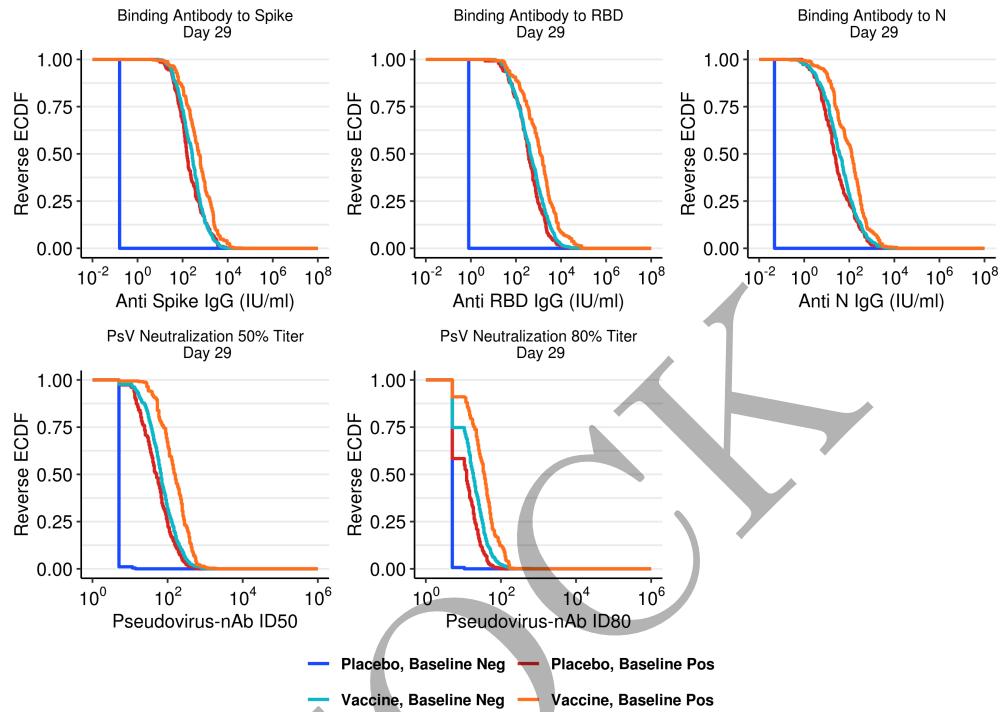


Figure 2.19: RCDF plots for D29 Ab markers: by baseline status x randomization arm

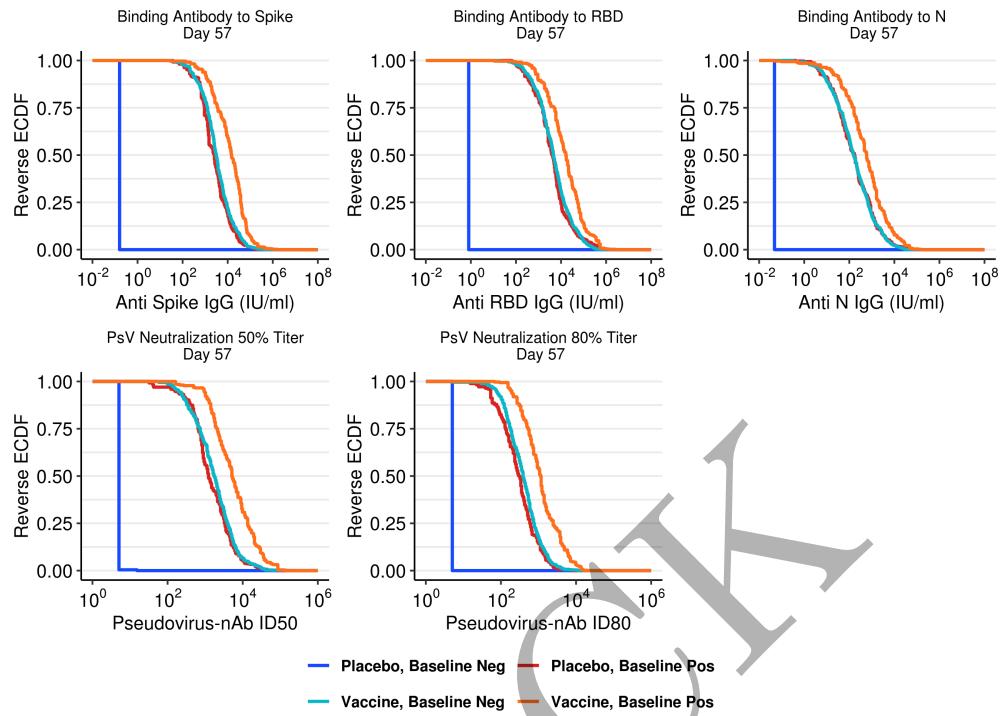


Figure 2.20: RCDF plots for D57 Ab markers: by baseline status x randomization arm

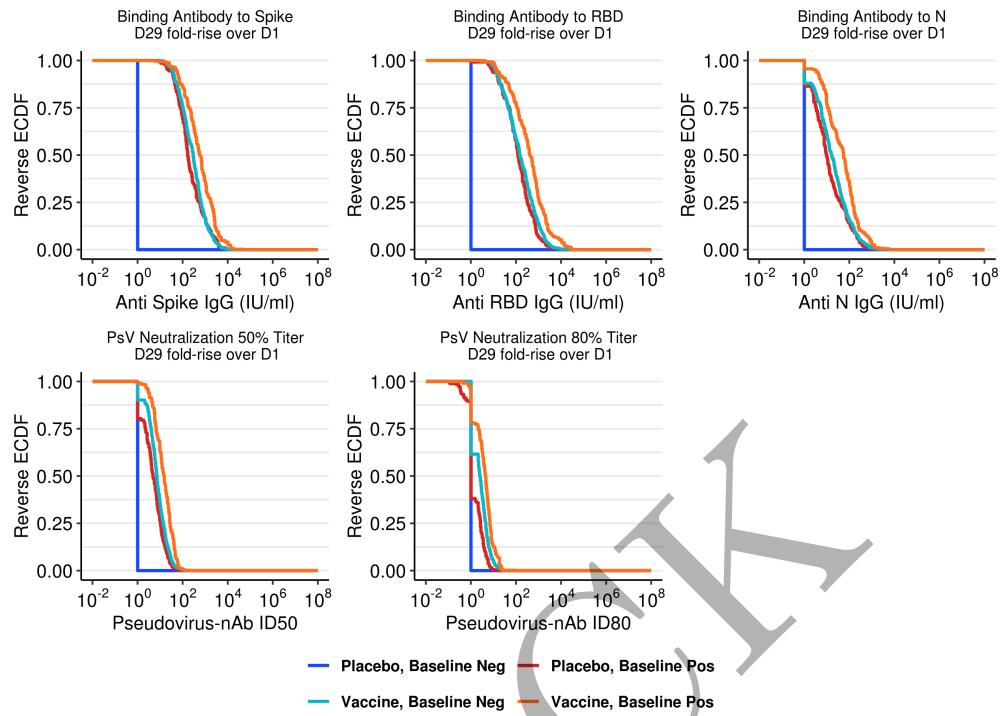


Figure 2.21: RCDF plots for D29 fold-rise over D1 Ab markers: by baseline status x randomization arm

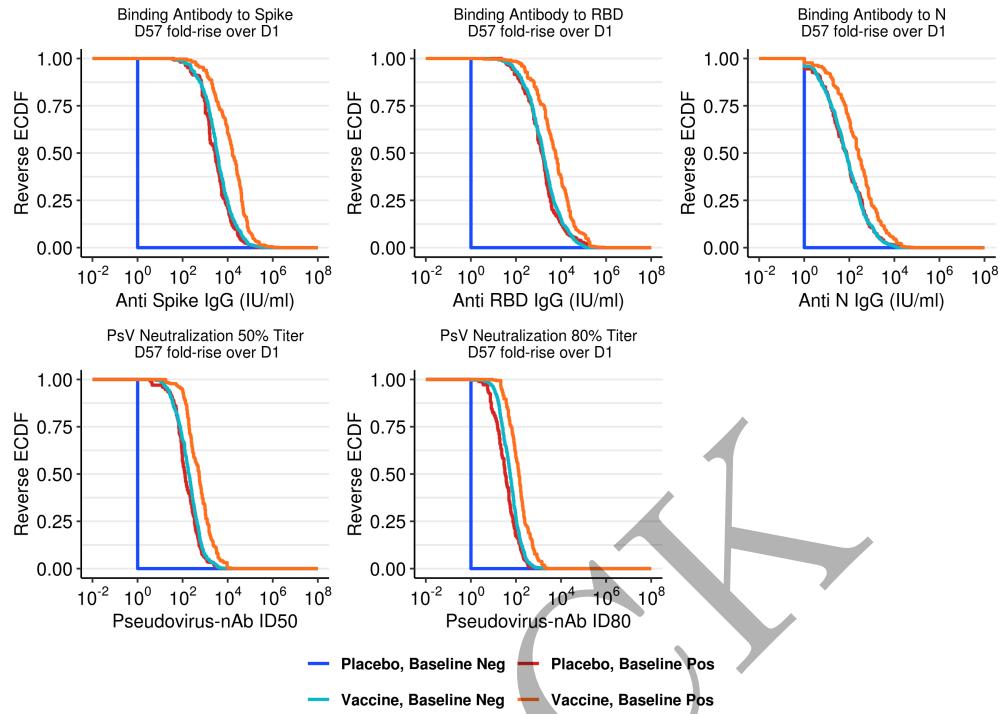


Figure 2.22: RCDF plots for D57 fold-rise over D1 Ab markers: by baseline status x randomization arm

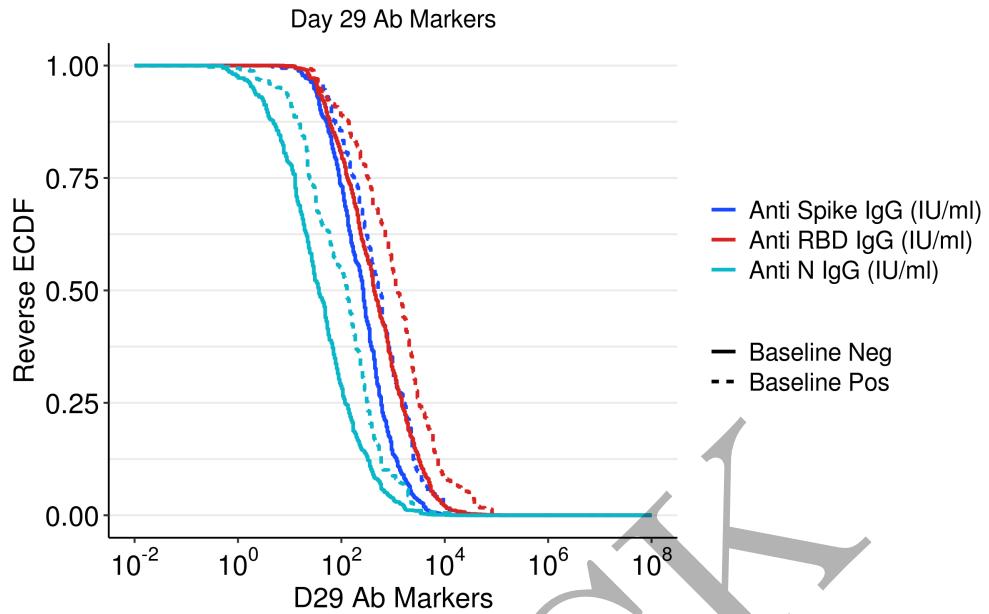


Figure 2.23: RCDF plots for D29 bAb markers: by baseline status for the vaccine arm

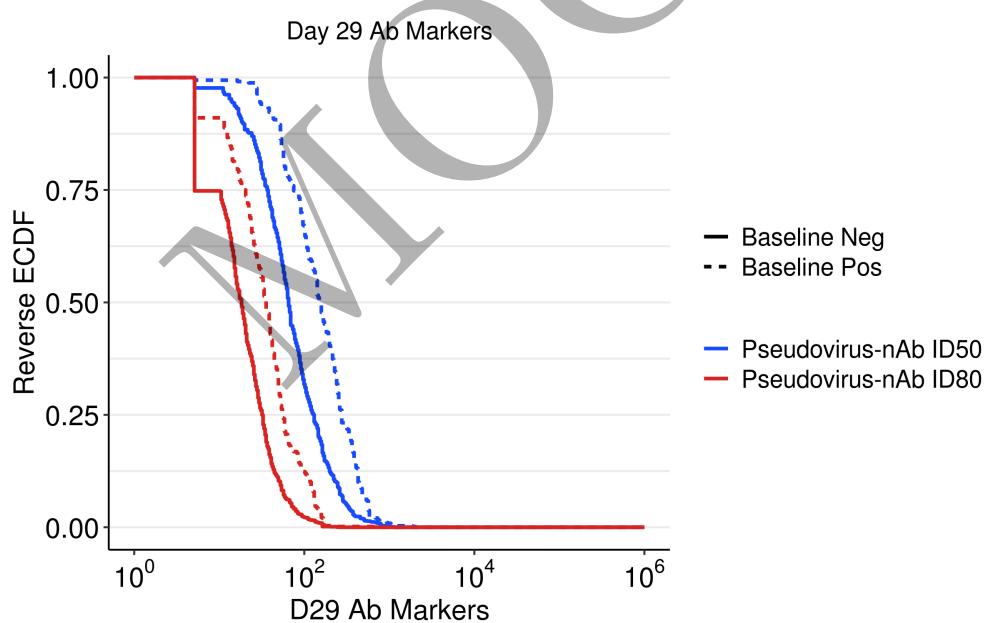


Figure 2.24: RCDF plots for D29 nAb markers: by baseline status for the vaccine arm

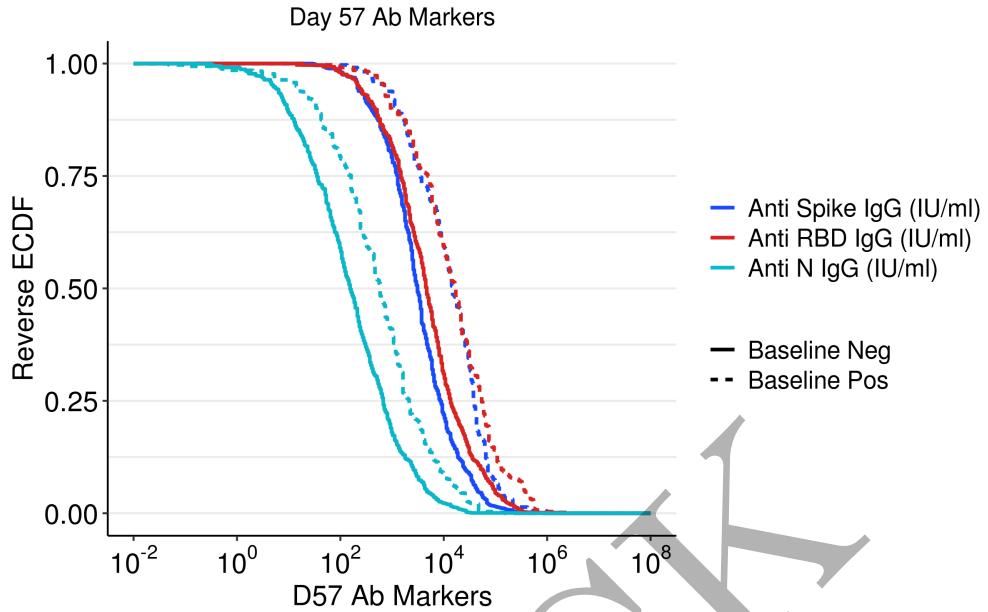


Figure 2.25: RCDF plots for D57 bAb markers: by baseline status for the vaccine arm

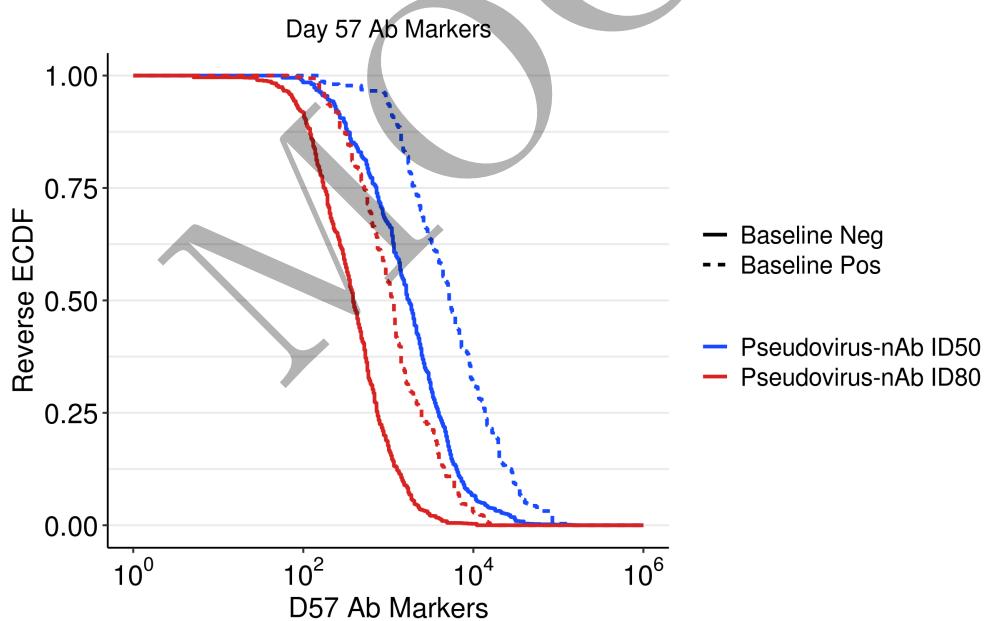


Figure 2.26: RCDF plots for D57 nAb markers: by baseline status for the vaccine arm

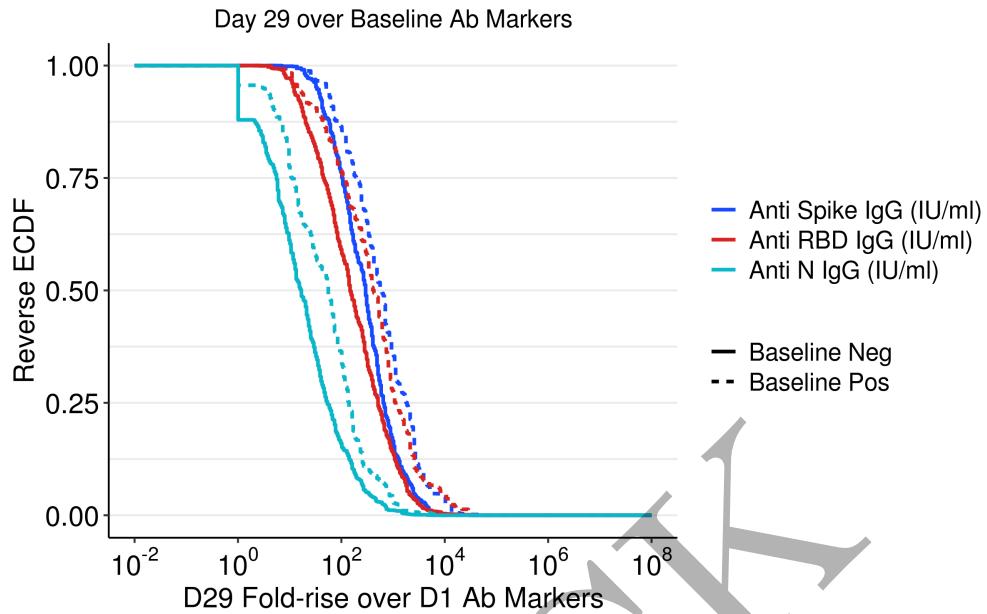


Figure 2.27: RCDF plots for D29 over D1 fold-rise bAb markers: by baseline status for the vaccine arm

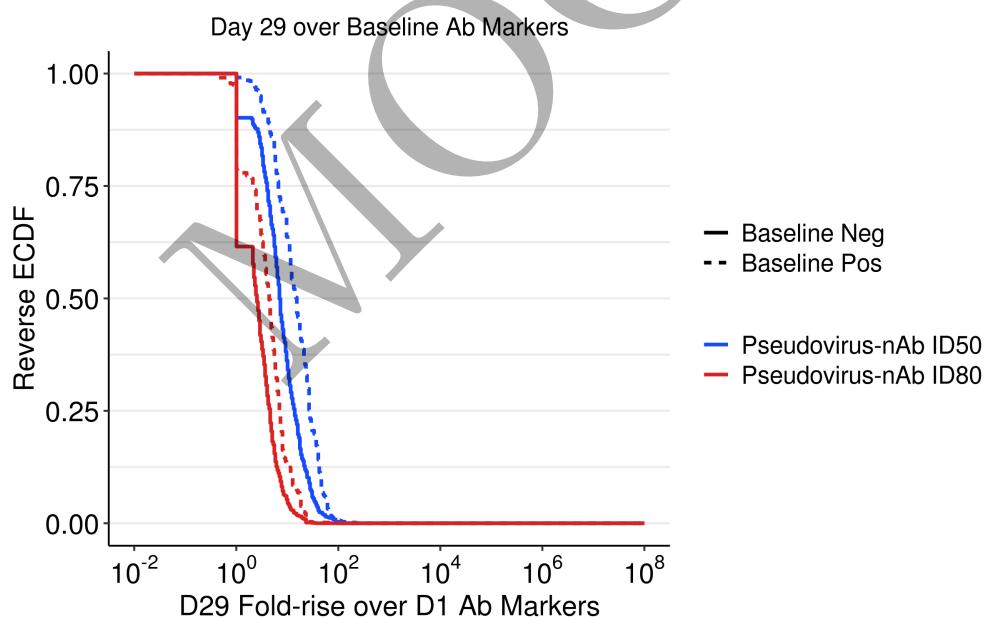


Figure 2.28: RCDF plots for D29 over D1 fold-rise nAb markers: by baseline status for the vaccine arm

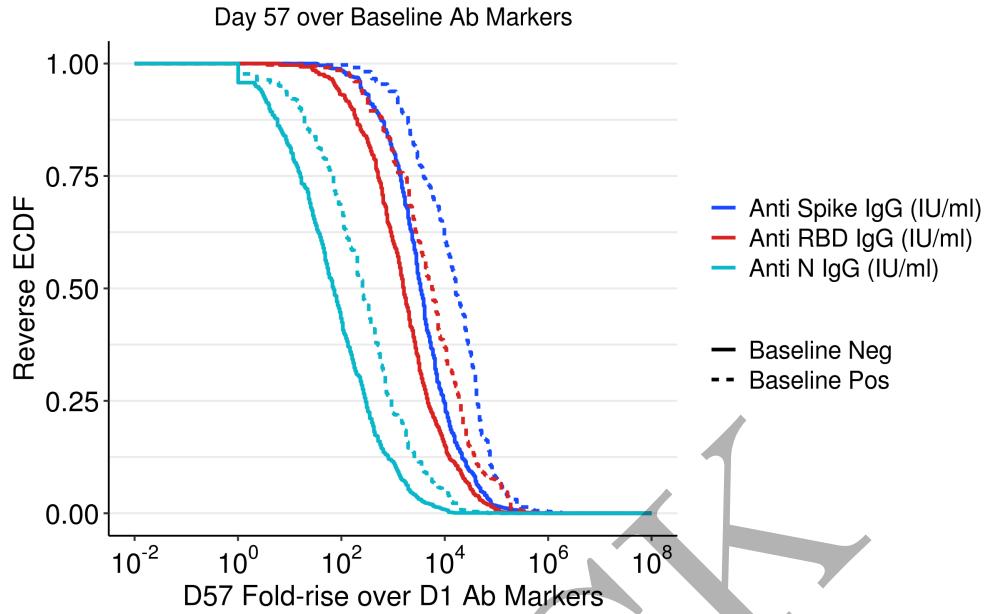


Figure 2.29: RCDF plots for D57 fold-rise over D1 bAb markers: by baseline status for the vaccine arm

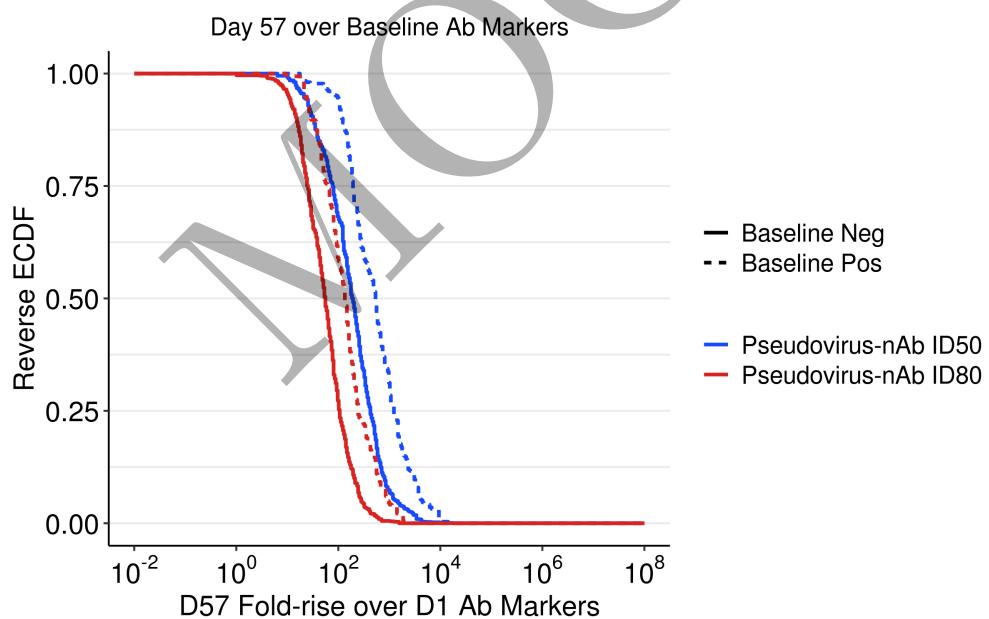


Figure 2.30: RCDF plots for D57 fold-rise over D1 nAb markers: by baseline status for the vaccine arm

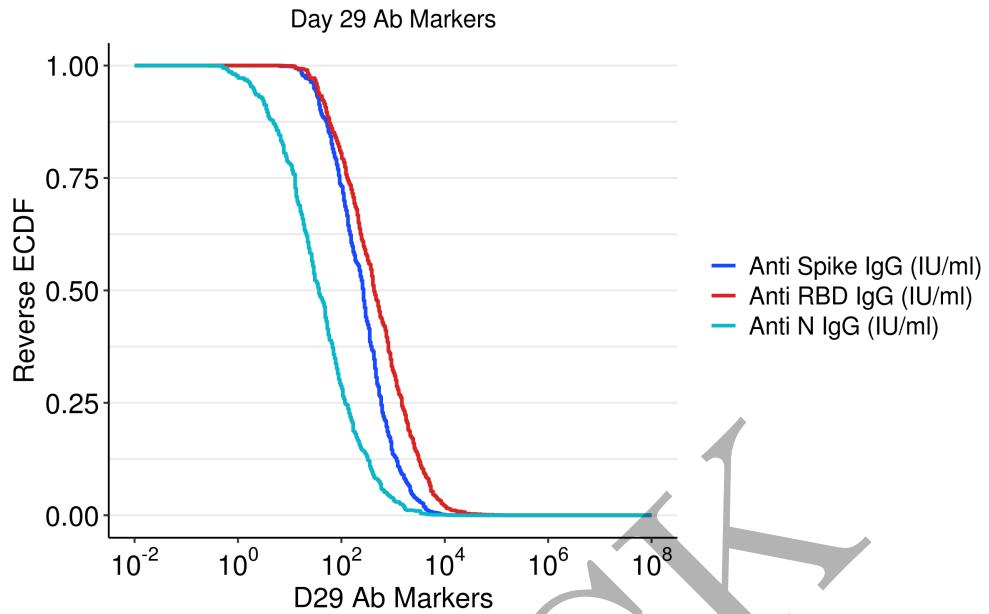


Figure 2.31: RCDF plots for D29 bAb markers: baseline negative vaccine arm

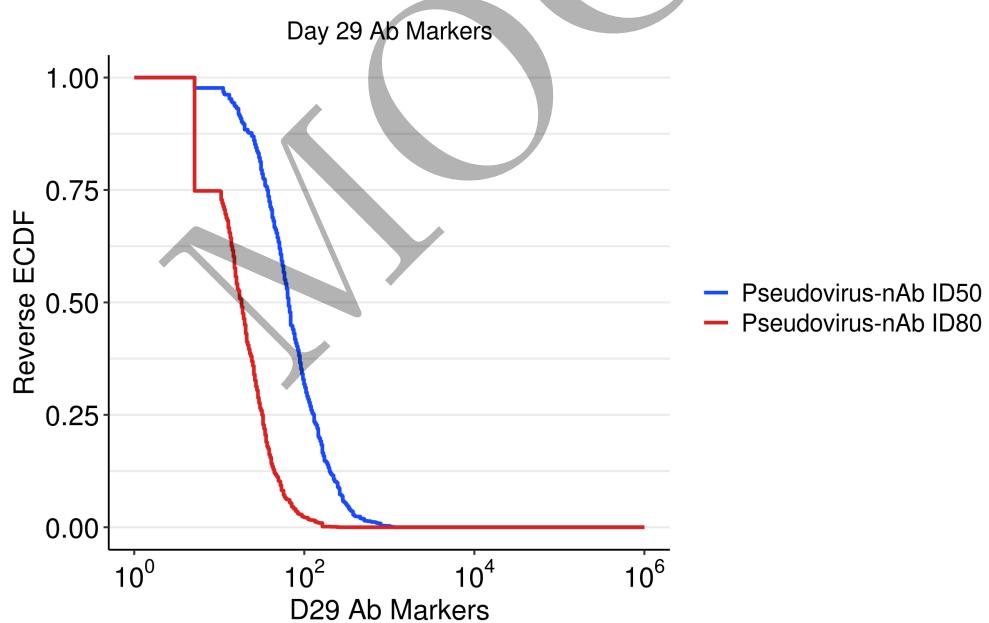


Figure 2.32: RCDF plots for D29 nAb markers: baseline negative vaccine arm

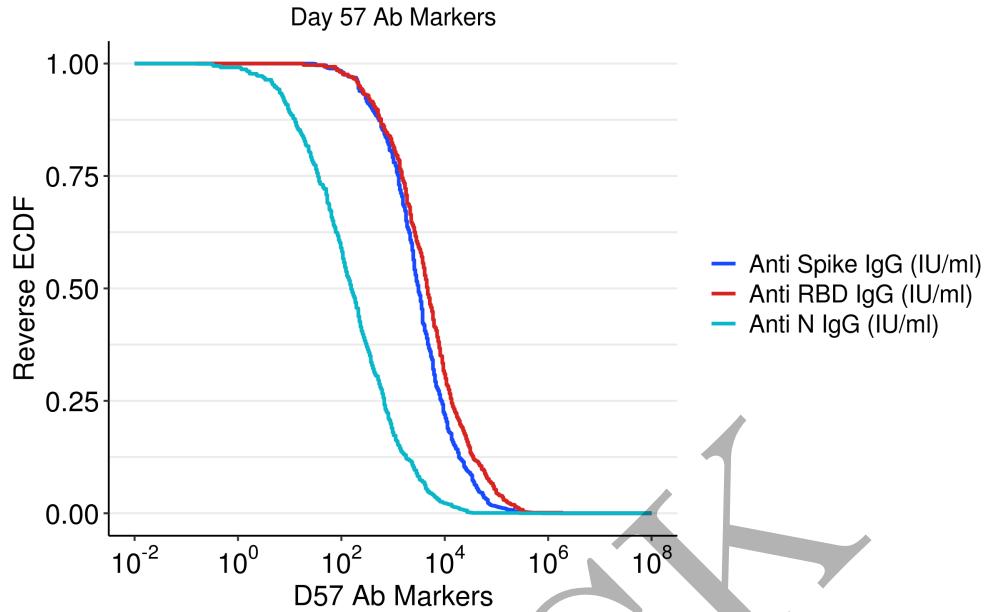


Figure 2.33: RCDF plots for D57 bAb markers: baseline negative vaccine arm

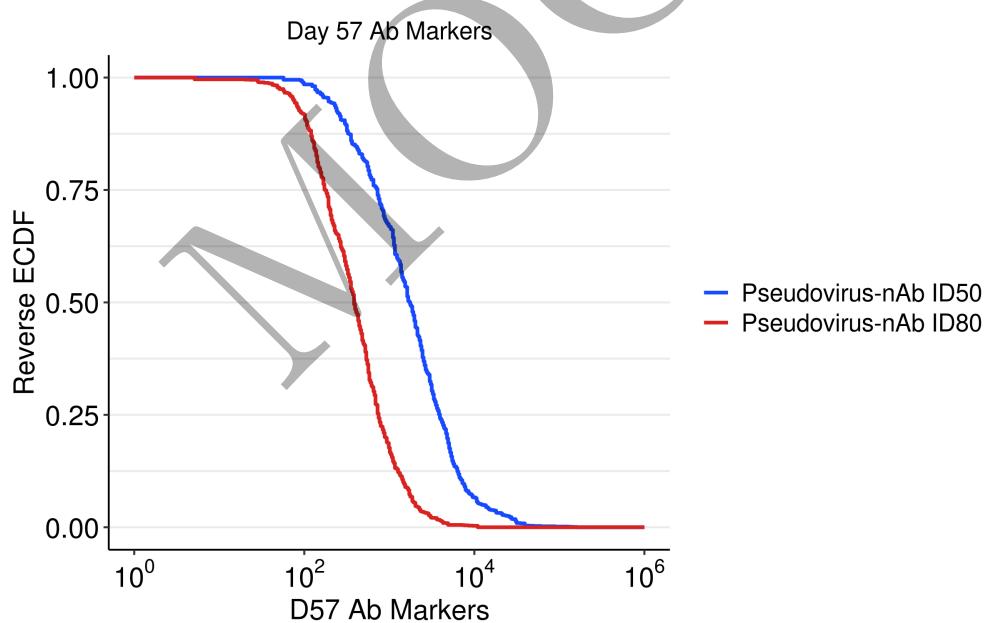


Figure 2.34: RCDF plots for D57 nAb markers: baseline negative vaccine arm

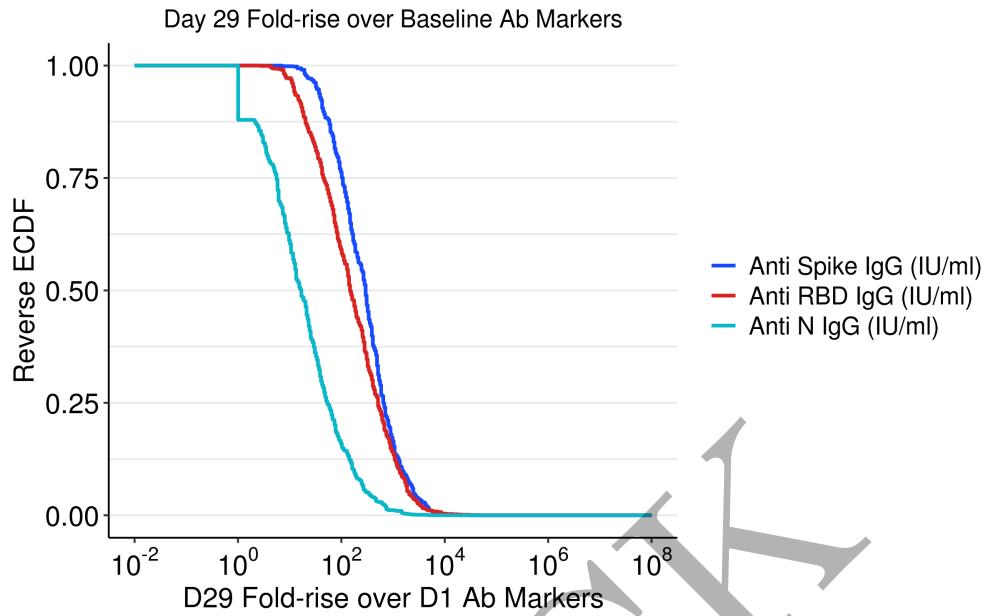


Figure 2.35: RCDF plots for D29 fold-rise over D1 bAb markers: baseline-negative vaccine arm

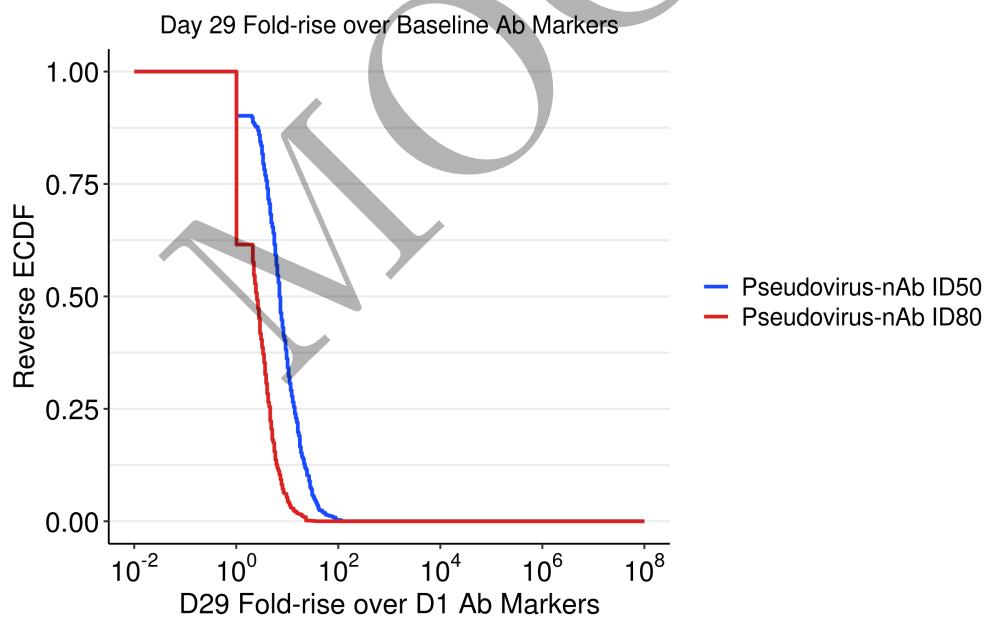


Figure 2.36: RCDF plots for D29 fold-rise over D1 nAb markers: baseline negative vaccine arm

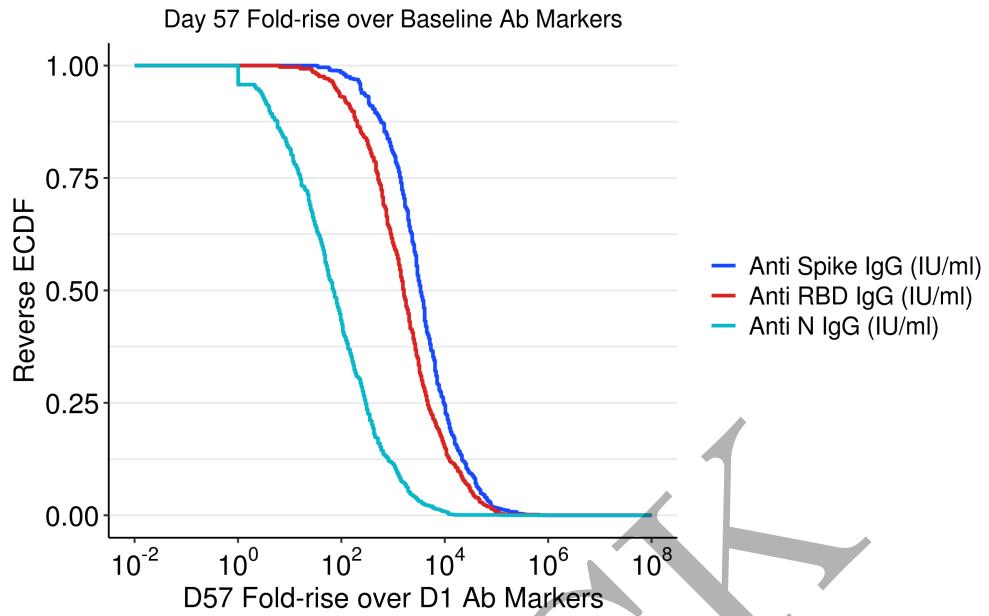


Figure 2.37: RCDF plots for D57 fold-rise over D1 bAb markers: baseline negative vaccine arm

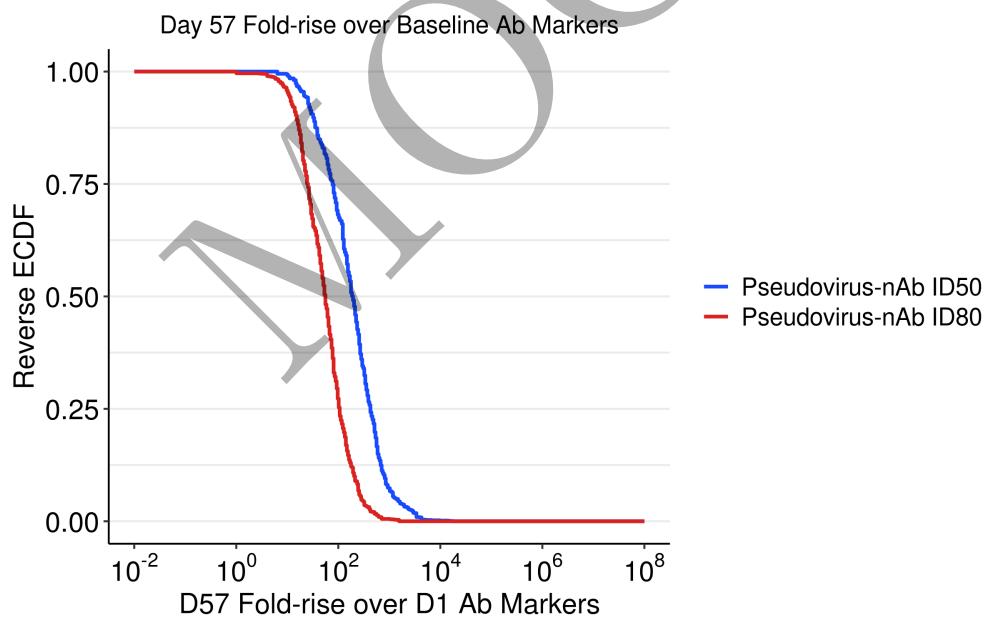


Figure 2.38: RCDF plots for D57 fold-rise over D1 nAb markers: baseline negative vaccine arm

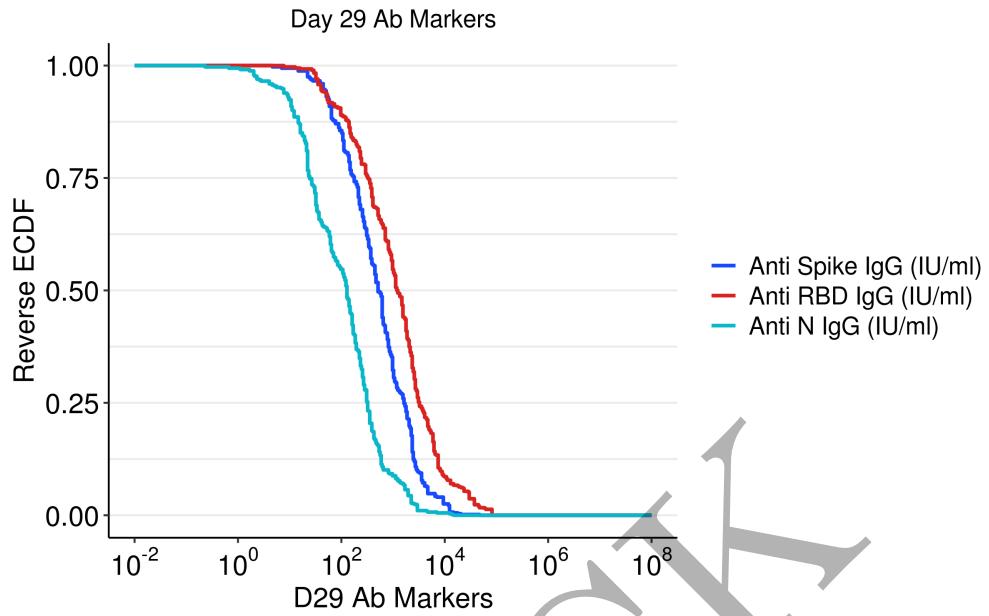


Figure 2.39: RCDF plots for D29 bAb markers: baseline positive vaccine arm

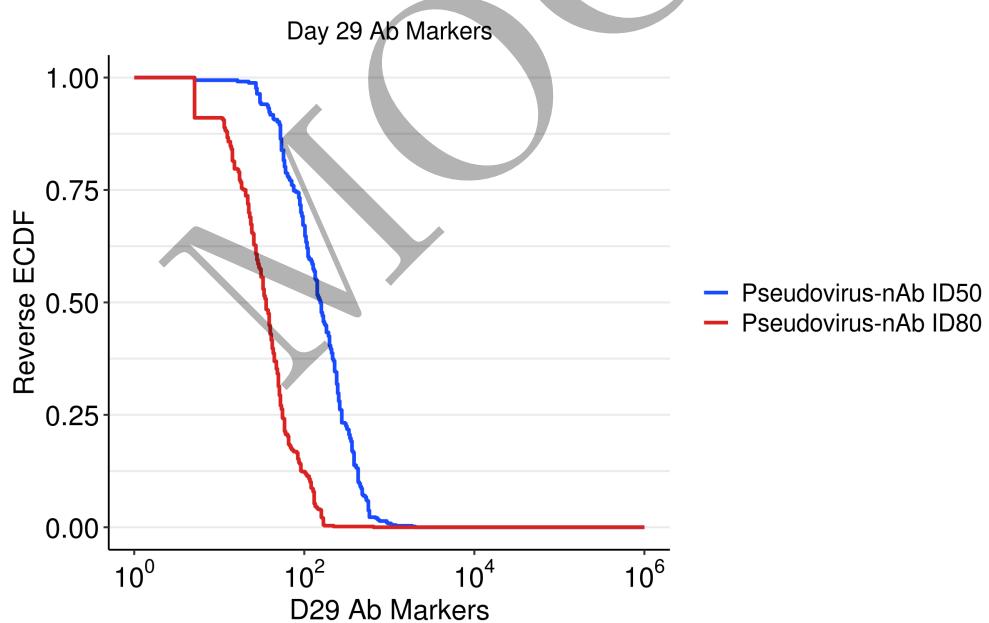


Figure 2.40: RCDF plots for D29 nAb markers: baseline positive vaccine arm

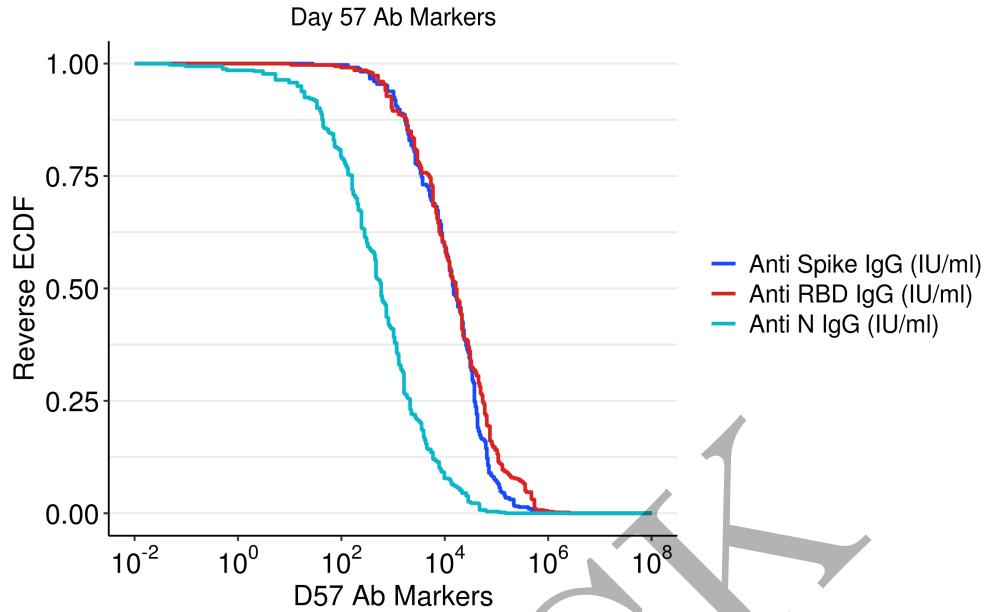


Figure 2.41: RCDF plots for D57 bAb markers: baseline positive vaccine arm

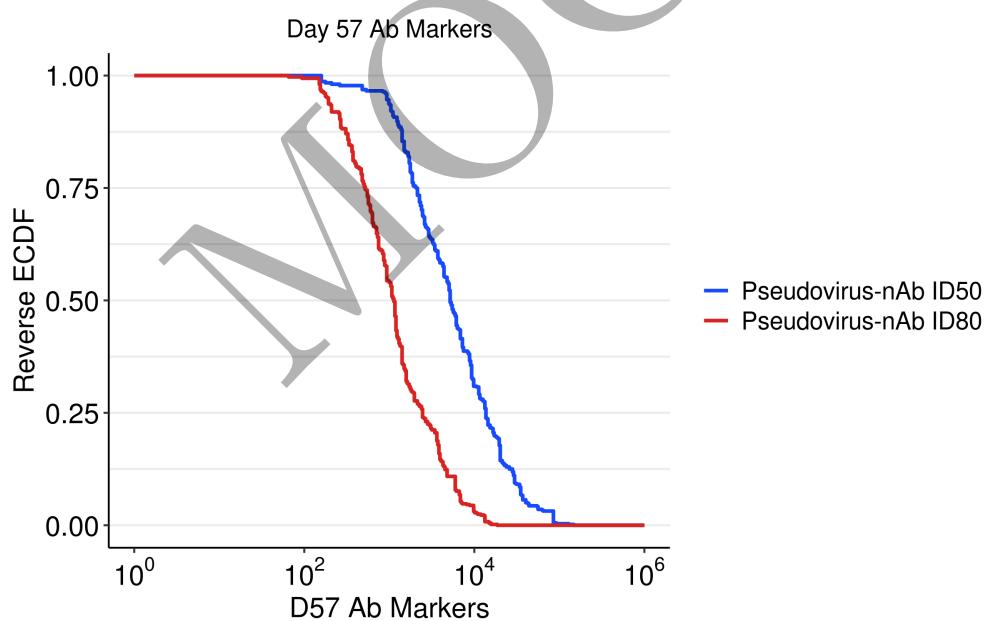


Figure 2.42: RCDF plots for D57 nAb markers: baseline positive vaccine arm

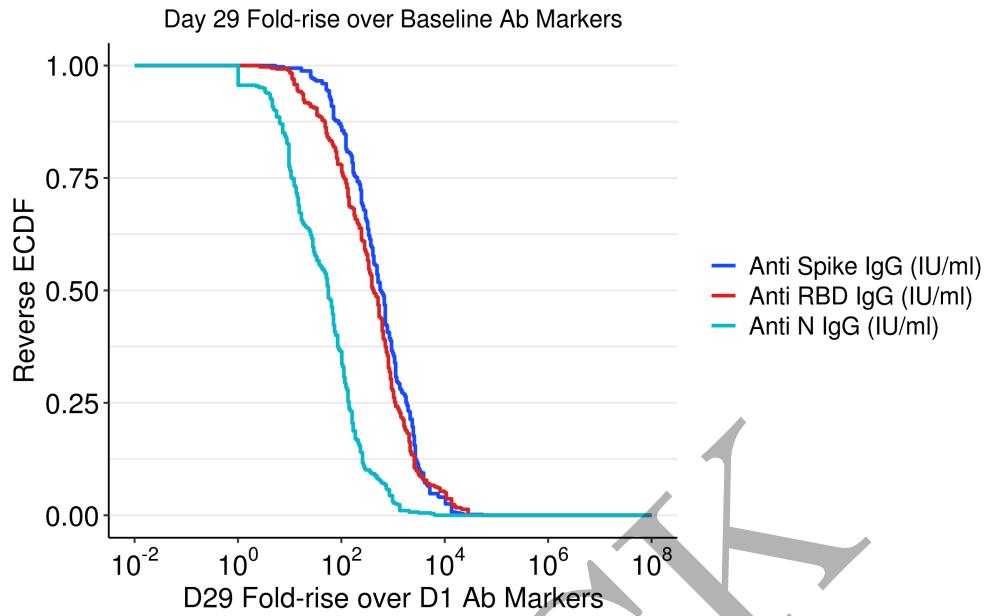


Figure 2.43: RCDF plots for D29 fold-rise over D1 bAb markers: baseline positive vaccine arm

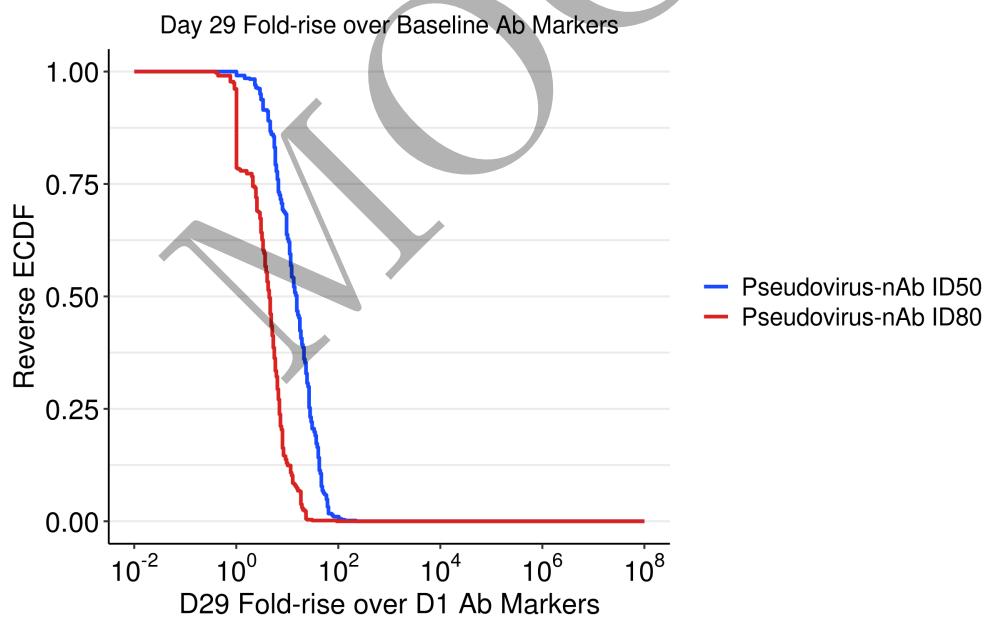


Figure 2.44: RCDF plots for D29 fold-rise over D1 nAb markers: baseline positive vaccine arm

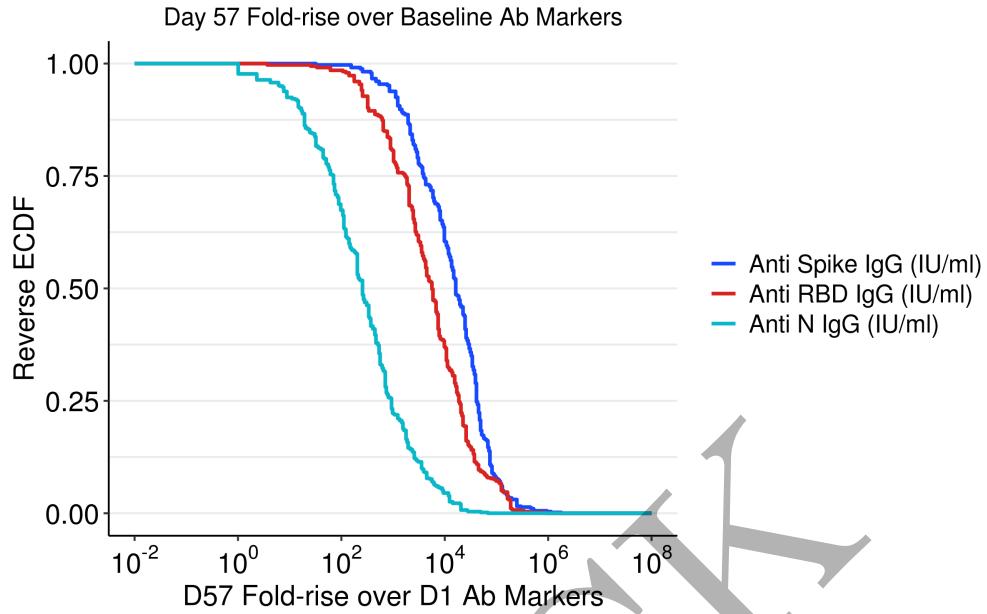


Figure 2.45: RCDF plots for D57 fold-rise over D1 bAb markers: baseline positive vaccine arm

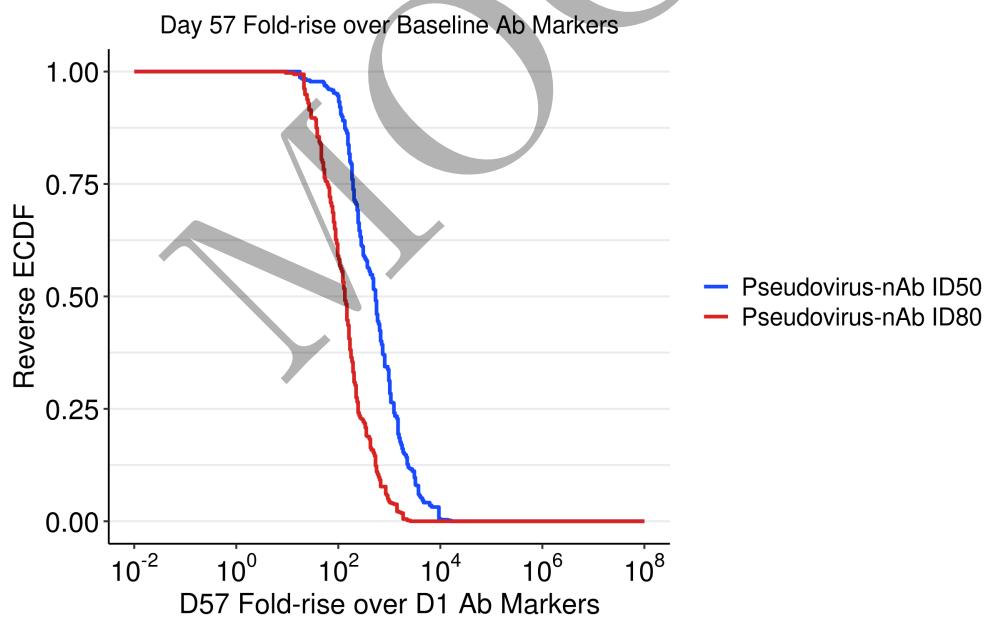


Figure 2.46: RCDF plots for D57 fold-rise over D1 nAb markers: baseline positive vaccine arm

2.3 Scatter plots of antibody markers versus age for overall per-protocol cohort

2.3.1 Baseline SARS-CoV-2 negative

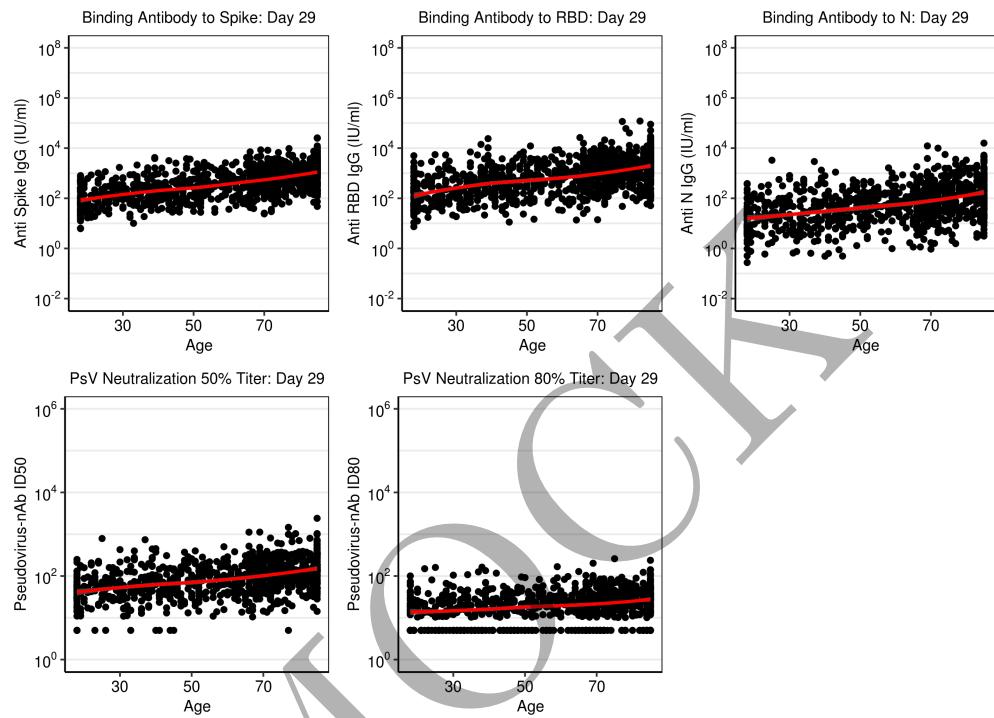


Figure 2.47: Scatter plots for D29 Ab markers vs. age: baseline negative vaccine arm

2.3. SCATTER PLOTS OF ANTIBODY MARKERS VERSUS AGE FOR OVERALL PER-PROTOCOL COHORT521

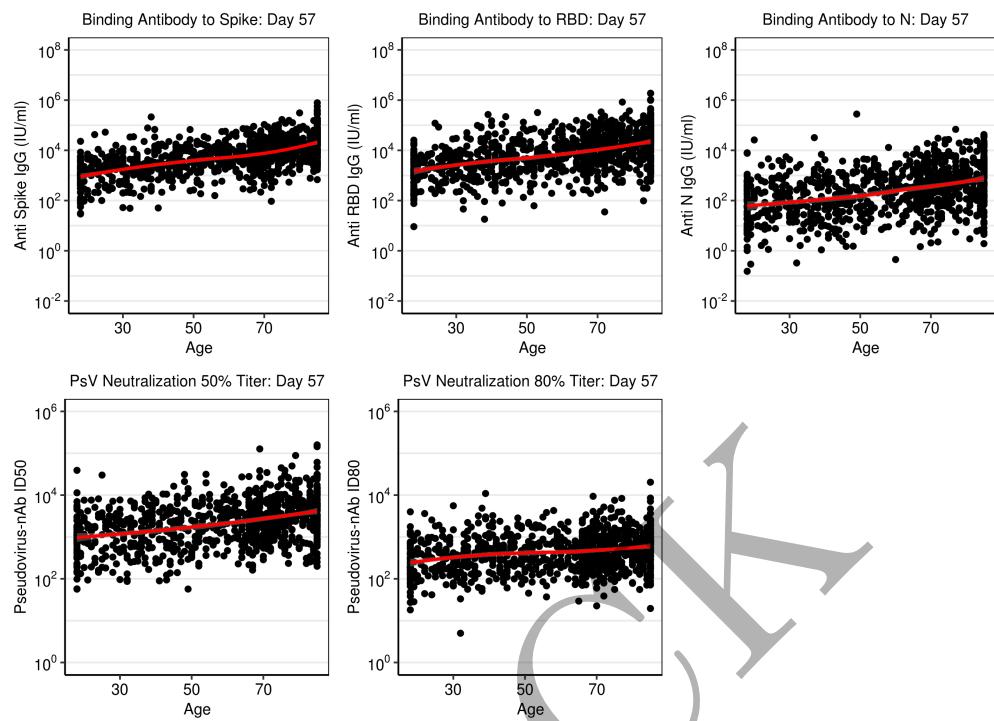


Figure 2.48: Scatter plots for D57 Ab markers vs. age: baseline negative vaccine arm

2.3.2 Baseline SARS-CoV-2 positive

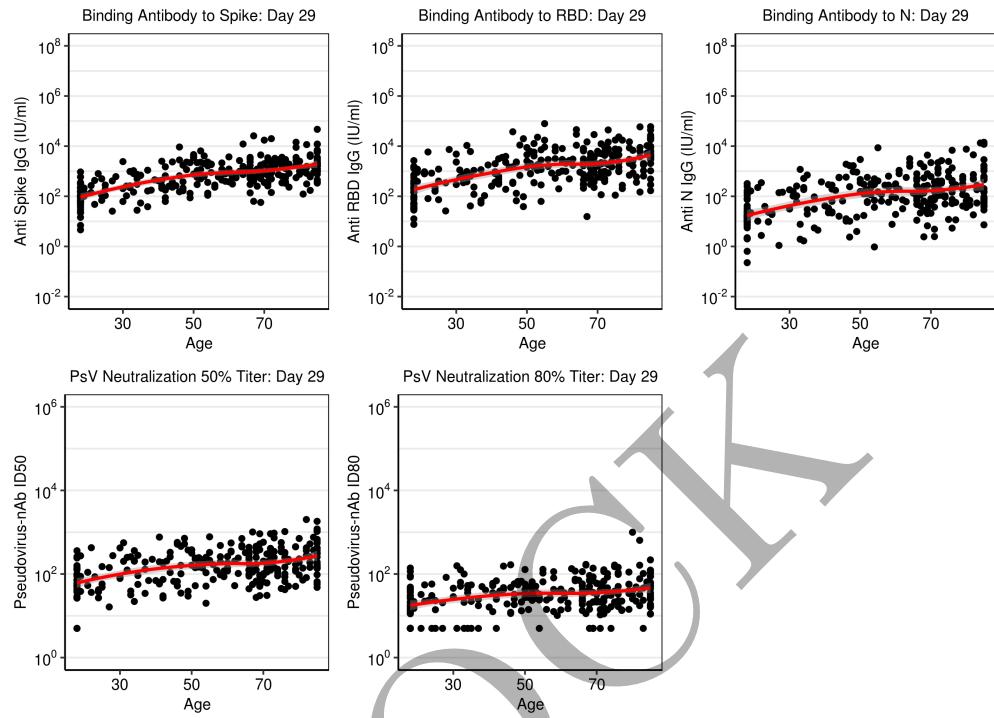


Figure 2.49: Scatter plots for D29 Ab markers vs. age: baseline positive vaccine arm

2.3. SCATTER PLOTS OF ANTIBODY MARKERS VERSUS AGE FOR OVERALL PER-PROTOCOL COHORT523

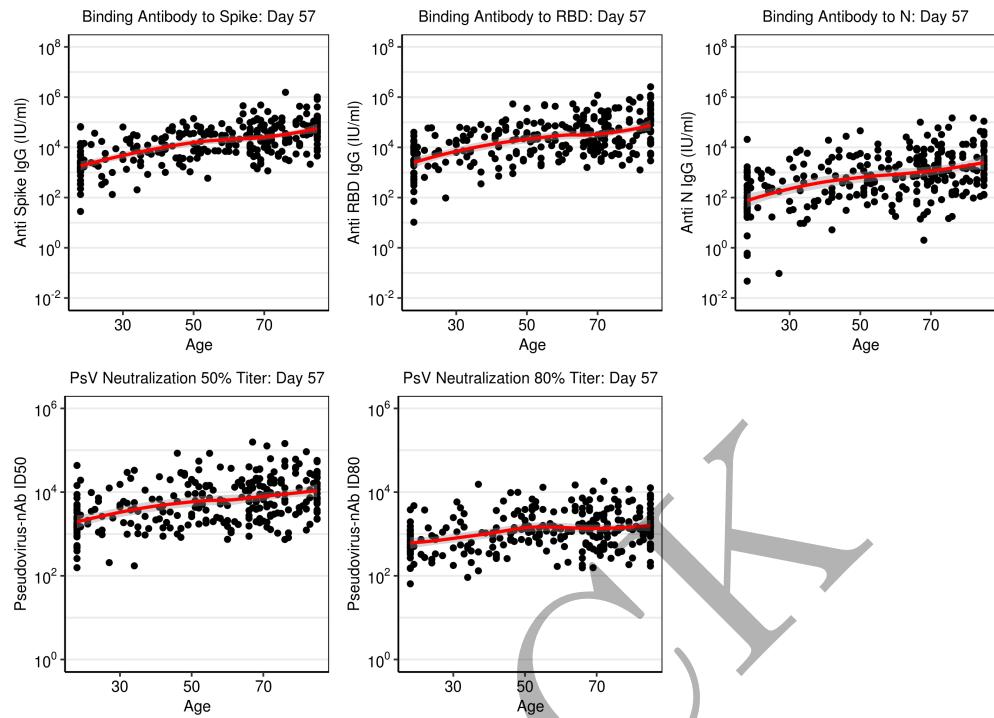


Figure 2.50: Scatter plots for D57 Ab markers vs. age: baseline positive vaccine arm

2.4 Box plots of antibody markers for overall per-protocol cohort

2.4.1 Baseline SARS-CoV-2 negative

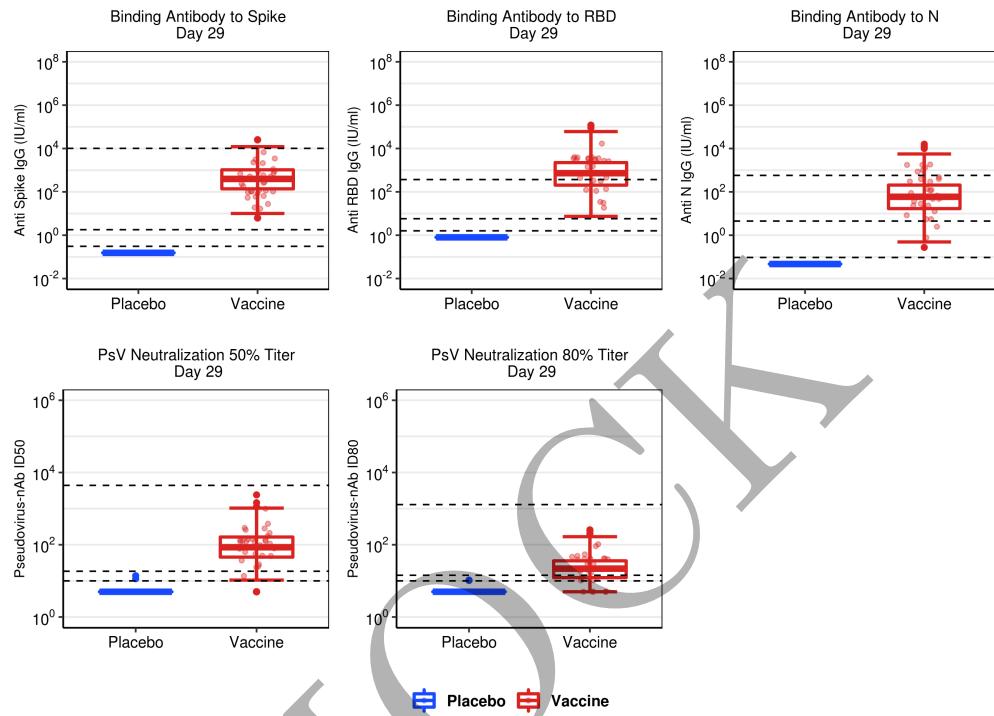


Figure 2.51: Boxplots of D29 Ab markers: baseline negative vaccine + placebo arms. The three dashed lines in each figure are ULOQ, LLOQ, and LLOD, from top to bottom respectively.

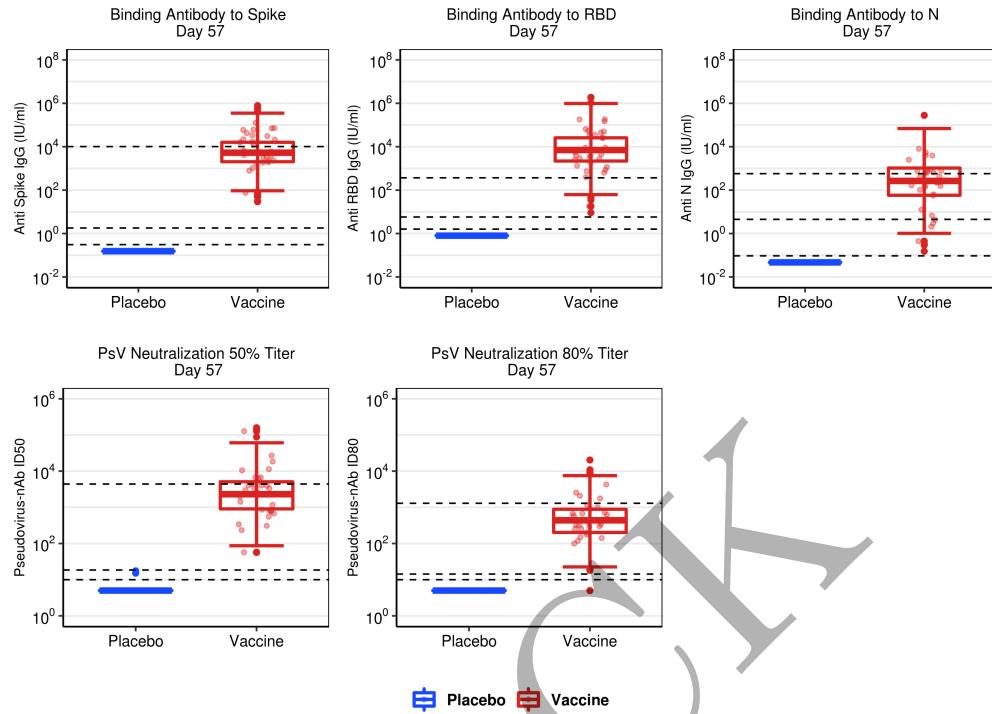


Figure 2.52: Boxplots of D57 Ab markers: baseline negative vaccine + placebo arms. The three dashed lines in each figure are ULOQ, LLOQ, and LLOD, from top to bottom respectively.

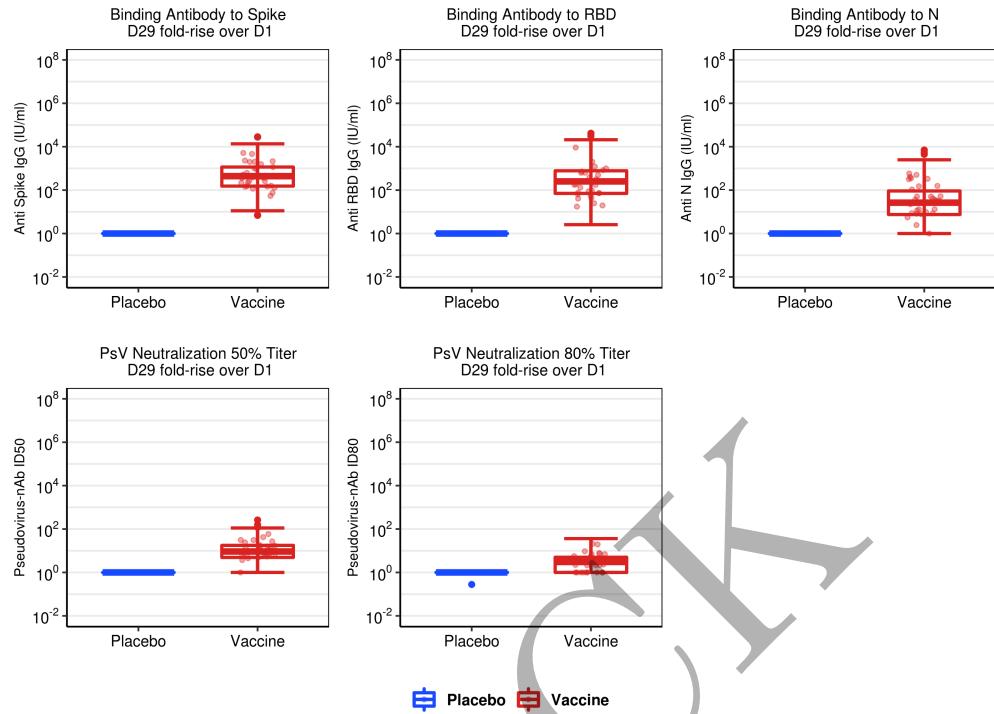


Figure 2.53: Boxplots of D29 fold-rise over D1 Ab markers: baseline negative vaccine + placebo arms

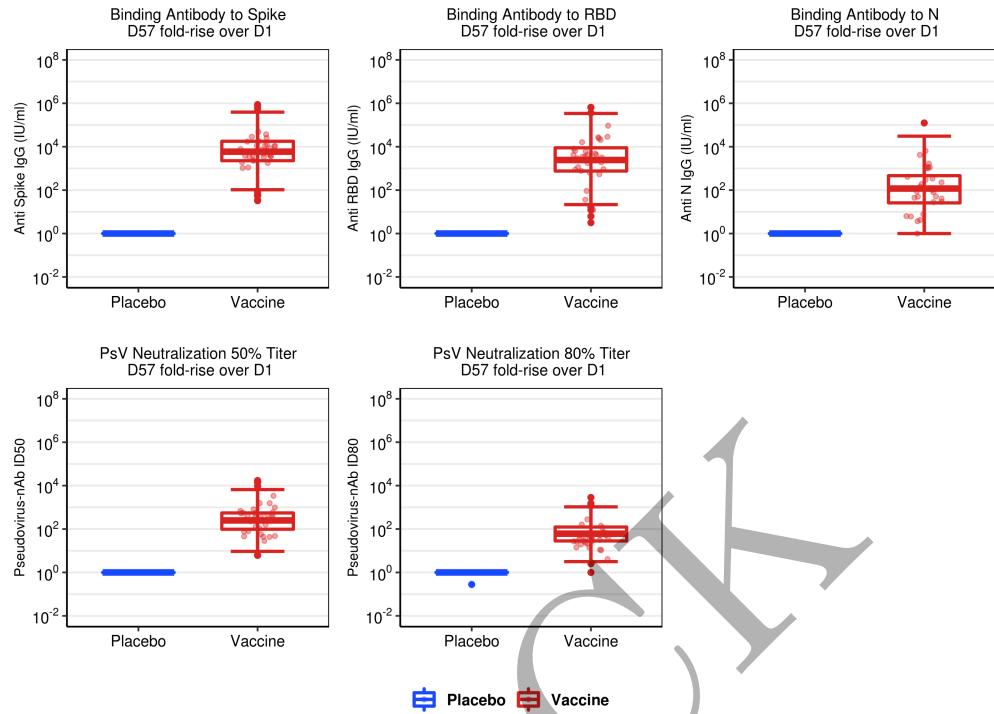


Figure 2.54: Boxplots of D57 fold-rise over D1 Ab markers: baseline negative vaccine + placebo arms

2.4.2 Baseline SARS-CoV-2 positive

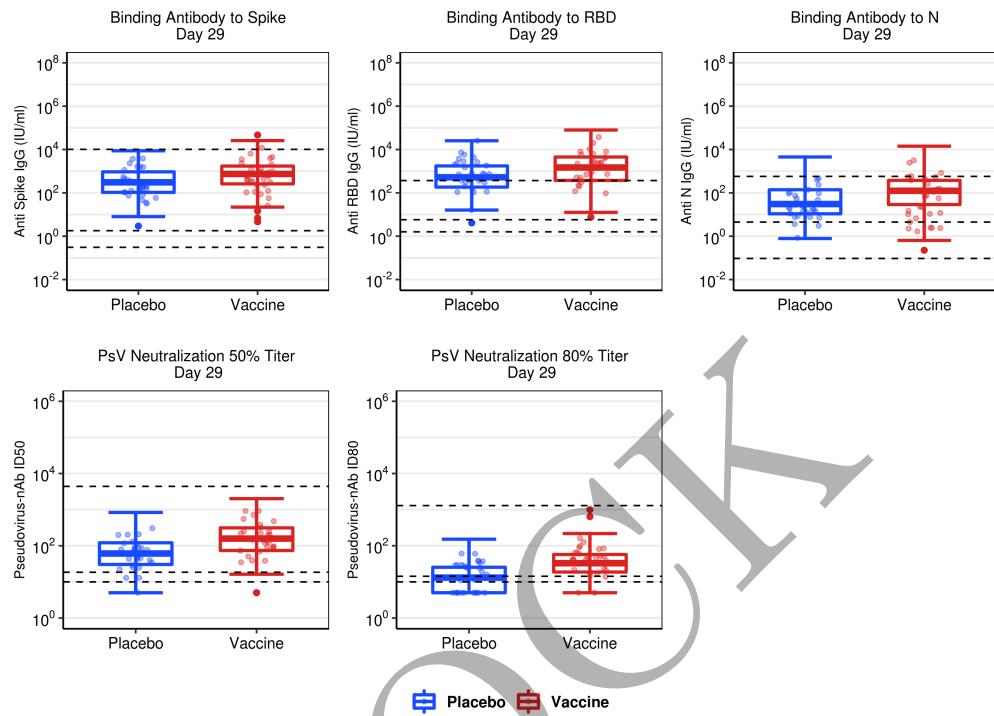


Figure 2.55: Boxplots of D29 Ab markers: baseline positive vaccine + placebo arms. The three dashed lines in each figure are ULOQ, LLOQ, and LLOD, from top to bottom respectively.

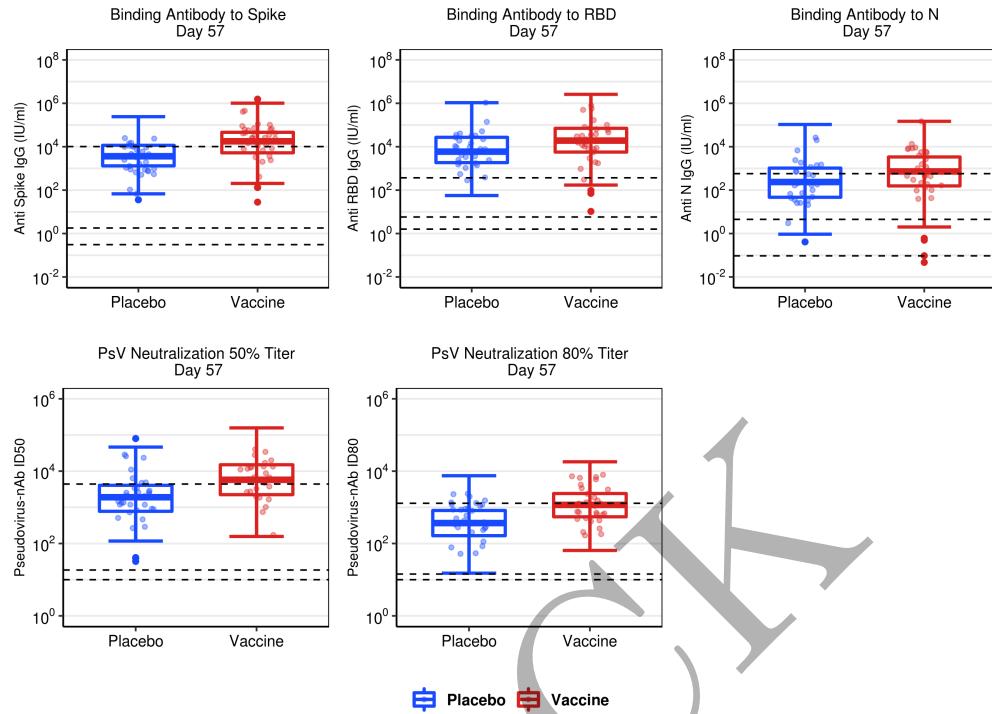


Figure 2.56: Boxplots of D57 Ab markers: baseline positive vaccine + placebo arms. The three dashed lines in each figure are ULOQ, LLOQ, and LLOD, from top to bottom respectively.

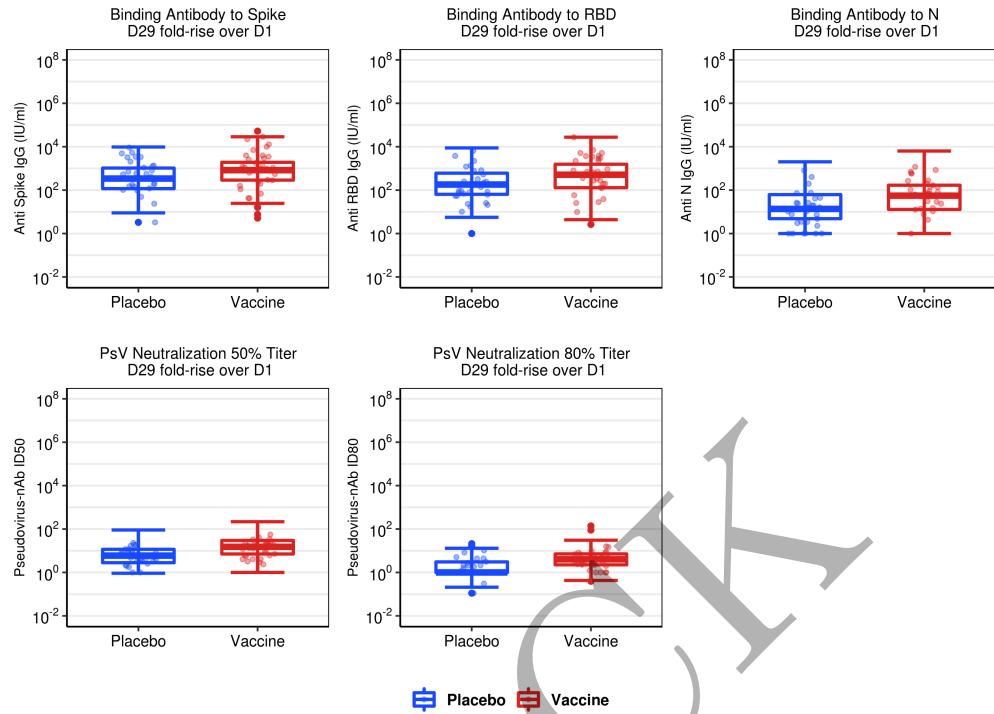


Figure 2.57: Boxplots of D29 fold-rise over D1 Ab markers: baseline positive vaccine + placebo arms

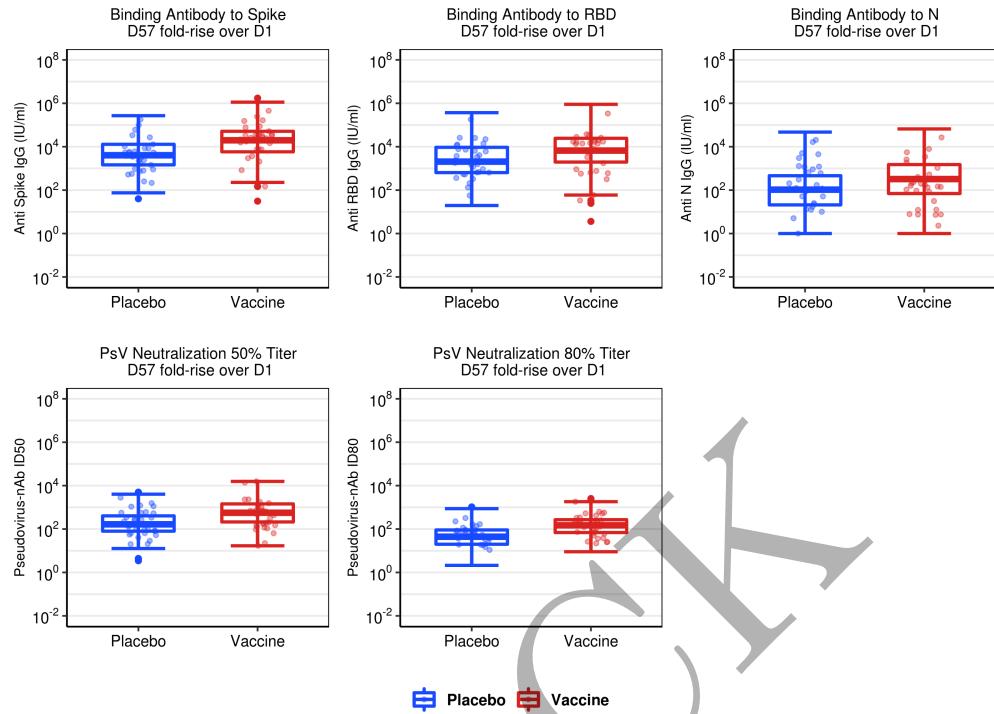


Figure 2.58: Boxplots of D57 fold-rise over D1 Ab markers: baseline positive vaccine + placebo arms

2.4.3 Baseline negative vs. positive vaccine recipients

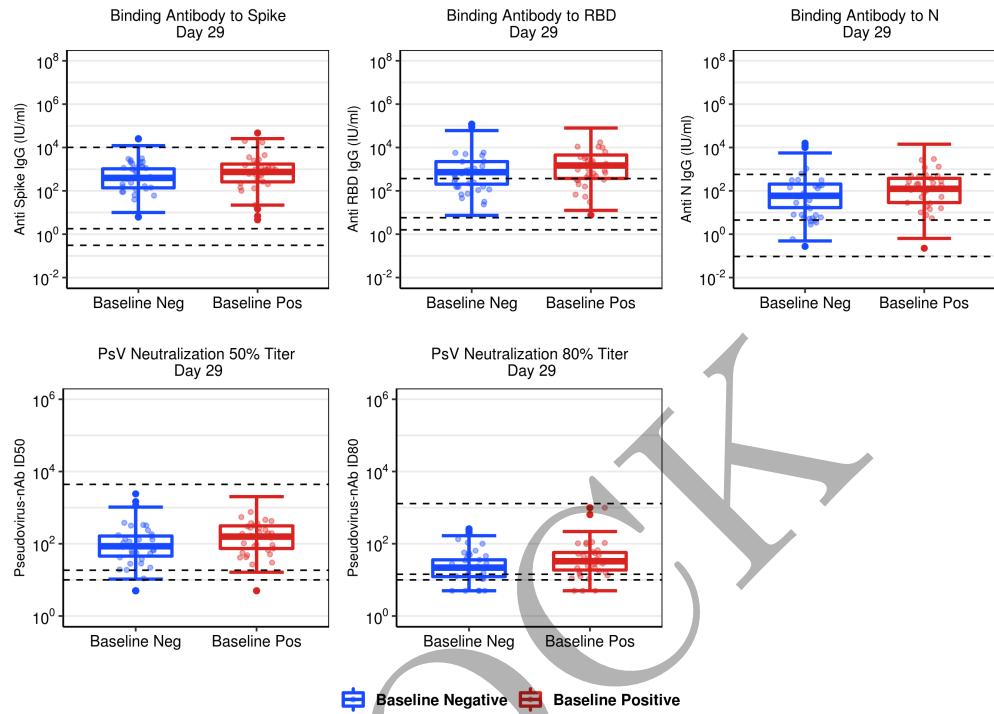


Figure 2.59: Boxplots of D29 Ab markers: baseline positive + negative vaccine arm. The three dashed lines in each figure are ULOQ, LLOQ, and LLQD, from top to bottom respectively.

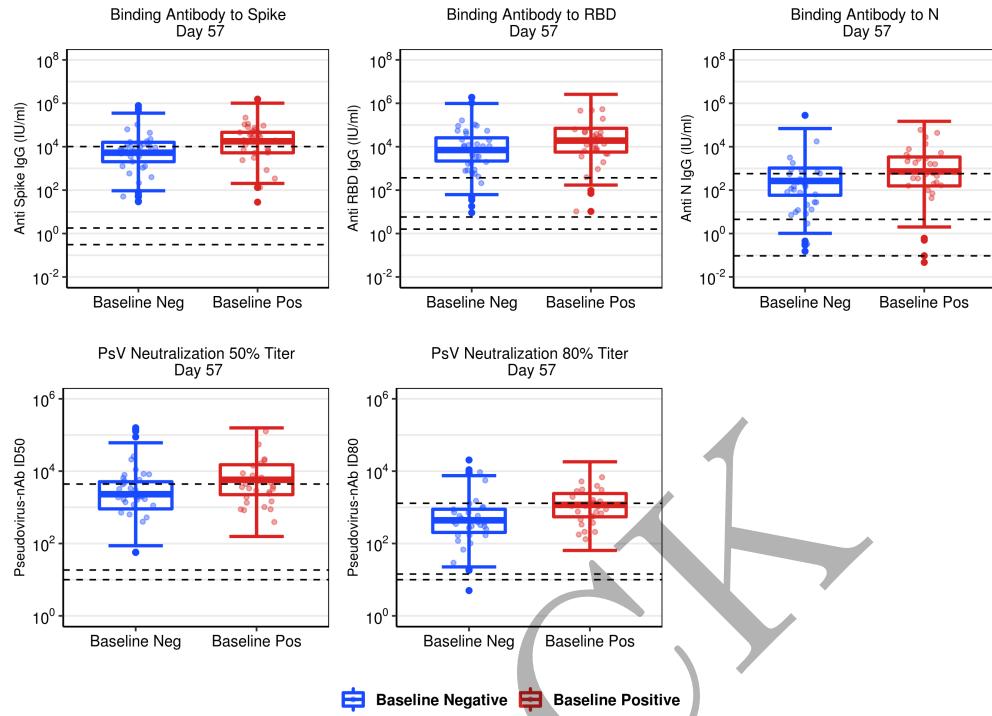


Figure 2.60: Boxplots of D57 Ab markers: baseline positive + negative vaccine arm. The three dashed lines in each figure are ULOQ, LLOQ, and LLOD, from top to bottom respectively.

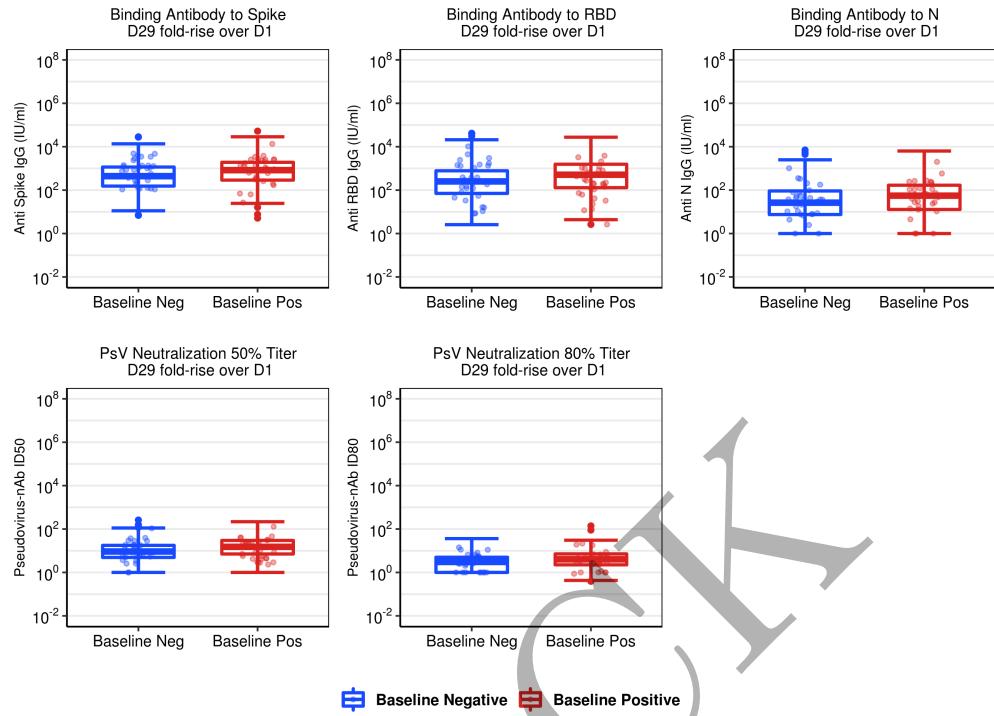


Figure 2.61: Boxplots of D29 fold-rise over D1 Ab markers: baseline positive + negative vaccine arm

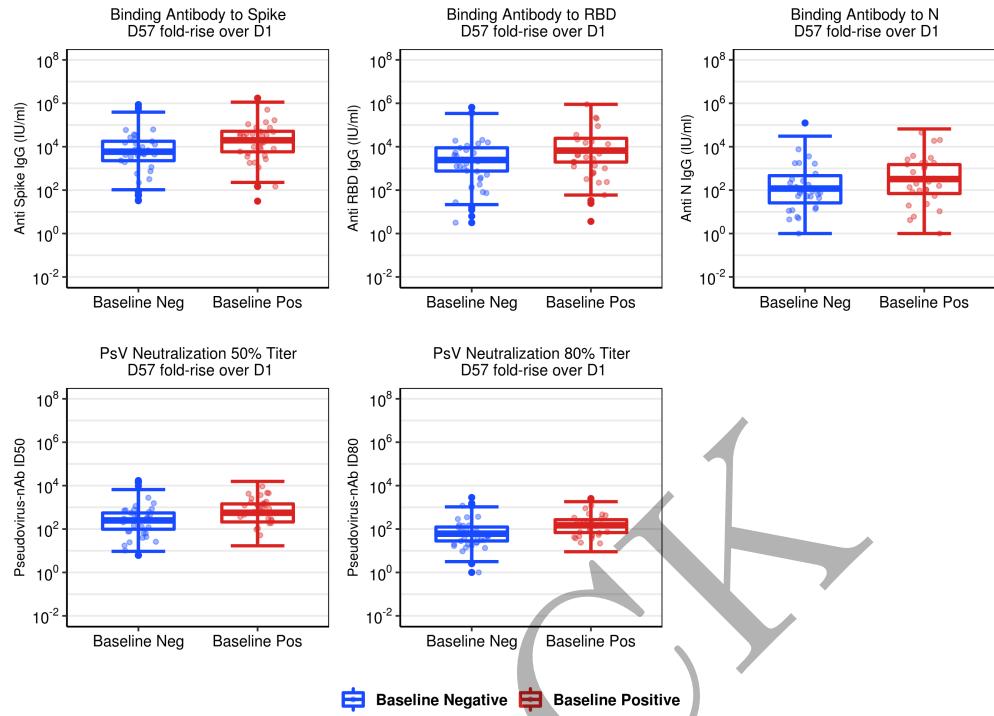


Figure 2.62: Boxplots of D57 fold-rise over D1 Ab markers: baseline positive + negative vaccine arm

2.4.4 Baseline negative vs. positive placebo recipients

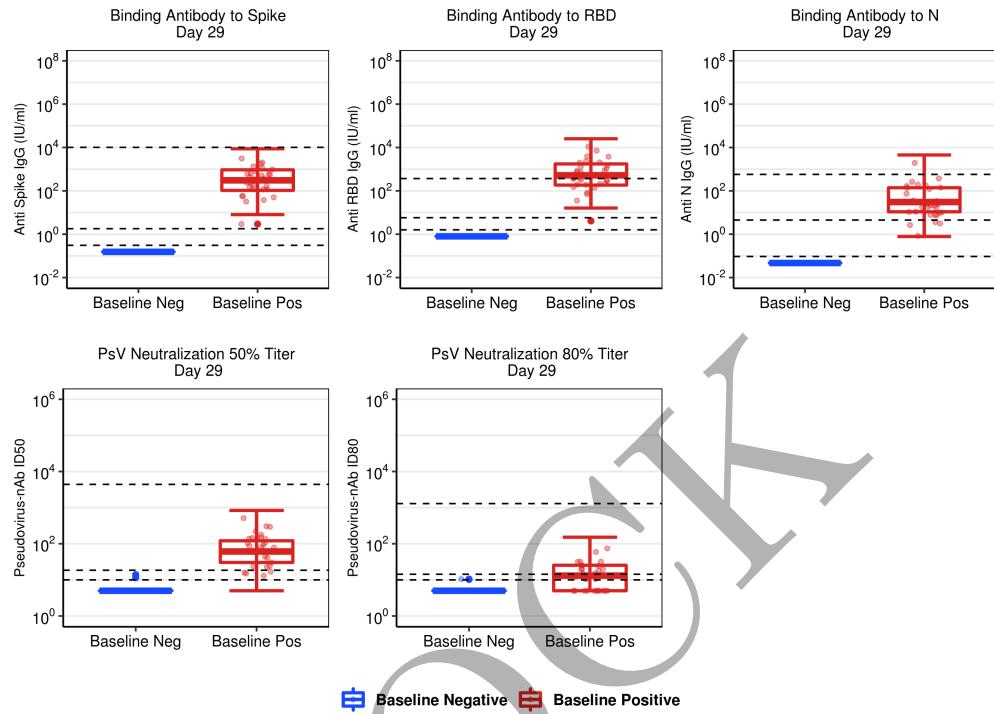


Figure 2.63: Boxplots of D29 Ab markers: baseline positive + negative placebo arm. The three dashed lines in each figure are ULOQ, LLOQ, and LLOD, from top to bottom respectively.

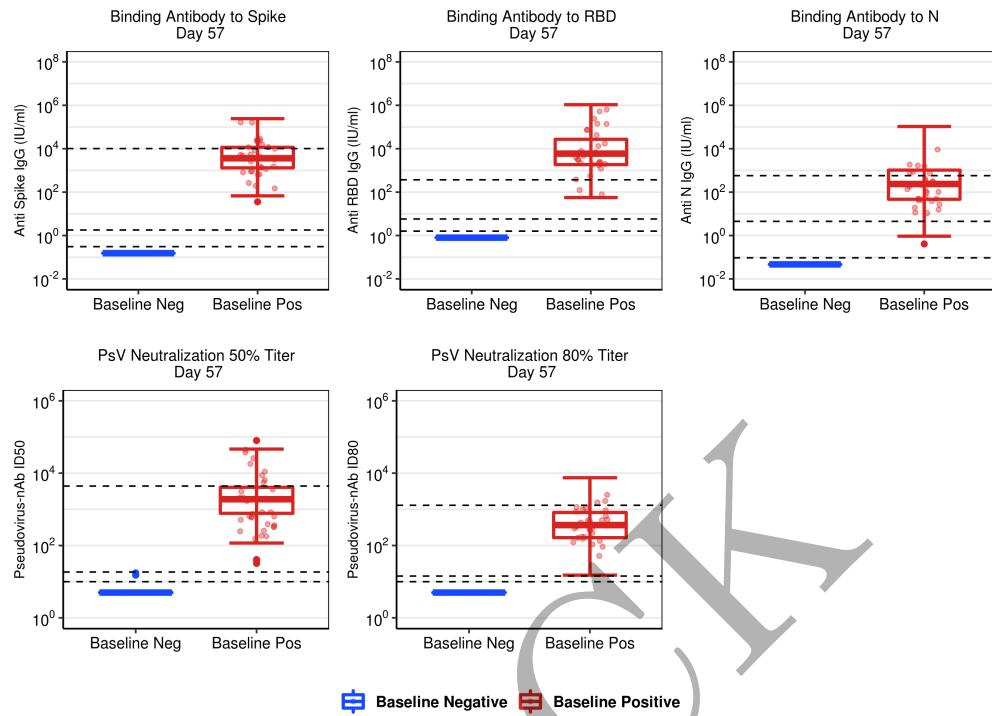


Figure 2.64: Boxplots of D57 Ab markers: baseline positive + negative placebo arm. The three dashed lines in each figure are ULOQ, LLOQ, and LLOD, from top to bottom respectively.

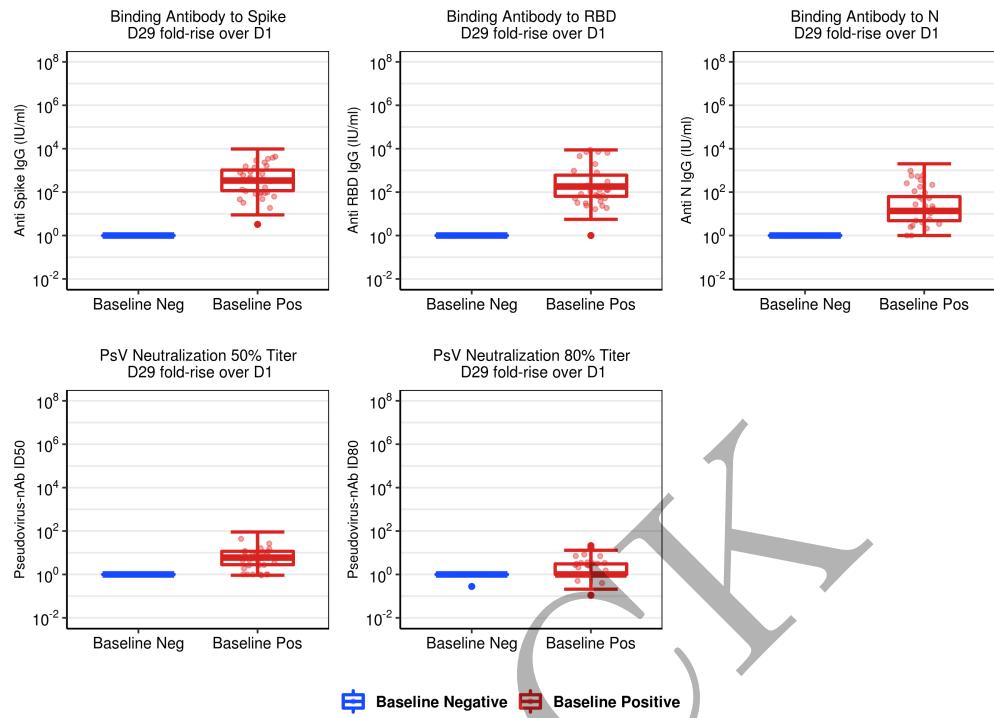


Figure 2.65: Boxplots of D29 fold-rise over D1 Ab markers: baseline positive + negative placebo arm

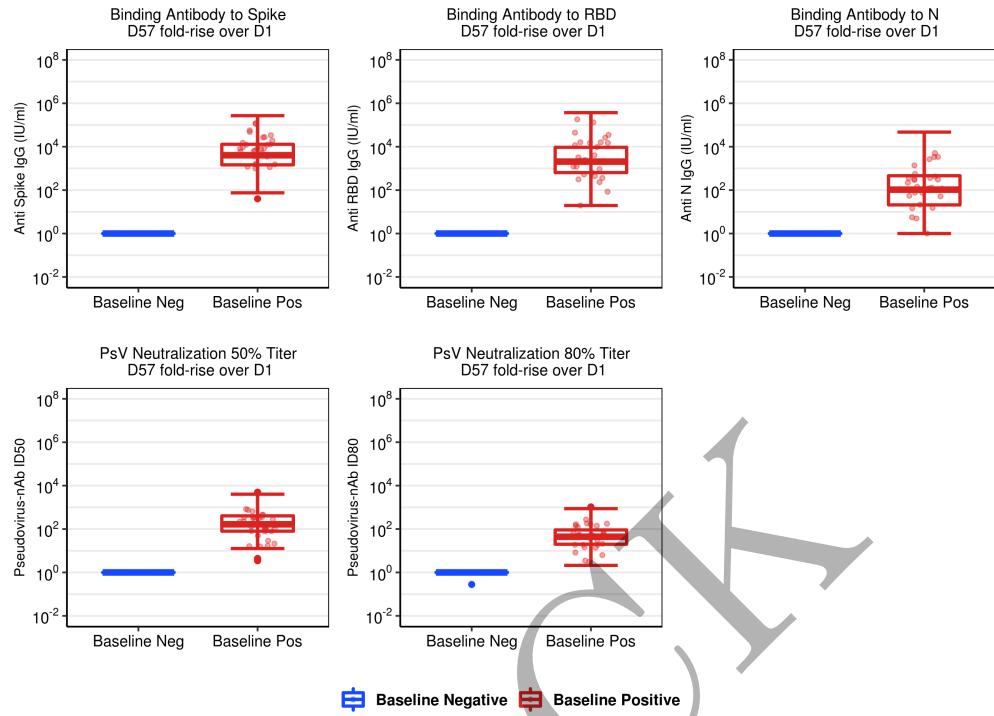


Figure 2.66: Boxplots of D57 fold-rise over D1 Ab markers: baseline positive + negative placebo arm

2.5 Spaghetti plots of antibody markers over time for the overall per-protocol cohort

2.5.1 Baseline SARS-CoV-2 negative

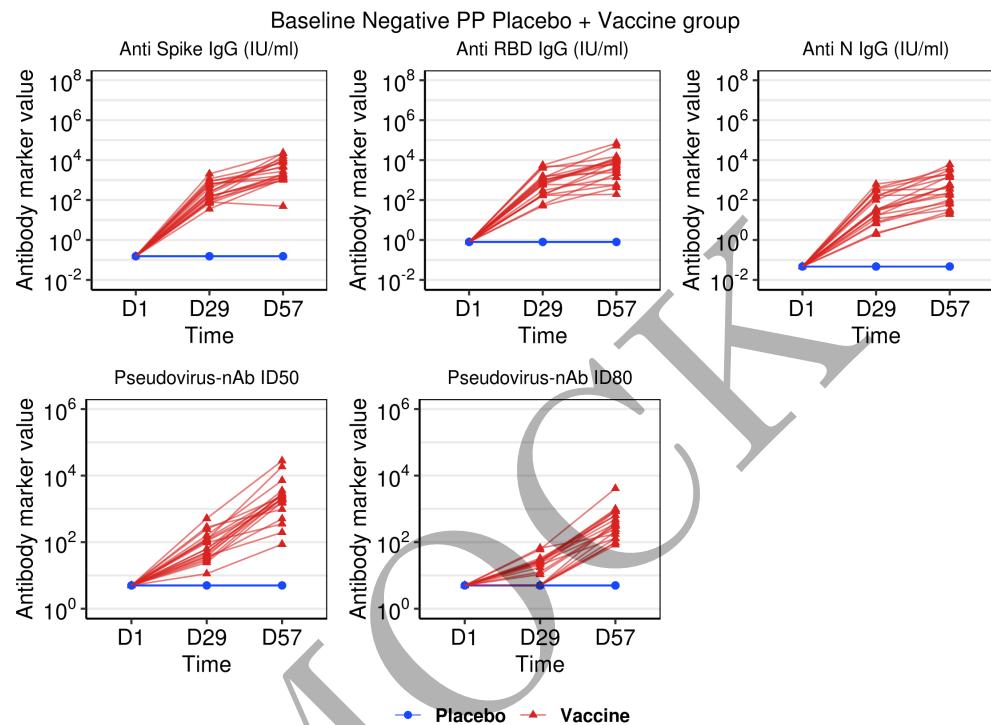


Figure 2.67: Spaghetti plots of Ab markers over time: baseline negative vaccine + placebo arm

2.5.2 Baseline SARS-CoV-2 positive

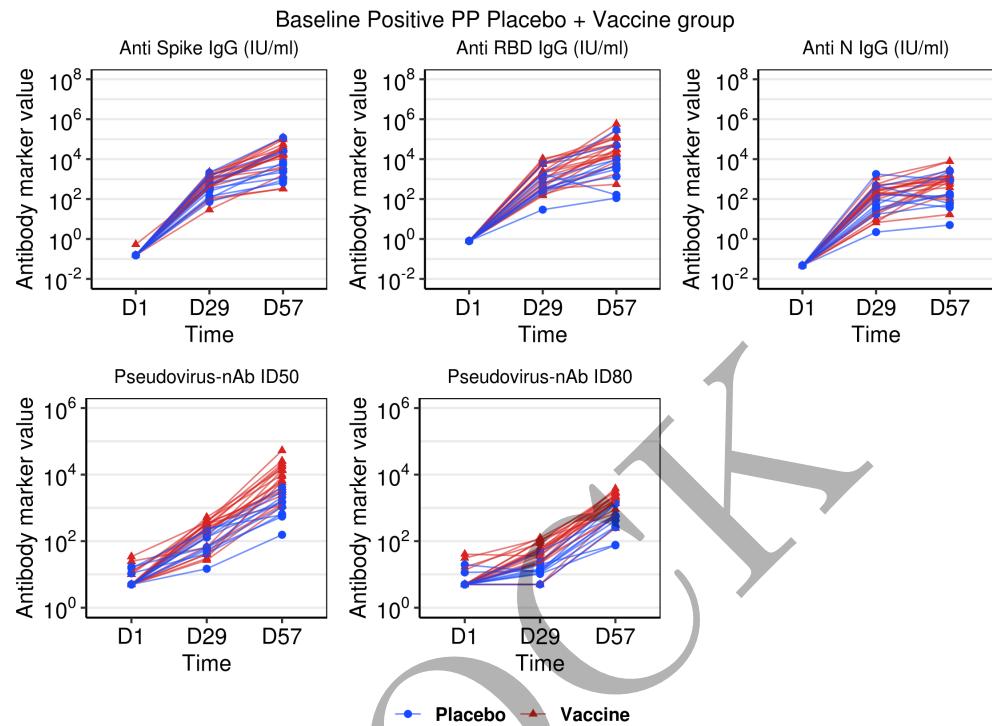


Figure 2.68: Spaghetti plots of Ab markers over time: baseline positive vaccine + placebo arm

2.6 RCDF plots of antibody markers by demographics for per-protocol cohort

2.6.1 Baseline SARS-CoV-2 negative

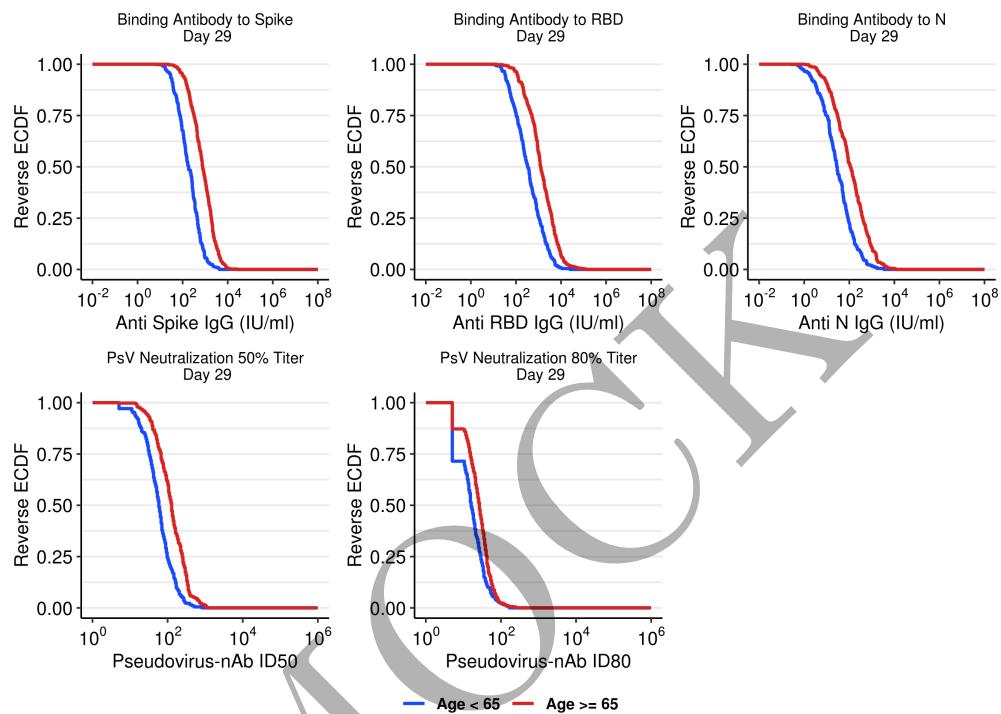


Figure 2.69: RCDF plots for D29 Ab markers: baseline negative vaccine arm by age groups.

2.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT543

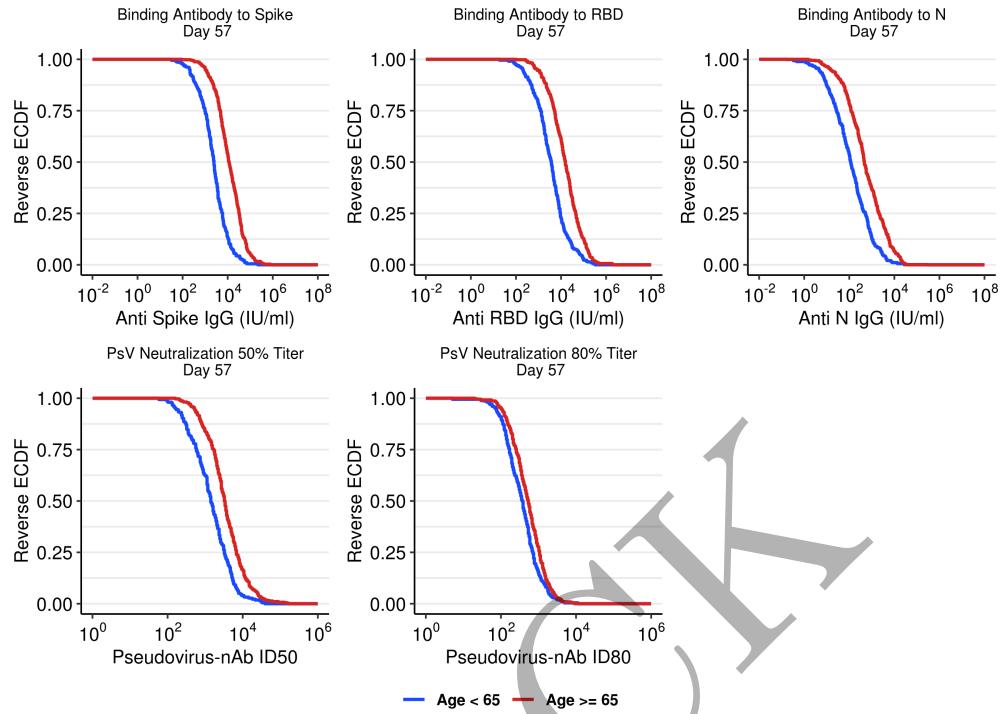


Figure 2.70: RCDF plots for D57 Ab markers: baseline negative vaccine arm by age groups.

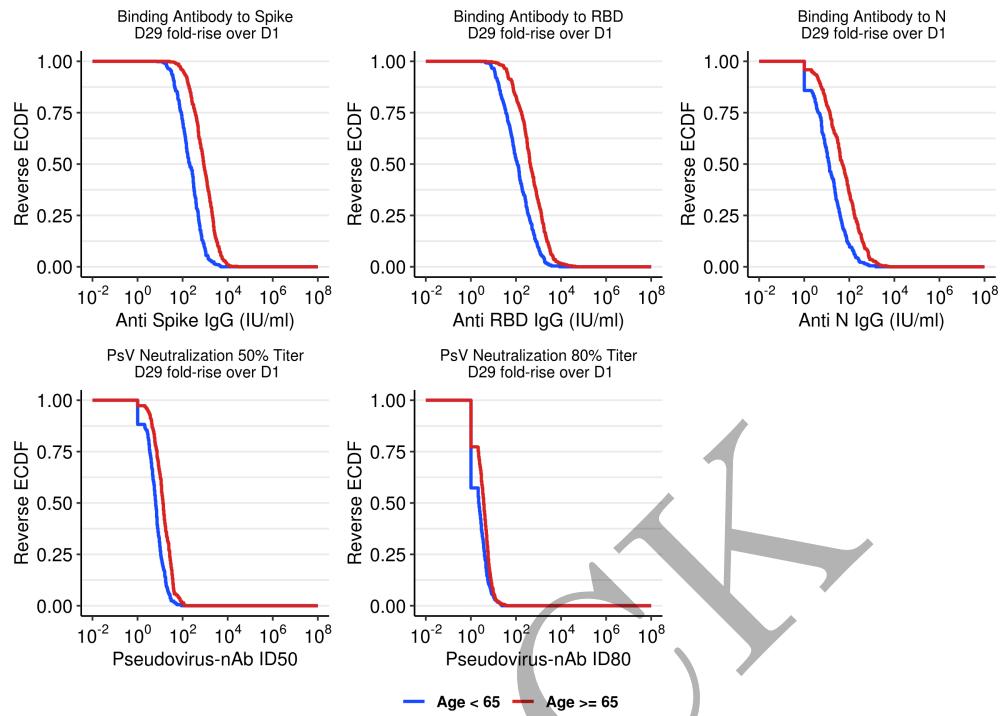


Figure 2.71: RCDF plots for D29 fold-rise over D1 Ab markers: baseline negative vaccine arm by age groups.

2.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT545

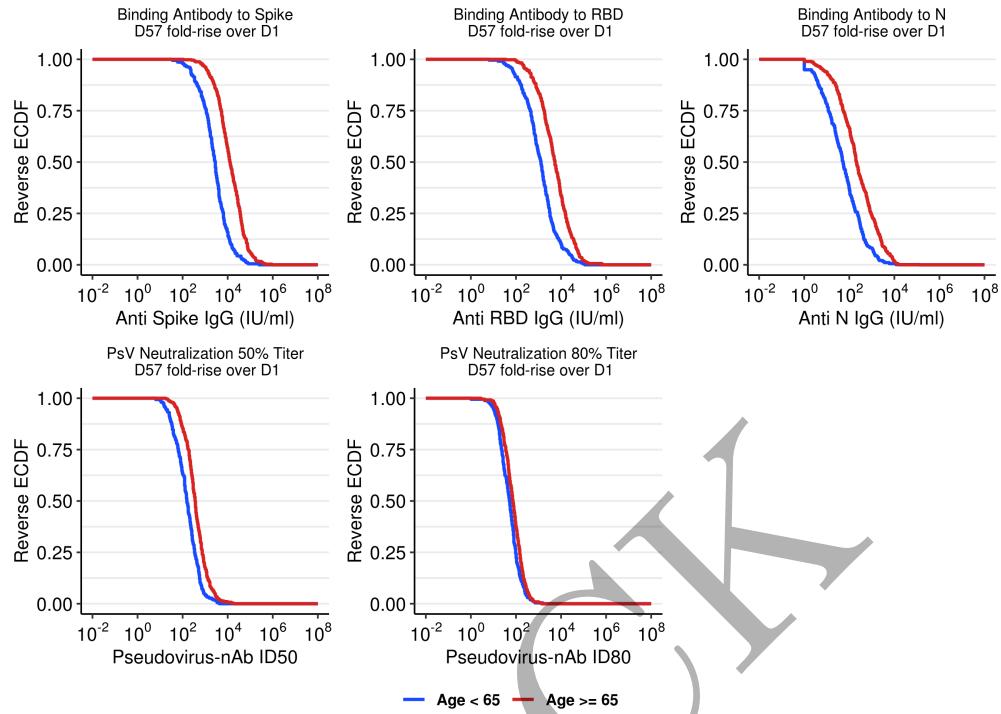


Figure 2.72: RCDF plots for D57 fold-rise over D1 Ab markers: baseline negative vaccine arm by age groups.

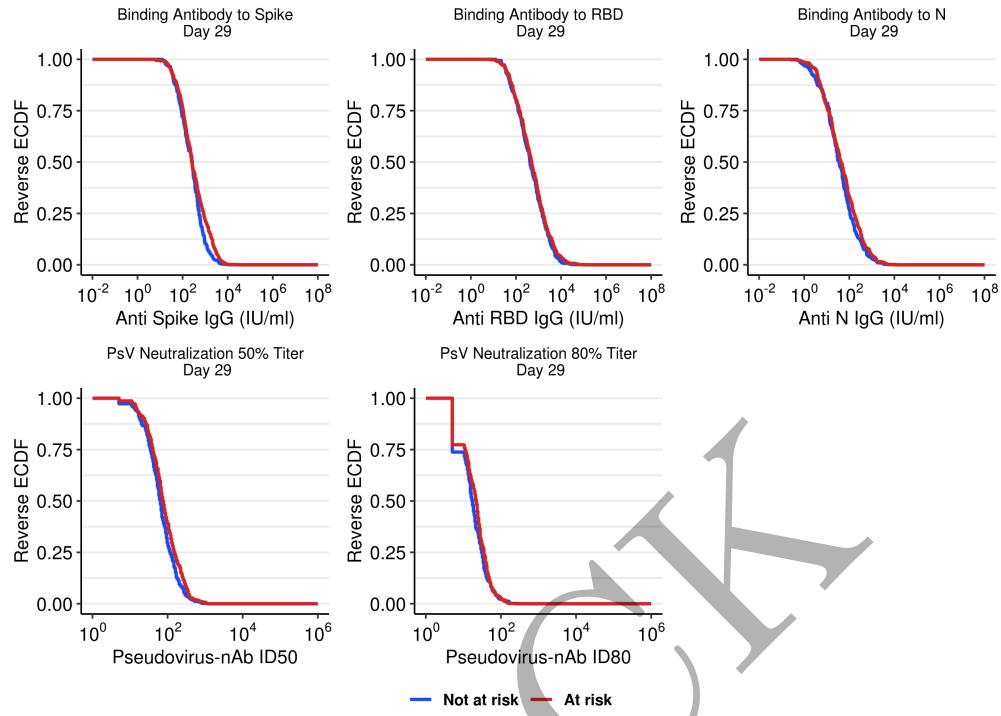


Figure 2.73: RCDF plots for D29 Ab markers: baseline negative vaccine arm by high-risk condition.

2.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT547

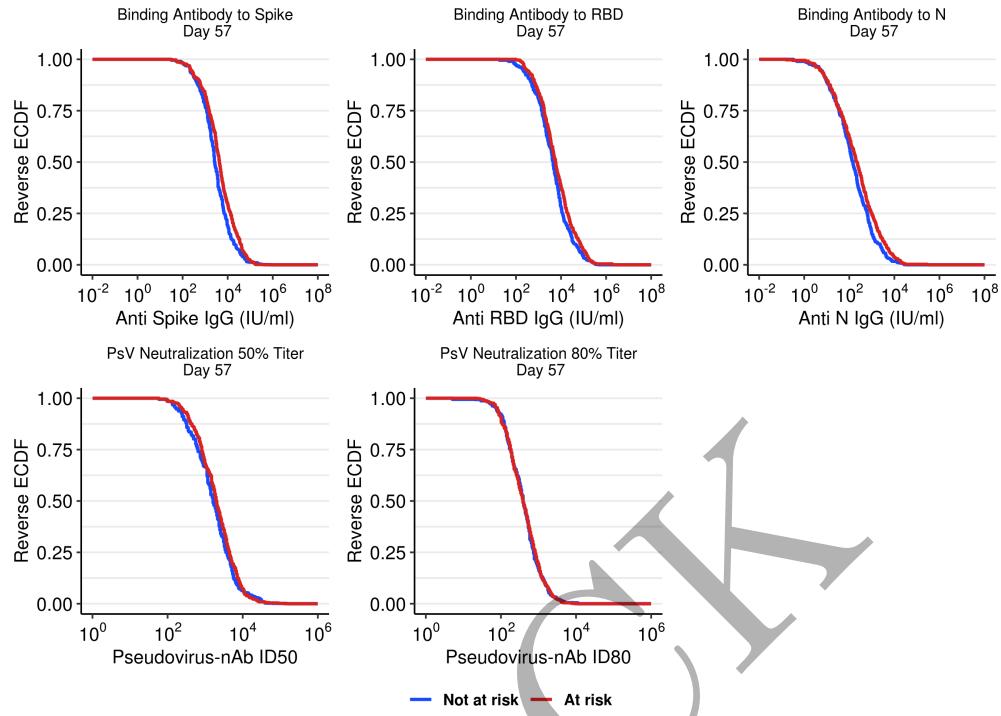


Figure 2.74: RCDF plots for D57 Ab markers: baseline negative vaccine arm by high-risk condition.

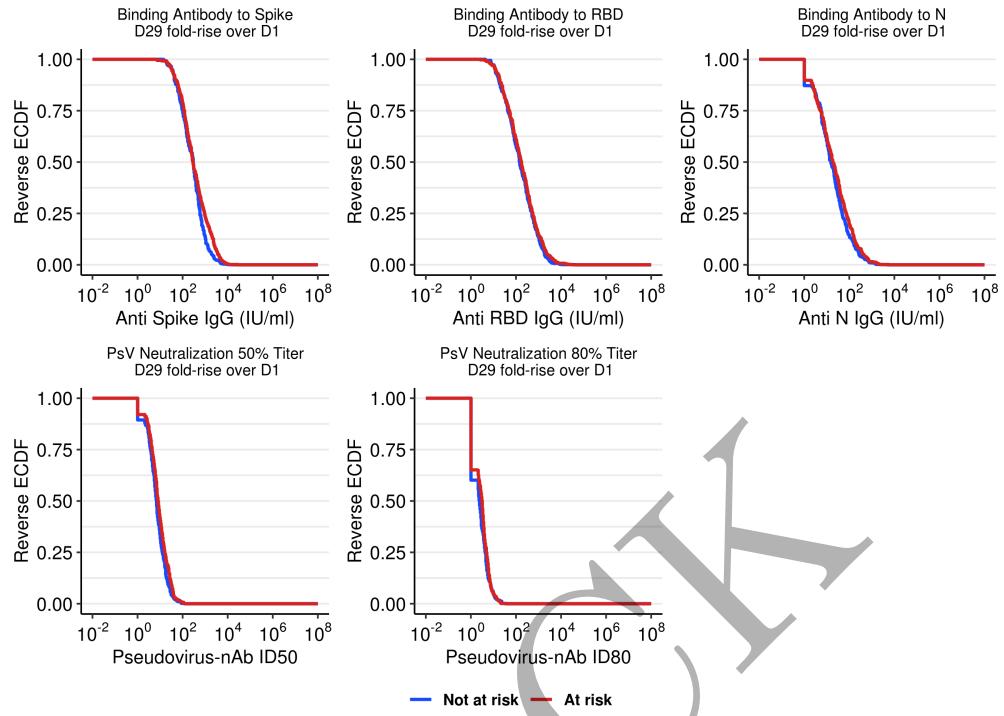


Figure 2.75: RCDF plots for D29 fold-rise over D1 Ab markers: baseline negative vaccine arm by high-risk condition.

2.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT549

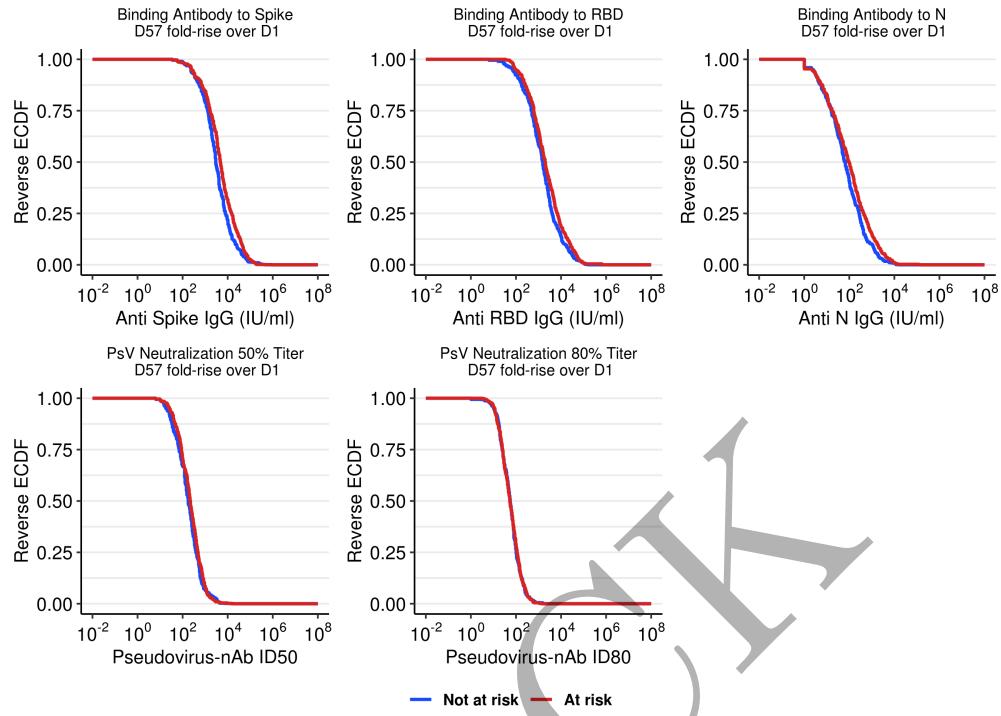


Figure 2.76: RCDF plots for D57 fold-rise over D1 Ab markers: baseline negative vaccine arm by high-risk condition.

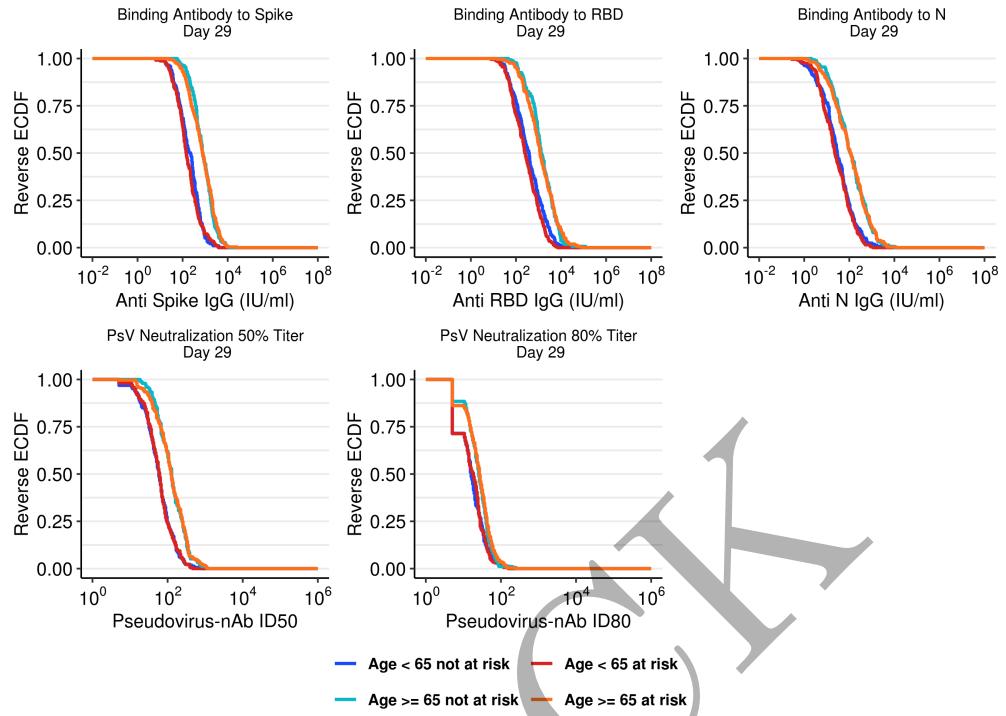


Figure 2.77: RCDF plots for D29 Ab markers: baseline negative vaccine arm by age and high-risk condition.

2.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT551

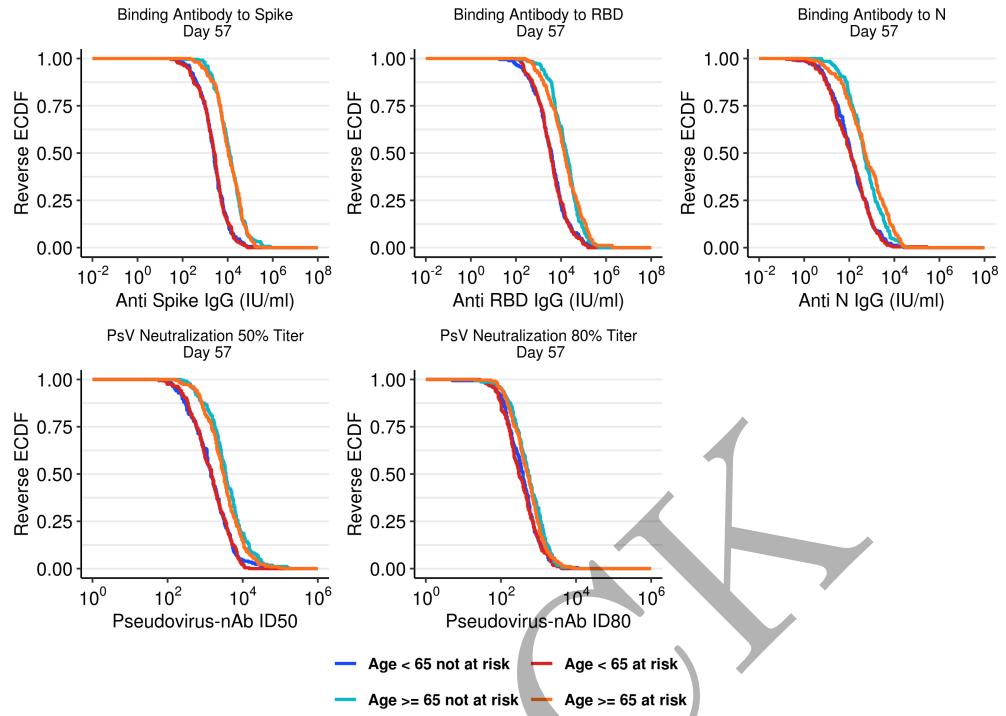


Figure 2.78: RCDF plots for D57 Ab markers: baseline negative vaccine arm by age and high-risk condition.

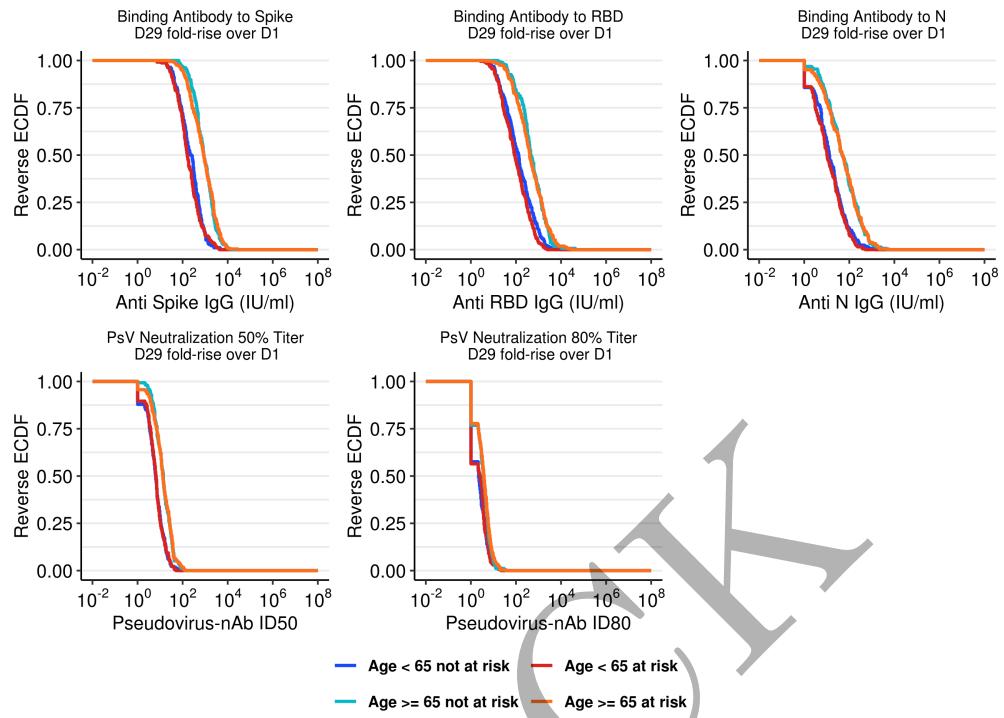


Figure 2.79: RCDF plots for D29 fold-rise over D1 Ab markers: baseline negative vaccine arm by age and high-risk condition.

2.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT553

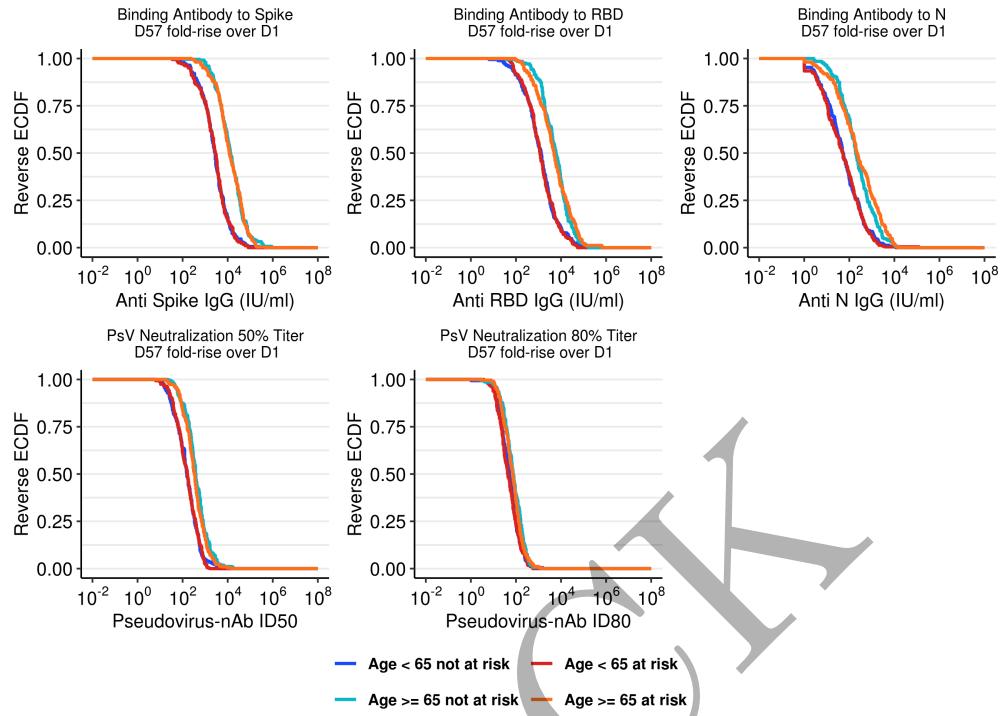


Figure 2.80: RCDF plots for D57 fold-rise over D1 Ab markers: baseline negative vaccine arm by age and high-risk condition.

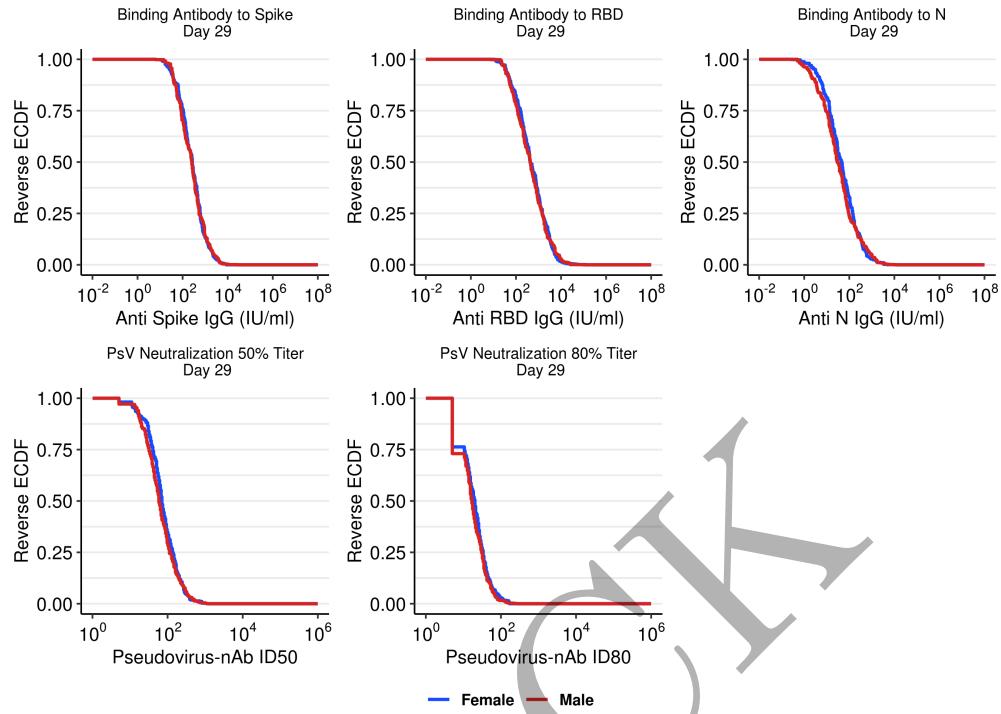


Figure 2.81: RCDF plots for D29 Ab markers: baseline negative vaccine arm by sex assigned at birth.

2.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT555

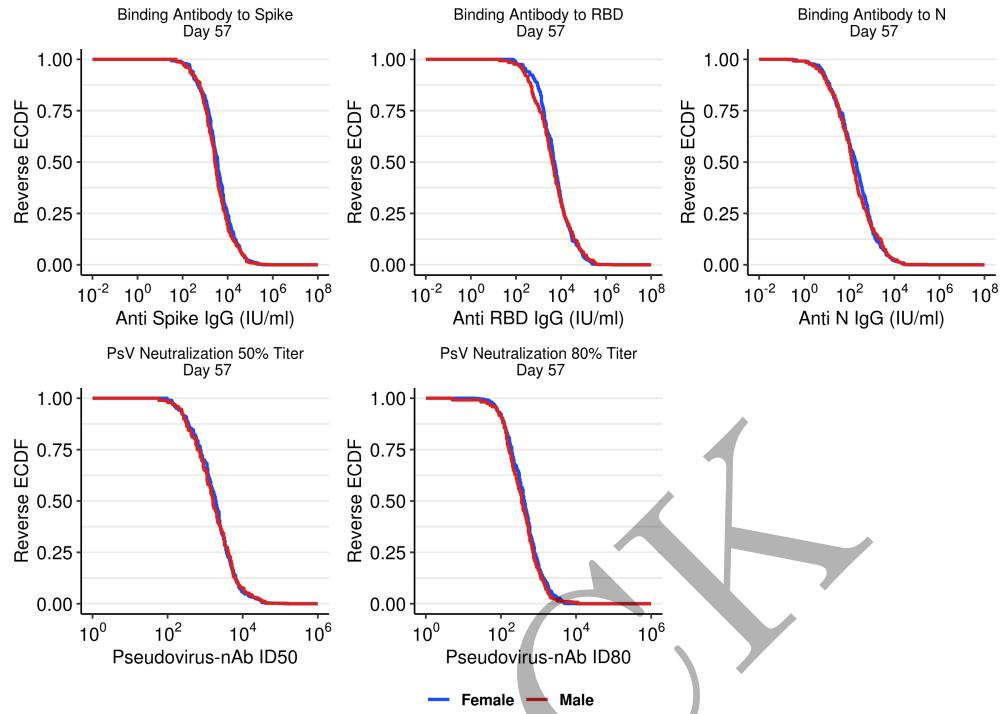


Figure 2.82: RCDF plots for D57 Ab markers: baseline negative vaccine arm by sex assigned at birth.

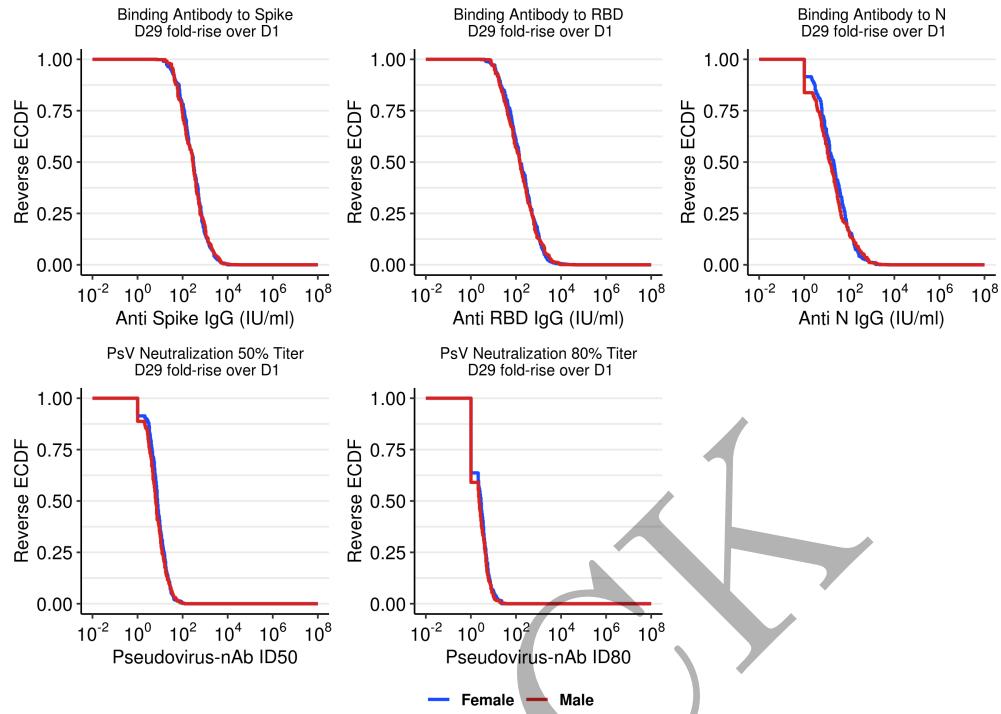


Figure 2.83: RCDF plots for D29 fold-rise over D1 Ab markers: baseline negative vaccine arm by sex assigned at birth.

2.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT557

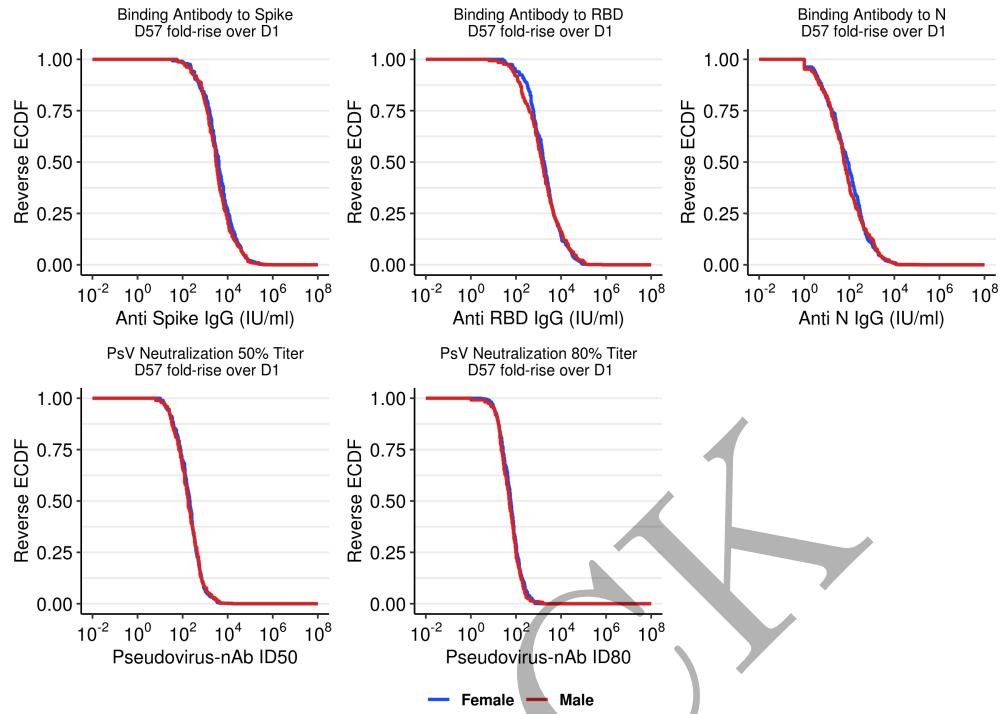


Figure 2.84: RCDF plots for D57 fold-rise over D1 Ab markers: baseline negative vaccine arm by sex assigned at birth.

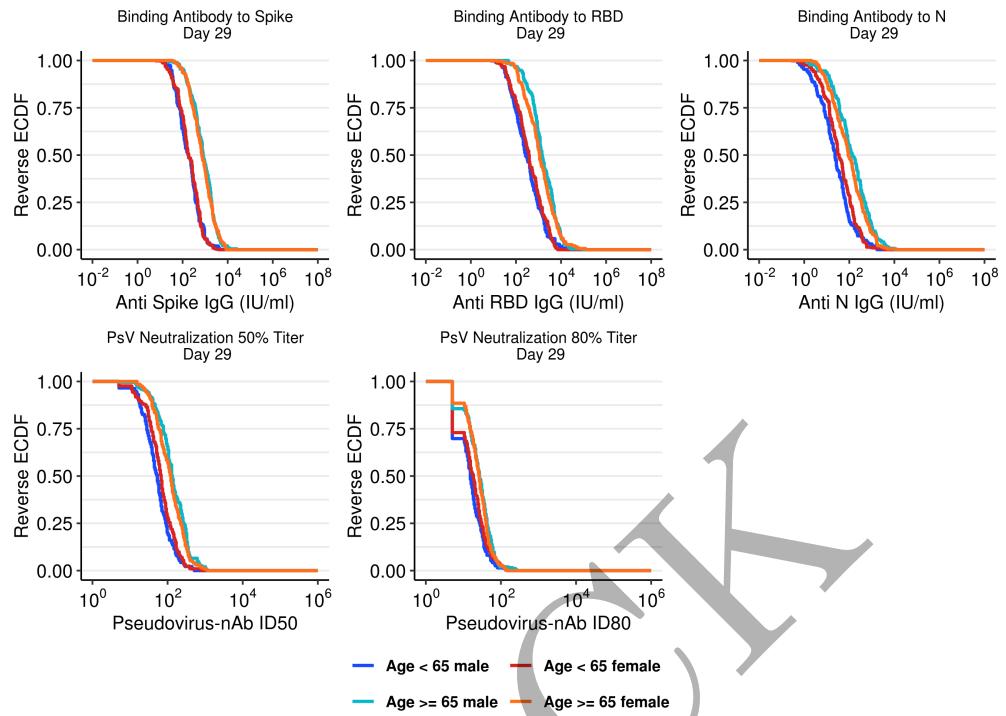


Figure 2.85: RCDF plots for D29 Ab markers: baseline negative vaccine arm by age and sex assigned at birth.

2.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT559

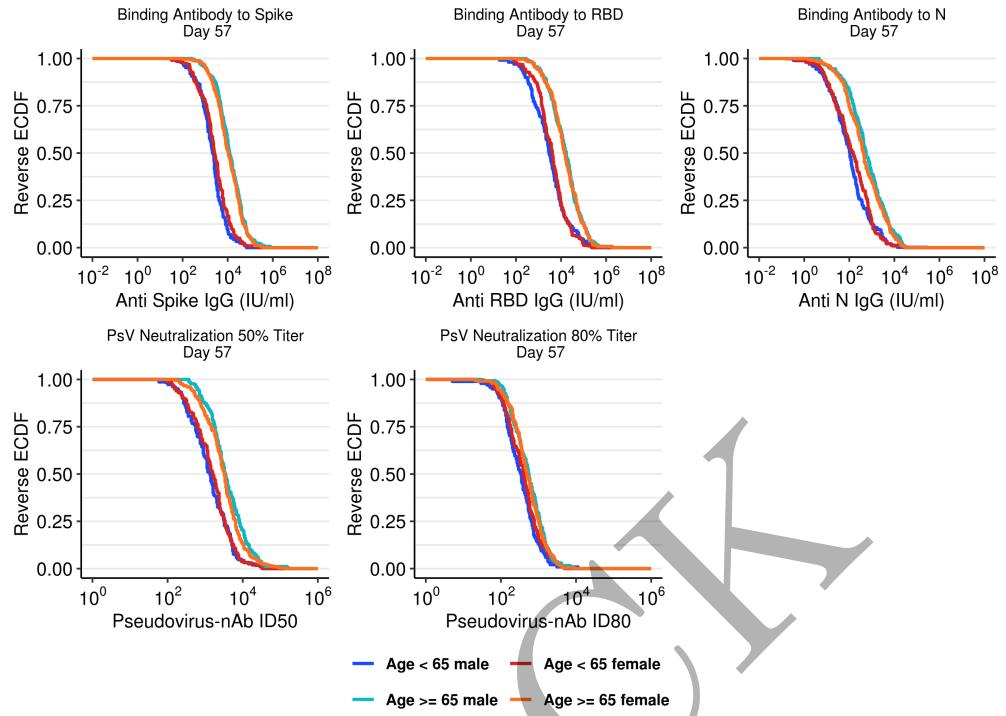


Figure 2.86: RCDF plots for D57 Ab markers: baseline negative vaccine arm by age and sex assigned at birth.

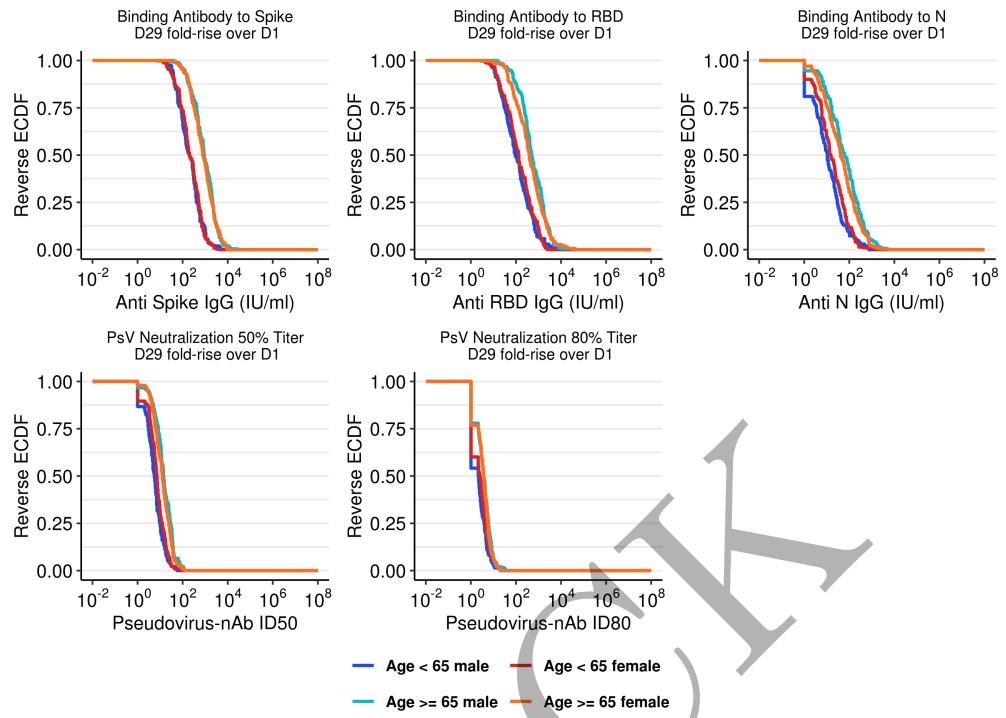


Figure 2.87: RCDF plots for D29 fold-rise over D1 Ab markers: baseline negative vaccine arm by age and sex assigned at birth.

2.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT561

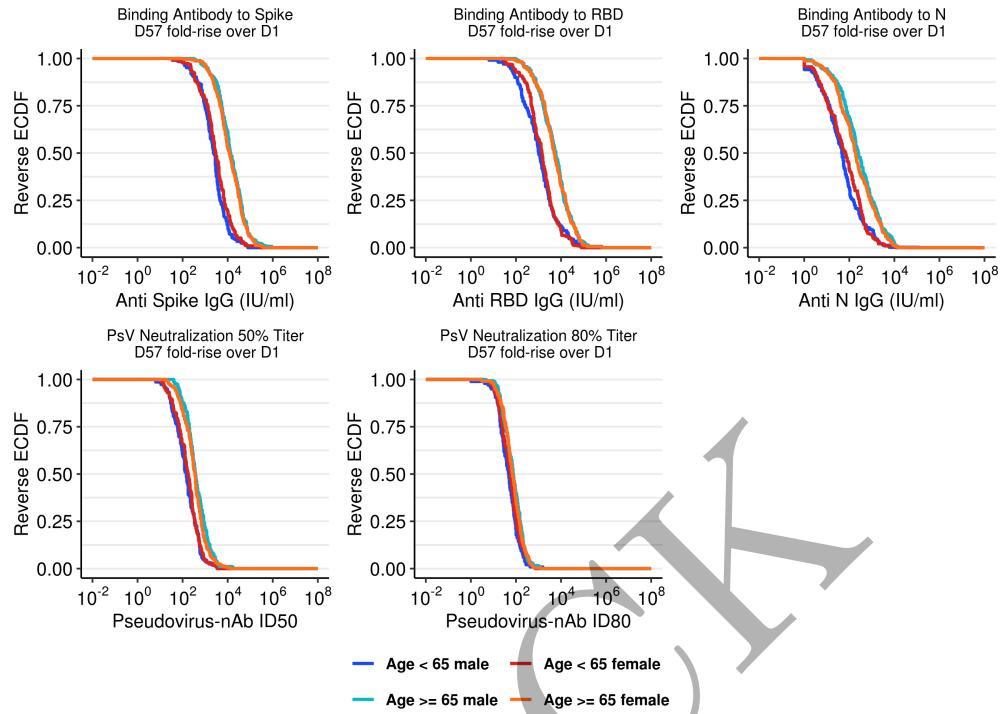


Figure 2.88: RCDF plots for D57 fold-rise over D1 Ab markers: baseline negative vaccine arm by age and sex at birth.

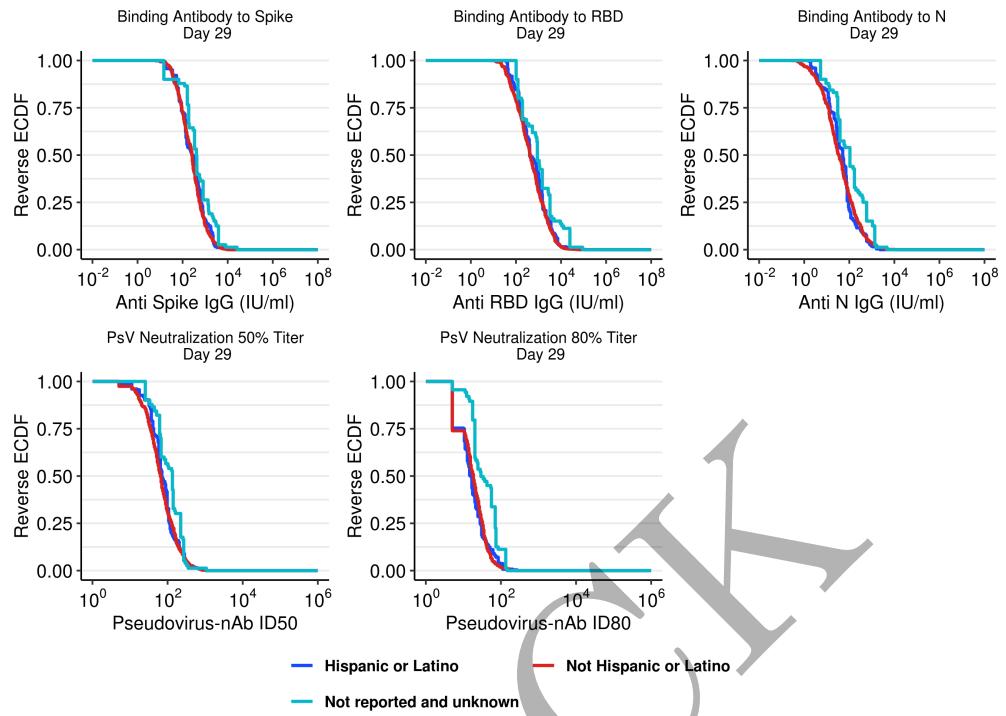


Figure 2.89: RCDF plots for D29 Ab markers: baseline negative vaccine arm by ethnicity.

2.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT563

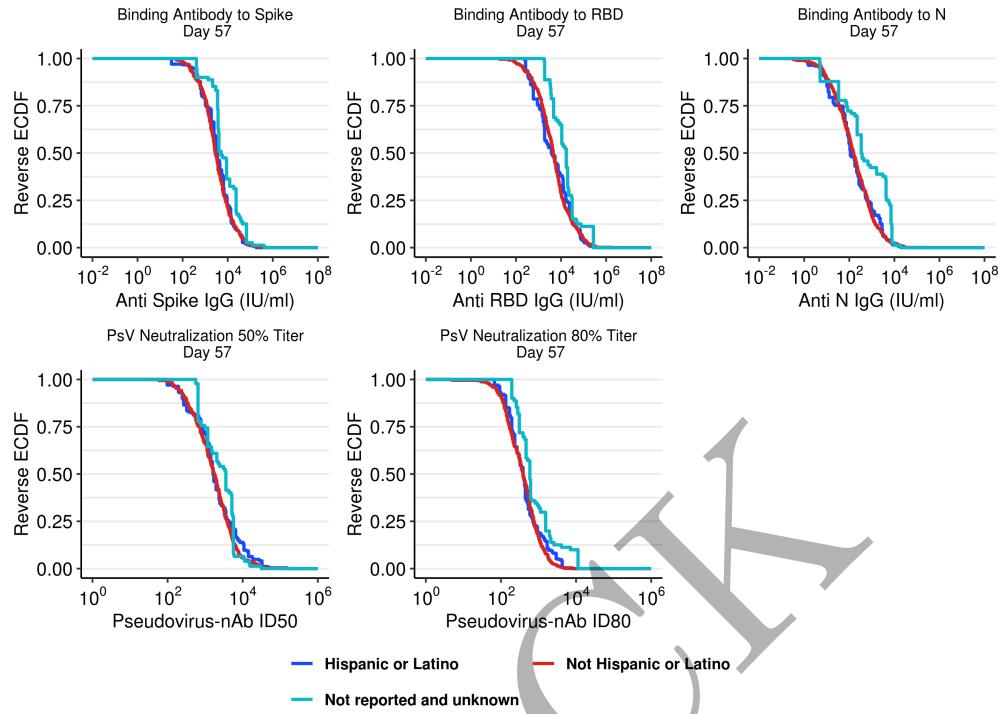


Figure 2.90: RCDF plots for D57 Ab markers: baseline negative vaccine arm by ethnicity.

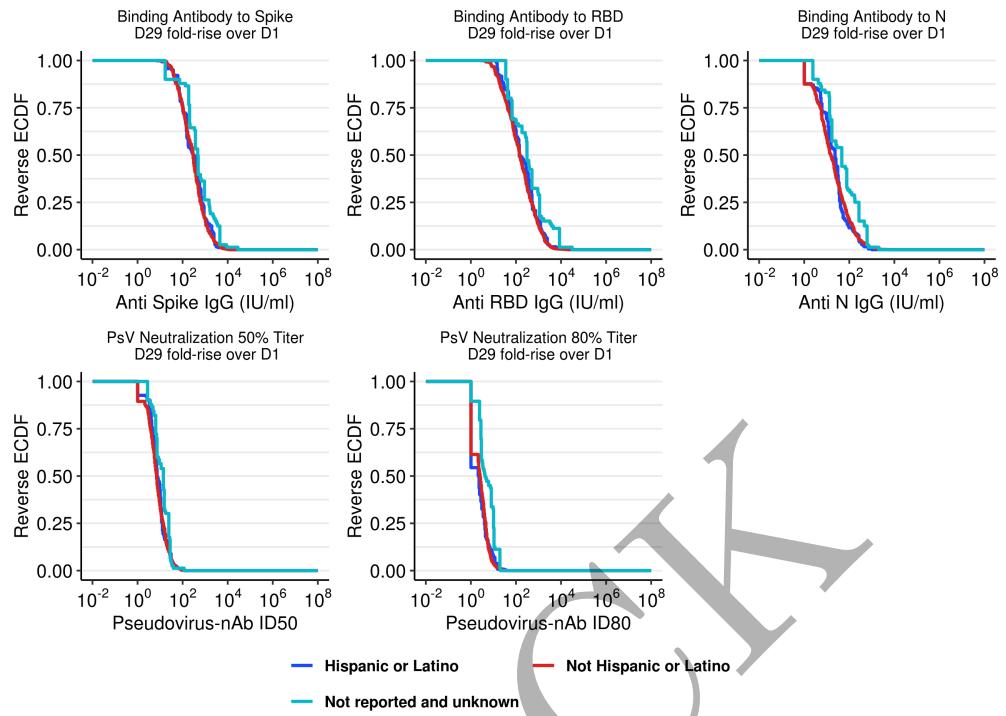


Figure 2.91: RCDF plots for D29 fold-rise over D1 Ab markers: baseline negative vaccine arm by ethnicity.

2.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT565

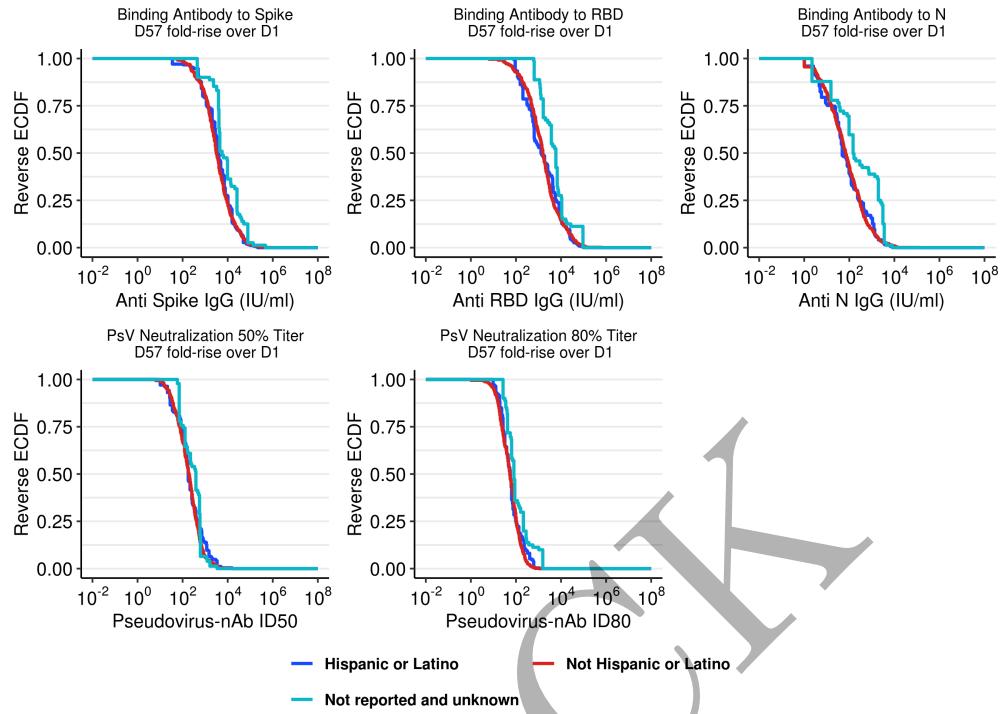


Figure 2.92: RCDF plots for D57 fold-rise over D1 Ab markers: baseline negative vaccine arm by ethnicity.

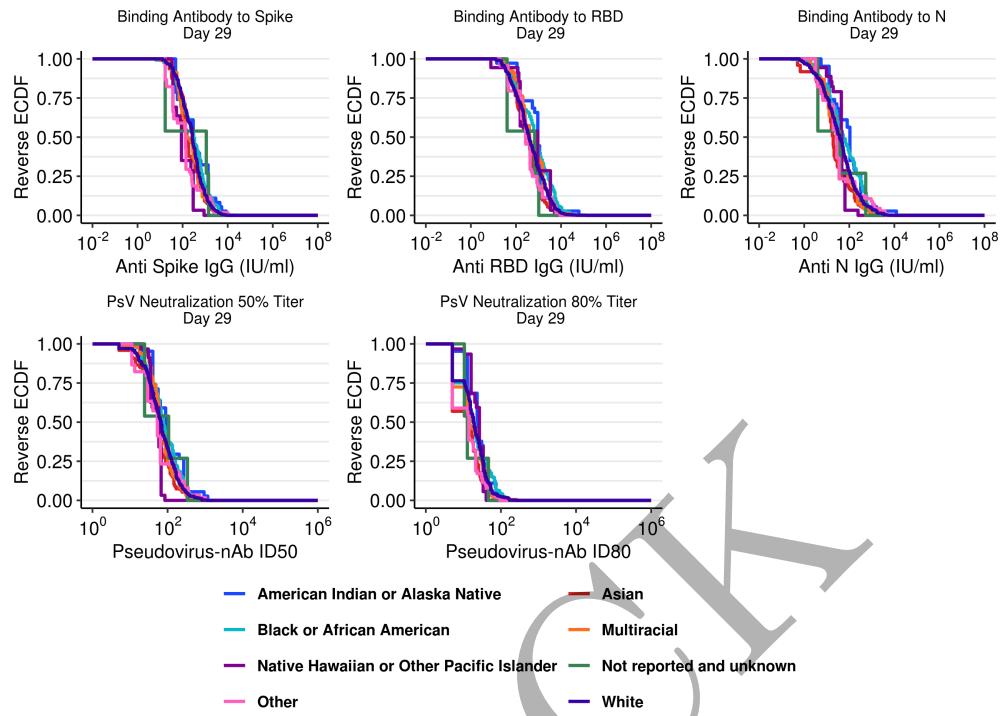


Figure 2.93: RCDF plots for D29 Ab markers: baseline negative vaccine arm by race.

2.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT567

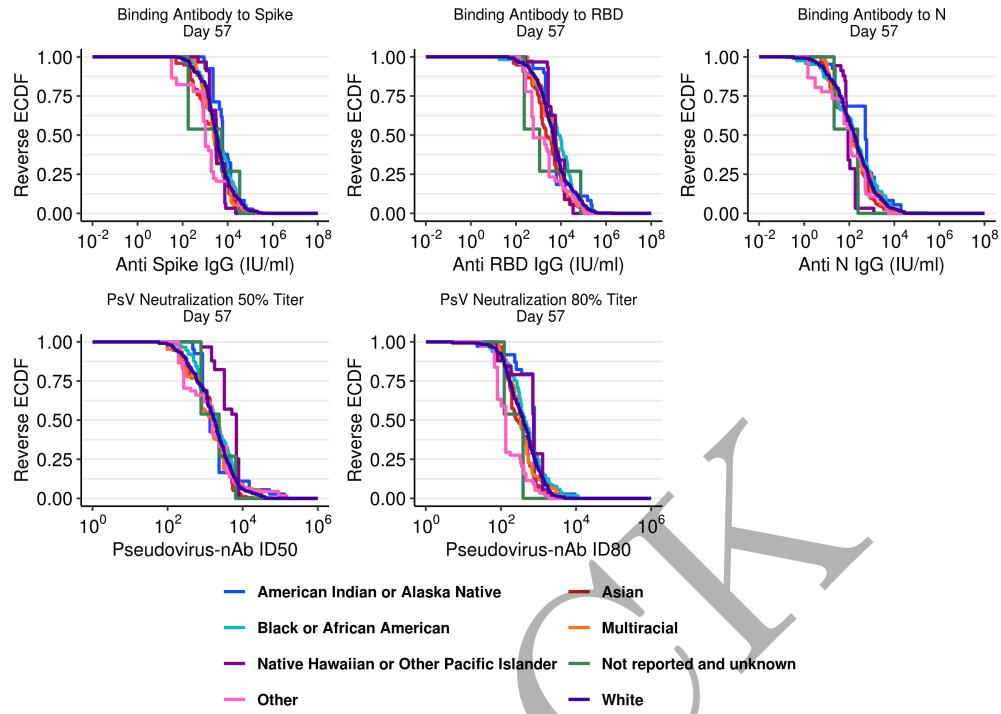


Figure 2.94: RCDF plots for D57 Ab markers: baseline negative vaccine arm by race.

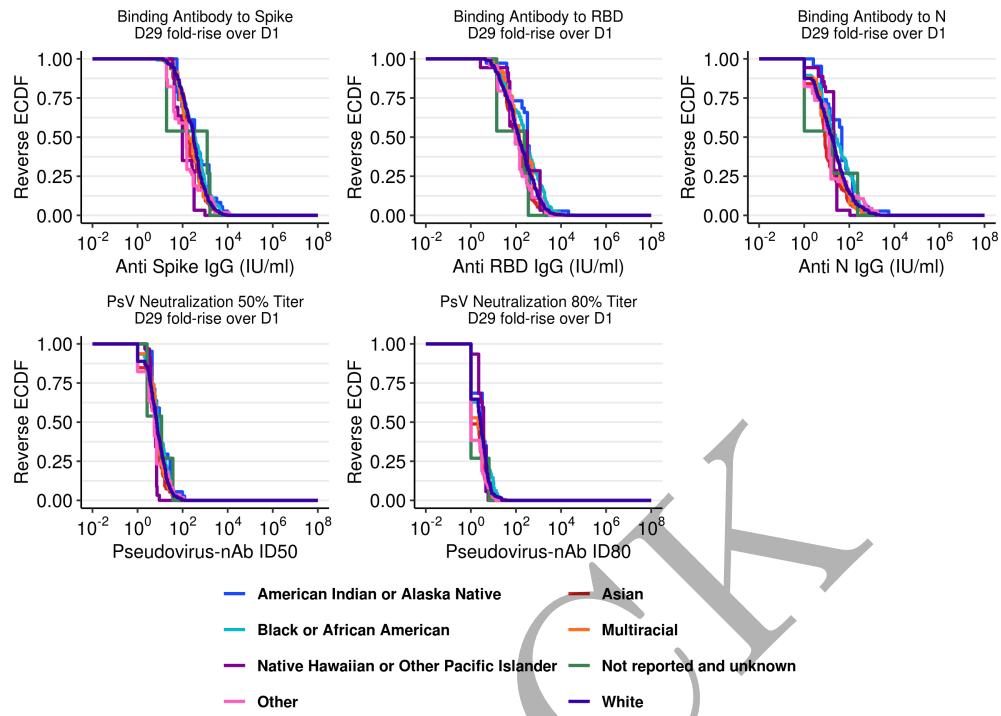


Figure 2.95: RCDF plots for D29 fold-rise over D1 Ab markers: baseline negative vaccine arm by race.

2.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT569

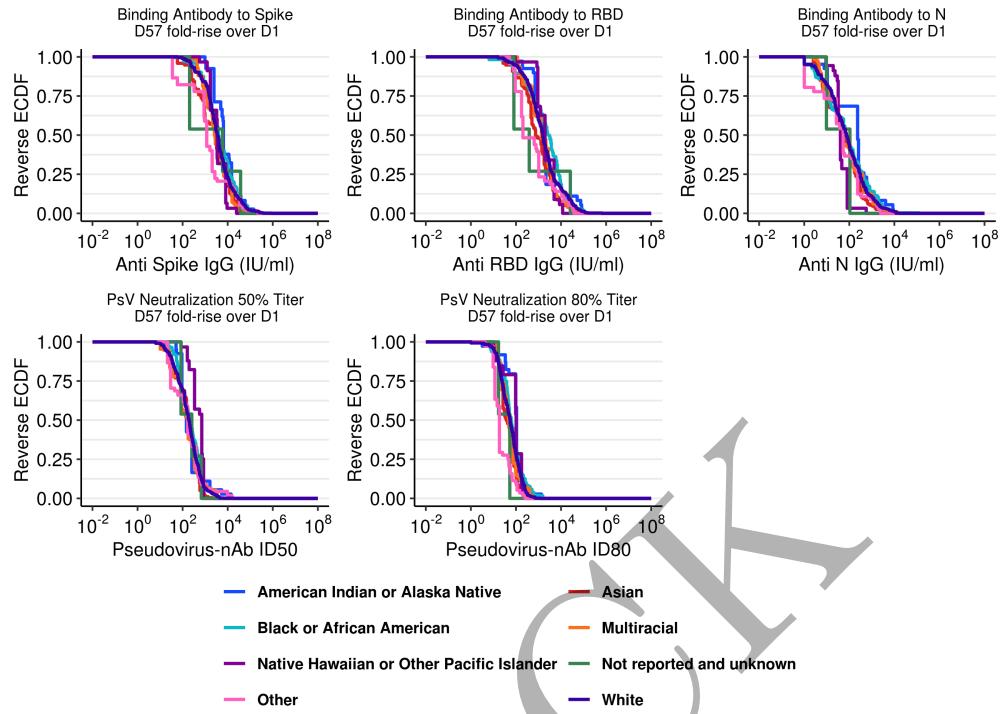


Figure 2.96: RCDF plots for D57 fold-rise over D1 Ab markers: baseline negative vaccine arm by race.

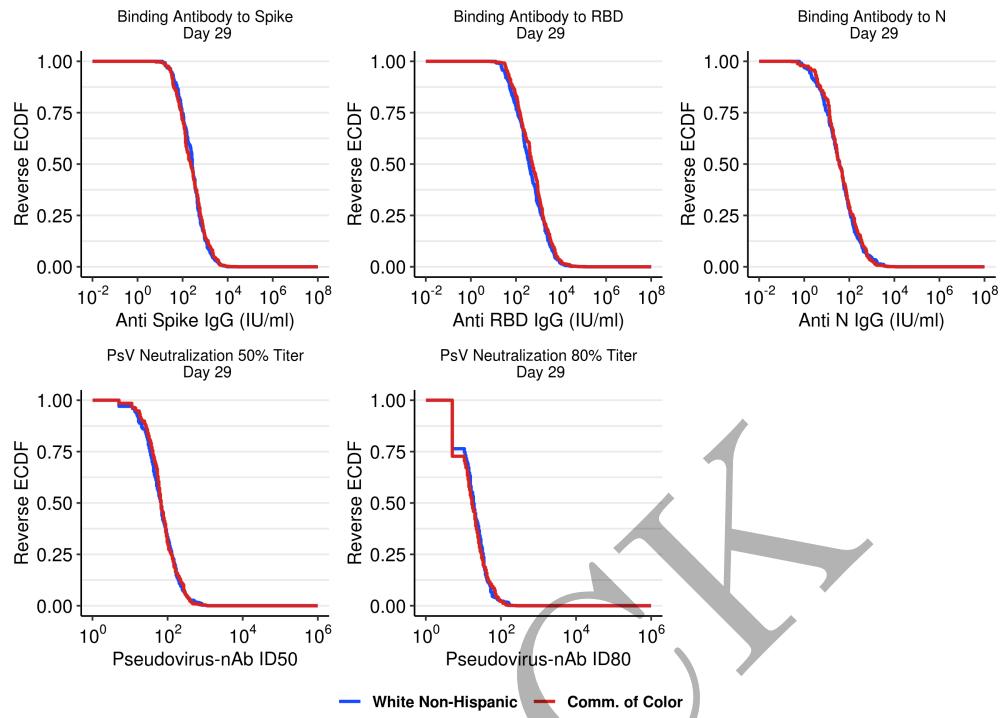


Figure 2.97: RCDF plots for D29 Ab markers: baseline negative vaccine arm by dichotomous classification of race and ethnic group.

2.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT571

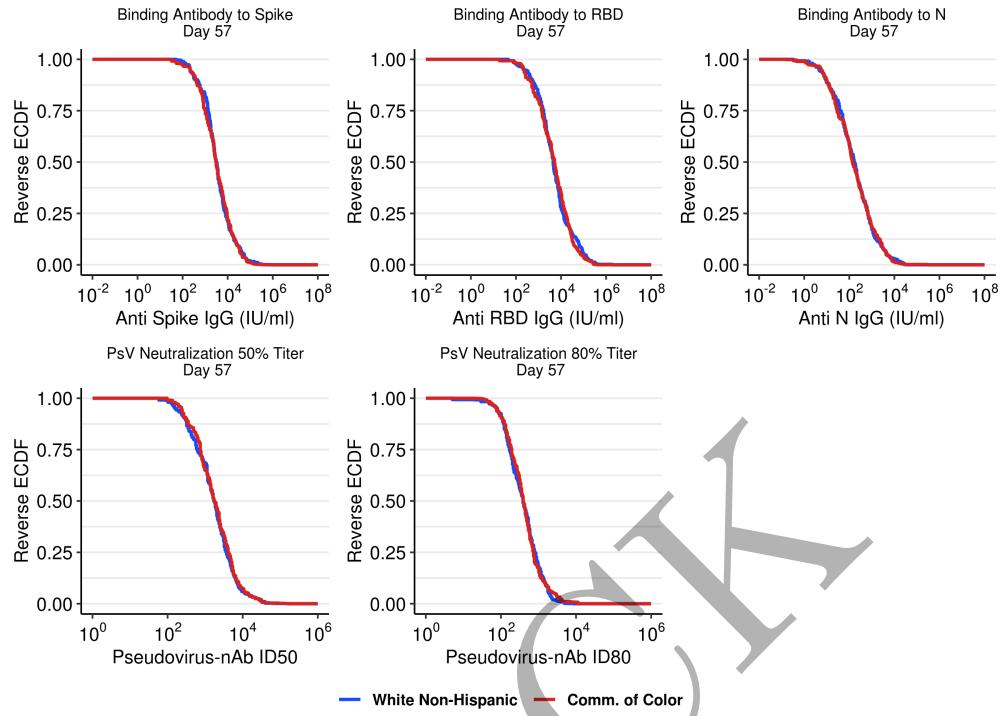


Figure 2.98: RCDF plots for D57 Ab markers: baseline negative vaccine arm by dichotomous classification of race and ethnic group.

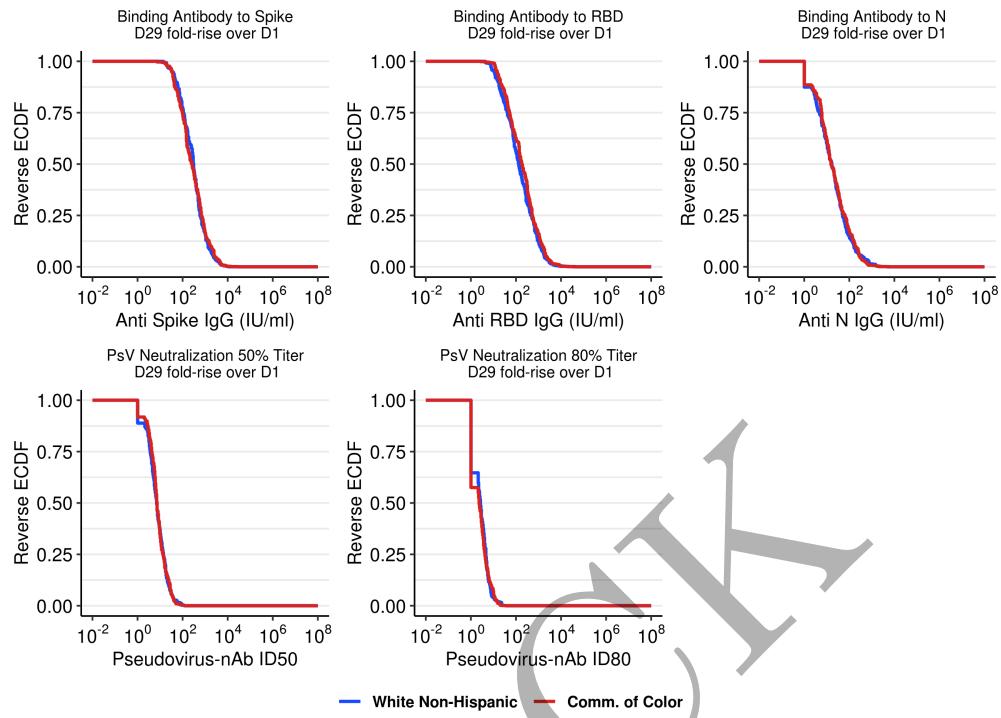


Figure 2.99: RCDF plots for D29 fold-rise over D1 Ab markers: baseline negative vaccine arm by dichotomous classification of race and ethnic group.

2.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT573

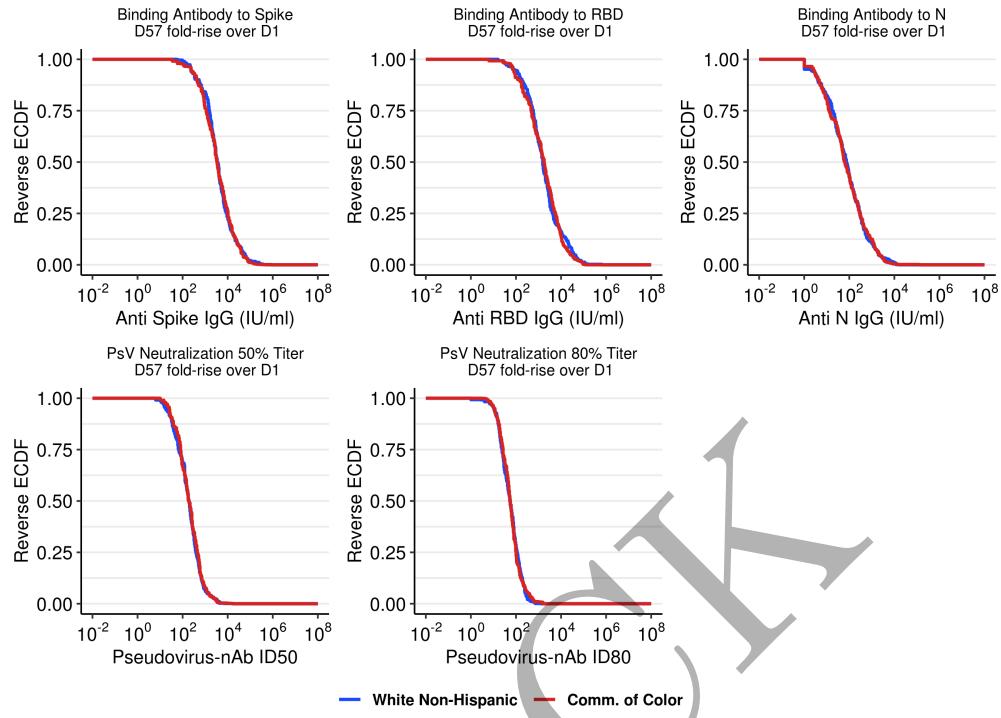


Figure 2.100: RCDF plots for D57 fold-rise over D1 Ab markers: baseline negative vaccine arm by dichotomous classification of race and ethnic group.

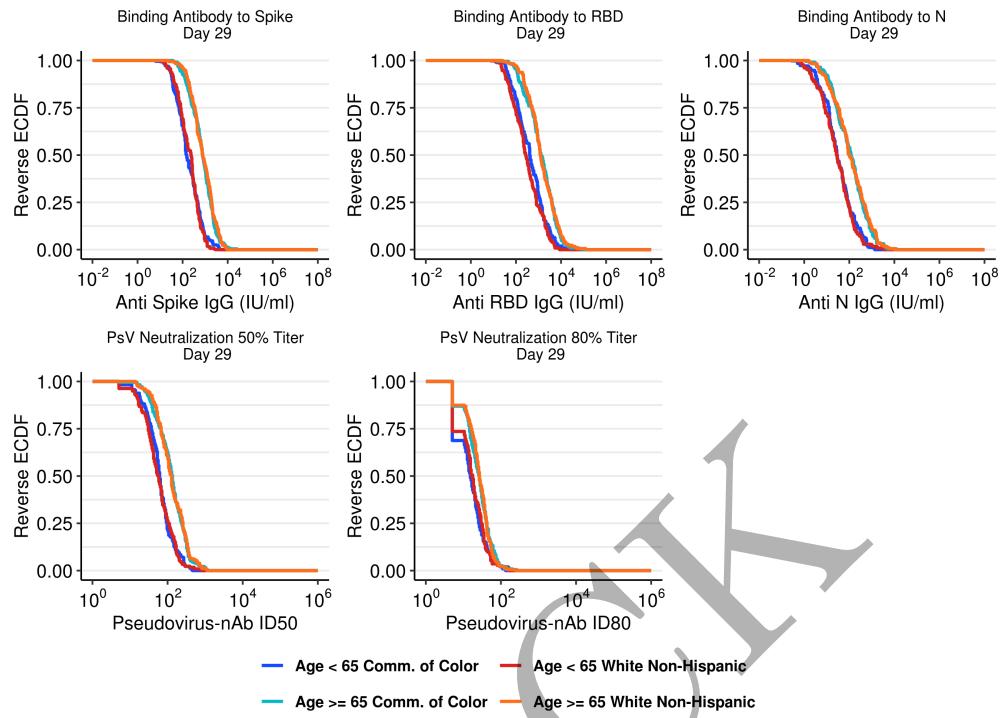


Figure 2.101: RCDF plots for D29 Ab markers: baseline negative vaccine arm by age and dichotomous classification of race and ethnic group.

2.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT575

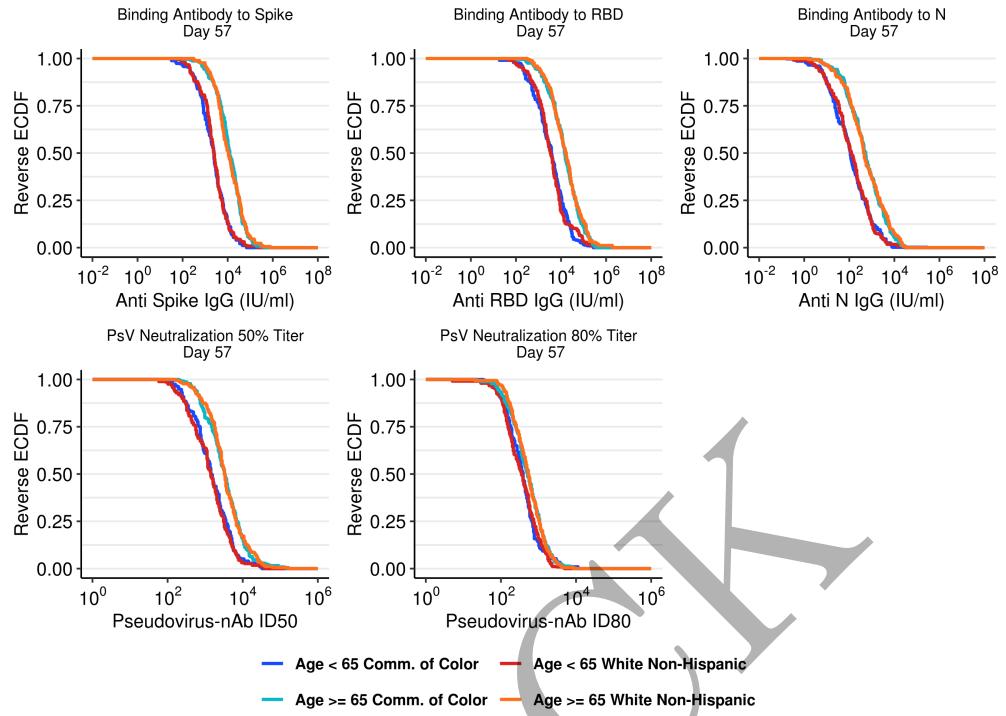


Figure 2.102: RCDF plots for D57 Ab markers: baseline negative vaccine arm by age and dichotomous classification of race and ethnic group.

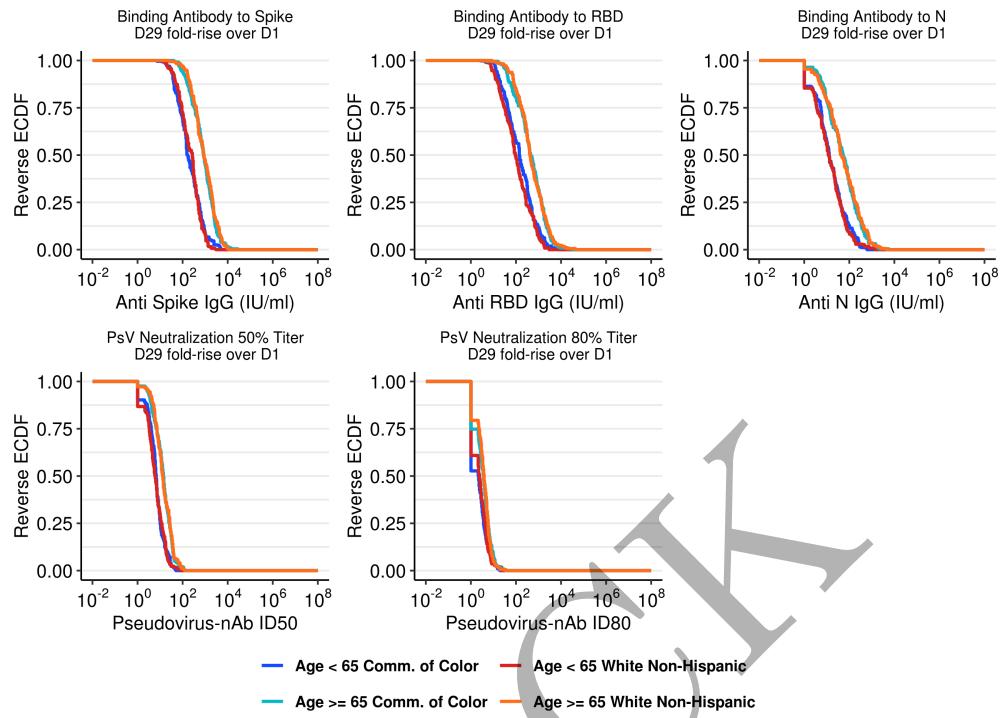


Figure 2.103: RCDF plots for D29 fold-rise over D1 Ab markers: baseline negative vaccine arm by age and dichotomous classification of race and ethnic group.

2.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT577

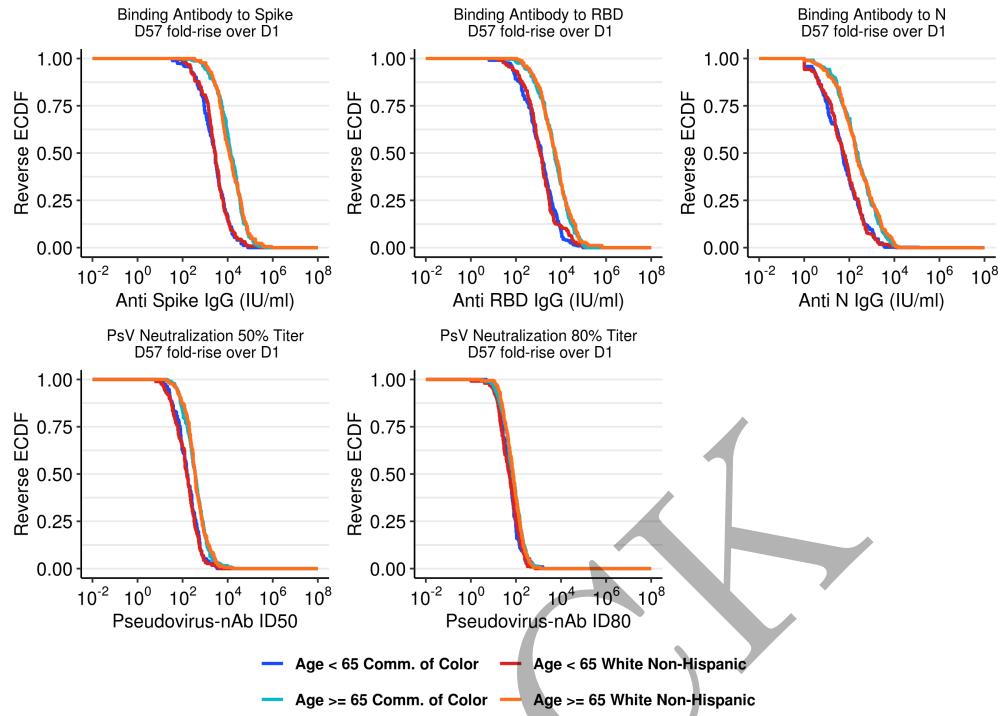


Figure 2.104: RCDF plots for D57 fold-rise over D1 Ab markers: baseline negative vaccine arm by age and dichotomous classification of race and ethnic group.

2.6.2 Baseline SARS-CoV-2 positive

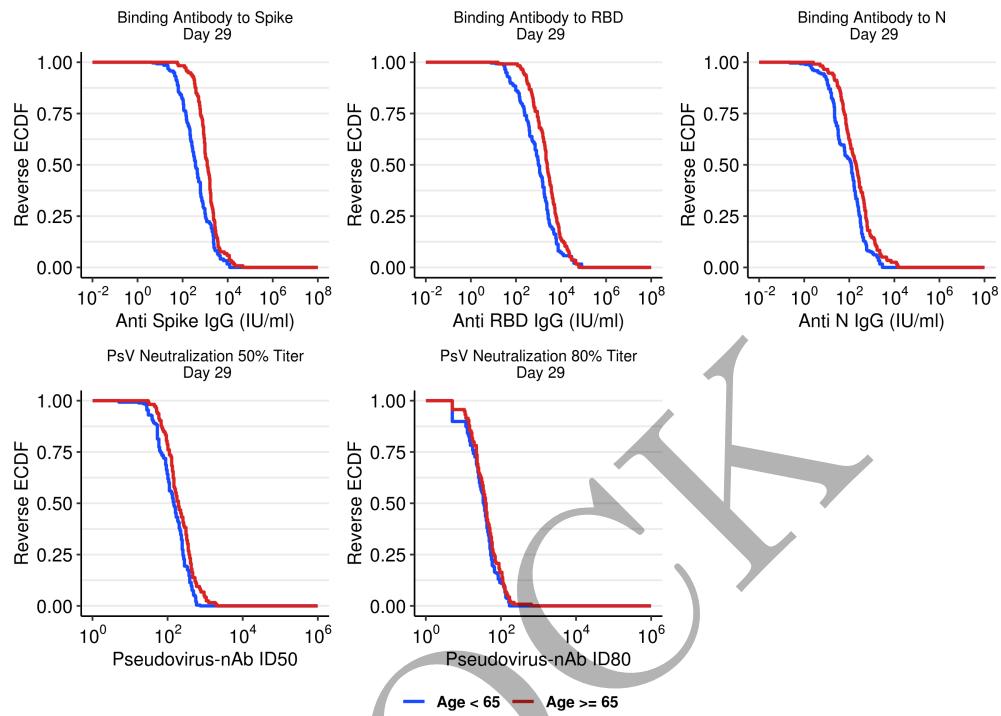


Figure 2.105: RCDF plots for D29 Ab markers: baseline positive vaccine arm by age groups.

2.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT579

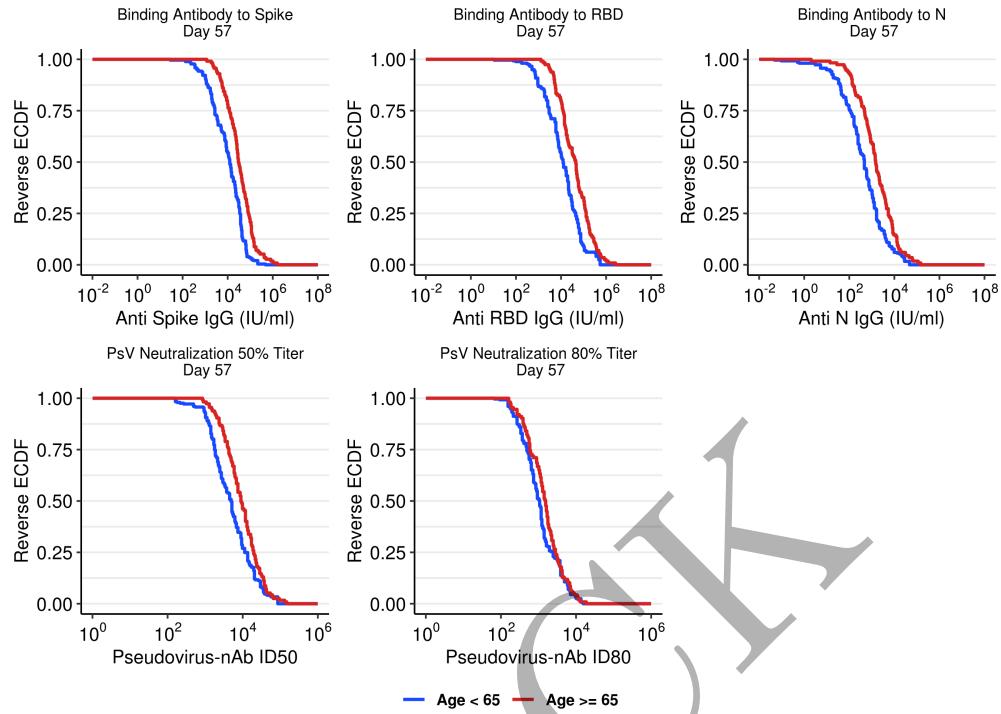


Figure 2.106: RCDF plots for D57 Ab markers: baseline positive vaccine arm by age groups.

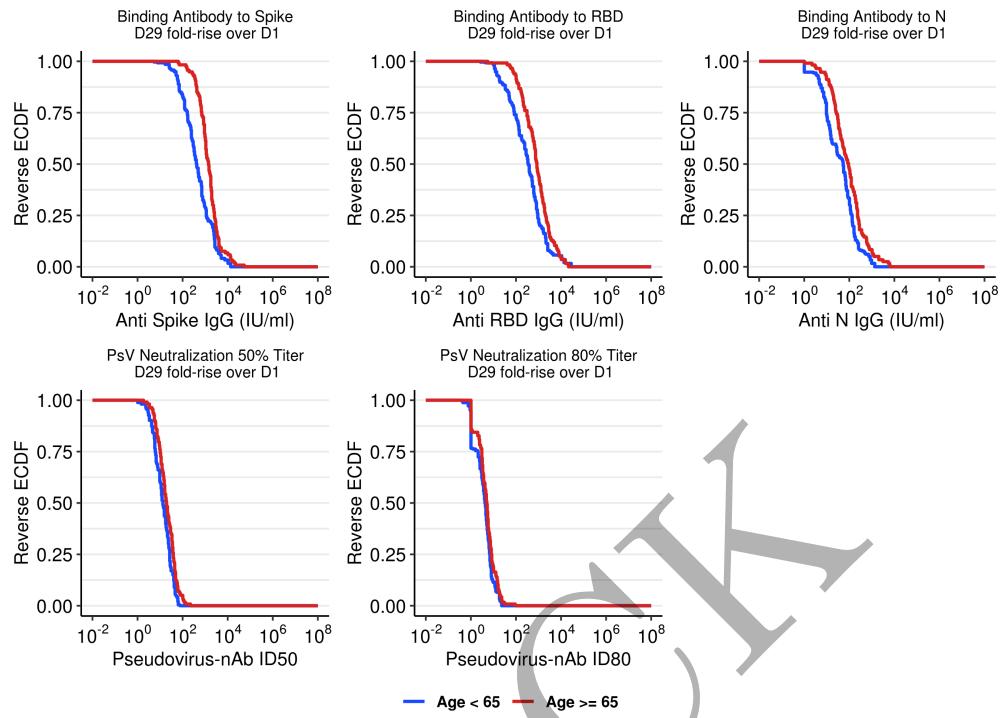


Figure 2.107: RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by age groups.

2.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT581

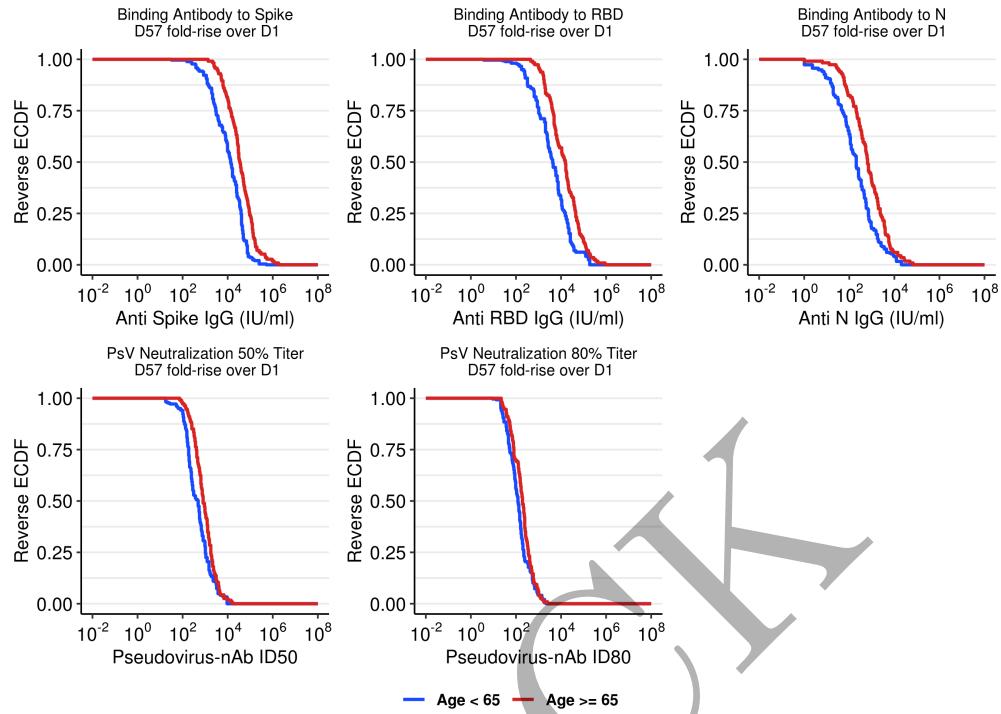


Figure 2.108: RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by age groups.

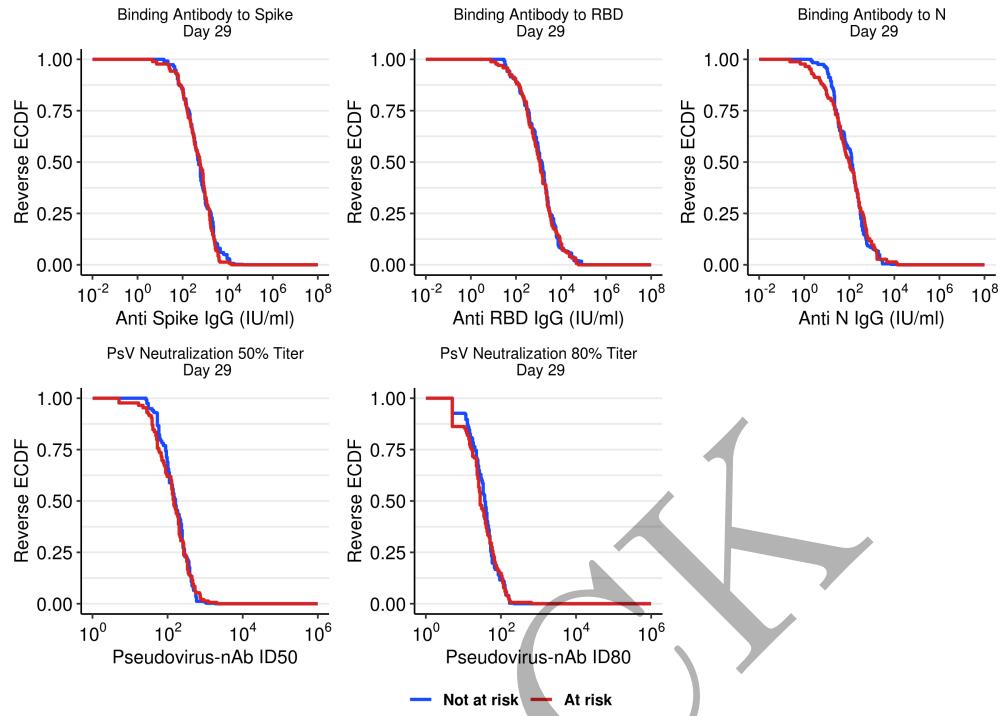


Figure 2.109: RCDF plots for D29 Ab markers: baseline positive vaccine arm by high-risk condition.

2.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT583

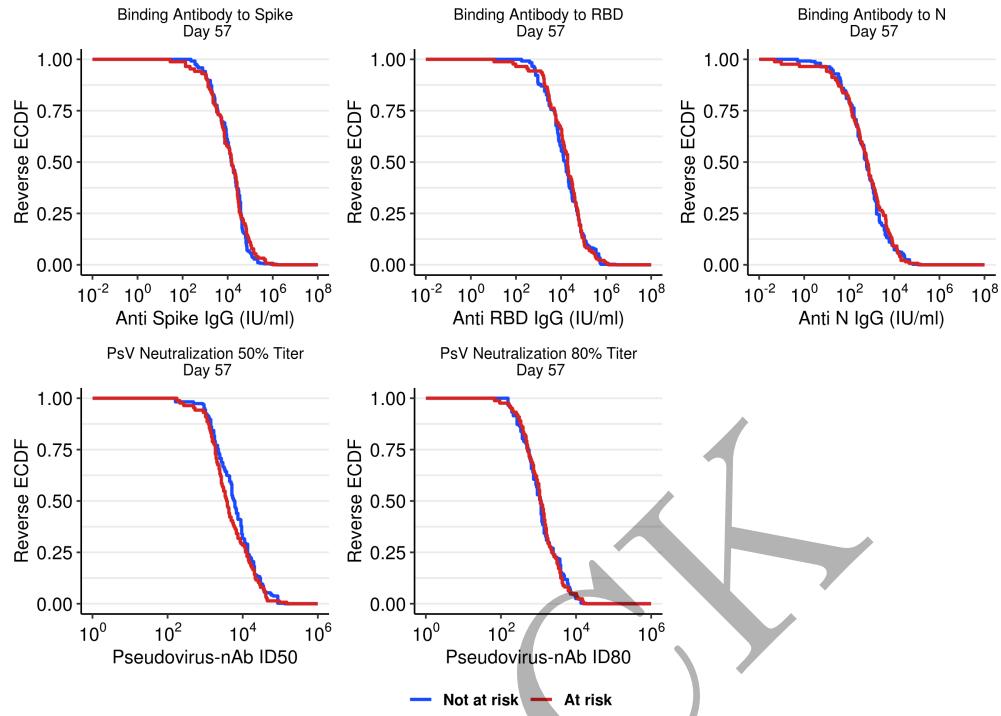


Figure 2.110: RCDF plots for D57 Ab markers: baseline positive vaccine arm by high-risk condition.

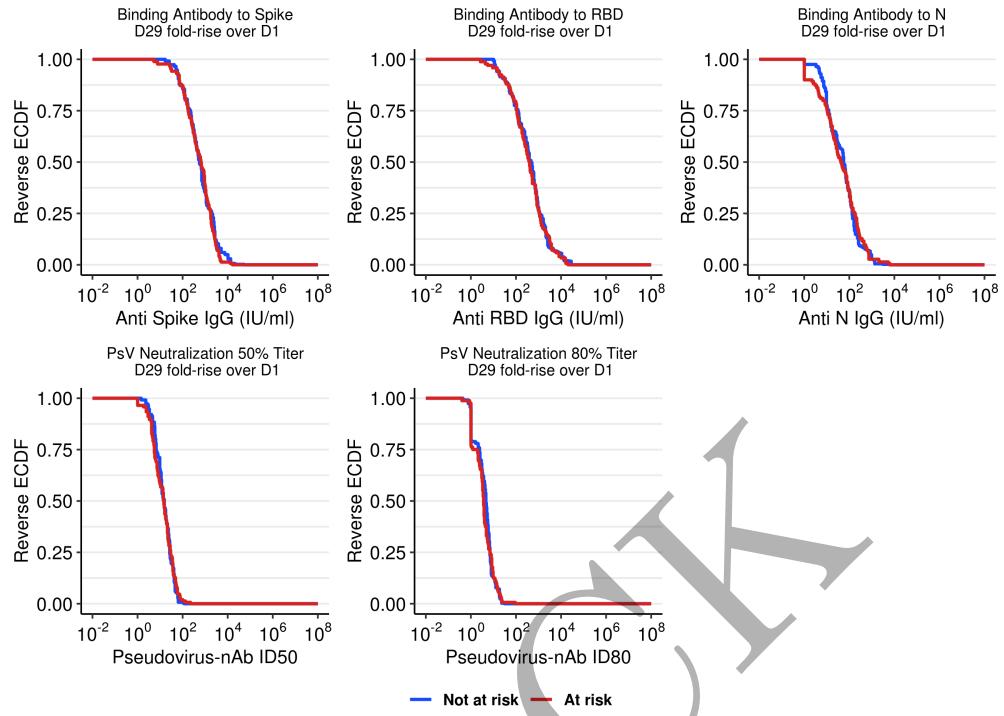


Figure 2.111: RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by high-risk condition.

2.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT585

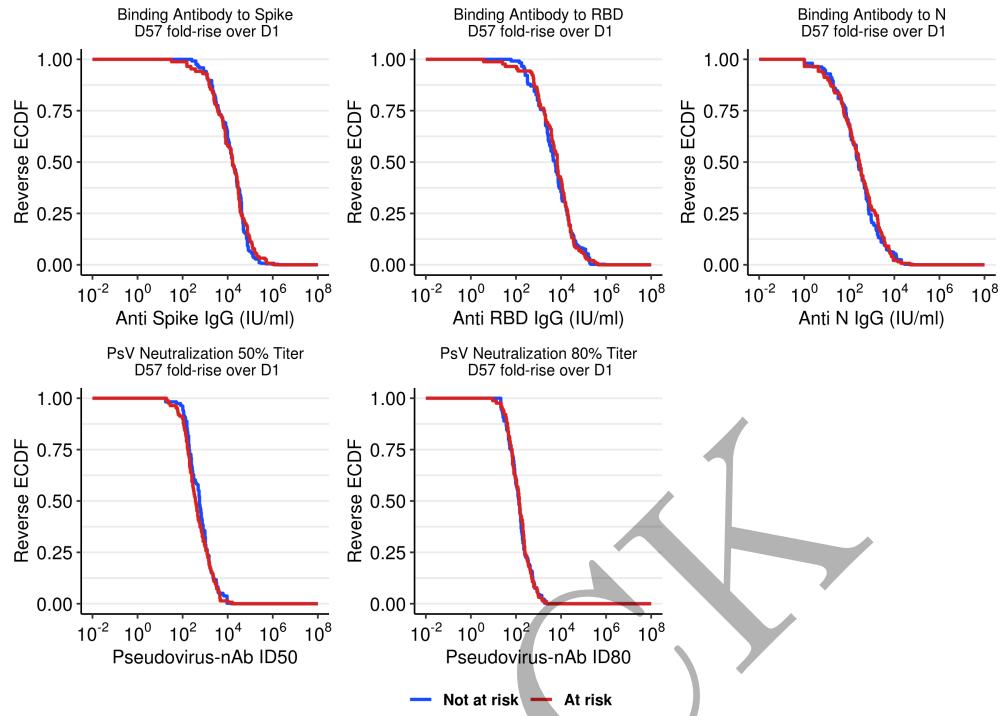


Figure 2.112: RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by high-risk condition.

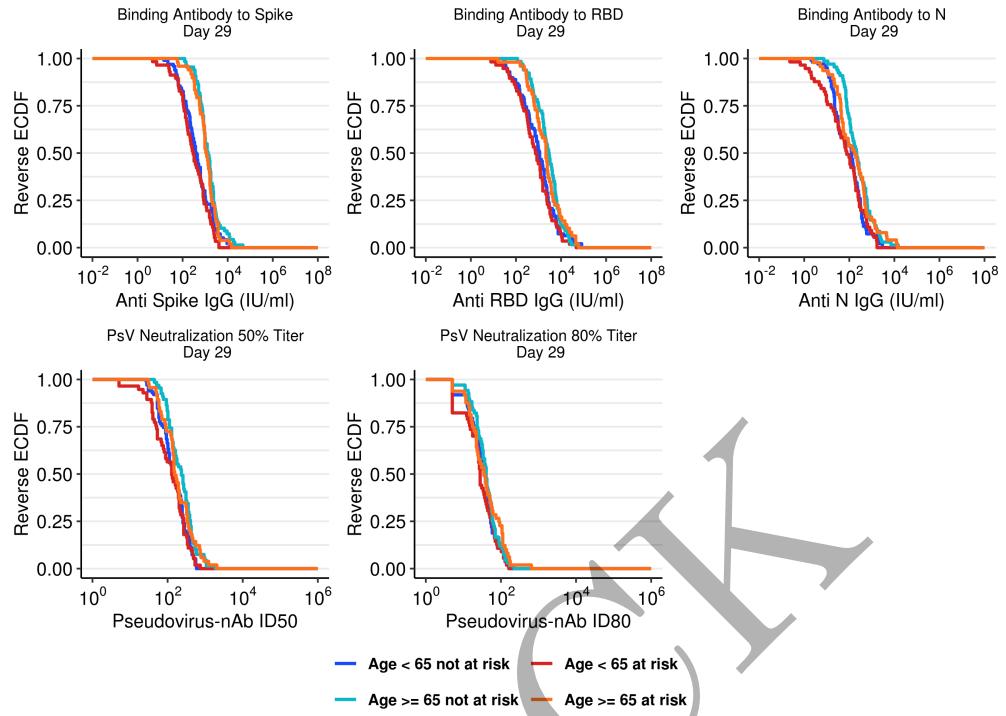


Figure 2.113: RCDF plots for D29 Ab markers: baseline positive vaccine arm by age and high-risk condition.

2.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT587

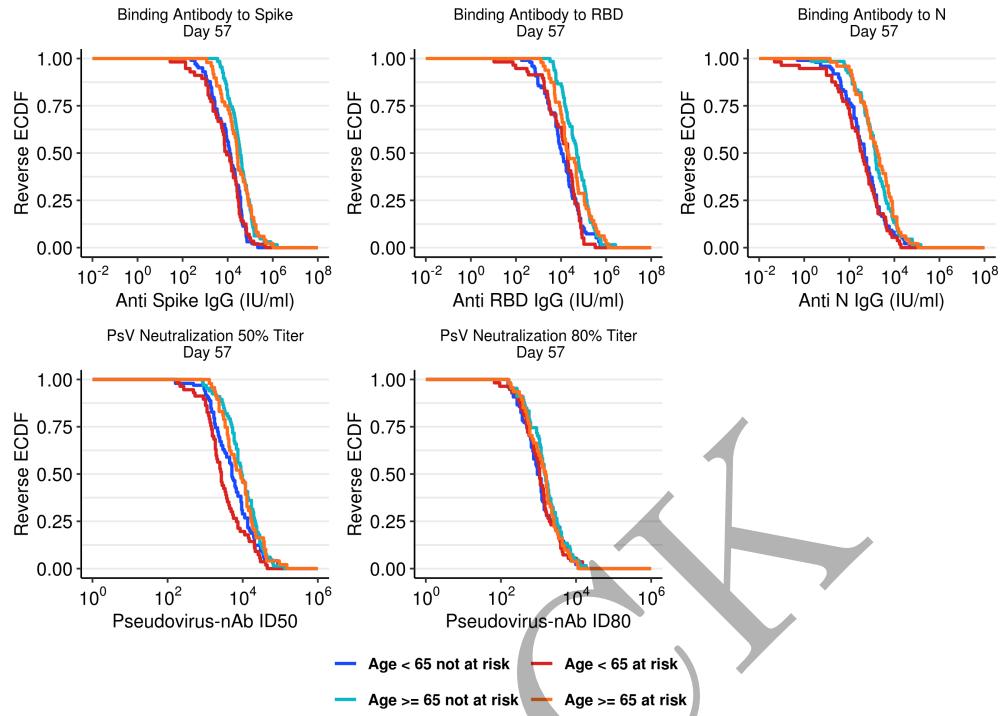


Figure 2.114: RCDF plots for D57 Ab markers: baseline positive vaccine arm by age and high-risk condition.

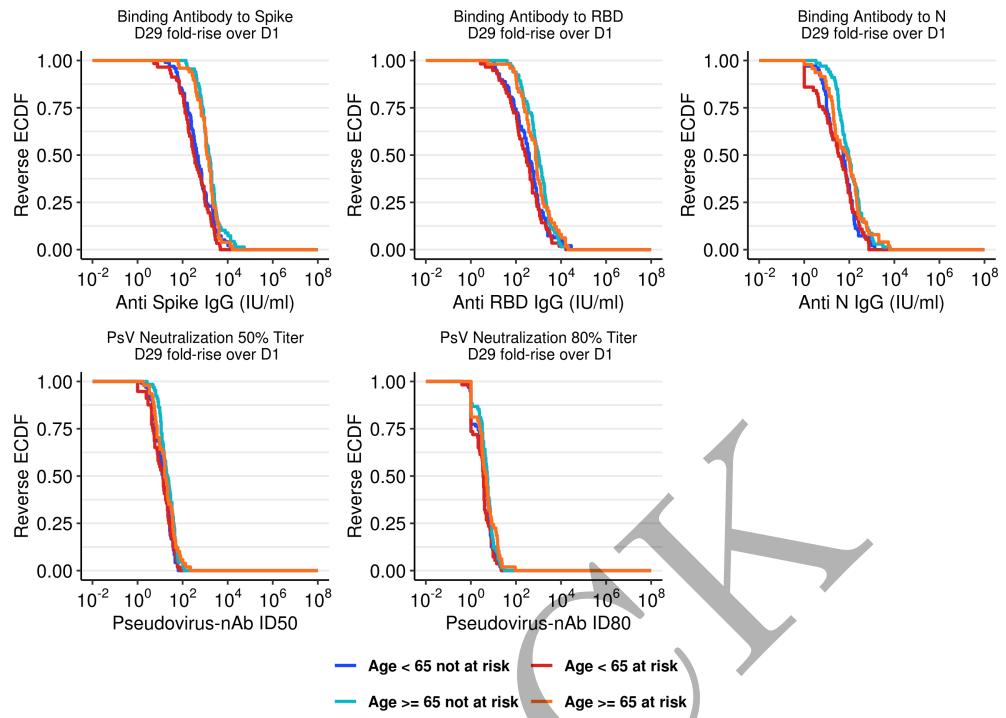


Figure 2.115: RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and high-risk condition.

2.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT589

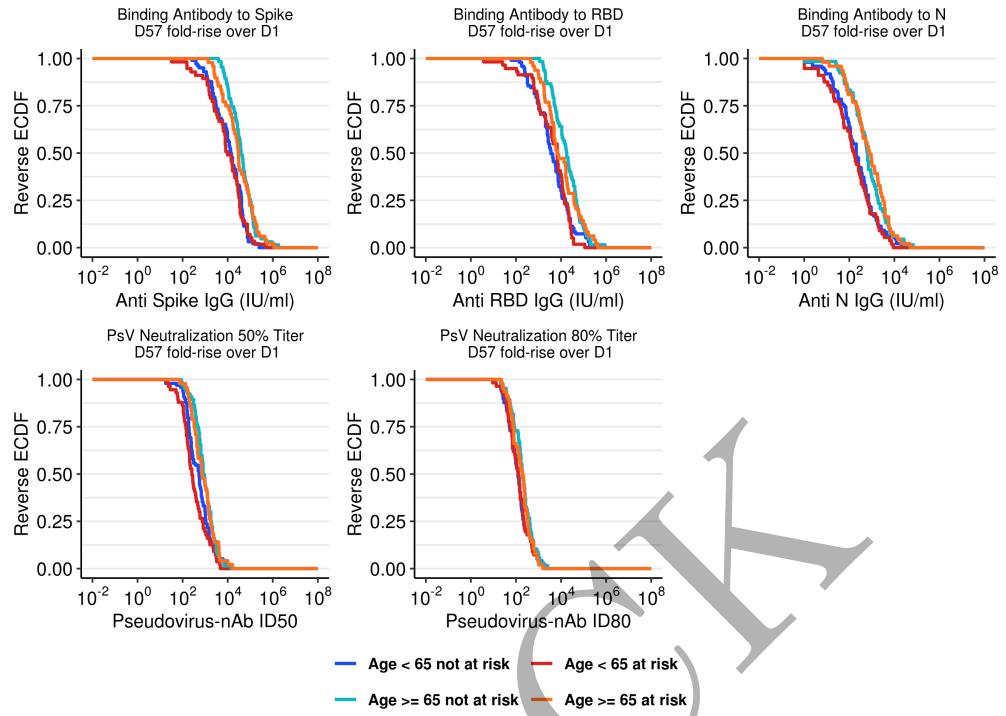


Figure 2.116: RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and high-risk condition.

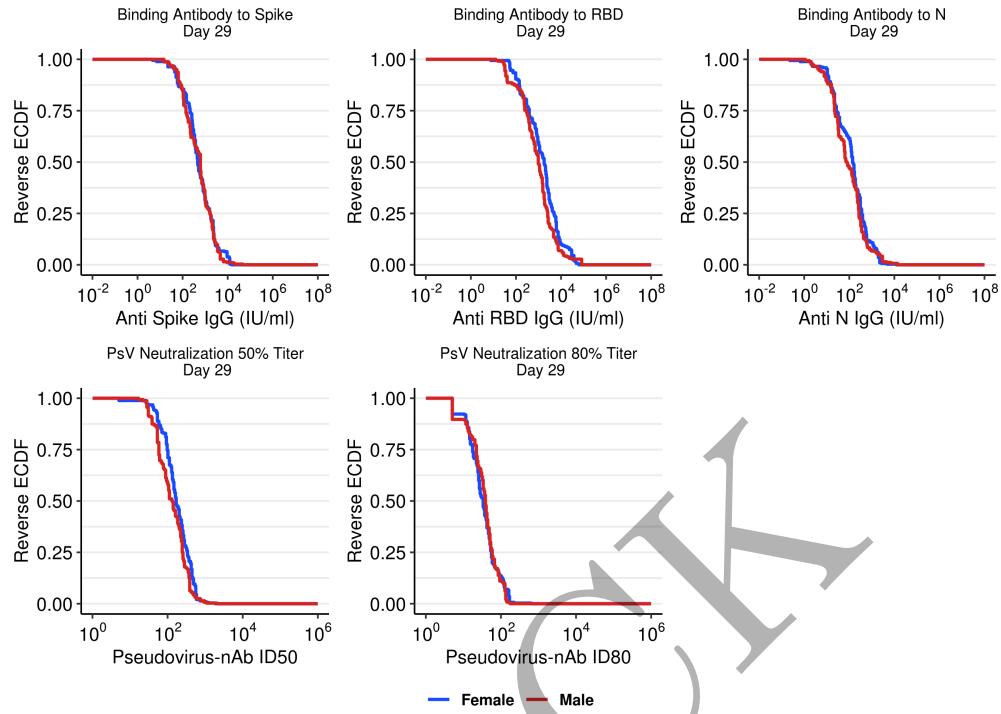


Figure 2.117: RCDF plots for D29 Ab markers: baseline positive vaccine arm by sex assigned at birth.

2.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT591

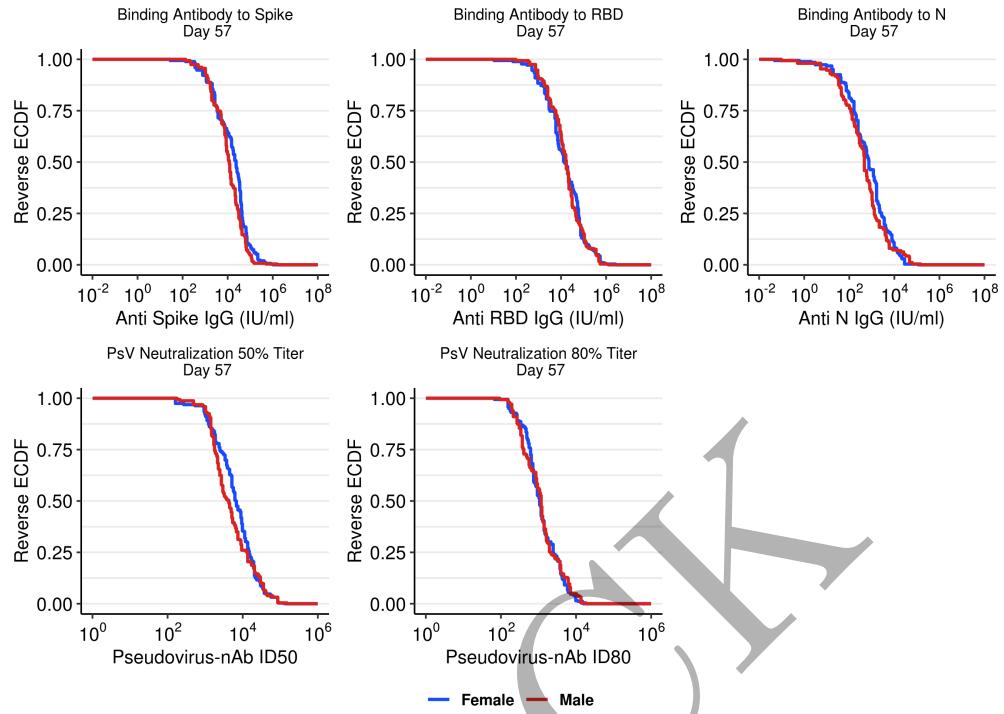


Figure 2.118: RCDF plots for D57 Ab markers: baseline positive vaccine arm by sex assigned at birth.

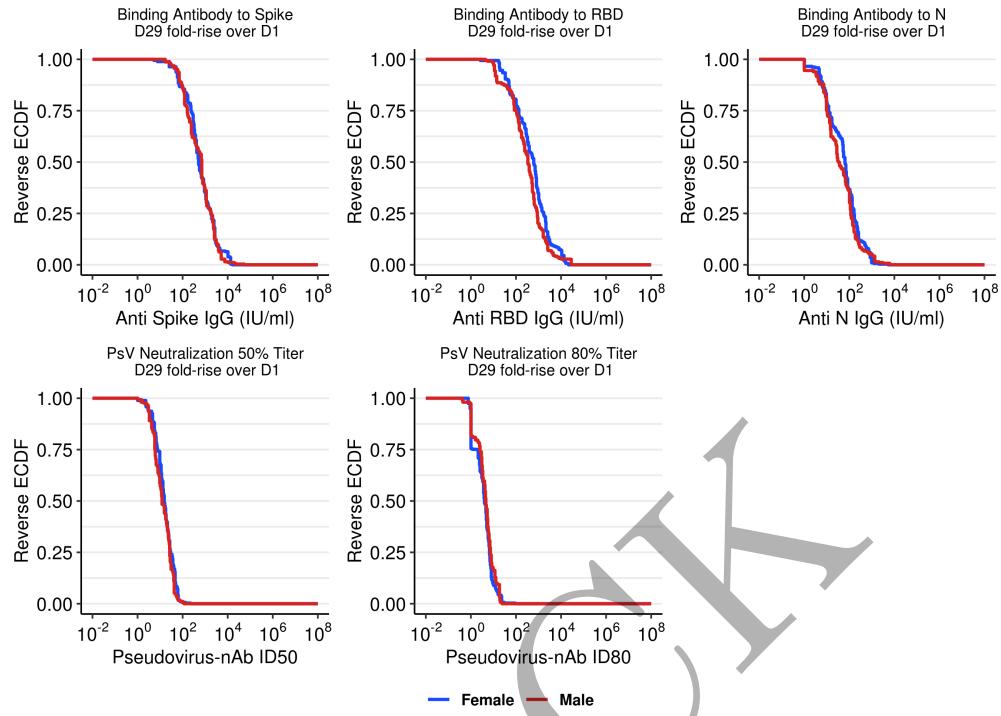


Figure 2.119: RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by sex assigned at birth.

2.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT593

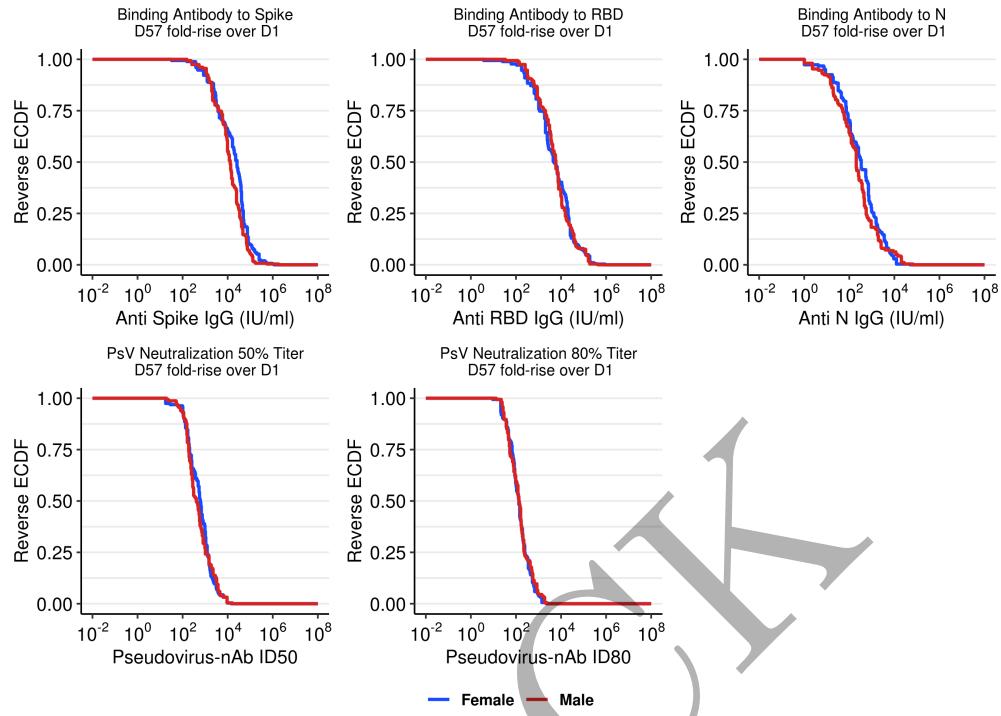


Figure 2.120: RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by sex assigned at birth.

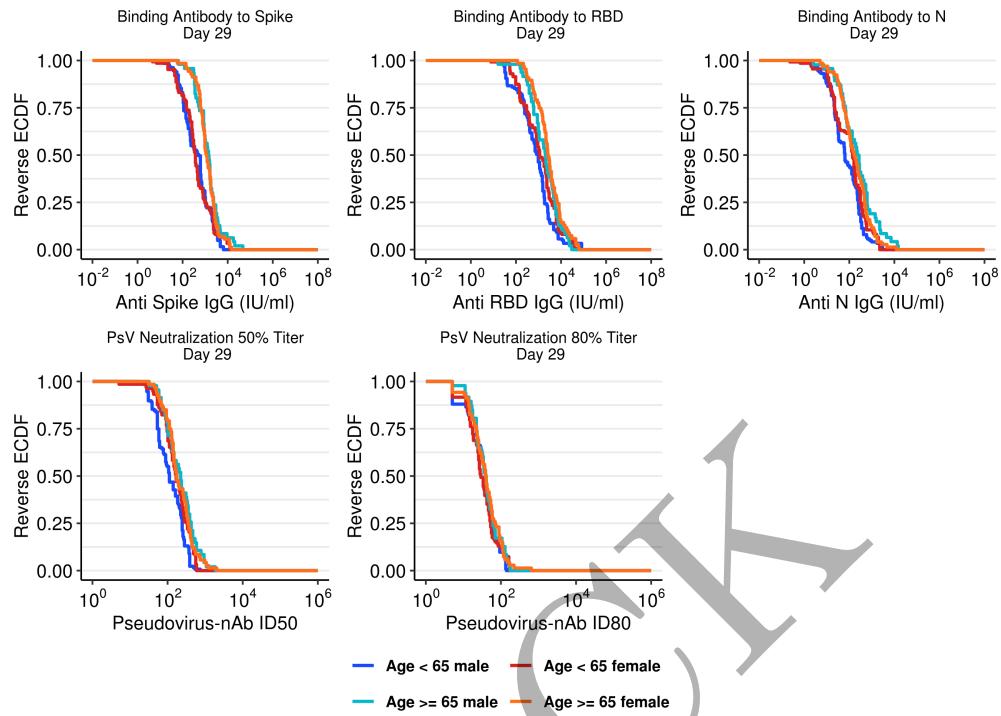


Figure 2.121: RCDF plots for D29 Ab markers: baseline positive vaccine arm by age and sex assigned at birth.

2.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT595

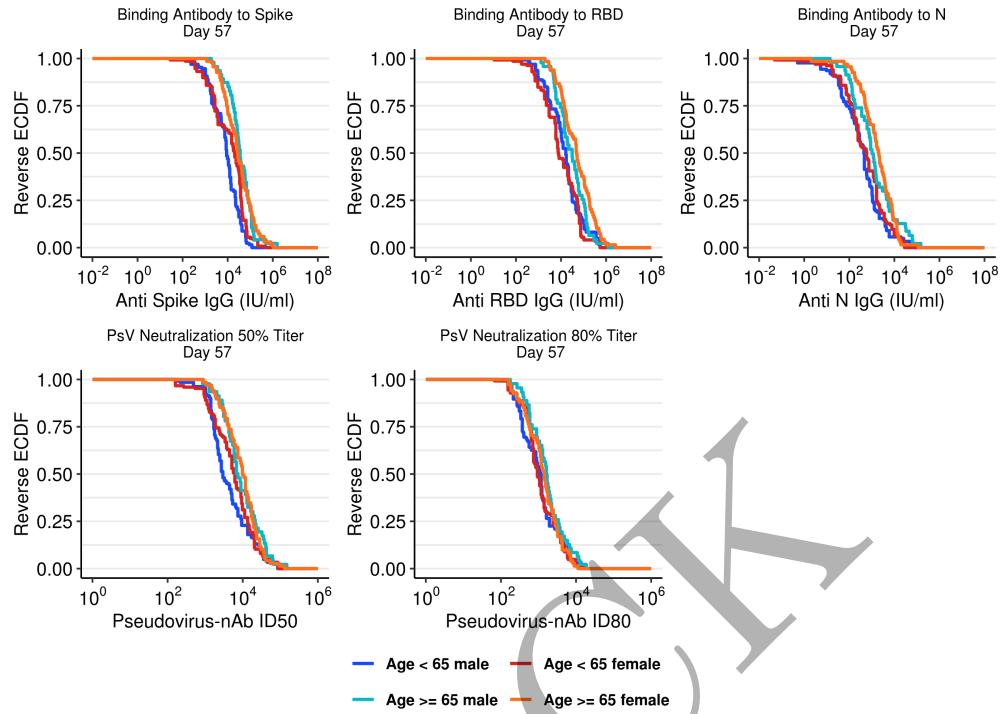


Figure 2.122: RCDF plots for D57 Ab markers: baseline positive vaccine arm by age and sex assigned at birth.

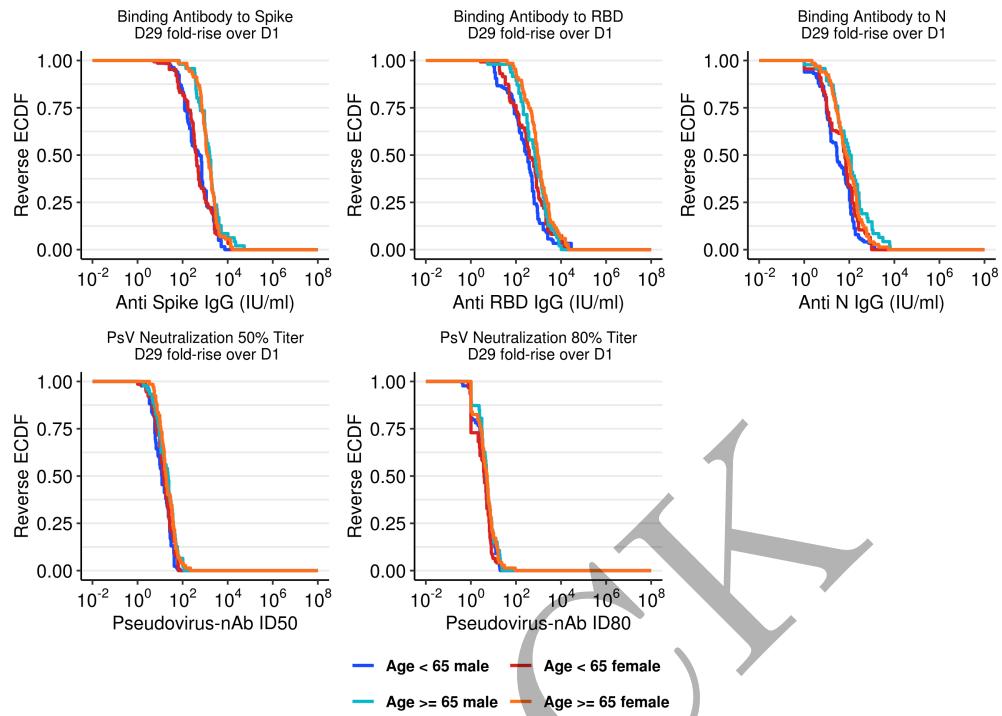


Figure 2.123: RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and sex assigned at birth.

2.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT597

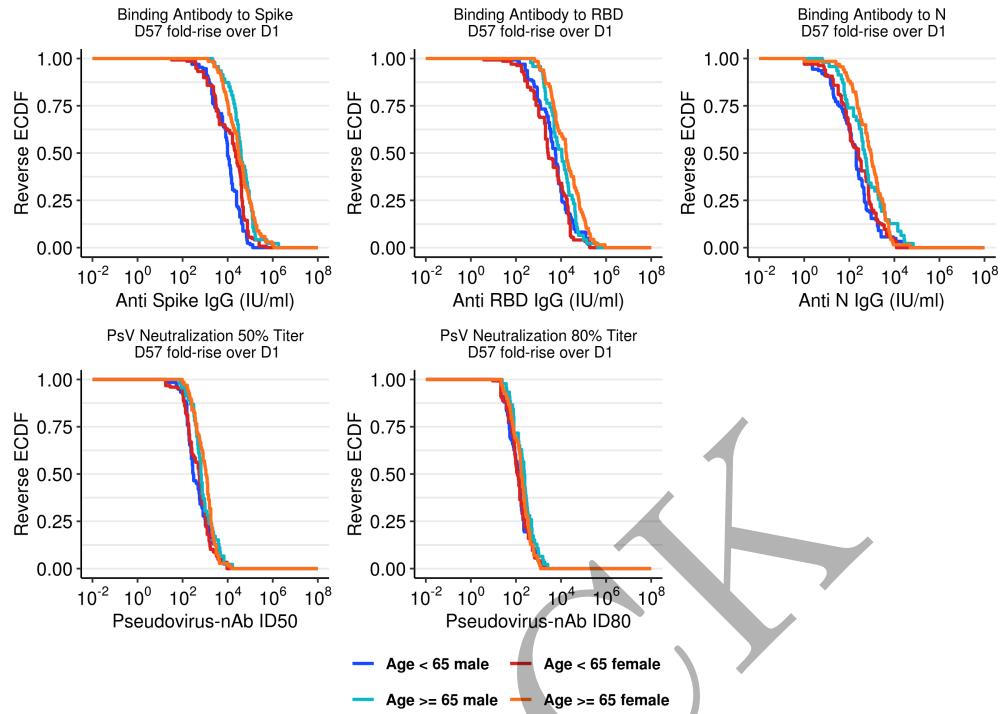


Figure 2.124: RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and sex assigned at birth.

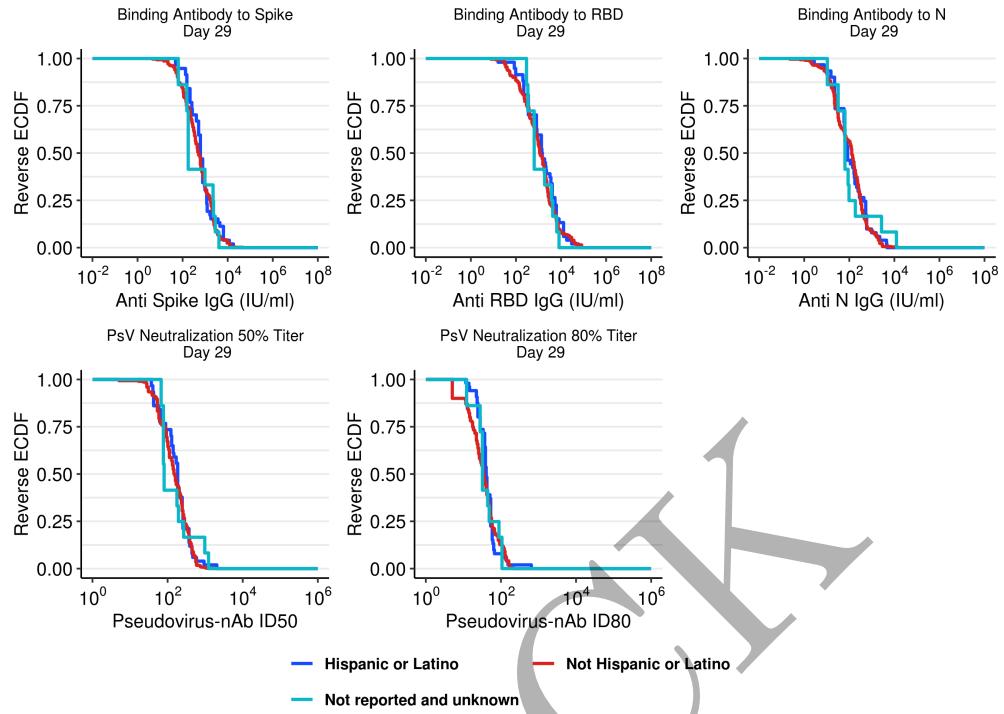


Figure 2.125: RCDF plots for D29 Ab markers: baseline positive vaccine arm by ethnicity.

2.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT599

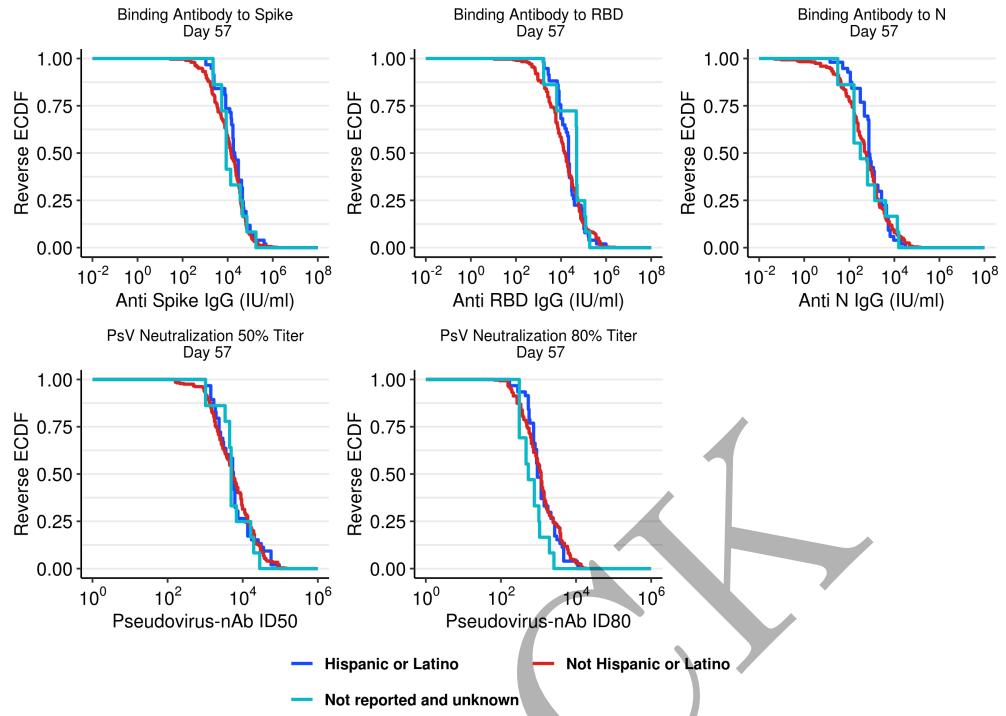


Figure 2.126: RCDF plots for D57 Ab markers: baseline positive vaccine arm by ethnicity.

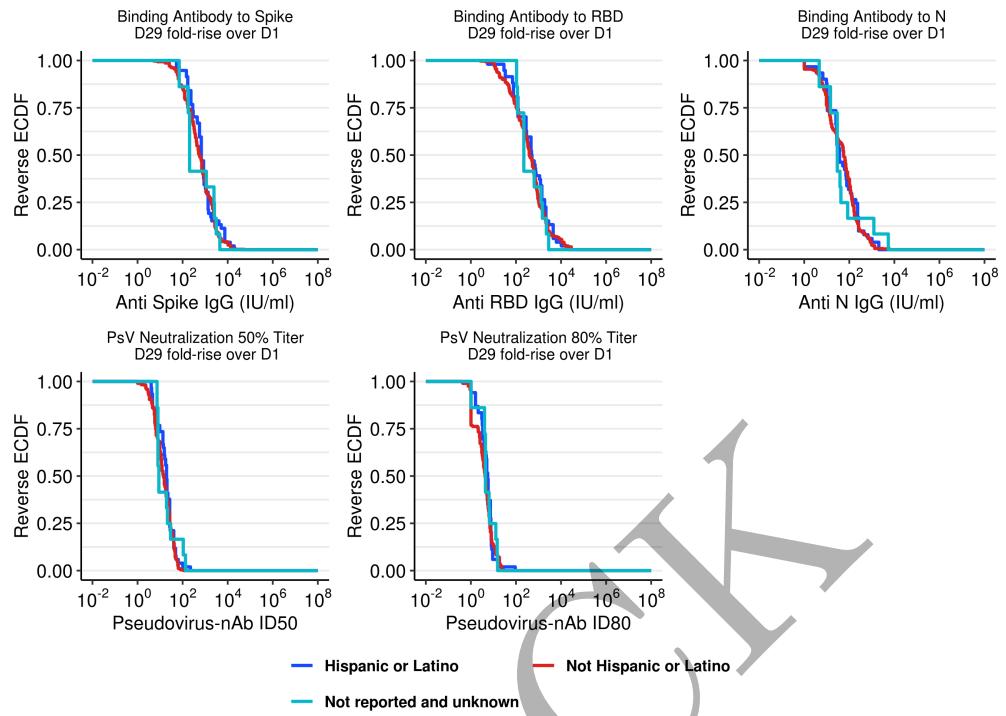


Figure 2.127: RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by ethnicity.

2.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT601

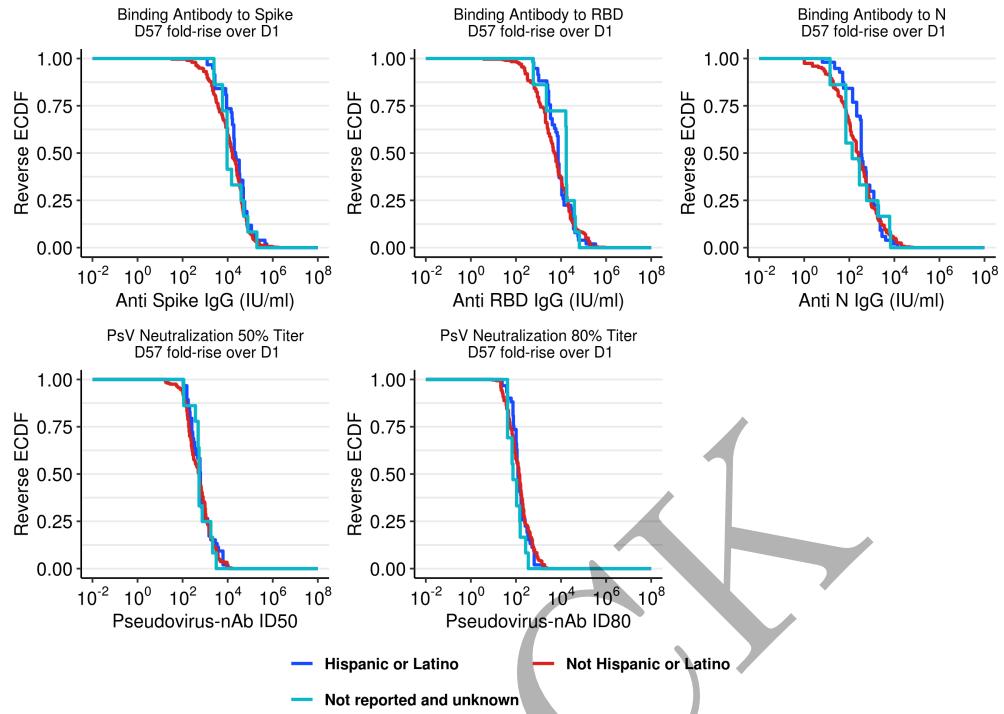


Figure 2.128: RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by ethnicity.

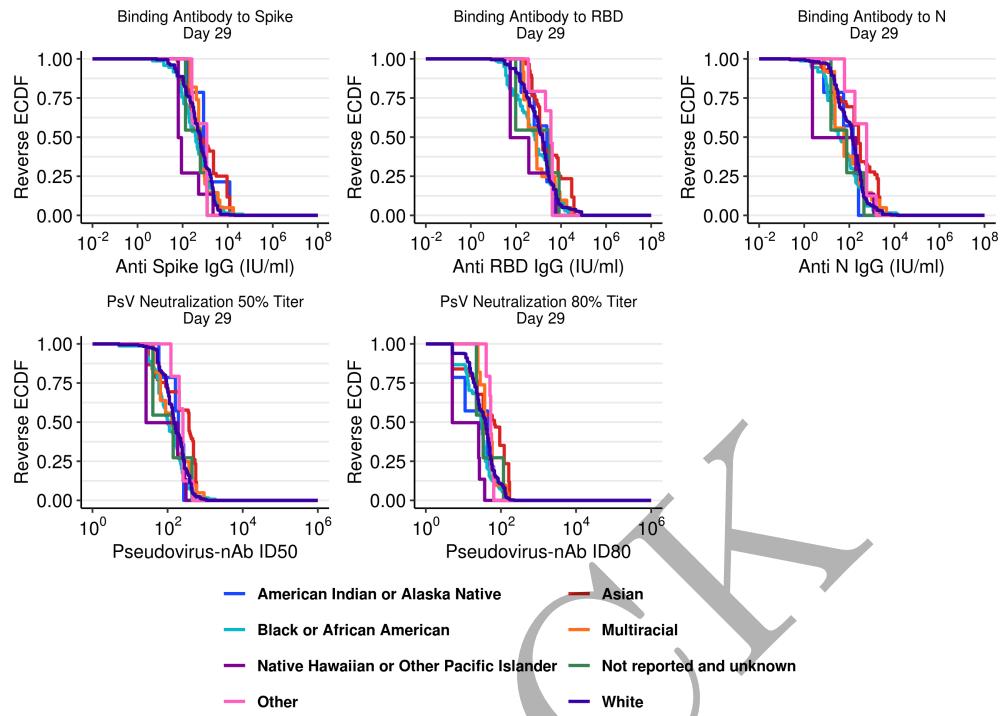


Figure 2.129: RCDF plots for D29 Ab markers: baseline positive vaccine arm by race.

2.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT603

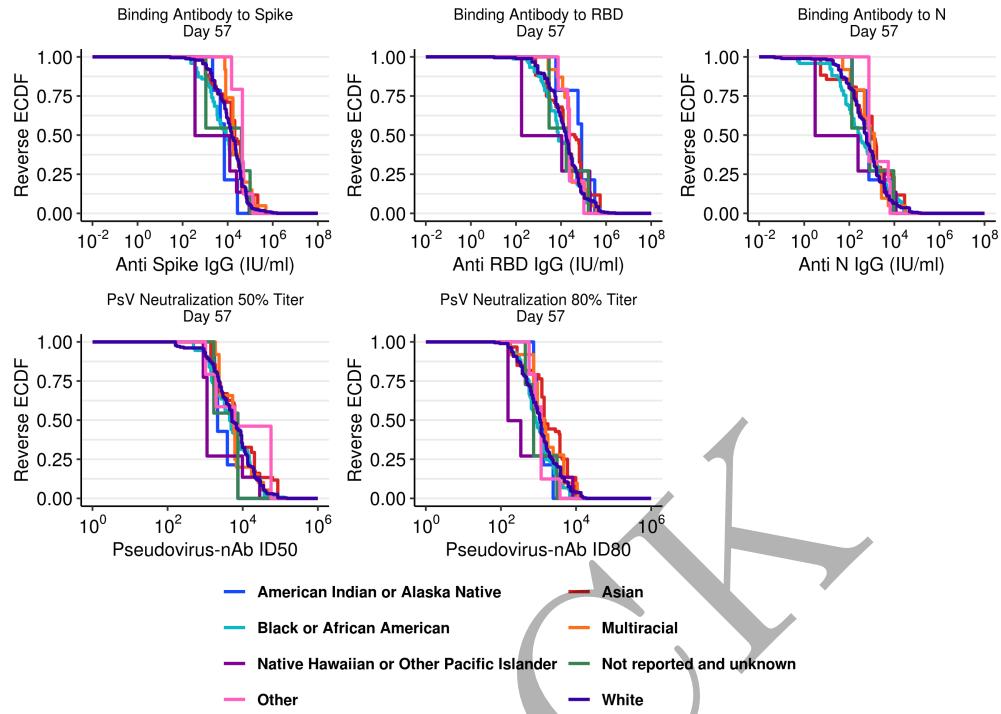


Figure 2.130: RCDF plots for D57 Ab markers: baseline positive vaccine arm by race.

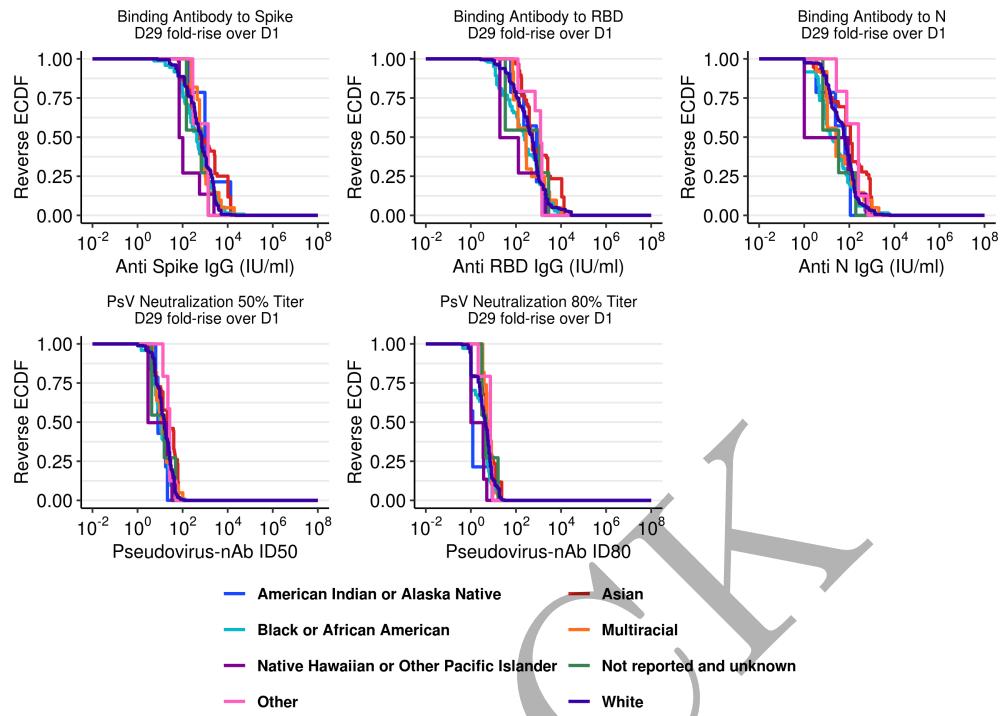


Figure 2.131: RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by race.

2.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT605

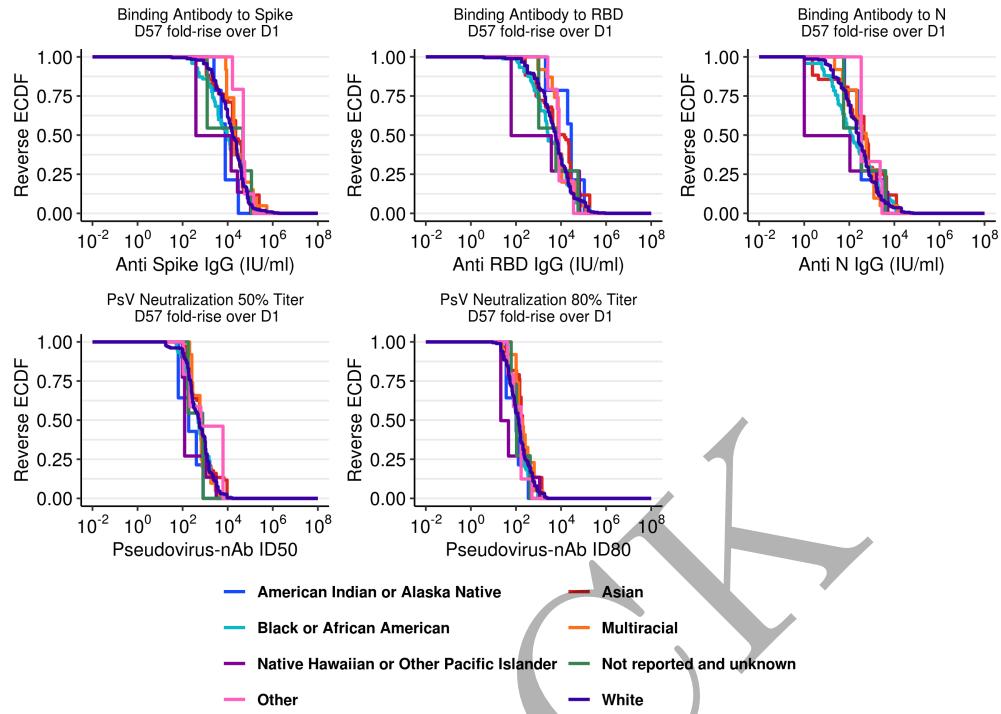


Figure 2.132: RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by race.

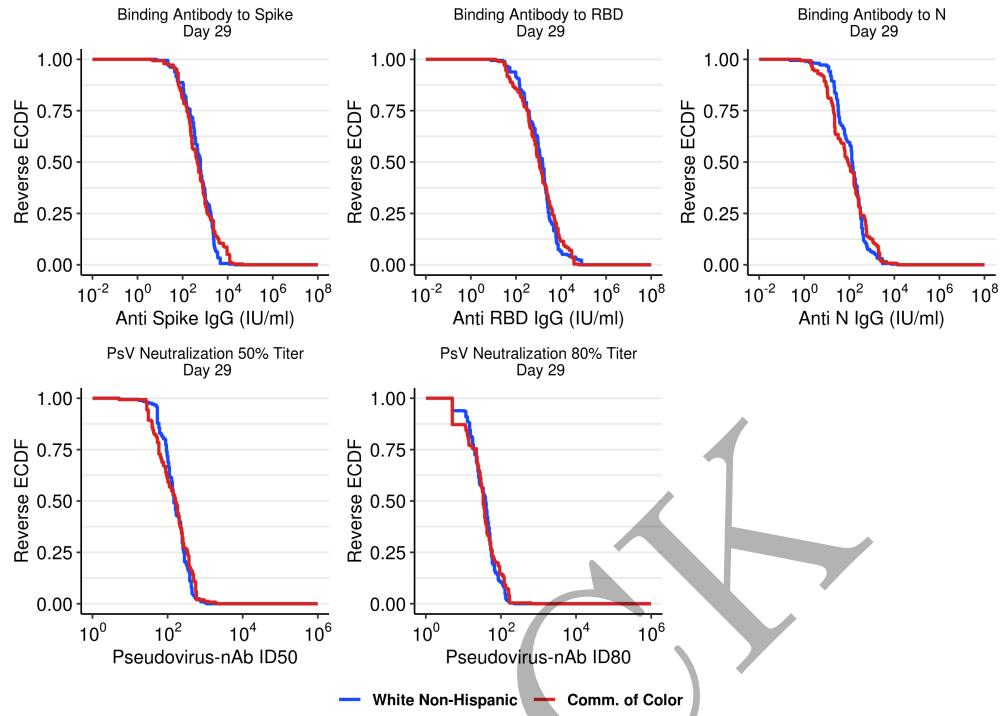


Figure 2.133: RCDF plots for D29 Ab markers: baseline positive vaccine arm by dichotomous classification of race and ethnic group.

2.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT607

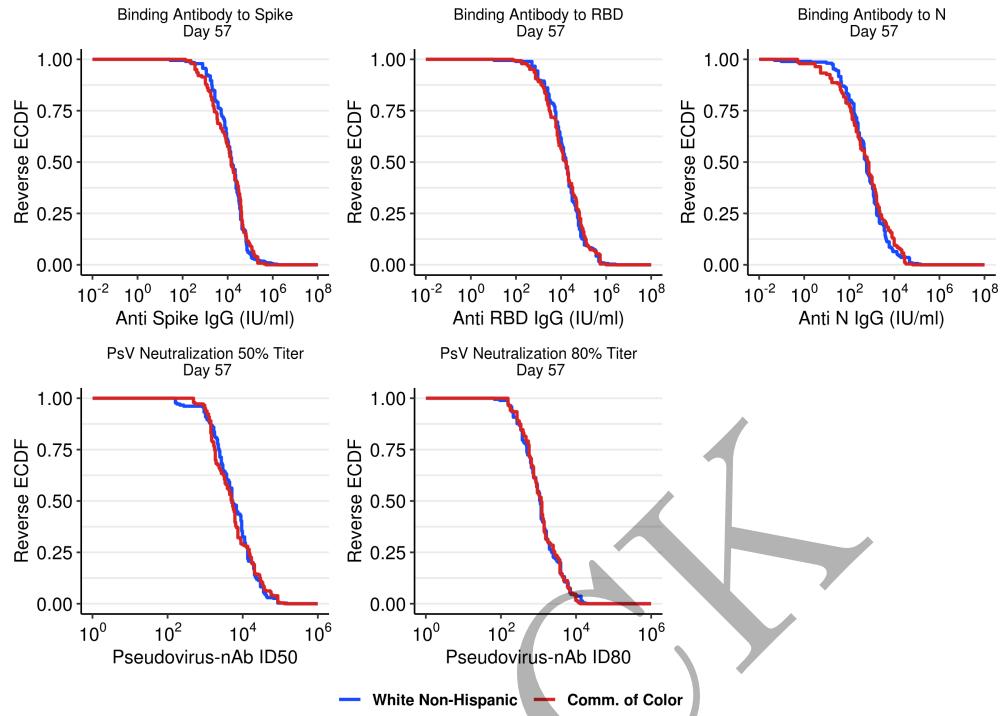


Figure 2.134: RCDF plots for D57 Ab markers: baseline positive vaccine arm by dichotomous classification of race and ethnic group.

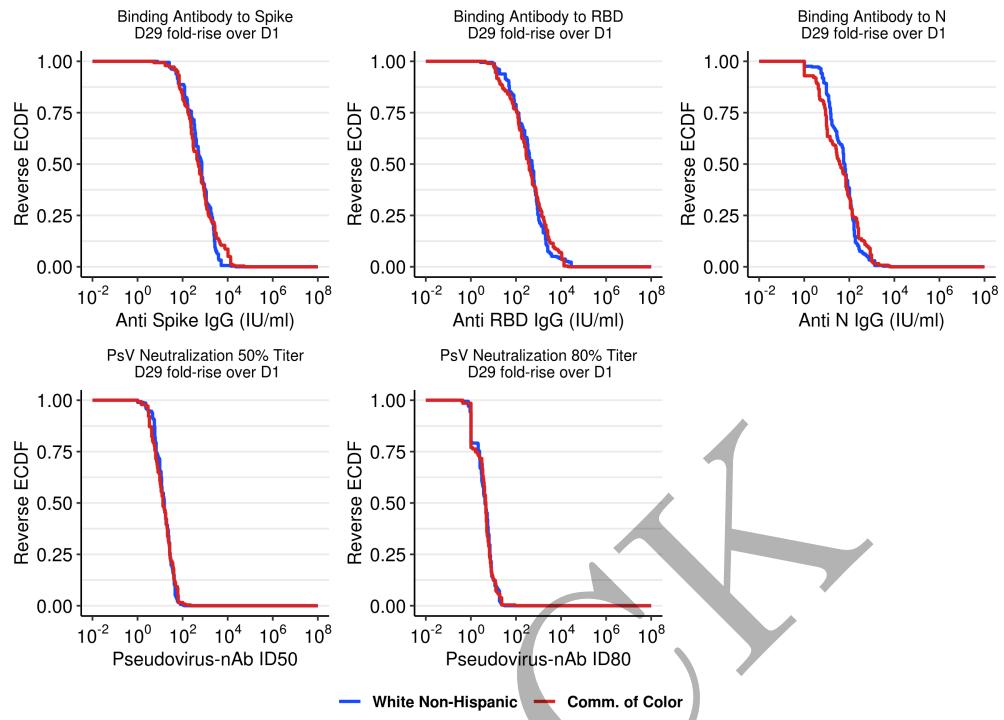


Figure 2.135: RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by dichotomous classification of race and ethnic group.

2.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT609

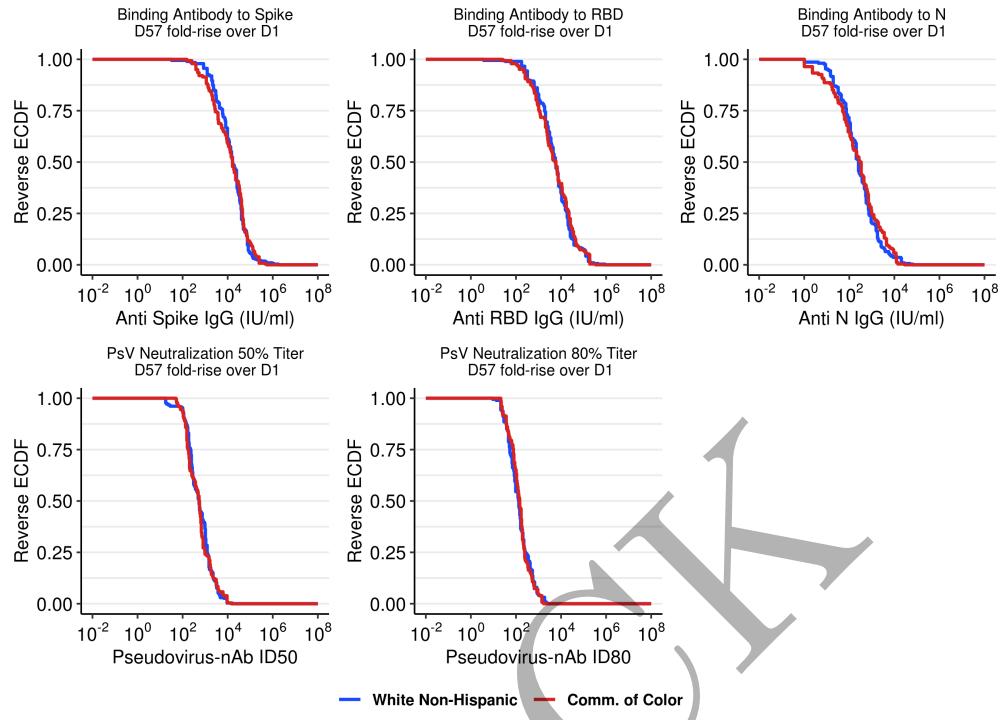


Figure 2.136: RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by dichotomous classification of race and ethnic group.

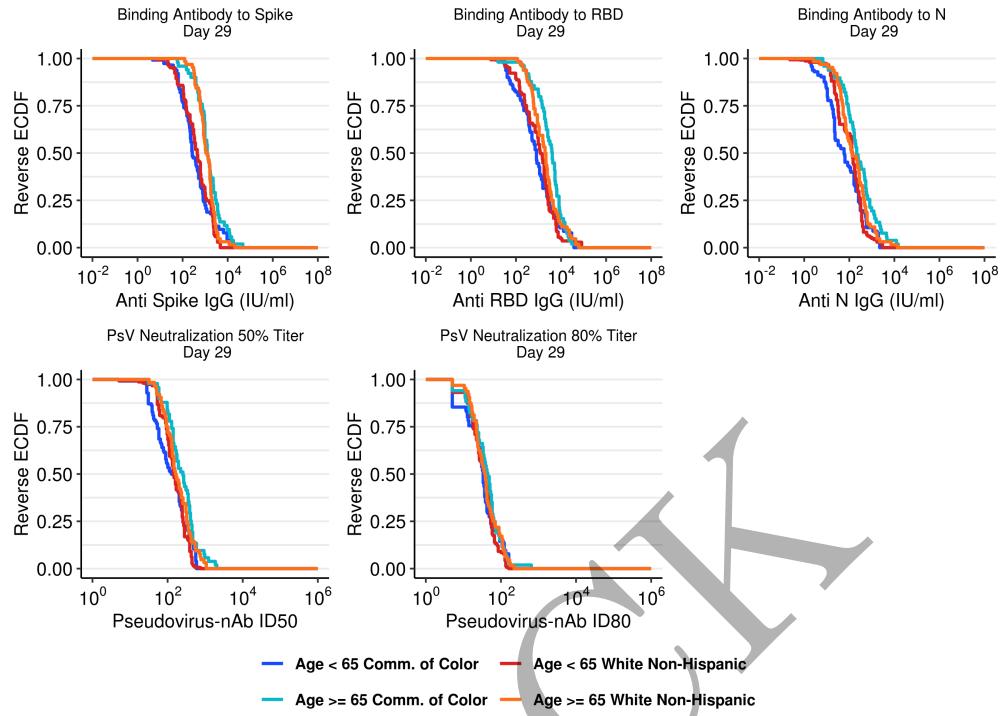


Figure 2.137: RCDF plots for D29 Ab markers: baseline positive vaccine arm by age and dichotomous classification of race and ethnic group.

2.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT611

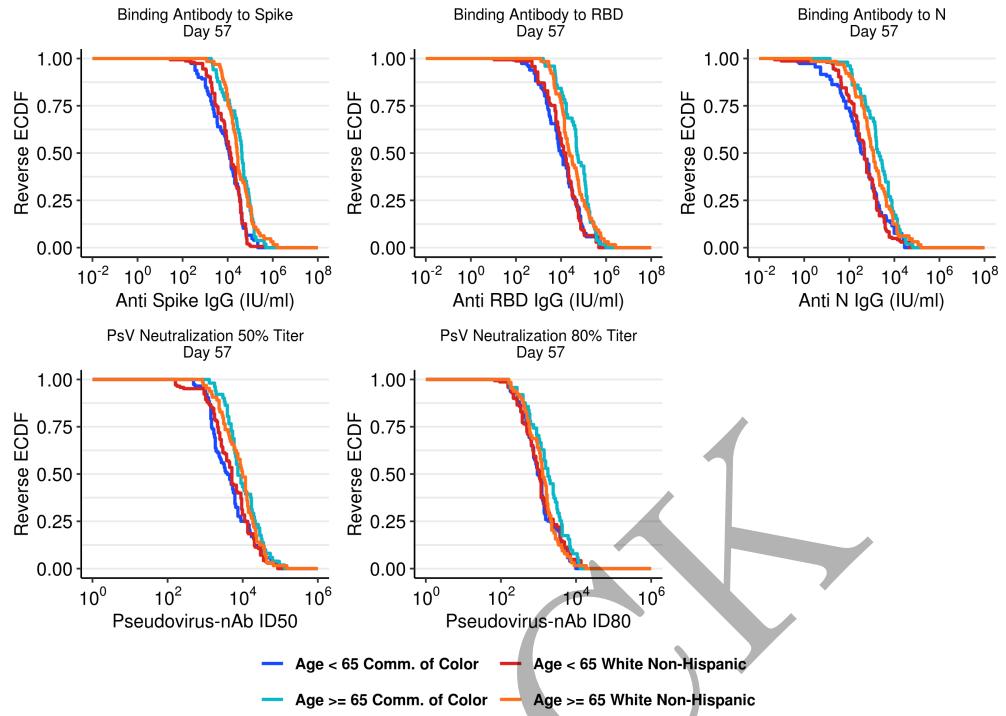


Figure 2.138: RCDF plots for D57 Ab markers: baseline positive vaccine arm by age and dichotomous classification of race and ethnic group.

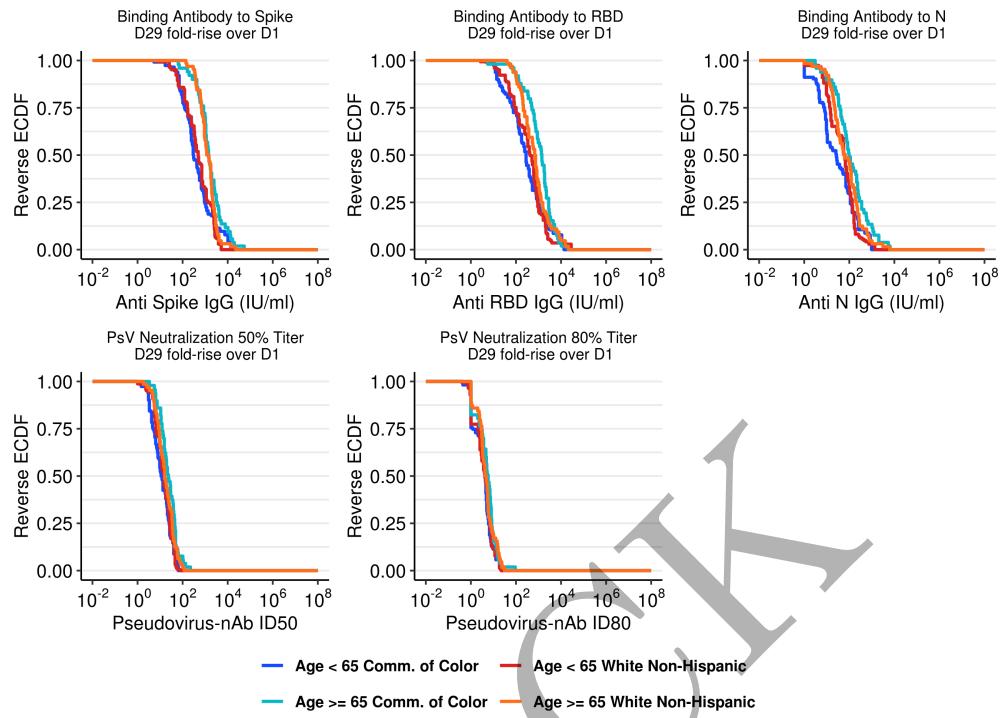


Figure 2.139: RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and dichotomous classification of race and ethnic group.

2.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT613

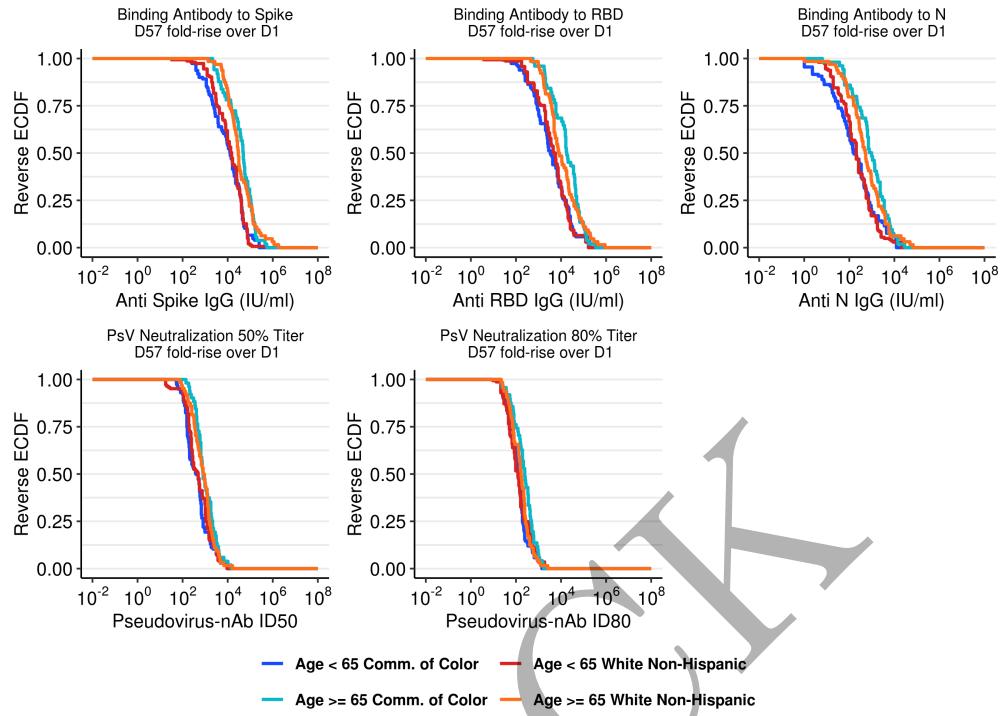


Figure 2.140: RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and dichotomous classification of race and ethnic group.

2.7 Boxplots of antibody markers by demographics for per-protocol cohort

2.7.1 Baseline SARS-CoV-2 negative

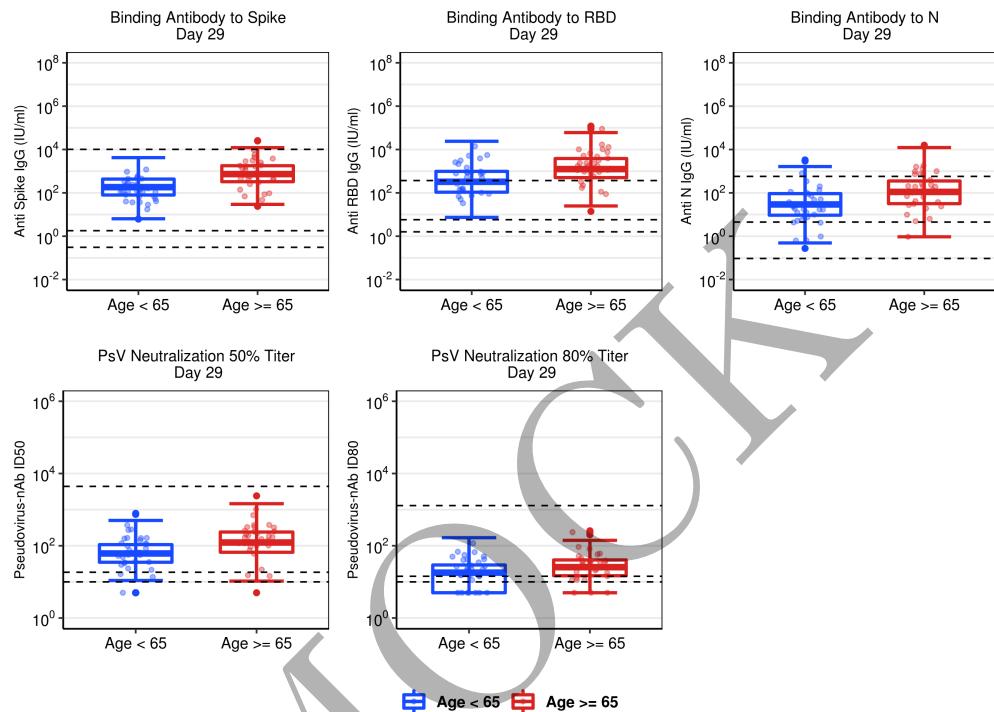


Figure 2.141: Boxplots of D29 Ab markers: Baseline negative vaccine arm by age group. The three dashed lines in each figure are ULOQ, LLOQ, and LLOD, from top to bottom respectively.

2.7. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT615

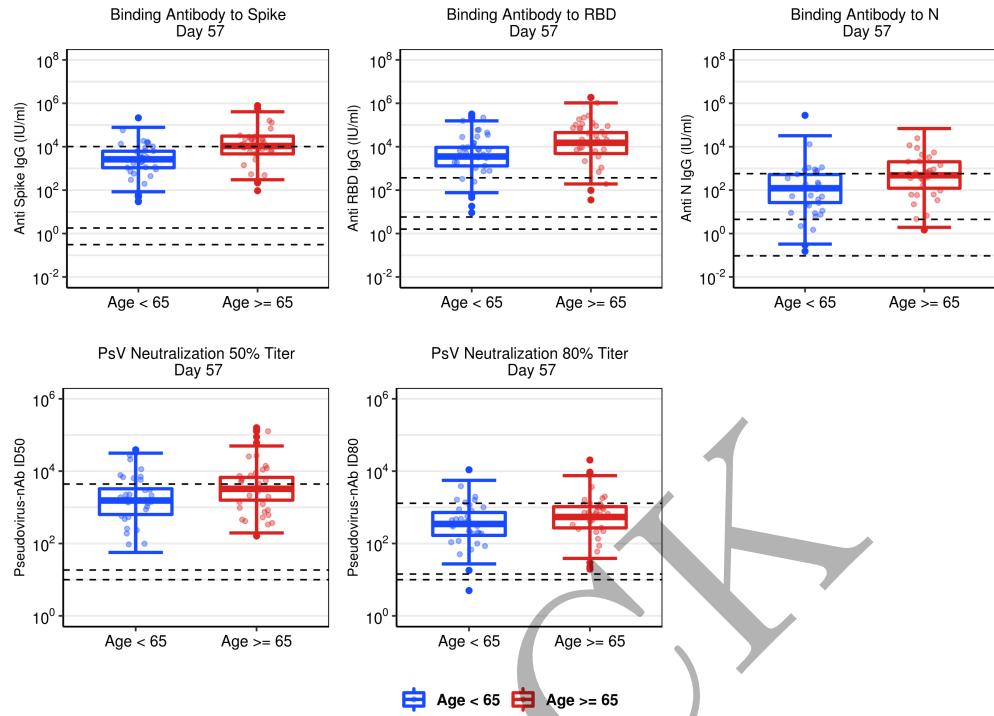


Figure 2.142: Boxplots of D57 Ab markers: Baseline negative vaccine arm by age group. The three dashed lines in each figure are ULOQ, LLOQ, and LLD, from top to bottom respectively.

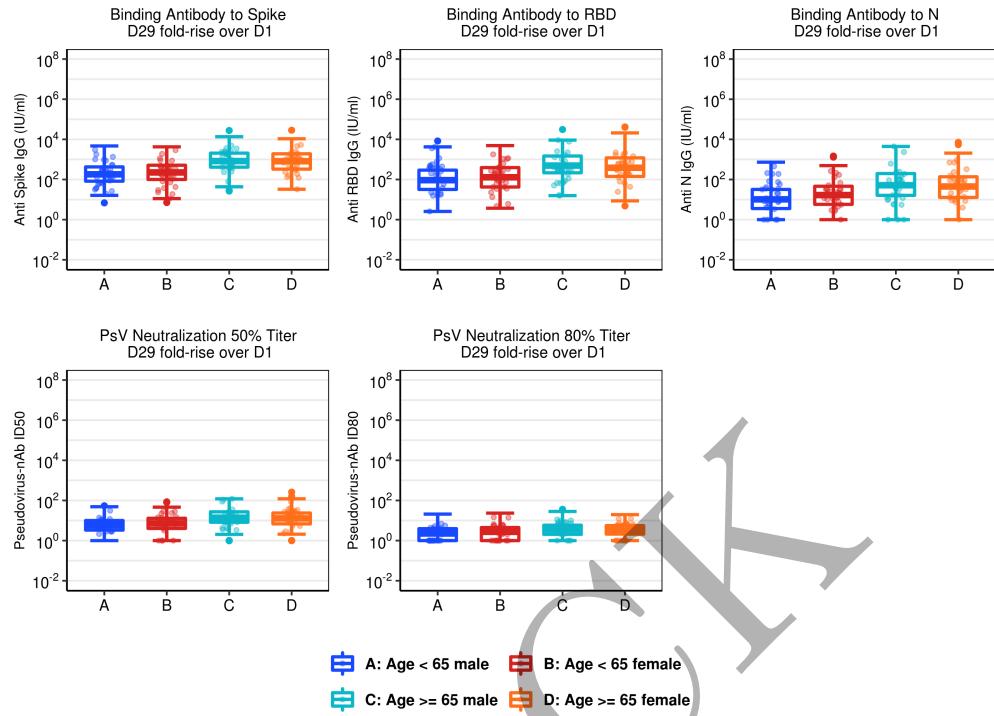


Figure 2.143: Boxplots of D29 fold-rise over D1 Ab markers: Baseline negative vaccine arm by age and sex assigned at birth.

2.7. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT617

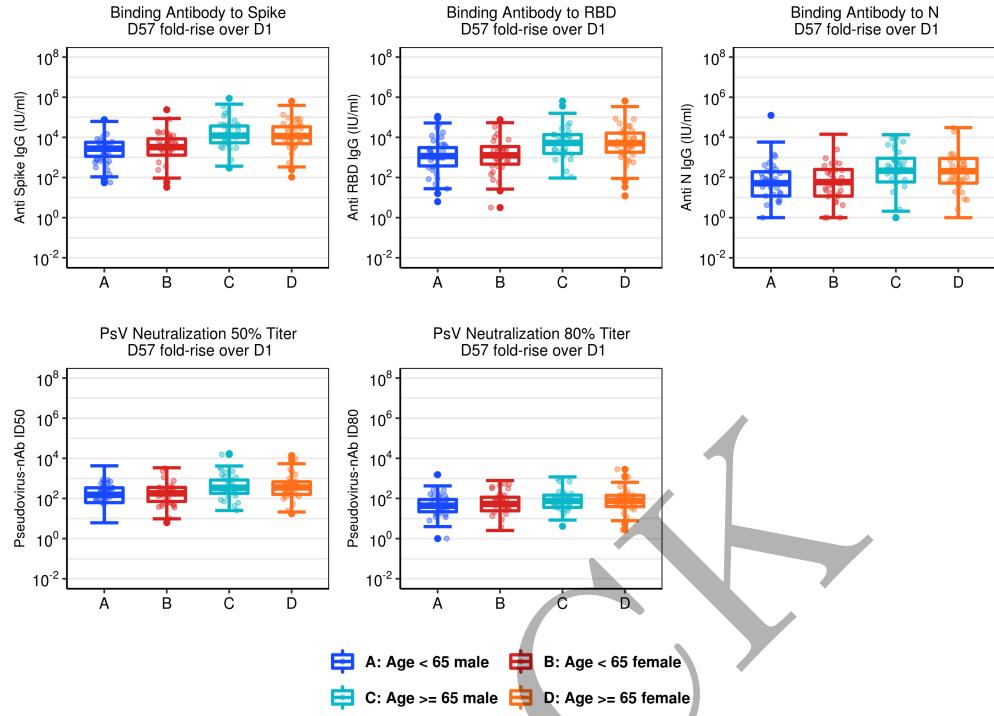


Figure 2.144: Boxplots of D57 fold-rise over D1 Ab markers: Baseline negative vaccine arm by age and sex assigned at birth.

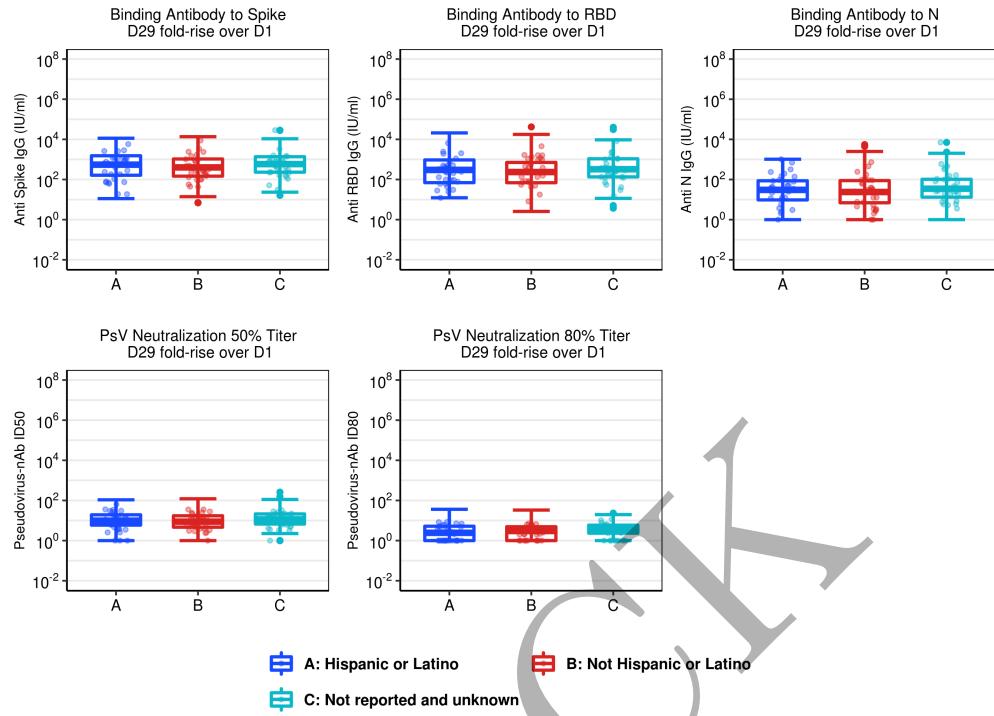


Figure 2.145: Boxplots of D29 fold-rise over D1 Ab markers: Baseline negative vaccine arm by ethnicity.

2.7. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT619

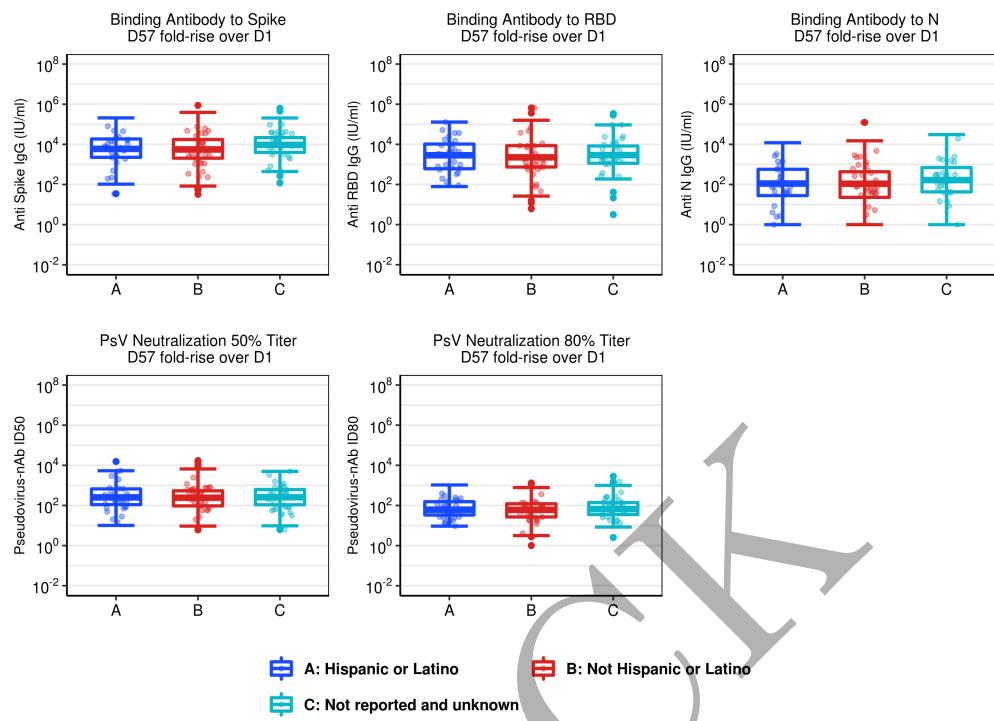


Figure 2.146: Boxplots of D57 fold-rise over D1 Ab markers: Baseline negative vaccine arm by ethnicity.

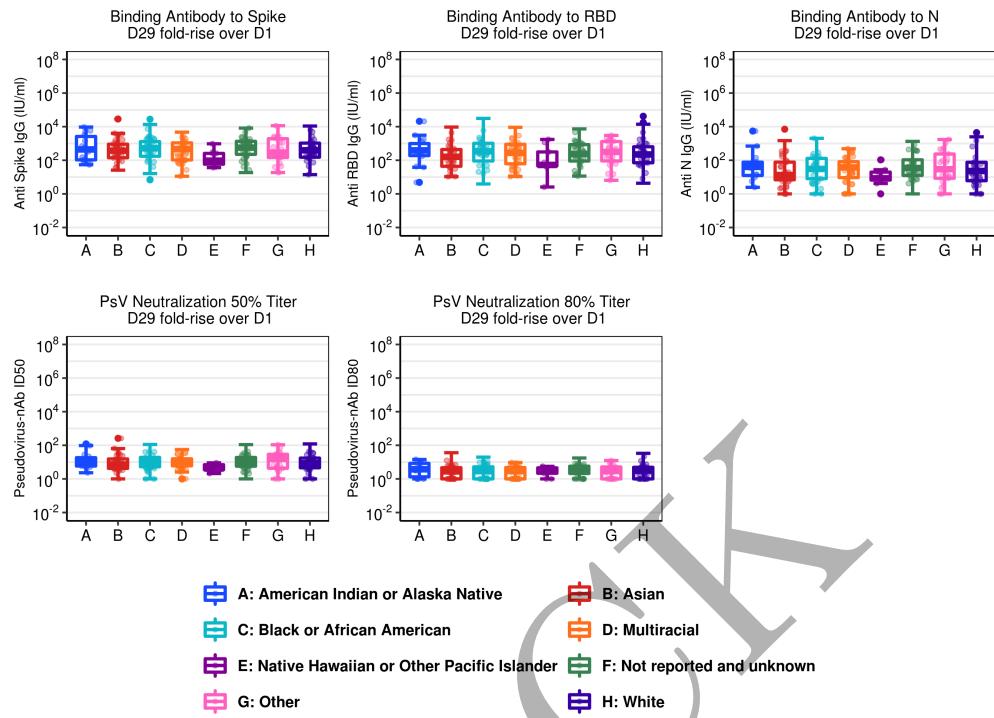


Figure 2.147: Boxplots of D29 fold-rise over D1 Ab markers: Baseline negative vaccine arm by race.

2.7. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT621

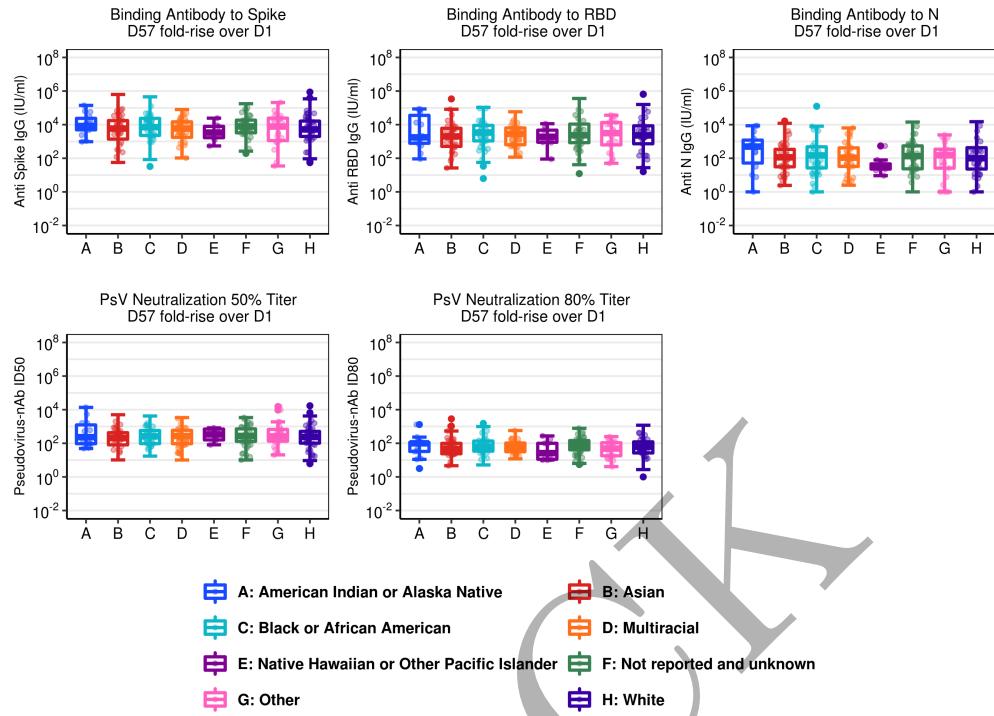


Figure 2.148: Boxplots of D57 fold-rise over D1 Ab markers: Baseline negative vaccine arm by race.

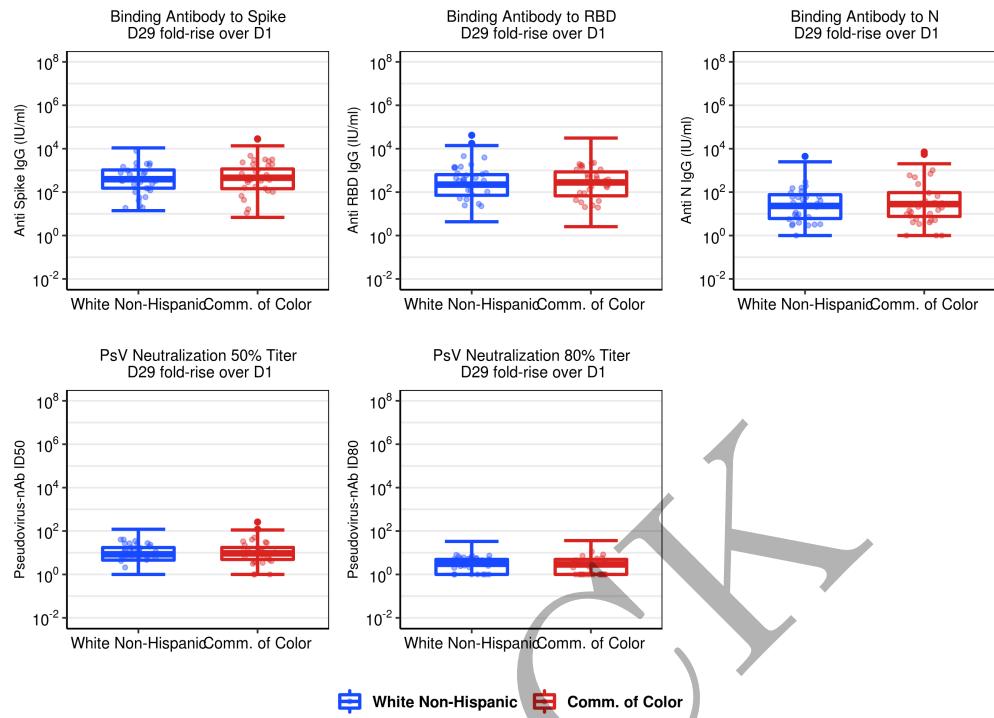


Figure 2.149: Boxplots of D29 fold-rise over D1 Ab markers: Baseline negative vaccine arm by dichotomous classification of race and ethnic group.

2.7. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT623

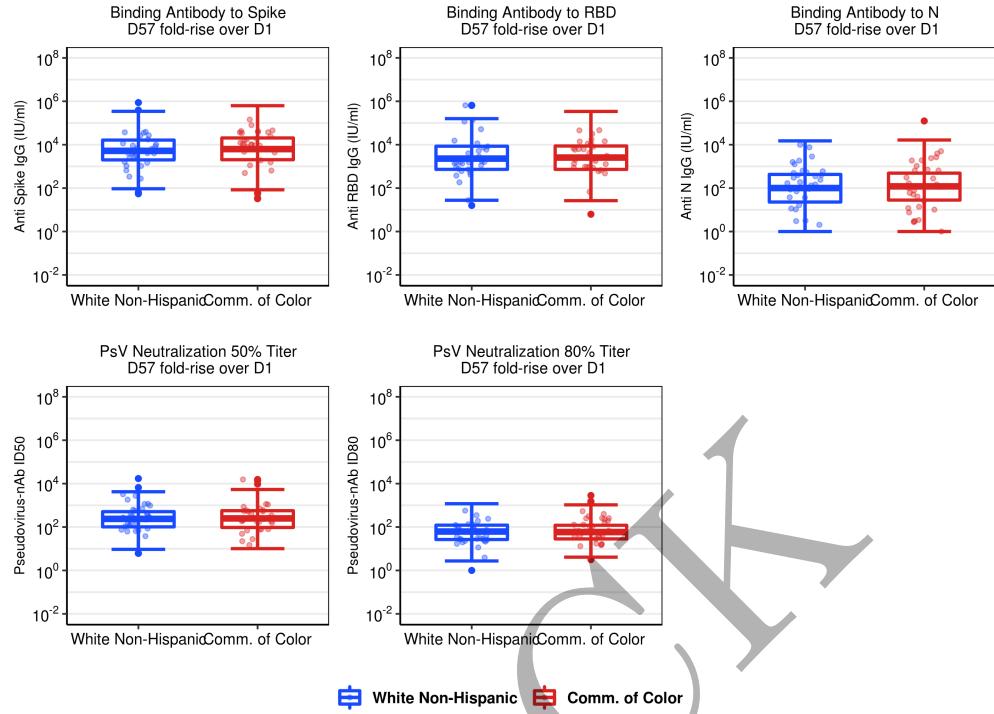


Figure 2.150: Boxplots of D57 fold-rise over D1 Ab markers: Baseline negative vaccine arm by dichotomous classification of race and ethnic group.

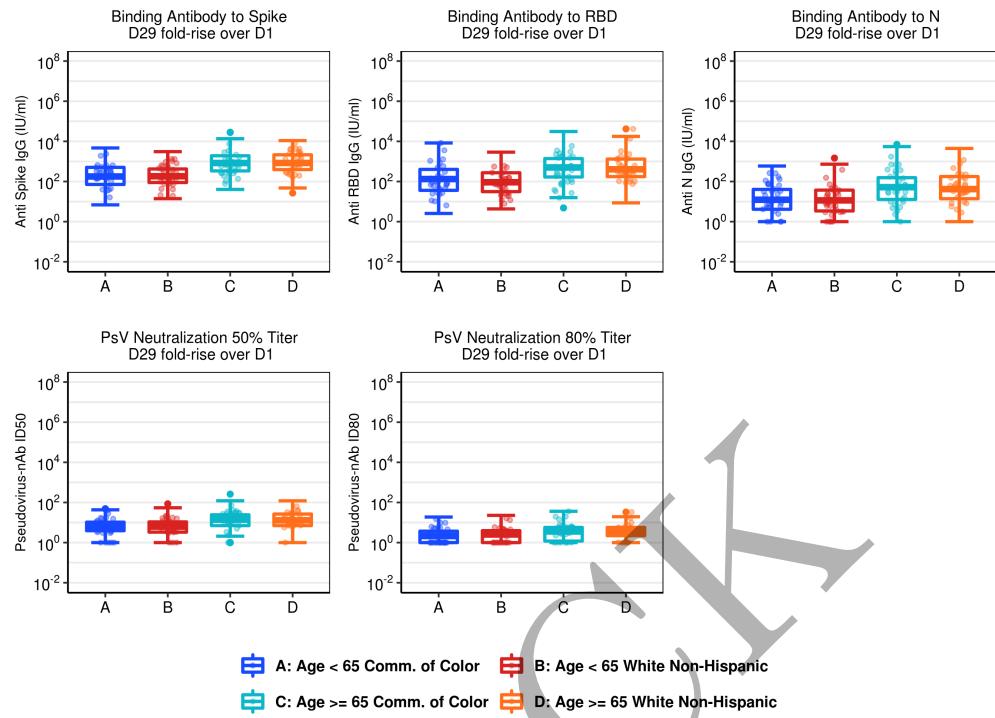


Figure 2.151: Boxplots of D29 fold-rise over D1 Ab markers: Baseline negative vaccine arm by age and dichotomous classification of race and ethnic group.

2.7. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT625

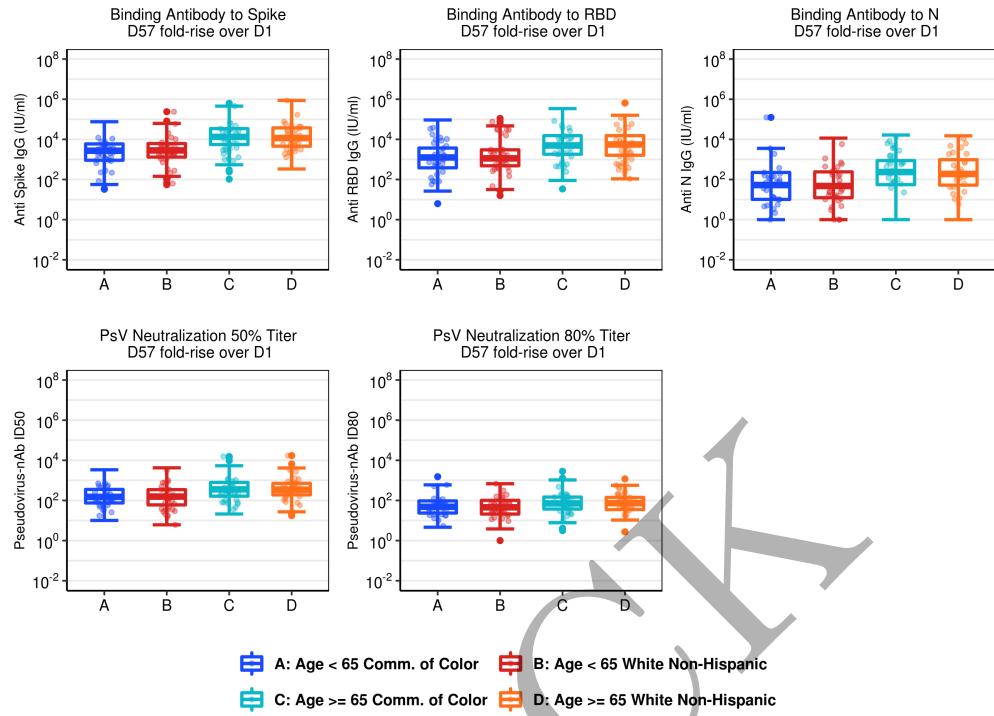


Figure 2.152: Boxplots of D57 fold-rise over D1 Ab markers: Baseline negative vaccine arm by age and dichotomous classification of race and ethnic group.

2.7.2 Baseline SARS-CoV-2 positive

MOCK

2.7. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT627

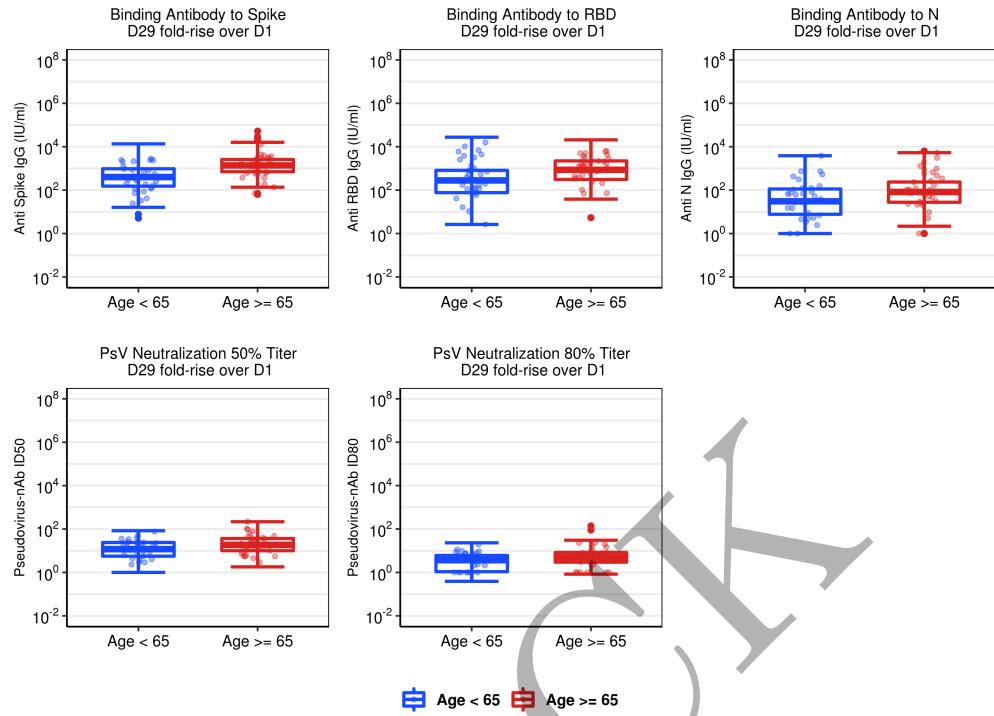


Figure 2.153: Boxplots of D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by age group.

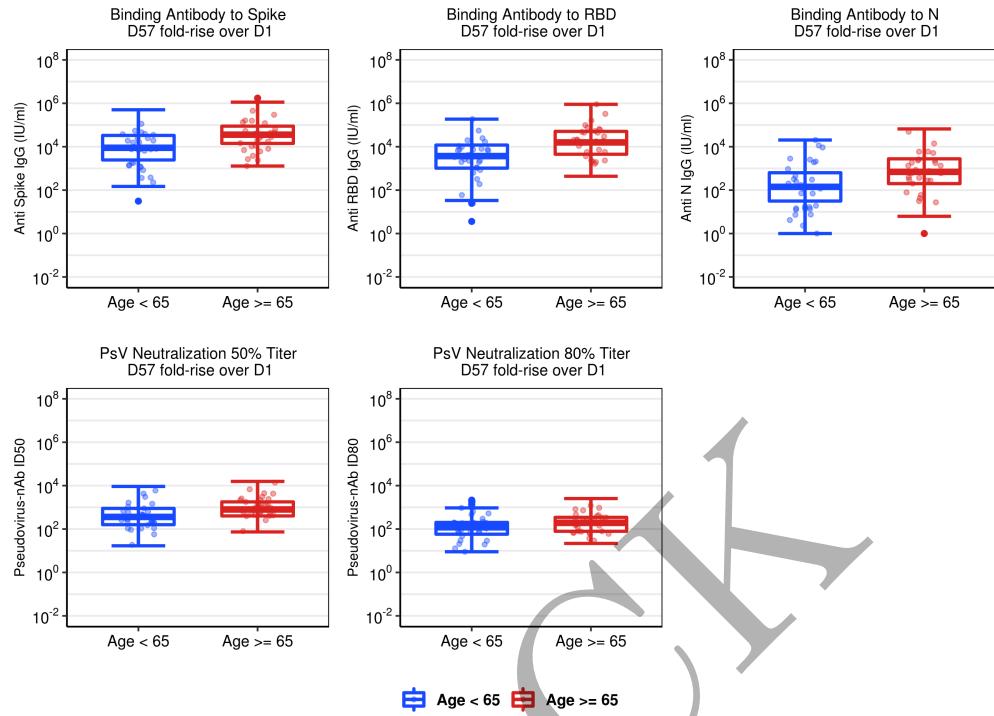


Figure 2.154: Boxplots of D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by age group.

2.7. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT629

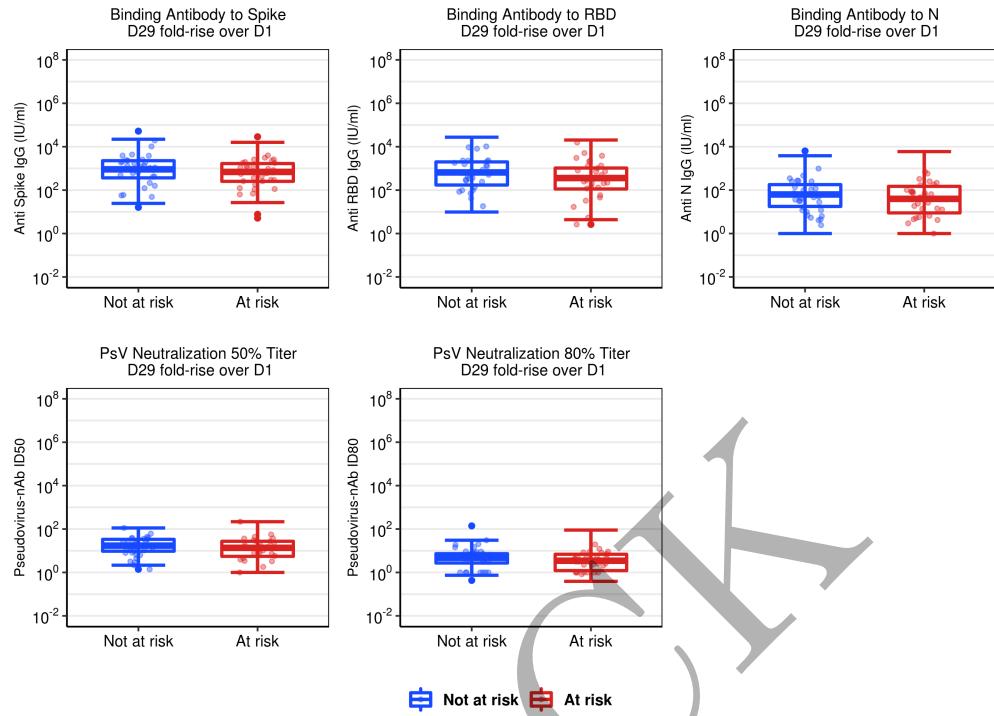


Figure 2.155: Boxplots of D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by high-risk condition.

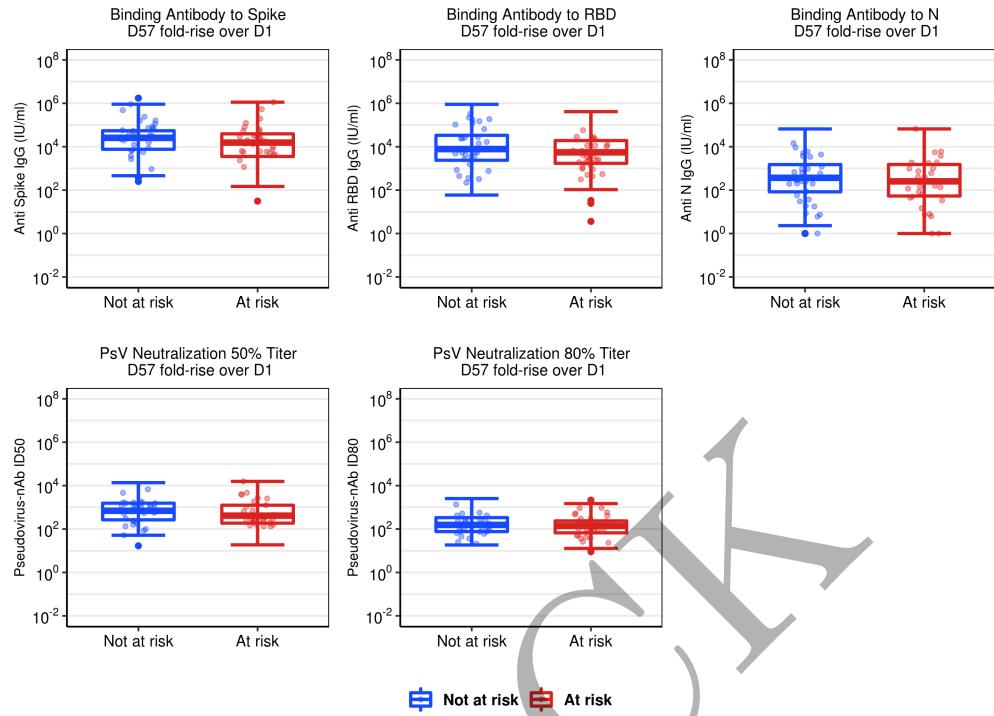


Figure 2.156: Boxplots of D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by high-risk condition.

2.7. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT631

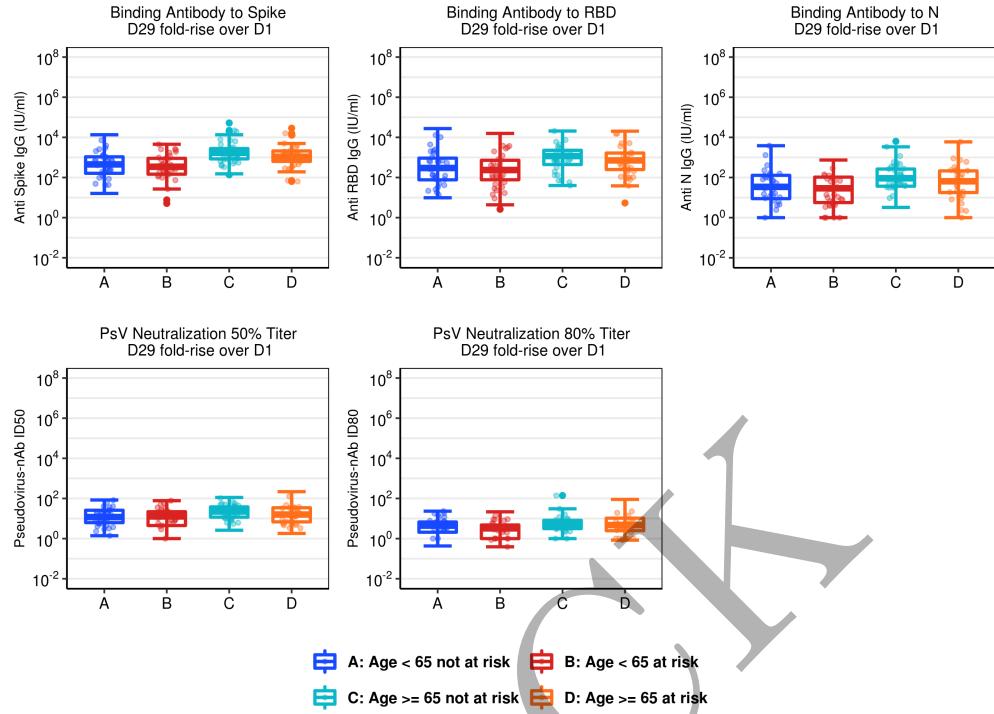


Figure 2.157: Boxplots of D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and high-risk condition.

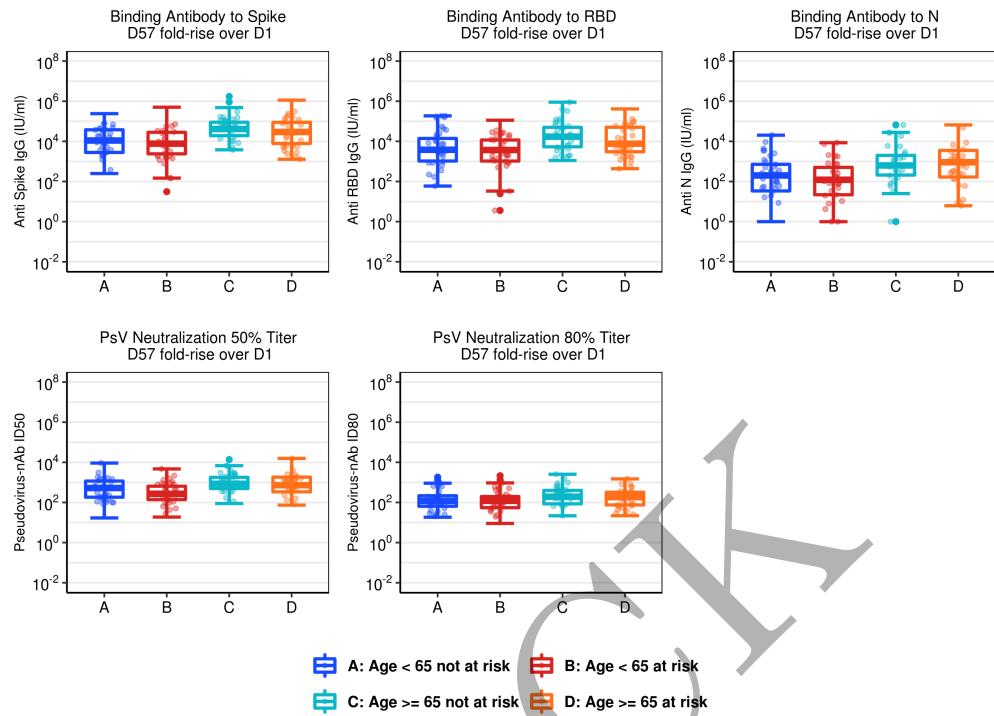


Figure 2.158: Boxplots of D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and high-risk condition.

2.7. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT633

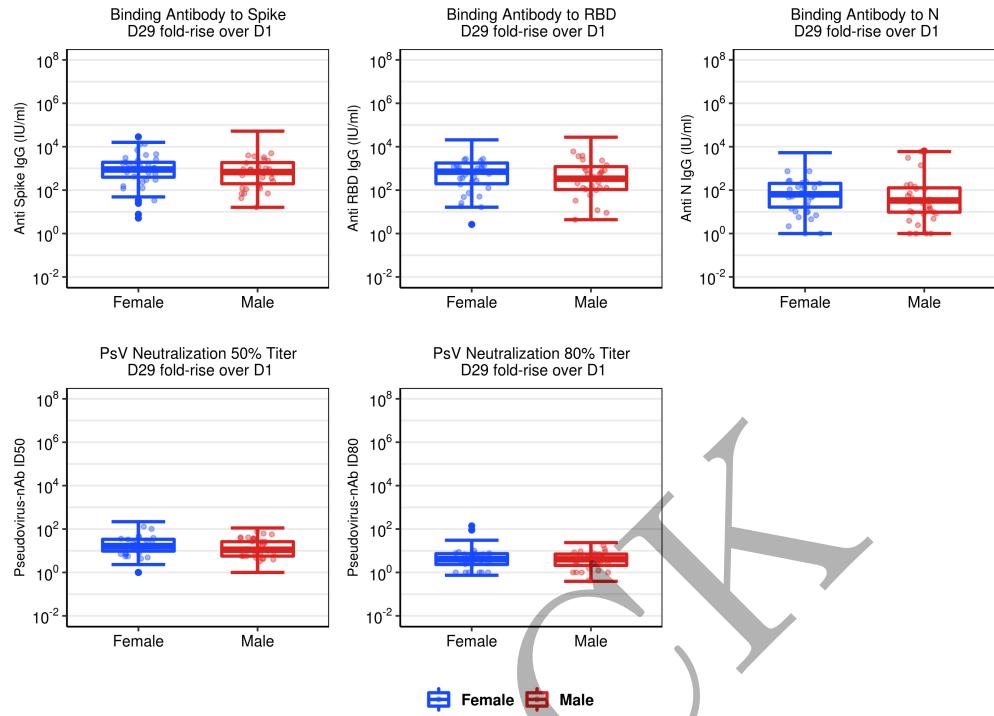


Figure 2.159: Boxplots of D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by sex assigned at birth.

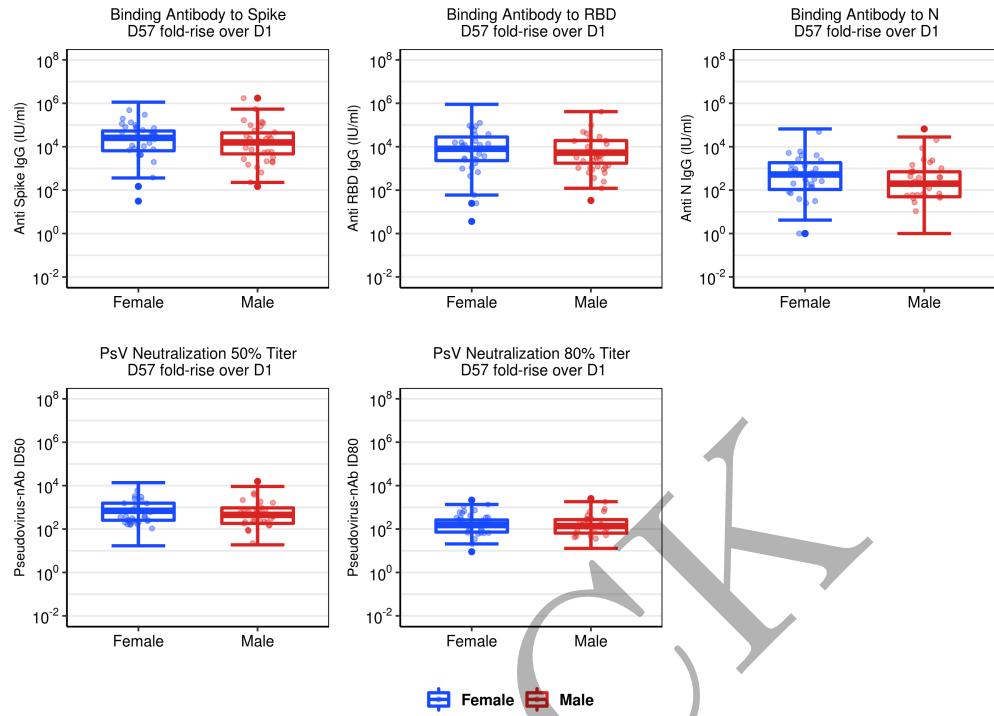


Figure 2.160: Boxplots of D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by sex assigned at birth.

2.7. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT635

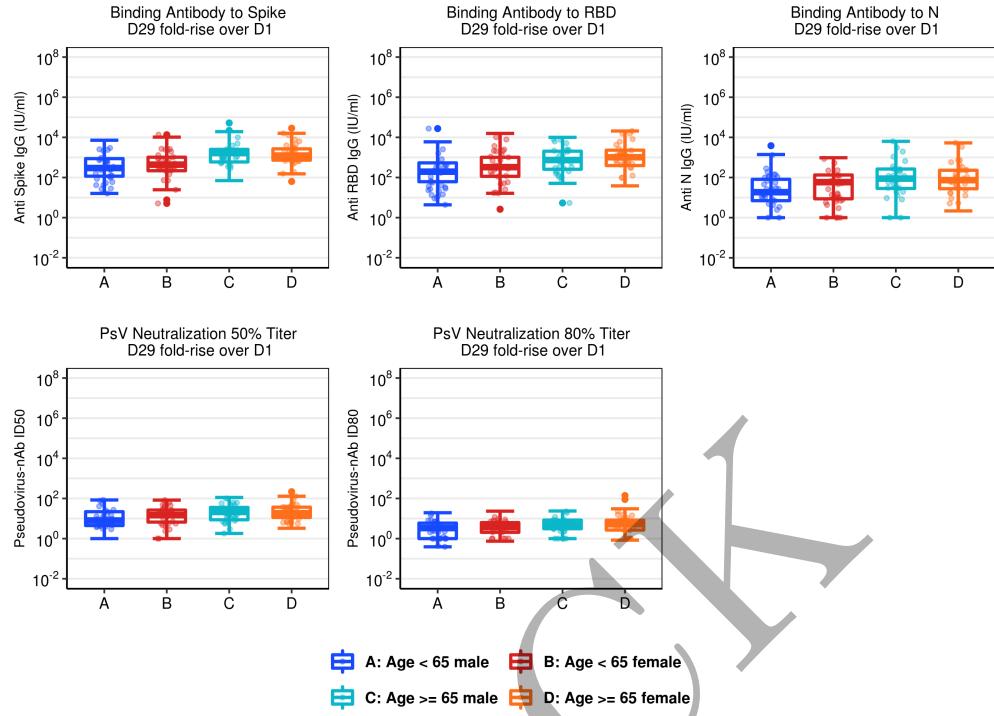


Figure 2.161: Boxplots of D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and sex assigned at birth.

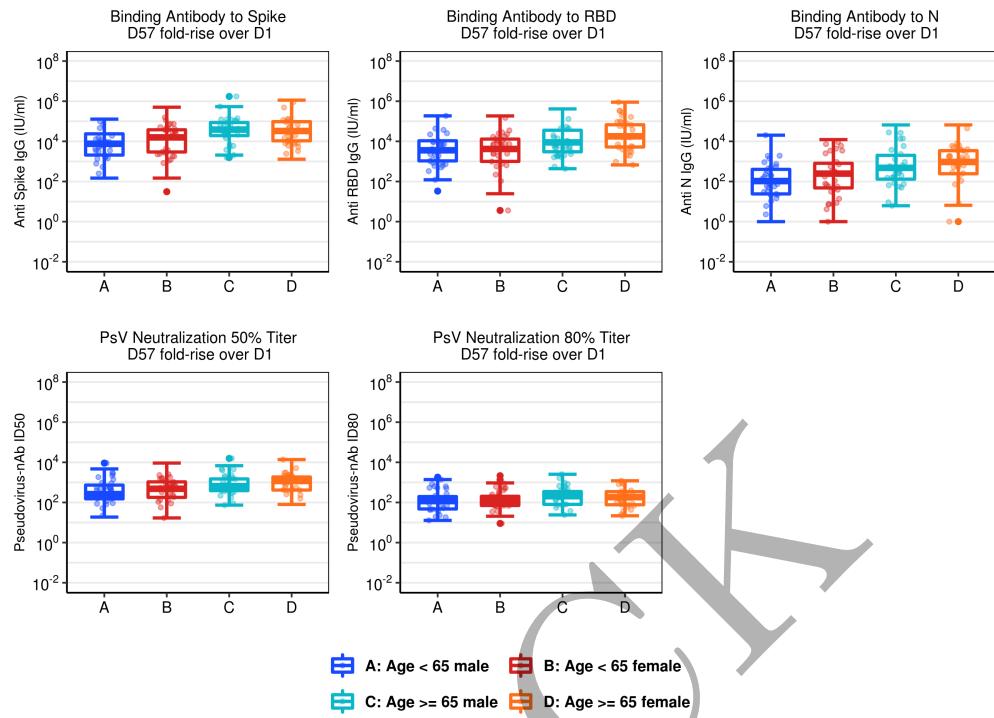


Figure 2.162: Boxplots of D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and sex assigned at birth.

2.7. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT637

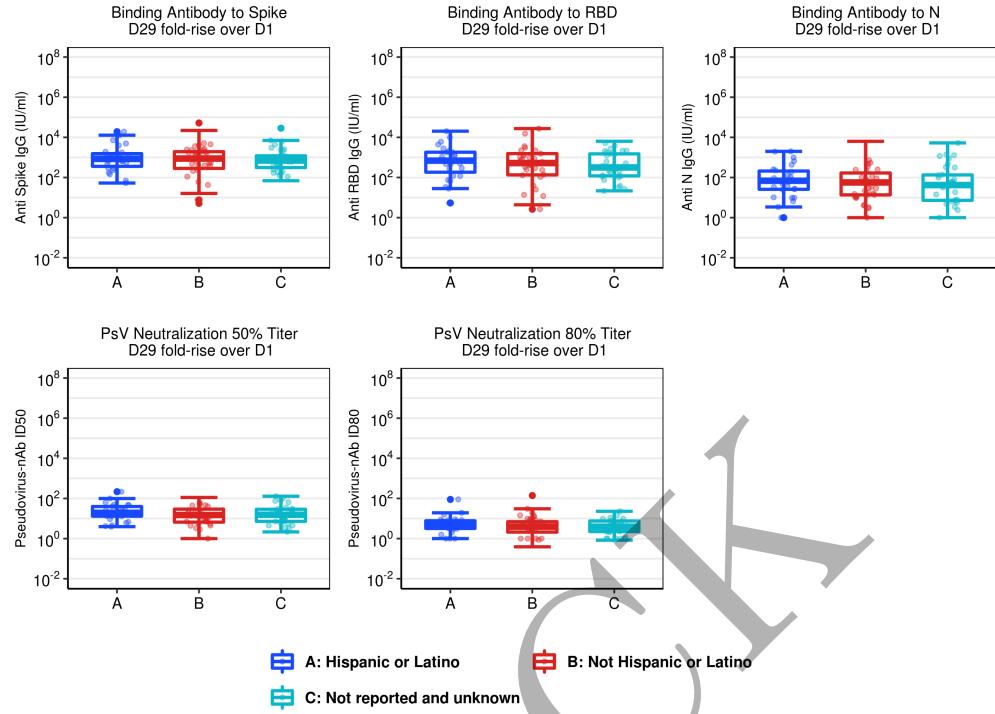


Figure 2.163: Boxplots of D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by ethnicity.

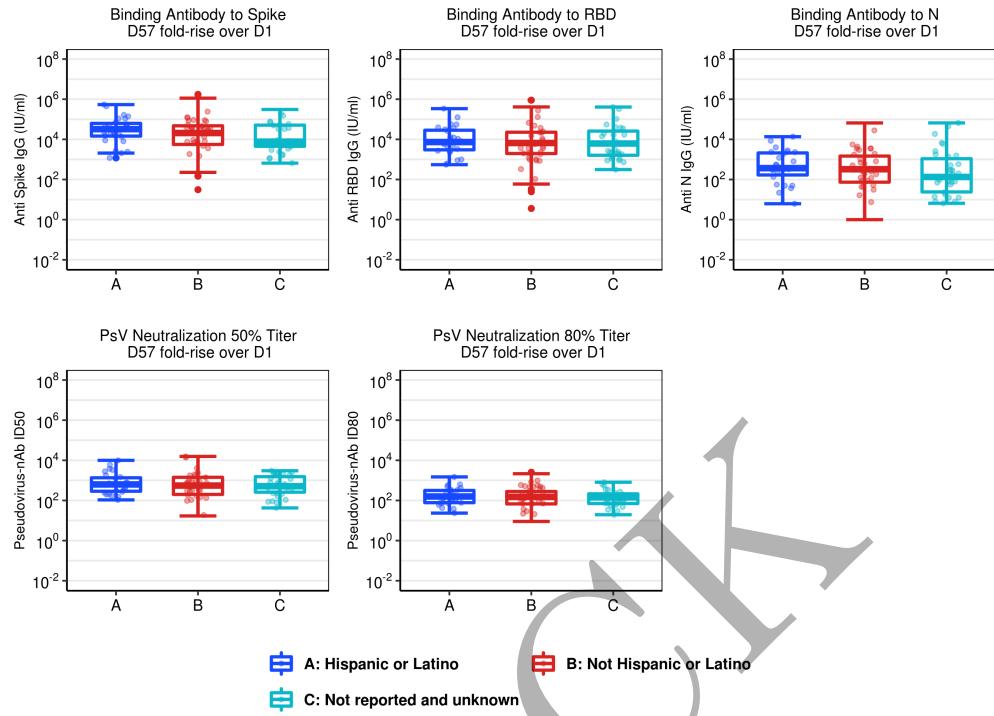


Figure 2.164: Boxplots of D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by ethnicity.

2.7. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT639

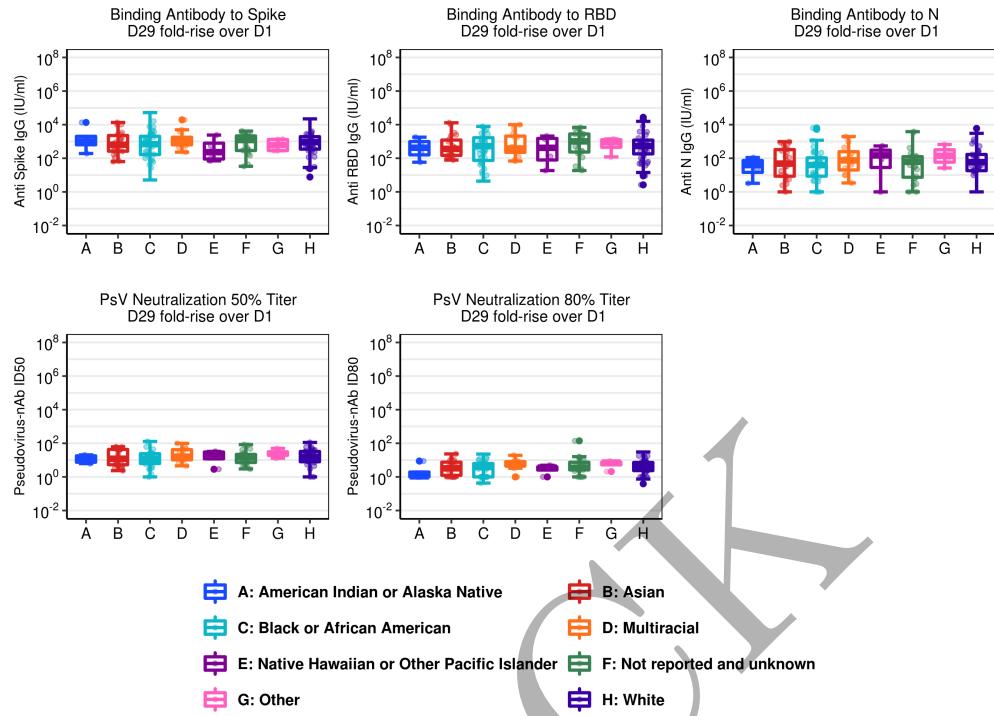


Figure 2.165: Boxplots of D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by race.

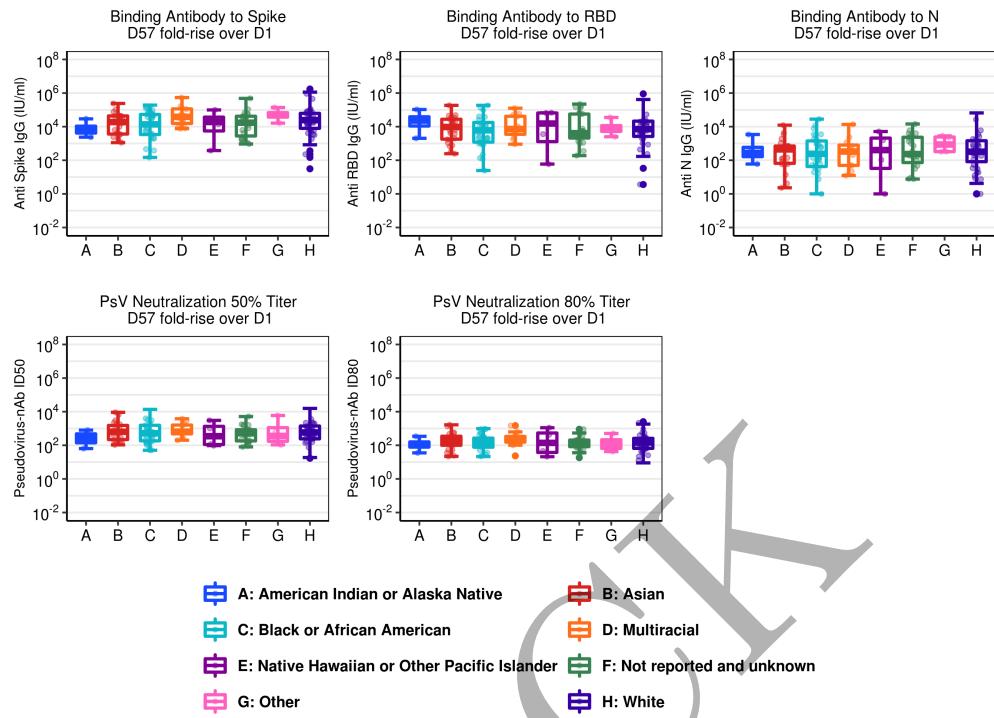


Figure 2.166: Boxplots of D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by race.

2.7. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT641

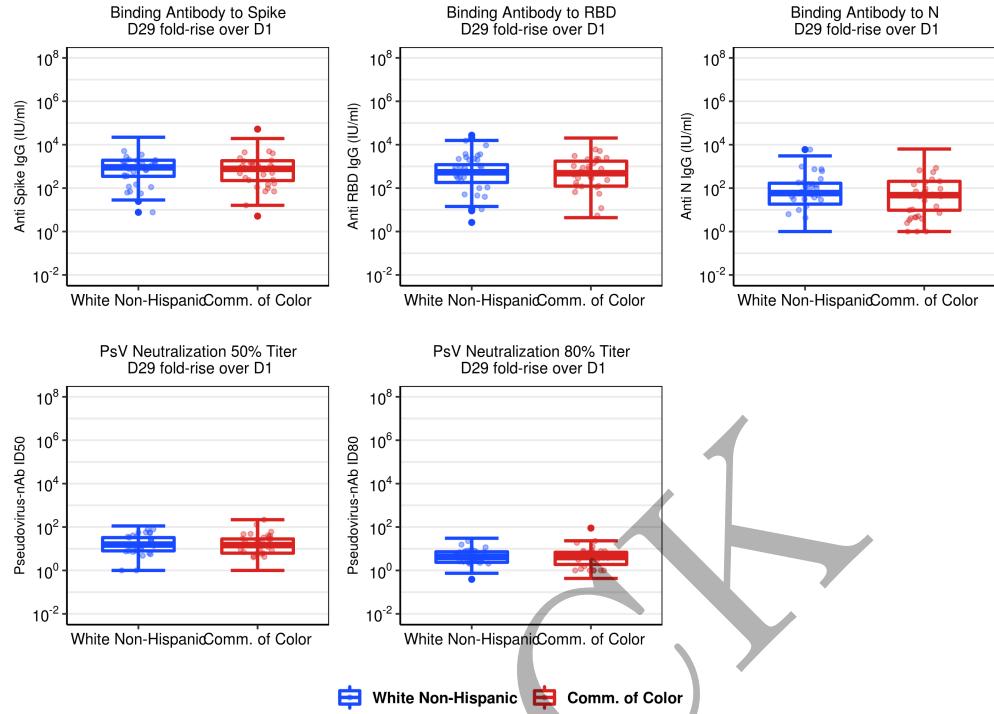


Figure 2.167: Boxplots of D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by dichotomous classification of race and ethnic group.

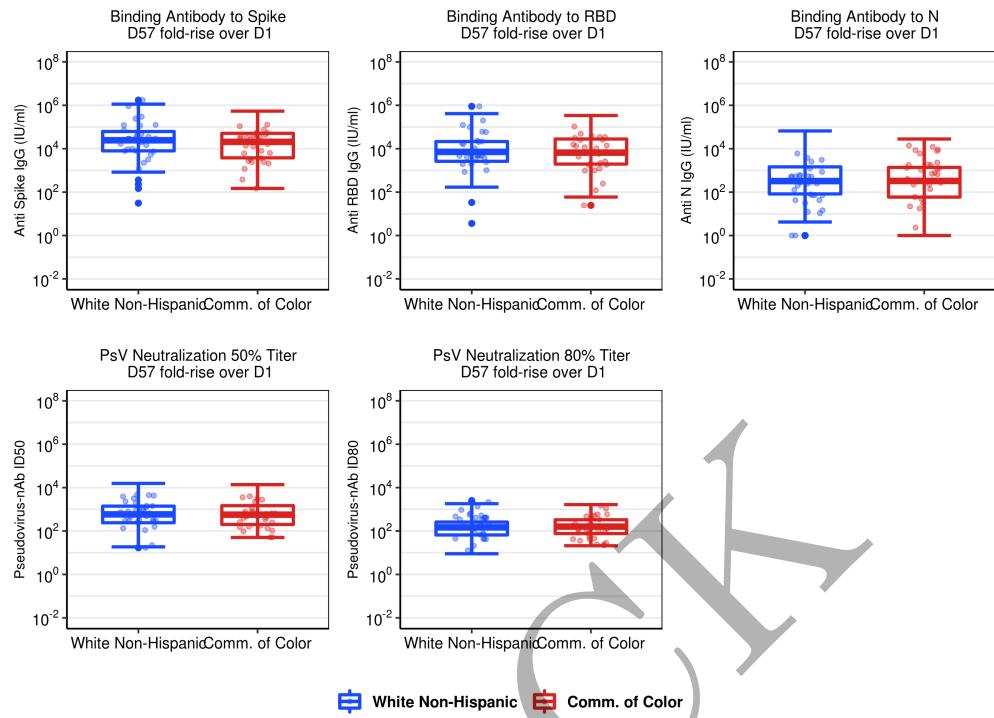


Figure 2.168: Boxplots of D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by dichotomous classification of race and ethnic group.

2.7. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT643

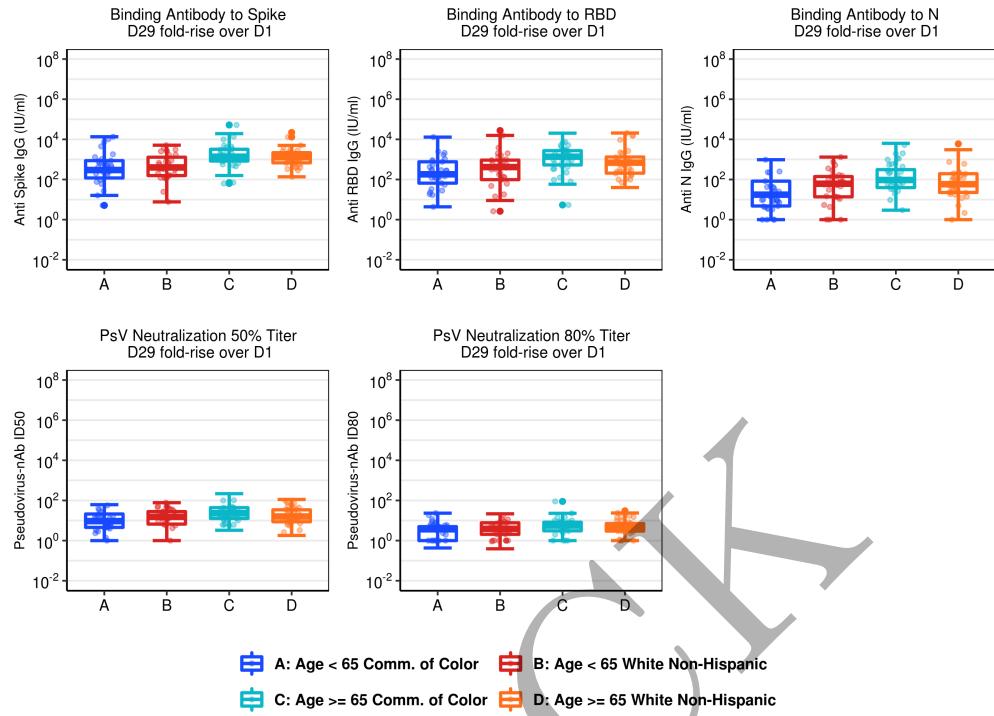


Figure 2.169: Boxplots of D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and dichotomous classification of race and ethnic group.

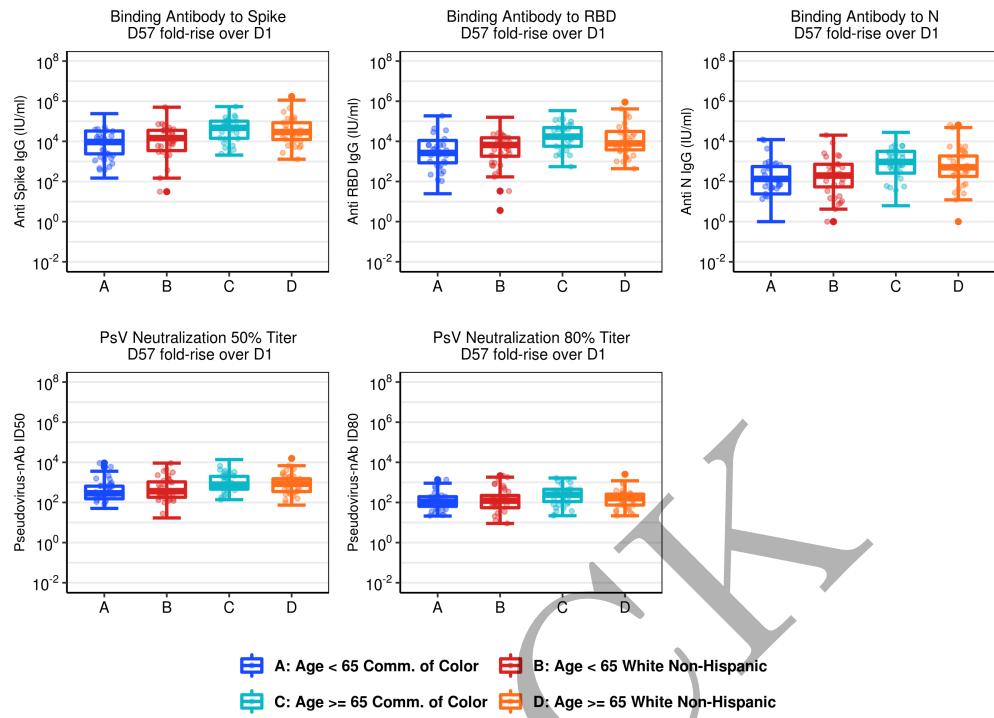


Figure 2.170: Boxplots of D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and dichotomous classification of race and ethnic group.

Chapter 3

Appendix

- This report was built from the [CoVPN/correlates_reporting](#) repository with commit hash 1e8ef0416fd05c9defd3f2585df2a7b731ce50c0. A diff of the changes introduced by that commit may be viewed at https://github.com/CoVPN/correlates_reporting/commit/1e8ef0416fd05c9defd3f2585df2a7b731ce50c0
- The sha256 hash sum of the raw input file, “COVID_VEtiral_practicedata_primarystage1.csv”: 9093a3d1fd6eb4b5523bfa7df143e1bc6e1f3ee0f6b340eaf60d3859e07a1023
- The sha256 hash sum of the processed file, “practice_data.csv”: 4db4474358ffb0551c301dd1cc4285d5b2dffadfbcb658a6a