

COVID-19 Immunogenicity Analysis Report
MockCOVE Study

USG COVID-19 Response Biostatistics Team

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Chapter 1

Disclaimers

- The data presented in the analysis originated from the Moderna Sponsored mRNA-1273-P301 clinical study and are provided to NIAID in accordance with Clinical Trial Agreement between the parties. The study was funded in part by BARDA under Government Contract No. 75A50120C00034
- The preliminary immunogenicity data presented here do not reflect the Sponsors statistical analysis plan and therefore should not be interpreted as a protocol defined read-out of the clinical study.
- These data are not to be disclosed without written permission of Moderna.

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Chapter 2

Tabular Description of Immunogenicity Data

2.1 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 = 747) | Placebo (N = 138) | Total (N = 885) |
|--------------------------------------|----------------------|----------------------|--------------------|
| Age | | | |
| Age < 65 | 357 (47.8%) | 72 (52.2%) | 429 (48.5%) |
| Age ≥ 65 | 390 (52.2%) | 66 (47.8%) | 456 (51.5%) |
| Mean (Range) | 58.5 (18.0, 85.0) | 58.3 (18.0, 85.0) | 58.5 (18.0, 85.0) |
| BMI | | | |
| Mean ± SD | 29.7 ± 6.6 | 31.4 ± 6.3 | 30.0 ± 6.6 |
| Risk for Severe Covid-19 | | | |
| At-risk | 381 (51.0%) | 71 (51.4%) | 452 (51.1%) |
| Not at-risk | 366 (49.0%) | 67 (48.6%) | 433 (48.9%) |
| Age, Risk for Severe Covid-19 | | | |
| Age < 65 At-risk | 185 (24.8%) | 36 (26.1%) | 221 (25.0%) |
| Age < 65 Not at-risk | 172 (23.0%) | 36 (26.1%) | 208 (23.5%) |
| Age ≥ 65 | 390 (52.2%) | 66 (47.8%) | 456 (51.5%) |
| Sex | | | |
| Female | 427 (57.2%) | 75 (54.3%) | 502 (56.7%) |
| Male | 320 (42.8%) | 63 (45.7%) | 383 (43.3%) |
| Hispanic or Latino ethnicity | | | |
| Hispanic or Latino | 99 (13.3%) | 20 (14.5%) | 119 (13.4%) |
| Not Hispanic or Latino | 623 (83.4%) | 113 (81.9%) | 736 (83.2%) |
| Not reported and unknown | 25 (3.3%) | 5 (3.6%) | 30 (3.4%) |
| Race | | | |
| White | 397 (53.1%) | 74 (53.6%) | 471 (53.2%) |
| Black or African American | 184 (24.6%) | 40 (29.0%) | 224 (25.3%) |

(continued)

| Characteristics | Vaccine (N = 747) | Placebo (N = 138) | Total (N = 885) |
|---|----------------------|----------------------|--------------------|
| Asian | 56 (7.5%) | 10 (7.2%) | 66 (7.5%) |
| American Indian or Alaska Native | 16 (2.1%) | 2 (1.4%) | 18 (2.0%) |
| Native Hawaiian or Other Pacific Islander | 17 (2.3%) | 2 (1.4%) | 19 (2.1%) |
| Multiracial | 57 (7.6%) | 8 (5.8%) | 65 (7.3%) |
| Other | 16 (2.1%) | 1 (0.7%) | 17 (1.9%) |
| Not reported and unknown | 4 (0.5%) | 1 (0.7%) | 5 (0.6%) |
| White Non-Hispanic | 370 (49.5%) | 63 (45.7%) | 433 (48.9%) |
| Communities of Color | 377 (50.5%) | 75 (54.3%) | 452 (51.1%) |

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).

2.2 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 = 234) | Placebo (N = 241) | Total (N = 475) |
|---|----------------------|----------------------|--------------------|
| Age | | | |
| Age < 65 | 114 (48.7%) | 120 (49.8%) | 234 (49.3%) |
| Age ≥ 65 | 120 (51.3%) | 121 (50.2%) | 241 (50.7%) |
| Mean (Range) | 58.3 (18.0, 85.0) | 56.3 (18.0, 85.0) | 57.3 (18.0, 85.0) |
| BMI | | | |
| Mean ± SD | 29.7 ± 7.5 | 30.0 ± 6.6 | 29.9 ± 7.0 |
| Risk for Severe Covid-19 | | | |
| At-risk | 111 (47.4%) | 117 (48.5%) | 228 (48.0%) |
| Not at-risk | 123 (52.6%) | 124 (51.5%) | 247 (52.0%) |
| Age, Risk for Severe Covid-19 | | | |
| Age < 65 At-risk | 56 (23.9%) | 59 (24.5%) | 115 (24.2%) |
| Age < 65 Not at-risk | 58 (24.8%) | 61 (25.3%) | 119 (25.1%) |
| Age ≥ 65 | 120 (51.3%) | 121 (50.2%) | 241 (50.7%) |
| Sex | | | |
| Female | 139 (59.4%) | 133 (55.2%) | 272 (57.3%) |
| Male | 95 (40.6%) | 108 (44.8%) | 203 (42.7%) |
| Hispanic or Latino ethnicity | | | |
| Hispanic or Latino | 31 (13.2%) | 34 (14.1%) | 65 (13.7%) |
| Not Hispanic or Latino | 194 (82.9%) | 201 (83.4%) | 395 (83.2%) |
| Not reported and unknown | 9 (3.8%) | 6 (2.5%) | 15 (3.2%) |
| Race | | | |
| White | 126 (53.8%) | 129 (53.5%) | 255 (53.7%) |
| Black or African American | 58 (24.8%) | 45 (18.7%) | 103 (21.7%) |
| Asian | 19 (8.1%) | 27 (11.2%) | 46 (9.7%) |
| American Indian or Alaska Native | 10 (4.3%) | 7 (2.9%) | 17 (3.6%) |
| Native Hawaiian or Other Pacific Islander | 4 (1.7%) | 2 (0.8%) | 6 (1.3%) |
| Multiracial | 10 (4.3%) | 16 (6.6%) | 26 (5.5%) |
| Other | 7 (3.0%) | 13 (5.4%) | 20 (4.2%) |
| Not reported and unknown | | 2 (0.8%) | 2 (0.4%) |
| White Non-Hispanic | 118 (50.4%) | 121 (50.2%) | 239 (50.3%) |
| Communities of Color | 116 (49.6%) | 120 (49.8%) | 236 (49.7%) |

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).

2.3 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=1360 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 | 154 | 236 | 78 | 107 | 67 | 105 | 48 | 72 | 24 | 32 | 23 | 35 |
| Estimated | 741 | 1617 | 852 | 2113 | 1837 | 3967 | 69 | 182 | 111 | 210 | 198 | 464 |
| Placebo | | | | | | | | | | | | |
| Observed | 26 | 40 | 18 | 18 | 18 | 18 | 43 | 78 | 19 | 40 | 23 | 38 |
| Estimated | 853 | 1907 | 872 | 1920 | 1749 | 3802 | 73 | 159 | 83 | 209 | 177 | 424 |

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.

2.4 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) | 747 | 6899.3/11127 = 62.0% (57.4%, 66.4%) | 8863.3/11127 = 79.7% (75.5%, 83.2%) | 7382/11127 = 66.3% (61.8%, 70.6%) |
| | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 747 | 10953.9/11127 = 98.4% (96.6%, 99.3%) | 11116.1/11127 = 99.9% (99.3%, 100.0%) | 10953.9/11127 = 98.4% (96.6%, 99.3%) |
| | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 747 | 11038.8/11127 = 99.2% (97.7%, 99.7%) | 11127/11127 = 100.0% (100.0%, 100.0%) | 11107.3/11127 = 99.8% (98.7%, 100.0%) |
| | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 234 | 940.6/1234 = 76.2% (68.6%, 82.5%) | 1072.9/1234 = 86.9% (79.9%, 91.8%) | 986.1/1234 = 79.9% (72.4%, 85.8%) |
| | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 234 | 1229.4/1234 = 99.6% (97.4%, 99.9%) | 1234/1234 = 100.0% (100.0%, 100.0%) | 1229.4/1234 = 99.6% (97.4%, 99.9%) |
| | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 234 | 1225.4/1234 = 99.3% (95.1%, 99.9%) | 1234/1234 = 100.0% (100.0%, 100.0%) | 1225.4/1234 = 99.3% (95.1%, 99.9%) |
| | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 138 | 0/11103 = 0.0% (0.0%, 0.0%) | 0/11103 = 0.0% (0.0%, 0.0%) | 0/11103 = 0.0% (0.0%, 0.0%) |
| | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 138 | 0/11103 = 0.0% (0.0%, 0.0%) | 0/11103 = 0.0% (0.0%, 0.0%) | 0/11103 = 0.0% (0.0%, 0.0%) |
| | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 138 | 0/11103 = 0.0% (0.0%, 0.0%) | 0/11103 = 0.0% (0.0%, 0.0%) | 0/11103 = 0.0% (0.0%, 0.0%) |
| | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 241 | 602.3/1125 = 53.5% (45.7%, 61.2%) | 824.8/1125 = 73.3% (65.5%, 79.9%) | 658/1125 = 58.5% (50.5%, 66.1%) |
| | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 241 | 1064/1125 = 94.6% (88.4%, 97.6%) | 1108.6/1125 = 98.5% (93.8%, 99.7%) | 1064/1125 = 94.6% (88.4%, 97.6%) |
| | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 241 | 1090.8/1125 = 97.0% (92.1%, 98.9%) | 1125/1125 = 100.0% (100.0%, 100.0%) | 1106.1/1125 = 98.3% (93.3%, 99.6%) |
| | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 747 | 9051.8/11127 = 81.4% (77.3%, 84.8%) | 10115.3/11127 = 90.9% (87.8%, 93.3%) | 9379.2/11127 = 84.3% (80.4%, 87.5%) |

(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) | 747 | 11107.3/11127 = 99.8% (98.7%, 100.0%) | 11127/11127 = 100.0% (100.0%, 100.0%) | 11107.3/11127 = 99.8% (98.7%, 100.0%) |
| | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 747 | 11127/11127 = 100.0% (100.0%, 100.0%) | 11127/11127 = 100.0% (100.0%, 100.0%) | 11127/11127 = 100.0% (100.0%, 100.0%) |
| | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 234 | 1179.1/1234 = 95.5% (89.9%, 98.1%) | 1187.7/1234 = 96.2% (90.7%, 98.5%) | 1179.1/1234 = 95.5% (89.9%, 98.1%) |
| | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 234 | 1234/1234 = 100.0% (100.0%, 100.0%) | 1234/1234 = 100.0% (100.0%, 100.0%) | 1234/1234 = 100.0% (100.0%, 100.0%) |
| | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 234 | 1234/1234 = 100.0% (100.0%, 100.0%) | 1234/1234 = 100.0% (100.0%, 100.0%) | 1234/1234 = 100.0% (100.0%, 100.0%) |
| | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 138 | 0/11103 = 0.0% (0.0%, 0.0%) | 0/11103 = 0.0% (0.0%, 0.0%) | 0/11103 = 0.0% (0.0%, 0.0%) |
| | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 138 | 0/11103 = 0.0% (0.0%, 0.0%) | 0/11103 = 0.0% (0.0%, 0.0%) | 0/11103 = 0.0% (0.0%, 0.0%) |
| | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 138 | 0/11103 = 0.0% (0.0%, 0.0%) | 0/11103 = 0.0% (0.0%, 0.0%) | 0/11103 = 0.0% (0.0%, 0.0%) |
| | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 241 | 863.2/1125 = 76.7% (68.9%, 83.0%) | 970.3/1125 = 86.2% (79.2%, 91.2%) | 885.4/1125 = 78.7% (71.0%, 84.8%) |
| | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 241 | 1125/1125 = 100.0% (100.0%, 100.0%) | 1125/1125 = 100.0% (100.0%, 100.0%) | 1125/1125 = 100.0% (100.0%, 100.0%) |
| | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 241 | 1125/1125 = 100.0% (100.0%, 100.0%) | 1125/1125 = 100.0% (100.0%, 100.0%) | 1125/1125 = 100.0% (100.0%, 100.0%) |

Binding Antibody Responders are defined as participants with concentration above the specified positivity cut-off, with a separate cut-off for each antigen Spike, RBD, N (10.8424, 14.0858, and 23.4711 respectively, in IU/ml).

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

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) | 357 | 5010.4/8769 = 57.1% (51.5%, 62.6%) | 6653.5/8769 = 75.9% (70.7%, 80.4%) | 5393/8769 = 61.5% (55.9%, 66.8%) |
| Age < 65 | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 357 | 8595.9/8769 = 98.0% (95.7%, 99.1%) | 8758.1/8769 = 99.9% (99.1%, 100.0%) | 8595.9/8769 = 98.0% (95.7%, 99.1%) |
| Age < 65 | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 357 | 8680.8/8769 = 99.0% (97.1%, 99.7%) | 8769/8769 = 100.0% (100.0%, 100.0%) | 8749.3/8769 = 99.8% (98.4%, 100.0%) |
| Age < 65 | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 114 | 707.6/983 = 72.0% (62.6%, 79.8%) | 828.4/983 = 84.3% (75.5%, 90.3%) | 749.2/983 = 76.2% (66.9%, 83.6%) |
| Age < 65 | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 114 | 978.4/983 = 99.5% (96.7%, 99.9%) | 983/983 = 100.0% (100.0%, 100.0%) | 978.4/983 = 99.5% (96.7%, 99.9%) |
| Age < 65 | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 114 | 974.4/983 = 99.1% (93.9%, 99.9%) | 983/983 = 100.0% (100.0%, 100.0%) | 974.4/983 = 99.1% (93.9%, 99.9%) |
| Age < 65 | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 72 | 0/8343 = 0.0% (0.0%, 0.0%) | 0/8343 = 0.0% (0.0%, 0.0%) | 0/8343 = 0.0% (0.0%, 0.0%) |
| Age < 65 | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 72 | 0/8343 = 0.0% (0.0%, 0.0%) | 0/8343 = 0.0% (0.0%, 0.0%) | 0/8343 = 0.0% (0.0%, 0.0%) |
| Age < 65 | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 72 | 0/8343 = 0.0% (0.0%, 0.0%) | 0/8343 = 0.0% (0.0%, 0.0%) | 0/8343 = 0.0% (0.0%, 0.0%) |
| Age < 65 | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 120 | 420.2/893 = 47.1% (37.6%, 56.7%) | 617.2/893 = 69.1% (59.4%, 77.4%) | 465.7/893 = 52.2% (42.5%, 61.7%) |
| Age < 65 | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 120 | 832/893 = 93.2% (85.5%, 96.9%) | 876.6/893 = 98.2% (92.2%, 99.6%) | 832/893 = 93.2% (85.5%, 96.9%) |
| Age < 65 | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 120 | 858.8/893 = 96.2% (90.1%, 98.6%) | 893/893 = 100.0% (100.0%, 100.0%) | 874.1/893 = 97.9% (91.6%, 99.5%) |
| Age < 65 | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 357 | 6835.8/8769 = 78.0% (72.9%, 82.3%) | 7815.7/8769 = 89.1% (85.2%, 92.1%) | 7128.2/8769 = 81.3% (76.4%, 85.3%) |
| Age < 65 | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 357 | 8749.3/8769 = 99.8% (98.4%, 100.0%) | 8769/8769 = 100.0% (100.0%, 100.0%) | 8749.3/8769 = 99.8% (98.4%, 100.0%) |
| Age < 65 | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 357 | 8769/8769 = 100.0% (100.0%, 100.0%) | 8769/8769 = 100.0% (100.0%, 100.0%) | 8769/8769 = 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) | 114 | 928.1/983 = 94.4% (87.4%, 97.6%) | 936.7/983 = 95.3% (88.3%, 98.2%) | 928.1/983 = 94.4% (87.4%, 97.6%) |
| Age < 65 | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 114 | 983/983 = 100.0% (100.0%, 100.0%) | 983/983 = 100.0% (100.0%, 100.0%) | 983/983 = 100.0% (100.0%, 100.0%) |
| Age < 65 | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 114 | 983/983 = 100.0% (100.0%, 100.0%) | 983/983 = 100.0% (100.0%, 100.0%) | 983/983 = 100.0% (100.0%, 100.0%) |
| Age < 65 | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 72 | 0/8343 = 0.0% (0.0%, 0.0%) | 0/8343 = 0.0% (0.0%, 0.0%) | 0/8343 = 0.0% (0.0%, 0.0%) |
| Age < 65 | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 72 | 0/8343 = 0.0% (0.0%, 0.0%) | 0/8343 = 0.0% (0.0%, 0.0%) | 0/8343 = 0.0% (0.0%, 0.0%) |
| Age < 65 | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 72 | 0/8343 = 0.0% (0.0%, 0.0%) | 0/8343 = 0.0% (0.0%, 0.0%) | 0/8343 = 0.0% (0.0%, 0.0%) |
| Age < 65 | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 120 | 651.2/893 = 72.9% (63.3%, 80.8%) | 750.2/893 = 84.0% (75.2%, 90.1%) | 669.4/893 = 75.0% (65.4%, 82.6%) |
| Age < 65 | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 120 | 893/893 = 100.0% (100.0%, 100.0%) | 893/893 = 100.0% (100.0%, 100.0%) | 893/893 = 100.0% (100.0%, 100.0%) |
| Age < 65 | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 120 | 893/893 = 100.0% (100.0%, 100.0%) | 893/893 = 100.0% (100.0%, 100.0%) | 893/893 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 390 | 1888.8/2358 = 80.1% (75.8%, 83.8%) | 2209.9/2358 = 93.7% (90.7%, 95.8%) | 1989/2358 = 84.4% (80.3%, 87.7%) |
| Age ≥ 65 | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 390 | 2358/2358 = 100.0% (100.0%, 100.0%) | 2358/2358 = 100.0% (100.0%, 100.0%) | 2358/2358 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 390 | 2358/2358 = 100.0% (100.0%, 100.0%) | 2358/2358 = 100.0% (100.0%, 100.0%) | 2358/2358 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 120 | 233/251 = 92.8% (86.0%, 96.4%) | 244.5/251 = 97.4% (91.9%, 99.2%) | 236.9/251 = 94.4% (87.9%, 97.5%) |
| Age ≥ 65 | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 120 | 251/251 = 100.0% (100.0%, 100.0%) | 251/251 = 100.0% (100.0%, 100.0%) | 251/251 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 120 | 251/251 = 100.0% (100.0%, 100.0%) | 251/251 = 100.0% (100.0%, 100.0%) | 251/251 = 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) | 66 | 0/2760 = 0.0% (0.0%, 0.0%) | 0/2760 = 0.0% (0.0%, 0.0%) | 0/2760 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 66 | 0/2760 = 0.0% (0.0%, 0.0%) | 0/2760 = 0.0% (0.0%, 0.0%) | 0/2760 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 66 | 0/2760 = 0.0% (0.0%, 0.0%) | 0/2760 = 0.0% (0.0%, 0.0%) | 0/2760 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 121 | 182.1/232 = 78.5% (70.1%, 85.0%) | 207.5/232 = 89.5% (82.5%, 93.8%) | 192.3/232 = 82.9% (75.0%, 88.6%) |
| Age ≥ 65 | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 121 | 232/232 = 100.0% (100.0%, 100.0%) | 232/232 = 100.0% (100.0%, 100.0%) | 232/232 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 121 | 232/232 = 100.0% (100.0%, 100.0%) | 232/232 = 100.0% (100.0%, 100.0%) | 232/232 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 390 | 2216/2358 = 94.0% (91.1%, 96.0%) | 2299.7/2358 = 97.5% (95.4%, 98.7%) | 2251/2358 = 95.5% (92.9%, 97.1%) |
| Age ≥ 65 | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 390 | 2358/2358 = 100.0% (100.0%, 100.0%) | 2358/2358 = 100.0% (100.0%, 100.0%) | 2358/2358 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 390 | 2358/2358 = 100.0% (100.0%, 100.0%) | 2358/2358 = 100.0% (100.0%, 100.0%) | 2358/2358 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 120 | 251/251 = 100.0% (100.0%, 100.0%) | 251/251 = 100.0% (100.0%, 100.0%) | 251/251 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 120 | 251/251 = 100.0% (100.0%, 100.0%) | 251/251 = 100.0% (100.0%, 100.0%) | 251/251 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 120 | 251/251 = 100.0% (100.0%, 100.0%) | 251/251 = 100.0% (100.0%, 100.0%) | 251/251 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 66 | 0/2760 = 0.0% (0.0%, 0.0%) | 0/2760 = 0.0% (0.0%, 0.0%) | 0/2760 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 66 | 0/2760 = 0.0% (0.0%, 0.0%) | 0/2760 = 0.0% (0.0%, 0.0%) | 0/2760 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 66 | 0/2760 = 0.0% (0.0%, 0.0%) | 0/2760 = 0.0% (0.0%, 0.0%) | 0/2760 = 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) | 121 | 212/232 = 91.4% (84.6%, 95.3%) | 220.1/232 = 94.9% (89.0%, 97.7%) | 216/232 = 93.1% (86.7%, 96.5%) |
| Age ≥ 65 | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 121 | 232/232 = 100.0% (100.0%, 100.0%) | 232/232 = 100.0% (100.0%, 100.0%) | 232/232 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 121 | 232/232 = 100.0% (100.0%, 100.0%) | 232/232 = 100.0% (100.0%, 100.0%) | 232/232 = 100.0% (100.0%, 100.0%) |

Binding Antibody Responders are defined as participants with concentration above the specified positivity cut-off, with a separate cut-off for each antigen Spike, RBD, N (10.8424, 14.0858, and 23.4711 respectively, in IU/ml).

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

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) | 381 | 2604.4/4152.9 = 62.7% (57.0%, 68.1%) | 3368.7/4152.9 = 81.1% (76.0%, 85.4%) | 2802.3/4152.9 = 67.5% (61.8%, 72.7%) |
| At-risk | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 381 | 4082.7/4152.9 = 98.3% (95.5%, 99.4%) | 4142/4152.9 = 99.7% (98.1%, 100.0%) | 4082.7/4152.9 = 98.3% (95.5%, 99.4%) |
| At-risk | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 381 | 4102.5/4152.9 = 98.8% (96.2%, 99.6%) | 4152.9/4152.9 = 100.0% (100.0%, 100.0%) | 4133.1/4152.9 = 99.5% (96.7%, 99.9%) |
| At-risk | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 111 | 309.1/440.4 = 70.2% (59.4%, 79.1%) | 382.5/440.4 = 86.9% (77.1%, 92.9%) | 334.8/440.4 = 76.0% (65.4%, 84.2%) |
| At-risk | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 111 | 435.8/440.4 = 98.9% (92.7%, 99.9%) | 440.4/440.4 = 100.0% (100.0%, 100.0%) | 435.8/440.4 = 98.9% (92.7%, 99.9%) |
| At-risk | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 111 | 440.4/440.4 = 100.0% (100.0%, 100.0%) | 440.4/440.4 = 100.0% (100.0%, 100.0%) | 440.4/440.4 = 100.0% (100.0%, 100.0%) |
| At-risk | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 71 | 0/4237.6 = 0.0% (0.0%, 0.0%) | 0/4237.6 = 0.0% (0.0%, 0.0%) | 0/4237.6 = 0.0% (0.0%, 0.0%) |
| At-risk | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 71 | 0/4237.6 = 0.0% (0.0%, 0.0%) | 0/4237.6 = 0.0% (0.0%, 0.0%) | 0/4237.6 = 0.0% (0.0%, 0.0%) |
| At-risk | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 71 | 0/4237.6 = 0.0% (0.0%, 0.0%) | 0/4237.6 = 0.0% (0.0%, 0.0%) | 0/4237.6 = 0.0% (0.0%, 0.0%) |
| At-risk | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 117 | 255.1/404.4 = 63.1% (52.8%, 72.3%) | 308/404.4 = 76.2% (66.1%, 83.9%) | 263.5/404.4 = 65.2% (54.8%, 74.2%) |
| At-risk | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 117 | 399.2/404.4 = 98.7% (91.1%, 99.8%) | 399.2/404.4 = 98.7% (91.1%, 99.8%) | 399.2/404.4 = 98.7% (91.1%, 99.8%) |
| At-risk | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 117 | 404.4/404.4 = 100.0% (100.0%, 100.0%) | 404.4/404.4 = 100.0% (100.0%, 100.0%) | 404.4/404.4 = 100.0% (100.0%, 100.0%) |
| At-risk | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 381 | 3426/4152.9 = 82.5% (77.4%, 86.6%) | 3743.9/4152.9 = 90.2% (85.8%, 93.3%) | 3563.2/4152.9 = 85.8% (81.0%, 89.6%) |
| At-risk | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 381 | 4133.1/4152.9 = 99.5% (96.7%, 99.9%) | 4152.9/4152.9 = 100.0% (100.0%, 100.0%) | 4133.1/4152.9 = 99.5% (96.7%, 99.9%) |
| At-risk | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 381 | 4152.9/4152.9 = 100.0% (100.0%, 100.0%) | 4152.9/4152.9 = 100.0% (100.0%, 100.0%) | 4152.9/4152.9 = 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) | 111 | 429.2/440.4 = 97.5% (89.9%, 99.4%) | 429.2/440.4 = 97.5% (89.9%, 99.4%) | 429.2/440.4 = 97.5% (89.9%, 99.4%) |
| At-risk | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 111 | 440.4/440.4 = 100.0% (100.0%, 100.0%) | 440.4/440.4 = 100.0% (100.0%, 100.0%) | 440.4/440.4 = 100.0% (100.0%, 100.0%) |
| At-risk | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 111 | 440.4/440.4 = 100.0% (100.0%, 100.0%) | 440.4/440.4 = 100.0% (100.0%, 100.0%) | 440.4/440.4 = 100.0% (100.0%, 100.0%) |
| At-risk | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 71 | 0/4237.6 = 0.0% (0.0%, 0.0%) | 0/4237.6 = 0.0% (0.0%, 0.0%) | 0/4237.6 = 0.0% (0.0%, 0.0%) |
| At-risk | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 71 | 0/4237.6 = 0.0% (0.0%, 0.0%) | 0/4237.6 = 0.0% (0.0%, 0.0%) | 0/4237.6 = 0.0% (0.0%, 0.0%) |
| At-risk | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 71 | 0/4237.6 = 0.0% (0.0%, 0.0%) | 0/4237.6 = 0.0% (0.0%, 0.0%) | 0/4237.6 = 0.0% (0.0%, 0.0%) |
| At-risk | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 117 | 343.7/404.4 = 85.0% (75.9%, 91.1%) | 369.9/404.4 = 91.5% (83.3%, 95.8%) | 356.2/404.4 = 88.1% (79.4%, 93.4%) |
| At-risk | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 117 | 404.4/404.4 = 100.0% (100.0%, 100.0%) | 404.4/404.4 = 100.0% (100.0%, 100.0%) | 404.4/404.4 = 100.0% (100.0%, 100.0%) |
| At-risk | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 117 | 404.4/404.4 = 100.0% (100.0%, 100.0%) | 404.4/404.4 = 100.0% (100.0%, 100.0%) | 404.4/404.4 = 100.0% (100.0%, 100.0%) |
| Not at-risk | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 366 | 4294.9/6974.1 = 61.6% (55.1%, 67.7%) | 5494.6/6974.1 = 78.8% (72.8%, 83.8%) | 4579.7/6974.1 = 65.7% (59.2%, 71.6%) |
| Not at-risk | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 366 | 6871.1/6974.1 = 98.5% (95.4%, 99.5%) | 6974.1/6974.1 = 100.0% (100.0%, 100.0%) | 6871.1/6974.1 = 98.5% (95.4%, 99.5%) |
| Not at-risk | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 366 | 6936.3/6974.1 = 99.5% (96.2%, 99.9%) | 6974.1/6974.1 = 100.0% (100.0%, 100.0%) | 6974.1/6974.1 = 100.0% (100.0%, 100.0%) |
| Not at-risk | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 123 | 631.5/793.6 = 79.6% (68.6%, 87.4%) | 690.3/793.6 = 87.0% (76.6%, 93.2%) | 651.3/793.6 = 82.1% (71.1%, 89.5%) |
| Not at-risk | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 123 | 793.6/793.6 = 100.0% (100.0%, 100.0%) | 793.6/793.6 = 100.0% (100.0%, 100.0%) | 793.6/793.6 = 100.0% (100.0%, 100.0%) |
| Not at-risk | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 123 | 785/793.6 = 98.9% (92.5%, 99.9%) | 793.6/793.6 = 100.0% (100.0%, 100.0%) | 785/793.6 = 98.9% (92.5%, 99.9%) |

(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) | 67 | 0/6865.4 = 0.0% (0.0%, 0.0%) | 0/6865.4 = 0.0% (0.0%, 0.0%) | 0/6865.4 = 0.0% (0.0%, 0.0%) |
| Not at-risk | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 67 | 0/6865.4 = 0.0% (0.0%, 0.0%) | 0/6865.4 = 0.0% (0.0%, 0.0%) | 0/6865.4 = 0.0% (0.0%, 0.0%) |
| Not at-risk | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 67 | 0/6865.4 = 0.0% (0.0%, 0.0%) | 0/6865.4 = 0.0% (0.0%, 0.0%) | 0/6865.4 = 0.0% (0.0%, 0.0%) |
| Not at-risk | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 124 | 347.2/720.6 = 48.2% (37.5%, 59.0%) | 516.8/720.6 = 71.7% (60.5%, 80.8%) | 394.5/720.6 = 54.7% (43.7%, 65.4%) |
| Not at-risk | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 124 | 664.8/720.6 = 92.3% (82.8%, 96.7%) | 709.4/720.6 = 98.5% (89.5%, 99.8%) | 664.8/720.6 = 92.3% (82.8%, 96.7%) |
| Not at-risk | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 124 | 686.3/720.6 = 95.2% (87.8%, 98.2%) | 720.6/720.6 = 100.0% (100.0%, 100.0%) | 701.7/720.6 = 97.4% (89.6%, 99.4%) |
| Not at-risk | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 366 | 5625.8/6974.1 = 80.7% (74.8%, 85.4%) | 6371.4/6974.1 = 91.4% (86.7%, 94.5%) | 5816/6974.1 = 83.4% (77.8%, 87.8%) |
| Not at-risk | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 366 | 6974.1/6974.1 = 100.0% (100.0%, 100.0%) | 6974.1/6974.1 = 100.0% (100.0%, 100.0%) | 6974.1/6974.1 = 100.0% (100.0%, 100.0%) |
| Not at-risk | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 366 | 6974.1/6974.1 = 100.0% (100.0%, 100.0%) | 6974.1/6974.1 = 100.0% (100.0%, 100.0%) | 6974.1/6974.1 = 100.0% (100.0%, 100.0%) |
| Not at-risk | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 123 | 749.9/793.6 = 94.5% (85.7%, 98.0%) | 758.5/793.6 = 95.6% (86.7%, 98.6%) | 749.9/793.6 = 94.5% (85.7%, 98.0%) |
| Not at-risk | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 123 | 793.6/793.6 = 100.0% (100.0%, 100.0%) | 793.6/793.6 = 100.0% (100.0%, 100.0%) | 793.6/793.6 = 100.0% (100.0%, 100.0%) |
| Not at-risk | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 123 | 793.6/793.6 = 100.0% (100.0%, 100.0%) | 793.6/793.6 = 100.0% (100.0%, 100.0%) | 793.6/793.6 = 100.0% (100.0%, 100.0%) |
| Not at-risk | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 67 | 0/6865.4 = 0.0% (0.0%, 0.0%) | 0/6865.4 = 0.0% (0.0%, 0.0%) | 0/6865.4 = 0.0% (0.0%, 0.0%) |
| Not at-risk | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 67 | 0/6865.4 = 0.0% (0.0%, 0.0%) | 0/6865.4 = 0.0% (0.0%, 0.0%) | 0/6865.4 = 0.0% (0.0%, 0.0%) |
| Not at-risk | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 67 | 0/6865.4 = 0.0% (0.0%, 0.0%) | 0/6865.4 = 0.0% (0.0%, 0.0%) | 0/6865.4 = 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 |
|-------------|--------|---------|---------------------|------------------------|-----|--|--|--|
| Not at-risk | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 124 | 519.5/720.6 = 72.1% (60.8%, 81.1%) | 600.4/720.6 = 83.3% (72.9%, 90.3%) | 529.2/720.6 = 73.4% (62.2%, 82.3%) |
| Not at-risk | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 124 | 720.6/720.6 = 100.0% (100.0%, 100.0%) | 720.6/720.6 = 100.0% (100.0%, 100.0%) | 720.6/720.6 = 100.0% (100.0%, 100.0%) |
| Not at-risk | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 124 | 720.6/720.6 = 100.0% (100.0%, 100.0%) | 720.6/720.6 = 100.0% (100.0%, 100.0%) | 720.6/720.6 = 100.0% (100.0%, 100.0%) |

Binding Antibody Responders are defined as participants with concentration above the specified positivity cut-off, with a separate cut-off for each antigen Spike, RBD, N (10.8424, 14.0858, and 23.4711 respectively, in IU/ml).

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

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) | 185 | 1667.6/2965 = 56.2% (48.7%, 63.5%) | 2263.8/2965 = 76.3% (69.4%, 82.2%) | 1816.7/2965 = 61.3% (53.7%, 68.3%) |
| Age < 65 At-risk | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 185 | 2894.8/2965 = 97.6% (93.7%, 99.1%) | 2954.1/2965 = 99.6% (97.4%, 99.9%) | 2894.8/2965 = 97.6% (93.7%, 99.1%) |
| Age < 65 At-risk | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 185 | 2914.6/2965 = 98.3% (94.6%, 99.5%) | 2965/2965 = 100.0% (100.0%, 100.0%) | 2945.3/2965 = 99.3% (95.3%, 99.9%) |
| Age < 65 At-risk | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 56 | 198.7/321 = 61.9% (47.9%, 74.1%) | 263.1/321 = 82.0% (68.9%, 90.3%) | 223/321 = 69.5% (55.6%, 80.6%) |
| Age < 65 At-risk | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 56 | 316.4/321 = 98.6% (90.0%, 99.8%) | 321/321 = 100.0% (100.0%, 100.0%) | 316.4/321 = 98.6% (90.0%, 99.8%) |
| Age < 65 At-risk | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 56 | 321/321 = 100.0% (100.0%, 100.0%) | 321/321 = 100.0% (100.0%, 100.0%) | 321/321 = 100.0% (100.0%, 100.0%) |
| Age < 65 At-risk | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 36 | 0/2792 = 0.0% (0.0%, 0.0%) | 0/2792 = 0.0% (0.0%, 0.0%) | 0/2792 = 0.0% (0.0%, 0.0%) |
| Age < 65 At-risk | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 36 | 0/2792 = 0.0% (0.0%, 0.0%) | 0/2792 = 0.0% (0.0%, 0.0%) | 0/2792 = 0.0% (0.0%, 0.0%) |
| Age < 65 At-risk | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 36 | 0/2792 = 0.0% (0.0%, 0.0%) | 0/2792 = 0.0% (0.0%, 0.0%) | 0/2792 = 0.0% (0.0%, 0.0%) |
| Age < 65 At-risk | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 59 | 164.7/292 = 56.4% (43.2%, 68.8%) | 207.5/292 = 71.0% (57.8%, 81.5%) | 169.1/292 = 57.9% (44.6%, 70.1%) |
| Age < 65 At-risk | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 59 | 286.8/292 = 98.2% (87.8%, 99.8%) | 286.8/292 = 98.2% (87.8%, 99.8%) | 286.8/292 = 98.2% (87.8%, 99.8%) |

(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) | 59 | 292/292 = 100.0% (100.0%, 100.0%) | 292/292 = 100.0% (100.0%, 100.0%) | 292/292 = 100.0% (100.0%, 100.0%) |
| Age < 65 At-risk | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 185 | 2305.4/2965 = 77.8% (70.8%, 83.4%) | 2581.4/2965 = 87.1% (81.0%, 91.4%) | 2419.2/2965 = 81.6% (75.0%, 86.8%) |
| Age < 65 At-risk | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 185 | 2945.3/2965 = 99.3% (95.3%, 99.9%) | 2965/2965 = 100.0% (100.0%, 100.0%) | 2945.3/2965 = 99.3% (95.3%, 99.9%) |
| Age < 65 At-risk | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 185 | 2965/2965 = 100.0% (100.0%, 100.0%) | 2965/2965 = 100.0% (100.0%, 100.0%) | 2965/2965 = 100.0% (100.0%, 100.0%) |
| Age < 65 At-risk | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 56 | 309.8/321 = 96.5% (86.2%, 99.2%) | 309.8/321 = 96.5% (86.2%, 99.2%) | 309.8/321 = 96.5% (86.2%, 99.2%) |
| Age < 65 At-risk | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 56 | 321/321 = 100.0% (100.0%, 100.0%) | 321/321 = 100.0% (100.0%, 100.0%) | 321/321 = 100.0% (100.0%, 100.0%) |
| Age < 65 At-risk | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 56 | 321/321 = 100.0% (100.0%, 100.0%) | 321/321 = 100.0% (100.0%, 100.0%) | 321/321 = 100.0% (100.0%, 100.0%) |
| Age < 65 At-risk | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 36 | 0/2792 = 0.0% (0.0%, 0.0%) | 0/2792 = 0.0% (0.0%, 0.0%) | 0/2792 = 0.0% (0.0%, 0.0%) |
| Age < 65 At-risk | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 36 | 0/2792 = 0.0% (0.0%, 0.0%) | 0/2792 = 0.0% (0.0%, 0.0%) | 0/2792 = 0.0% (0.0%, 0.0%) |
| Age < 65 At-risk | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 36 | 0/2792 = 0.0% (0.0%, 0.0%) | 0/2792 = 0.0% (0.0%, 0.0%) | 0/2792 = 0.0% (0.0%, 0.0%) |
| Age < 65 At-risk | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 59 | 241.5/292 = 82.7% (70.3%, 90.6%) | 261.5/292 = 89.6% (78.2%, 95.3%) | 251.9/292 = 86.3% (74.4%, 93.2%) |
| Age < 65 At-risk | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 59 | 292/292 = 100.0% (100.0%, 100.0%) | 292/292 = 100.0% (100.0%, 100.0%) | 292/292 = 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) | 59 | 292/292 = 100.0% (100.0%, 100.0%) | 292/292 = 100.0% (100.0%, 100.0%) | 292/292 = 100.0% (100.0%, 100.0%) |
| Age < 65 Not at-risk | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 172 | 3342.8/5804 = 57.6% (49.9%, 64.9%) | 4389.7/5804 = 75.6% (68.5%, 81.6%) | 3576.2/5804 = 61.6% (54.0%, 68.7%) |
| Age < 65 Not at-risk | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 172 | 5701/5804 = 98.2% (94.5%, 99.4%) | 5804/5804 = 100.0% (100.0%, 100.0%) | 5701/5804 = 98.2% (94.5%, 99.4%) |
| Age < 65 Not at-risk | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 172 | 5766.2/5804 = 99.3% (95.4%, 99.9%) | 5804/5804 = 100.0% (100.0%, 100.0%) | 5804/5804 = 100.0% (100.0%, 100.0%) |
| Age < 65 Not at-risk | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 58 | 508.9/662 = 76.9% (63.8%, 86.2%) | 565.2/662 = 85.4% (72.8%, 92.7%) | 526.2/662 = 79.5% (66.4%, 88.4%) |
| Age < 65 Not at-risk | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 58 | 662/662 = 100.0% (100.0%, 100.0%) | 662/662 = 100.0% (100.0%, 100.0%) | 662/662 = 100.0% (100.0%, 100.0%) |
| Age < 65 Not at-risk | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 58 | 653.4/662 = 98.7% (90.9%, 99.8%) | 662/662 = 100.0% (100.0%, 100.0%) | 653.4/662 = 98.7% (90.9%, 99.8%) |
| Age < 65 Not at-risk | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 36 | 0/5551 = 0.0% (0.0%, 0.0%) | 0/5551 = 0.0% (0.0%, 0.0%) | 0/5551 = 0.0% (0.0%, 0.0%) |
| Age < 65 Not at-risk | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 36 | 0/5551 = 0.0% (0.0%, 0.0%) | 0/5551 = 0.0% (0.0%, 0.0%) | 0/5551 = 0.0% (0.0%, 0.0%) |
| Age < 65 Not at-risk | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 36 | 0/5551 = 0.0% (0.0%, 0.0%) | 0/5551 = 0.0% (0.0%, 0.0%) | 0/5551 = 0.0% (0.0%, 0.0%) |
| Age < 65 Not at-risk | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 61 | 255.5/601 = 42.5% (30.3%, 55.7%) | 409.8/601 = 68.2% (54.9%, 79.1%) | 296.7/601 = 49.4% (36.5%, 62.3%) |
| Age < 65 Not at-risk | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 61 | 545.2/601 = 90.7% (79.4%, 96.1%) | 589.8/601 = 98.1% (87.3%, 99.8%) | 545.2/601 = 90.7% (79.4%, 96.1%) |

(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) | 61 | 566.8/601 = 94.3% (85.3%, 97.9%) | 601/601 = 100.0% (100.0%, 100.0%) | 582.1/601 = 96.9% (87.5%, 99.3%) |
| Age < 65 Not at-risk | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 172 | 4530.5/5804 = 78.1% (71.0%, 83.8%) | 5234.3/5804 = 90.2% (84.6%, 93.9%) | 4709/5804 = 81.1% (74.4%, 86.4%) |
| Age < 65 Not at-risk | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 172 | 5804/5804 = 100.0% (100.0%, 100.0%) | 5804/5804 = 100.0% (100.0%, 100.0%) | 5804/5804 = 100.0% (100.0%, 100.0%) |
| Age < 65 Not at-risk | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 172 | 5804/5804 = 100.0% (100.0%, 100.0%) | 5804/5804 = 100.0% (100.0%, 100.0%) | 5804/5804 = 100.0% (100.0%, 100.0%) |
| Age < 65 Not at-risk | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 58 | 618.3/662 = 93.4% (82.8%, 97.6%) | 626.9/662 = 94.7% (84.0%, 98.4%) | 618.3/662 = 93.4% (82.8%, 97.6%) |
| Age < 65 Not at-risk | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 58 | 662/662 = 100.0% (100.0%, 100.0%) | 662/662 = 100.0% (100.0%, 100.0%) | 662/662 = 100.0% (100.0%, 100.0%) |
| Age < 65 Not at-risk | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 58 | 662/662 = 100.0% (100.0%, 100.0%) | 662/662 = 100.0% (100.0%, 100.0%) | 662/662 = 100.0% (100.0%, 100.0%) |
| Age < 65 Not at-risk | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 36 | 0/5551 = 0.0% (0.0%, 0.0%) | 0/5551 = 0.0% (0.0%, 0.0%) | 0/5551 = 0.0% (0.0%, 0.0%) |
| Age < 65 Not at-risk | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 36 | 0/5551 = 0.0% (0.0%, 0.0%) | 0/5551 = 0.0% (0.0%, 0.0%) | 0/5551 = 0.0% (0.0%, 0.0%) |
| Age < 65 Not at-risk | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 36 | 0/5551 = 0.0% (0.0%, 0.0%) | 0/5551 = 0.0% (0.0%, 0.0%) | 0/5551 = 0.0% (0.0%, 0.0%) |
| Age < 65 Not at-risk | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 61 | 409.8/601 = 68.2% (54.9%, 79.1%) | 488.6/601 = 81.3% (68.8%, 89.6%) | 417.5/601 = 69.5% (56.2%, 80.1%) |
| Age < 65 Not at-risk | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 61 | 601/601 = 100.0% (100.0%, 100.0%) | 601/601 = 100.0% (100.0%, 100.0%) | 601/601 = 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) | 61 | 601/601 = 100.0% (100.0%, 100.0%) | 601/601 = 100.0% (100.0%, 100.0%) | 601/601 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 At-risk | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 196 | 936.8/1187.9 = 78.9% (72.5%, 84.1%) | 1104.9/1187.9 = 93.0% (88.3%, 95.9%) | 985.5/1187.9 = 83.0% (76.9%, 87.7%) |
| Age ≥ 65 At-risk | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 196 | 1187.9/1187.9 = 100.0% (100.0%, 100.0%) | 1187.9/1187.9 = 100.0% (100.0%, 100.0%) | 1187.9/1187.9 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 At-risk | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 196 | 1187.9/1187.9 = 100.0% (100.0%, 100.0%) | 1187.9/1187.9 = 100.0% (100.0%, 100.0%) | 1187.9/1187.9 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 At-risk | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 55 | 110.4/119.4 = 92.4% (80.8%, 97.3%) | 119.4/119.4 = 100.0% (100.0%, 100.0%) | 111.8/119.4 = 93.6% (81.7%, 98.0%) |
| Age ≥ 65 At-risk | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 55 | 119.4/119.4 = 100.0% (100.0%, 100.0%) | 119.4/119.4 = 100.0% (100.0%, 100.0%) | 119.4/119.4 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 At-risk | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 55 | 119.4/119.4 = 100.0% (100.0%, 100.0%) | 119.4/119.4 = 100.0% (100.0%, 100.0%) | 119.4/119.4 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 At-risk | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 35 | 0/1445.6 = 0.0% (0.0%, 0.0%) | 0/1445.6 = 0.0% (0.0%, 0.0%) | 0/1445.6 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 At-risk | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 35 | 0/1445.6 = 0.0% (0.0%, 0.0%) | 0/1445.6 = 0.0% (0.0%, 0.0%) | 0/1445.6 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 At-risk | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 35 | 0/1445.6 = 0.0% (0.0%, 0.0%) | 0/1445.6 = 0.0% (0.0%, 0.0%) | 0/1445.6 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 At-risk | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 58 | 90.4/112.4 = 80.4% (67.6%, 88.9%) | 100.5/112.4 = 89.4% (78.0%, 95.3%) | 94.4/112.4 = 84.0% (71.7%, 91.6%) |
| Age ≥ 65 At-risk | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 58 | 112.4/112.4 = 100.0% (100.0%, 100.0%) | 112.4/112.4 = 100.0% (100.0%, 100.0%) | 112.4/112.4 = 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) | 58 | 112.4/112.4 = 100.0% (100.0%, 100.0%) | 112.4/112.4 = 100.0% (100.0%, 100.0%) | 112.4/112.4 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 At-risk | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 196 | 1120.7/1187.9 = 94.3% (90.0%, 96.9%) | 1162.5/1187.9 = 97.9% (94.4%, 99.2%) | 1144/1187.9 = 96.3% (92.4%, 98.3%) |
| Age ≥ 65 At-risk | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 196 | 1187.9/1187.9 = 100.0% (100.0%, 100.0%) | 1187.9/1187.9 = 100.0% (100.0%, 100.0%) | 1187.9/1187.9 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 At-risk | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 196 | 1187.9/1187.9 = 100.0% (100.0%, 100.0%) | 1187.9/1187.9 = 100.0% (100.0%, 100.0%) | 1187.9/1187.9 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 At-risk | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 55 | 119.4/119.4 = 100.0% (100.0%, 100.0%) | 119.4/119.4 = 100.0% (100.0%, 100.0%) | 119.4/119.4 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 At-risk | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 55 | 119.4/119.4 = 100.0% (100.0%, 100.0%) | 119.4/119.4 = 100.0% (100.0%, 100.0%) | 119.4/119.4 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 At-risk | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 55 | 119.4/119.4 = 100.0% (100.0%, 100.0%) | 119.4/119.4 = 100.0% (100.0%, 100.0%) | 119.4/119.4 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 At-risk | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 35 | 0/1445.6 = 0.0% (0.0%, 0.0%) | 0/1445.6 = 0.0% (0.0%, 0.0%) | 0/1445.6 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 At-risk | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 35 | 0/1445.6 = 0.0% (0.0%, 0.0%) | 0/1445.6 = 0.0% (0.0%, 0.0%) | 0/1445.6 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 At-risk | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 35 | 0/1445.6 = 0.0% (0.0%, 0.0%) | 0/1445.6 = 0.0% (0.0%, 0.0%) | 0/1445.6 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 At-risk | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 58 | 102.2/112.4 = 90.9% (79.7%, 96.2%) | 108.4/112.4 = 96.4% (86.2%, 99.1%) | 104.3/112.4 = 92.7% (81.9%, 97.3%) |
| Age ≥ 65 At-risk | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 58 | 112.4/112.4 = 100.0% (100.0%, 100.0%) | 112.4/112.4 = 100.0% (100.0%, 100.0%) | 112.4/112.4 = 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) | 58 | 112.4/112.4 = 100.0% (100.0%, 100.0%) | 112.4/112.4 = 100.0% (100.0%, 100.0%) | 112.4/112.4 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Not at-risk | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 194 | 952/1170.1 = 81.4% (75.1%, 86.3%) | 1104.9/1170.1 = 94.4% (90.1%, 96.9%) | 1003.5/1170.1 = 85.8% (79.9%, 90.1%) |
| Age ≥ 65 Not at-risk | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 194 | 1170.1/1170.1 = 100.0% (100.0%, 100.0%) | 1170.1/1170.1 = 100.0% (100.0%, 100.0%) | 1170.1/1170.1 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Not at-risk | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 194 | 1170.1/1170.1 = 100.0% (100.0%, 100.0%) | 1170.1/1170.1 = 100.0% (100.0%, 100.0%) | 1170.1/1170.1 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Not at-risk | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 65 | 122.6/131.6 = 93.1% (82.5%, 97.5%) | 125.1/131.6 = 95.1% (85.1%, 98.5%) | 125.1/131.6 = 95.1% (85.1%, 98.5%) |
| Age ≥ 65 Not at-risk | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 65 | 131.6/131.6 = 100.0% (100.0%, 100.0%) | 131.6/131.6 = 100.0% (100.0%, 100.0%) | 131.6/131.6 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Not at-risk | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 65 | 131.6/131.6 = 100.0% (100.0%, 100.0%) | 131.6/131.6 = 100.0% (100.0%, 100.0%) | 131.6/131.6 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Not at-risk | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 31 | 0/1314.4 = 0.0% (0.0%, 0.0%) | 0/1314.4 = 0.0% (0.0%, 0.0%) | 0/1314.4 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 Not at-risk | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 31 | 0/1314.4 = 0.0% (0.0%, 0.0%) | 0/1314.4 = 0.0% (0.0%, 0.0%) | 0/1314.4 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 Not at-risk | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 31 | 0/1314.4 = 0.0% (0.0%, 0.0%) | 0/1314.4 = 0.0% (0.0%, 0.0%) | 0/1314.4 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 Not at-risk | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 63 | 91.7/119.6 = 76.7% (64.5%, 85.7%) | 107/119.6 = 89.5% (79.2%, 95.0%) | 97.8/119.6 = 81.8% (70.3%, 89.5%) |
| Age ≥ 65 Not at-risk | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 63 | 119.6/119.6 = 100.0% (100.0%, 100.0%) | 119.6/119.6 = 100.0% (100.0%, 100.0%) | 119.6/119.6 = 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 Not at-risk | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 63 | 119.6/119.6 = 100.0% (100.0%, 100.0%) | 119.6/119.6 = 100.0% (100.0%, 100.0%) | 119.6/119.6 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Not at-risk | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 194 | 1095.3/1170.1 = 93.6% (89.2%, 96.3%) | 1137.2/1170.1 = 97.2% (93.8%, 98.8%) | 1107/1170.1 = 94.6% (90.4%, 97.0%) |
| Age ≥ 65 Not at-risk | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 194 | 1170.1/1170.1 = 100.0% (100.0%, 100.0%) | 1170.1/1170.1 = 100.0% (100.0%, 100.0%) | 1170.1/1170.1 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Not at-risk | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 194 | 1170.1/1170.1 = 100.0% (100.0%, 100.0%) | 1170.1/1170.1 = 100.0% (100.0%, 100.0%) | 1170.1/1170.1 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Not at-risk | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 65 | 131.6/131.6 = 100.0% (100.0%, 100.0%) | 131.6/131.6 = 100.0% (100.0%, 100.0%) | 131.6/131.6 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Not at-risk | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 65 | 131.6/131.6 = 100.0% (100.0%, 100.0%) | 131.6/131.6 = 100.0% (100.0%, 100.0%) | 131.6/131.6 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Not at-risk | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 65 | 131.6/131.6 = 100.0% (100.0%, 100.0%) | 131.6/131.6 = 100.0% (100.0%, 100.0%) | 131.6/131.6 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Not at-risk | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 31 | 0/1314.4 = 0.0% (0.0%, 0.0%) | 0/1314.4 = 0.0% (0.0%, 0.0%) | 0/1314.4 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 Not at-risk | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 31 | 0/1314.4 = 0.0% (0.0%, 0.0%) | 0/1314.4 = 0.0% (0.0%, 0.0%) | 0/1314.4 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 Not at-risk | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 31 | 0/1314.4 = 0.0% (0.0%, 0.0%) | 0/1314.4 = 0.0% (0.0%, 0.0%) | 0/1314.4 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 Not at-risk | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 63 | 109.7/119.6 = 91.8% (81.4%, 96.6%) | 111.7/119.6 = 93.5% (83.5%, 97.6%) | 111.7/119.6 = 93.5% (83.5%, 97.6%) |
| Age ≥ 65 Not at-risk | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 63 | 119.6/119.6 = 100.0% (100.0%, 100.0%) | 119.6/119.6 = 100.0% (100.0%, 100.0%) | 119.6/119.6 = 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 Not at-risk | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 63 | 119.6/119.6 = 100.0% (100.0%, 100.0%) | 119.6/119.6 = 100.0% (100.0%, 100.0%) | 119.6/119.6 = 100.0% (100.0%, 100.0%) |

Binding Antibody Responders are defined as participants with concentration above the specified positivity cut-off, with a separate cut-off for each antigen Spike, RBD, N (10.8424, 14.0858, and 23.4711 respectively, in IU/ml).

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



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) | 320 | 2969.6/4733.6 = 62.7% (55.7%, 69.3%) | 3704.8/4733.6 = 78.3% (71.6%, 83.7%) | 3137.1/4733.6 = 66.3% (59.3%, 72.6%) |
| Male | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 320 | 4686.4/4733.6 = 99.0% (96.0%, 99.8%) | 4733.6/4733.6 = 100.0% (100.0%, 100.0%) | 4686.4/4733.6 = 99.0% (96.0%, 99.8%) |
| Male | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 320 | 4665.1/4733.6 = 98.6% (95.0%, 99.6%) | 4733.6/4733.6 = 100.0% (100.0%, 100.0%) | 4713.8/4733.6 = 99.6% (97.1%, 99.9%) |
| Male | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 95 | 376.7/510.2 = 73.8% (61.1%, 83.5%) | 444.2/510.2 = 87.1% (74.9%, 93.8%) | 401/510.2 = 78.6% (66.0%, 87.4%) |
| Male | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 95 | 510.2/510.2 = 100.0% (100.0%, 100.0%) | 510.2/510.2 = 100.0% (100.0%, 100.0%) | 510.2/510.2 = 100.0% (100.0%, 100.0%) |
| Male | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 95 | 501.6/510.2 = 98.3% (88.6%, 99.8%) | 510.2/510.2 = 100.0% (100.0%, 100.0%) | 501.6/510.2 = 98.3% (88.6%, 99.8%) |
| Male | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 63 | 0/5325.1 = 0.0% (0.0%, 0.0%) | 0/5325.1 = 0.0% (0.0%, 0.0%) | 0/5325.1 = 0.0% (0.0%, 0.0%) |
| Male | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 63 | 0/5325.1 = 0.0% (0.0%, 0.0%) | 0/5325.1 = 0.0% (0.0%, 0.0%) | 0/5325.1 = 0.0% (0.0%, 0.0%) |
| Male | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 63 | 0/5325.1 = 0.0% (0.0%, 0.0%) | 0/5325.1 = 0.0% (0.0%, 0.0%) | 0/5325.1 = 0.0% (0.0%, 0.0%) |
| Male | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 108 | 256.4/501.1 = 51.2% (39.3%, 62.9%) | 337.7/501.1 = 67.4% (54.8%, 77.9%) | 285.2/501.1 = 56.9% (44.6%, 68.4%) |
| Male | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 108 | 489.9/501.1 = 97.8% (85.4%, 99.7%) | 501.1/501.1 = 100.0% (100.0%, 100.0%) | 489.9/501.1 = 97.8% (85.4%, 99.7%) |
| Male | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 108 | 474.5/501.1 = 94.7% (84.5%, 98.3%) | 501.1/501.1 = 100.0% (100.0%, 100.0%) | 489.9/501.1 = 97.8% (85.4%, 99.7%) |
| Male | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 320 | 3909/4733.6 = 82.6% (76.3%, 87.5%) | 4347.4/4733.6 = 91.8% (86.8%, 95.1%) | 4085.2/4733.6 = 86.3% (80.5%, 90.6%) |
| Male | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 320 | 4733.6/4733.6 = 100.0% (100.0%, 100.0%) | 4733.6/4733.6 = 100.0% (100.0%, 100.0%) | 4733.6/4733.6 = 100.0% (100.0%, 100.0%) |
| Male | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 320 | 4733.6/4733.6 = 100.0% (100.0%, 100.0%) | 4733.6/4733.6 = 100.0% (100.0%, 100.0%) | 4733.6/4733.6 = 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 |
|--------|--------|---------|---------------------|------------------------|-----|--|--|--|
| Male | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 95 | 481.8/510.2 = 94.4% (83.1%, 98.3%) | 490.4/510.2 = 96.1% (84.4%, 99.1%) | 481.8/510.2 = 94.4% (83.1%, 98.3%) |
| Male | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 95 | 510.2/510.2 = 100.0% (100.0%, 100.0%) | 510.2/510.2 = 100.0% (100.0%, 100.0%) | 510.2/510.2 = 100.0% (100.0%, 100.0%) |
| Male | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 95 | 510.2/510.2 = 100.0% (100.0%, 100.0%) | 510.2/510.2 = 100.0% (100.0%, 100.0%) | 510.2/510.2 = 100.0% (100.0%, 100.0%) |
| Male | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 63 | 0/5325.1 = 0.0% (0.0%, 0.0%) | 0/5325.1 = 0.0% (0.0%, 0.0%) | 0/5325.1 = 0.0% (0.0%, 0.0%) |
| Male | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 63 | 0/5325.1 = 0.0% (0.0%, 0.0%) | 0/5325.1 = 0.0% (0.0%, 0.0%) | 0/5325.1 = 0.0% (0.0%, 0.0%) |
| Male | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 63 | 0/5325.1 = 0.0% (0.0%, 0.0%) | 0/5325.1 = 0.0% (0.0%, 0.0%) | 0/5325.1 = 0.0% (0.0%, 0.0%) |
| Male | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 108 | 366.2/501.1 = 73.1% (60.3%, 82.9%) | 418.3/501.1 = 83.5% (71.0%, 91.2%) | 375.5/501.1 = 74.9% (62.1%, 84.5%) |
| Male | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 108 | 501.1/501.1 = 100.0% (100.0%, 100.0%) | 501.1/501.1 = 100.0% (100.0%, 100.0%) | 501.1/501.1 = 100.0% (100.0%, 100.0%) |
| Male | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 108 | 501.1/501.1 = 100.0% (100.0%, 100.0%) | 501.1/501.1 = 100.0% (100.0%, 100.0%) | 501.1/501.1 = 100.0% (100.0%, 100.0%) |
| Female | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 427 | 3929.7/6393.4 = 61.5% (55.3%, 67.3%) | 5158.5/6393.4 = 80.7% (75.1%, 85.2%) | 4244.9/6393.4 = 66.4% (60.3%, 72.0%) |
| Female | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 427 | 6267.4/6393.4 = 98.0% (95.0%, 99.2%) | 6382.5/6393.4 = 99.8% (98.8%, 100.0%) | 6267.4/6393.4 = 98.0% (95.0%, 99.2%) |
| Female | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 427 | 6373.7/6393.4 = 99.7% (97.8%, 100.0%) | 6393.4/6393.4 = 100.0% (100.0%, 100.0%) | 6393.4/6393.4 = 100.0% (100.0%, 100.0%) |
| Female | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 139 | 563.9/723.8 = 77.9% (67.7%, 85.6%) | 628.6/723.8 = 86.8% (77.1%, 92.8%) | 585.1/723.8 = 80.8% (70.6%, 88.1%) |
| Female | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 139 | 719.2/723.8 = 99.4% (95.5%, 99.9%) | 723.8/723.8 = 100.0% (100.0%, 100.0%) | 719.2/723.8 = 99.4% (95.5%, 99.9%) |
| Female | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 139 | 723.8/723.8 = 100.0% (100.0%, 100.0%) | 723.8/723.8 = 100.0% (100.0%, 100.0%) | 723.8/723.8 = 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 |
|--------|--------|---------|---------------------|------------------------|-----|--|--|--|
| Female | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 75 | 0/5777.9 = 0.0% (0.0%, 0.0%) | 0/5777.9 = 0.0% (0.0%, 0.0%) | 0/5777.9 = 0.0% (0.0%, 0.0%) |
| Female | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 75 | 0/5777.9 = 0.0% (0.0%, 0.0%) | 0/5777.9 = 0.0% (0.0%, 0.0%) | 0/5777.9 = 0.0% (0.0%, 0.0%) |
| Female | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 75 | 0/5777.9 = 0.0% (0.0%, 0.0%) | 0/5777.9 = 0.0% (0.0%, 0.0%) | 0/5777.9 = 0.0% (0.0%, 0.0%) |
| Female | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 133 | 345.8/623.9 = 55.4% (44.8%, 65.6%) | 487/623.9 = 78.1% (67.7%, 85.8%) | 372.8/623.9 = 59.8% (49.0%, 69.7%) |
| Female | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 133 | 574.1/623.9 = 92.0% (82.1%, 96.7%) | 607.5/623.9 = 97.4% (89.1%, 99.4%) | 574.1/623.9 = 92.0% (82.1%, 96.7%) |
| Female | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 133 | 616.2/623.9 = 98.8% (91.6%, 99.8%) | 623.9/623.9 = 100.0% (100.0%, 100.0%) | 616.2/623.9 = 98.8% (91.6%, 99.8%) |
| Female | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 427 | 5142.9/6393.4 = 80.4% (74.9%, 85.0%) | 5767.9/6393.4 = 90.2% (85.8%, 93.4%) | 5294/6393.4 = 82.8% (77.4%, 87.1%) |
| Female | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 427 | 6373.7/6393.4 = 99.7% (97.8%, 100.0%) | 6393.4/6393.4 = 100.0% (100.0%, 100.0%) | 6373.7/6393.4 = 99.7% (97.8%, 100.0%) |
| Female | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 427 | 6393.4/6393.4 = 100.0% (100.0%, 100.0%) | 6393.4/6393.4 = 100.0% (100.0%, 100.0%) | 6393.4/6393.4 = 100.0% (100.0%, 100.0%) |
| Female | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 139 | 697.3/723.8 = 96.3% (88.2%, 98.9%) | 697.3/723.8 = 96.3% (88.2%, 98.9%) | 697.3/723.8 = 96.3% (88.2%, 98.9%) |
| Female | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 139 | 723.8/723.8 = 100.0% (100.0%, 100.0%) | 723.8/723.8 = 100.0% (100.0%, 100.0%) | 723.8/723.8 = 100.0% (100.0%, 100.0%) |
| Female | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 139 | 723.8/723.8 = 100.0% (100.0%, 100.0%) | 723.8/723.8 = 100.0% (100.0%, 100.0%) | 723.8/723.8 = 100.0% (100.0%, 100.0%) |
| Female | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 75 | 0/5777.9 = 0.0% (0.0%, 0.0%) | 0/5777.9 = 0.0% (0.0%, 0.0%) | 0/5777.9 = 0.0% (0.0%, 0.0%) |
| Female | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 75 | 0/5777.9 = 0.0% (0.0%, 0.0%) | 0/5777.9 = 0.0% (0.0%, 0.0%) | 0/5777.9 = 0.0% (0.0%, 0.0%) |
| Female | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 75 | 0/5777.9 = 0.0% (0.0%, 0.0%) | 0/5777.9 = 0.0% (0.0%, 0.0%) | 0/5777.9 = 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) | 133 | 497/623.9 = 79.7% (69.2%, 87.2%) | 552/623.9 = 88.5% (79.3%, 93.9%) | 509.9/623.9 = 81.7% (71.4%, 88.9%) |
| Female | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 133 | 623.9/623.9 = 100.0% (100.0%, 100.0%) | 623.9/623.9 = 100.0% (100.0%, 100.0%) | 623.9/623.9 = 100.0% (100.0%, 100.0%) |
| Female | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 133 | 623.9/623.9 = 100.0% (100.0%, 100.0%) | 623.9/623.9 = 100.0% (100.0%, 100.0%) | 623.9/623.9 = 100.0% (100.0%, 100.0%) |

Binding Antibody Responders are defined as participants with concentration above the specified positivity cut-off, with a separate cut-off for each antigen Spike, RBD, N (10.8424, 14.0858, and 23.4711 respectively, in IU/ml).

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

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) | 201 | 2824/5028.5 = 56.2% (48.6%, 63.4%) | 3878.6/5028.5 = 77.1% (70.2%, 82.9%) | 3062.4/5028.5 = 60.9% (53.4%, 68.0%) |
| Age < 65 Female | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 201 | 4902.5/5028.5 = 97.5% (93.6%, 99.0%) | 5017.6/5028.5 = 99.8% (98.5%, 100.0%) | 4902.5/5028.5 = 97.5% (93.6%, 99.0%) |
| Age < 65 Female | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 201 | 5008.8/5028.5 = 99.6% (97.2%, 99.9%) | 5028.5/5028.5 = 100.0% (100.0%, 100.0%) | 5028.5/5028.5 = 100.0% (100.0%, 100.0%) |
| Age < 65 Female | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 66 | 418.6/573.1 = 73.0% (60.4%, 82.8%) | 481.9/573.1 = 84.1% (71.9%, 91.6%) | 438.3/573.1 = 76.5% (63.8%, 85.7%) |
| Age < 65 Female | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 66 | 568.5/573.1 = 99.2% (94.3%, 99.9%) | 573.1/573.1 = 100.0% (100.0%, 100.0%) | 568.5/573.1 = 99.2% (94.3%, 99.9%) |
| Age < 65 Female | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 66 | 573.1/573.1 = 100.0% (100.0%, 100.0%) | 573.1/573.1 = 100.0% (100.0%, 100.0%) | 573.1/573.1 = 100.0% (100.0%, 100.0%) |
| Age < 65 Female | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 38 | 0/4192.3 = 0.0% (0.0%, 0.0%) | 0/4192.3 = 0.0% (0.0%, 0.0%) | 0/4192.3 = 0.0% (0.0%, 0.0%) |
| Age < 65 Female | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 38 | 0/4192.3 = 0.0% (0.0%, 0.0%) | 0/4192.3 = 0.0% (0.0%, 0.0%) | 0/4192.3 = 0.0% (0.0%, 0.0%) |
| Age < 65 Female | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 38 | 0/4192.3 = 0.0% (0.0%, 0.0%) | 0/4192.3 = 0.0% (0.0%, 0.0%) | 0/4192.3 = 0.0% (0.0%, 0.0%) |
| Age < 65 Female | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 70 | 252.1/502.7 = 50.2% (37.6%, 62.7%) | 373.2/502.7 = 74.3% (61.6%, 83.8%) | 270.9/502.7 = 53.9% (41.1%, 66.2%) |
| Age < 65 Female | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 70 | 452.8/502.7 = 90.1% (78.0%, 95.9%) | 486.3/502.7 = 96.7% (86.5%, 99.3%) | 452.8/502.7 = 90.1% (78.0%, 95.9%) |

(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) | 70 | 495/502.7 = 98.5% (89.5%, 99.8%) | 502.7/502.7 = 100.0% (100.0%, 100.0%) | 495/502.7 = 98.5% (89.5%, 99.8%) |
| Age < 65 Female | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 201 | 3854.1/5028.5 = 76.6% (69.7%, 82.4%) | 4440.1/5028.5 = 88.3% (82.7%, 92.2%) | 3991.5/5028.5 = 79.4% (72.6%, 84.9%) |
| Age < 65 Female | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 201 | 5008.8/5028.5 = 99.6% (97.2%, 99.9%) | 5028.5/5028.5 = 100.0% (100.0%, 100.0%) | 5008.8/5028.5 = 99.6% (97.2%, 99.9%) |
| Age < 65 Female | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 201 | 5028.5/5028.5 = 100.0% (100.0%, 100.0%) | 5028.5/5028.5 = 100.0% (100.0%, 100.0%) | 5028.5/5028.5 = 100.0% (100.0%, 100.0%) |
| Age < 65 Female | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 66 | 546.6/573.1 = 95.4% (85.1%, 98.7%) | 546.6/573.1 = 95.4% (85.1%, 98.7%) | 546.6/573.1 = 95.4% (85.1%, 98.7%) |
| Age < 65 Female | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 66 | 573.1/573.1 = 100.0% (100.0%, 100.0%) | 573.1/573.1 = 100.0% (100.0%, 100.0%) | 573.1/573.1 = 100.0% (100.0%, 100.0%) |
| Age < 65 Female | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 66 | 573.1/573.1 = 100.0% (100.0%, 100.0%) | 573.1/573.1 = 100.0% (100.0%, 100.0%) | 573.1/573.1 = 100.0% (100.0%, 100.0%) |
| Age < 65 Female | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 38 | 0/4192.3 = 0.0% (0.0%, 0.0%) | 0/4192.3 = 0.0% (0.0%, 0.0%) | 0/4192.3 = 0.0% (0.0%, 0.0%) |
| Age < 65 Female | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 38 | 0/4192.3 = 0.0% (0.0%, 0.0%) | 0/4192.3 = 0.0% (0.0%, 0.0%) | 0/4192.3 = 0.0% (0.0%, 0.0%) |
| Age < 65 Female | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 38 | 0/4192.3 = 0.0% (0.0%, 0.0%) | 0/4192.3 = 0.0% (0.0%, 0.0%) | 0/4192.3 = 0.0% (0.0%, 0.0%) |
| Age < 65 Female | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 70 | 385.6/502.7 = 76.7% (63.9%, 86.0%) | 440.6/502.7 = 87.7% (76.1%, 94.1%) | 398.5/502.7 = 79.3% (66.6%, 88.0%) |
| Age < 65 Female | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 70 | 502.7/502.7 = 100.0% (100.0%, 100.0%) | 502.7/502.7 = 100.0% (100.0%, 100.0%) | 502.7/502.7 = 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 Female | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 70 | 502.7/502.7 = 100.0% (100.0%, 100.0%) | 502.7/502.7 = 100.0% (100.0%, 100.0%) | 502.7/502.7 = 100.0% (100.0%, 100.0%) |
| Age < 65 Male | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 156 | 2186.4/3740.5 = 58.5% (49.8%, 66.6%) | 2774.9/3740.5 = 74.2% (65.9%, 81.0%) | 2330.6/3740.5 = 62.3% (53.7%, 70.2%) |
| Age < 65 Male | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 156 | 3693.3/3740.5 = 98.7% (94.9%, 99.7%) | 3740.5/3740.5 = 100.0% (100.0%, 100.0%) | 3693.3/3740.5 = 98.7% (94.9%, 99.7%) |
| Age < 65 Male | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 156 | 3672/3740.5 = 98.2% (93.7%, 99.5%) | 3740.5/3740.5 = 100.0% (100.0%, 100.0%) | 3720.7/3740.5 = 99.5% (96.3%, 99.9%) |
| Age < 65 Male | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 48 | 289/409.9 = 70.5% (54.9%, 82.5%) | 346.5/409.9 = 84.5% (69.5%, 92.9%) | 310.9/409.9 = 75.8% (60.3%, 86.6%) |
| Age < 65 Male | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 48 | 409.9/409.9 = 100.0% (100.0%, 100.0%) | 409.9/409.9 = 100.0% (100.0%, 100.0%) | 409.9/409.9 = 100.0% (100.0%, 100.0%) |
| Age < 65 Male | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 48 | 401.3/409.9 = 97.9% (85.7%, 99.7%) | 409.9/409.9 = 100.0% (100.0%, 100.0%) | 401.3/409.9 = 97.9% (85.7%, 99.7%) |
| Age < 65 Male | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 34 | 0/4150.7 = 0.0% (0.0%, 0.0%) | 0/4150.7 = 0.0% (0.0%, 0.0%) | 0/4150.7 = 0.0% (0.0%, 0.0%) |
| Age < 65 Male | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 34 | 0/4150.7 = 0.0% (0.0%, 0.0%) | 0/4150.7 = 0.0% (0.0%, 0.0%) | 0/4150.7 = 0.0% (0.0%, 0.0%) |
| Age < 65 Male | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 34 | 0/4150.7 = 0.0% (0.0%, 0.0%) | 0/4150.7 = 0.0% (0.0%, 0.0%) | 0/4150.7 = 0.0% (0.0%, 0.0%) |
| Age < 65 Male | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 50 | 168.1/390.3 = 43.1% (29.0%, 58.4%) | 244/390.3 = 62.5% (46.8%, 75.9%) | 194.8/390.3 = 49.9% (35.0%, 64.8%) |
| Age < 65 Male | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 50 | 379.2/390.3 = 97.1% (81.3%, 99.6%) | 390.3/390.3 = 100.0% (100.0%, 100.0%) | 379.2/390.3 = 97.1% (81.3%, 99.6%) |
| Age < 65 Male | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 50 | 363.8/390.3 = 93.2% (80.1%, 97.9%) | 390.3/390.3 = 100.0% (100.0%, 100.0%) | 379.2/390.3 = 97.1% (81.3%, 99.6%) |
| Age < 65 Male | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 156 | 2981.8/3740.5 = 79.7% (71.9%, 85.8%) | 3375.6/3740.5 = 90.2% (83.8%, 94.3%) | 3136.7/3740.5 = 83.9% (76.5%, 89.2%) |
| Age < 65 Male | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 156 | 3740.5/3740.5 = 100.0% (100.0%, 100.0%) | 3740.5/3740.5 = 100.0% (100.0%, 100.0%) | 3740.5/3740.5 = 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 |
|---------------|--------|---------|---------------------|------------------------|-----|--|--|--|
| Age < 65 Male | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 156 | 3740.5/3740.5 = 100.0% (100.0%, 100.0%) | 3740.5/3740.5 = 100.0% (100.0%, 100.0%) | 3740.5/3740.5 = 100.0% (100.0%, 100.0%) |
| Age < 65 Male | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 48 | 381.5/409.9 = 93.1% (79.0%, 98.0%) | 390.1/409.9 = 95.2% (80.7%, 98.9%) | 381.5/409.9 = 93.1% (79.0%, 98.0%) |
| Age < 65 Male | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 48 | 409.9/409.9 = 100.0% (100.0%, 100.0%) | 409.9/409.9 = 100.0% (100.0%, 100.0%) | 409.9/409.9 = 100.0% (100.0%, 100.0%) |
| Age < 65 Male | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 48 | 409.9/409.9 = 100.0% (100.0%, 100.0%) | 409.9/409.9 = 100.0% (100.0%, 100.0%) | 409.9/409.9 = 100.0% (100.0%, 100.0%) |
| Age < 65 Male | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 34 | 0/4150.7 = 0.0% (0.0%, 0.0%) | 0/4150.7 = 0.0% (0.0%, 0.0%) | 0/4150.7 = 0.0% (0.0%, 0.0%) |
| Age < 65 Male | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 34 | 0/4150.7 = 0.0% (0.0%, 0.0%) | 0/4150.7 = 0.0% (0.0%, 0.0%) | 0/4150.7 = 0.0% (0.0%, 0.0%) |
| Age < 65 Male | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 34 | 0/4150.7 = 0.0% (0.0%, 0.0%) | 0/4150.7 = 0.0% (0.0%, 0.0%) | 0/4150.7 = 0.0% (0.0%, 0.0%) |
| Age < 65 Male | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 50 | 265.7/390.3 = 68.1% (52.1%, 80.7%) | 309.6/390.3 = 79.3% (63.7%, 89.3%) | 270.9/390.3 = 69.4% (53.4%, 81.8%) |
| Age < 65 Male | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 50 | 390.3/390.3 = 100.0% (100.0%, 100.0%) | 390.3/390.3 = 100.0% (100.0%, 100.0%) | 390.3/390.3 = 100.0% (100.0%, 100.0%) |
| Age < 65 Male | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 50 | 390.3/390.3 = 100.0% (100.0%, 100.0%) | 390.3/390.3 = 100.0% (100.0%, 100.0%) | 390.3/390.3 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Male | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 164 | 783.2/993.1 = 78.9% (71.9%, 84.5%) | 930/993.1 = 93.6% (88.7%, 96.5%) | 806.5/993.1 = 81.2% (74.4%, 86.5%) |
| Age ≥ 65 Male | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 164 | 993.1/993.1 = 100.0% (100.0%, 100.0%) | 993.1/993.1 = 100.0% (100.0%, 100.0%) | 993.1/993.1 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Male | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 164 | 993.1/993.1 = 100.0% (100.0%, 100.0%) | 993.1/993.1 = 100.0% (100.0%, 100.0%) | 993.1/993.1 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Male | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 47 | 87.6/100.3 = 87.4% (72.7%, 94.8%) | 97.7/100.3 = 97.5% (83.3%, 99.7%) | 90.2/100.3 = 89.9% (75.6%, 96.3%) |
| Age ≥ 65 Male | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 47 | 100.3/100.3 = 100.0% (100.0%, 100.0%) | 100.3/100.3 = 100.0% (100.0%, 100.0%) | 100.3/100.3 = 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 |
|---------------|--------|---------|---------------------|------------------------|-----|--|--|--|
| Age ≥ 65 Male | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 47 | 100.3/100.3 = 100.0% (100.0%, 100.0%) | 100.3/100.3 = 100.0% (100.0%, 100.0%) | 100.3/100.3 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Male | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 29 | 0/1174.4 = 0.0% (0.0%, 0.0%) | 0/1174.4 = 0.0% (0.0%, 0.0%) | 0/1174.4 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 Male | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 29 | 0/1174.4 = 0.0% (0.0%, 0.0%) | 0/1174.4 = 0.0% (0.0%, 0.0%) | 0/1174.4 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 Male | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 29 | 0/1174.4 = 0.0% (0.0%, 0.0%) | 0/1174.4 = 0.0% (0.0%, 0.0%) | 0/1174.4 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 Male | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 58 | 88.3/110.7 = 79.8% (67.2%, 88.3%) | 93.8/110.7 = 84.7% (72.6%, 92.0%) | 90.4/110.7 = 81.6% (69.3%, 89.7%) |
| Age ≥ 65 Male | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 58 | 110.7/110.7 = 100.0% (100.0%, 100.0%) | 110.7/110.7 = 100.0% (100.0%, 100.0%) | 110.7/110.7 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Male | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 58 | 110.7/110.7 = 100.0% (100.0%, 100.0%) | 110.7/110.7 = 100.0% (100.0%, 100.0%) | 110.7/110.7 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Male | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 164 | 927.2/993.1 = 93.4% (88.5%, 96.2%) | 971.8/993.1 = 97.9% (94.3%, 99.2%) | 948.5/993.1 = 95.5% (91.1%, 97.8%) |
| Age ≥ 65 Male | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 164 | 993.1/993.1 = 100.0% (100.0%, 100.0%) | 993.1/993.1 = 100.0% (100.0%, 100.0%) | 993.1/993.1 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Male | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 164 | 993.1/993.1 = 100.0% (100.0%, 100.0%) | 993.1/993.1 = 100.0% (100.0%, 100.0%) | 993.1/993.1 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Male | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 47 | 100.3/100.3 = 100.0% (100.0%, 100.0%) | 100.3/100.3 = 100.0% (100.0%, 100.0%) | 100.3/100.3 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Male | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 47 | 100.3/100.3 = 100.0% (100.0%, 100.0%) | 100.3/100.3 = 100.0% (100.0%, 100.0%) | 100.3/100.3 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Male | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 47 | 100.3/100.3 = 100.0% (100.0%, 100.0%) | 100.3/100.3 = 100.0% (100.0%, 100.0%) | 100.3/100.3 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Male | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 29 | 0/1174.4 = 0.0% (0.0%, 0.0%) | 0/1174.4 = 0.0% (0.0%, 0.0%) | 0/1174.4 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 Male | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 29 | 0/1174.4 = 0.0% (0.0%, 0.0%) | 0/1174.4 = 0.0% (0.0%, 0.0%) | 0/1174.4 = 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 Male | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 29 | 0/1174.4 = 0.0% (0.0%, 0.0%) | 0/1174.4 = 0.0% (0.0%, 0.0%) | 0/1174.4 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 Male | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 58 | 100.5/110.7 = 90.8% (79.5%, 96.2%) | 108.7/110.7 = 98.2% (87.6%, 99.8%) | 104.6/110.7 = 94.5% (83.9%, 98.2%) |
| Age ≥ 65 Male | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 58 | 110.7/110.7 = 100.0% (100.0%, 100.0%) | 110.7/110.7 = 100.0% (100.0%, 100.0%) | 110.7/110.7 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Male | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 58 | 110.7/110.7 = 100.0% (100.0%, 100.0%) | 110.7/110.7 = 100.0% (100.0%, 100.0%) | 110.7/110.7 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Female | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 226 | 1105.7/1364.9 = 81.0% (75.2%, 85.7%) | 1279.9/1364.9 = 93.8% (89.5%, 96.4%) | 1182.5/1364.9 = 86.6% (81.4%, 90.6%) |
| Age ≥ 65 Female | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 226 | 1364.9/1364.9 = 100.0% (100.0%, 100.0%) | 1364.9/1364.9 = 100.0% (100.0%, 100.0%) | 1364.9/1364.9 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Female | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 226 | 1364.9/1364.9 = 100.0% (100.0%, 100.0%) | 1364.9/1364.9 = 100.0% (100.0%, 100.0%) | 1364.9/1364.9 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Female | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 73 | 145.3/150.7 = 96.4% (88.8%, 98.9%) | 146.8/150.7 = 97.4% (89.3%, 99.4%) | 146.8/150.7 = 97.4% (89.3%, 99.4%) |
| Age ≥ 65 Female | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 73 | 150.7/150.7 = 100.0% (100.0%, 100.0%) | 150.7/150.7 = 100.0% (100.0%, 100.0%) | 150.7/150.7 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Female | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 73 | 150.7/150.7 = 100.0% (100.0%, 100.0%) | 150.7/150.7 = 100.0% (100.0%, 100.0%) | 150.7/150.7 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Female | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 37 | 0/1585.6 = 0.0% (0.0%, 0.0%) | 0/1585.6 = 0.0% (0.0%, 0.0%) | 0/1585.6 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 Female | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 37 | 0/1585.6 = 0.0% (0.0%, 0.0%) | 0/1585.6 = 0.0% (0.0%, 0.0%) | 0/1585.6 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 Female | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 37 | 0/1585.6 = 0.0% (0.0%, 0.0%) | 0/1585.6 = 0.0% (0.0%, 0.0%) | 0/1585.6 = 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 Female | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 63 | 93.8/121.3 = 77.3% (65.0%, 86.2%) | 113.8/121.3 = 93.8% (84.3%, 97.7%) | 101.9/121.3 = 84.0% (72.4%, 91.3%) |
| Age ≥ 65 Female | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 63 | 121.3/121.3 = 100.0% (100.0%, 100.0%) | 121.3/121.3 = 100.0% (100.0%, 100.0%) | 121.3/121.3 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Female | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 63 | 121.3/121.3 = 100.0% (100.0%, 100.0%) | 121.3/121.3 = 100.0% (100.0%, 100.0%) | 121.3/121.3 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Female | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 226 | 1288.8/1364.9 = 94.4% (90.4%, 96.8%) | 1327.9/1364.9 = 97.3% (94.0%, 98.8%) | 1302.5/1364.9 = 95.4% (91.6%, 97.5%) |
| Age ≥ 65 Female | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 226 | 1364.9/1364.9 = 100.0% (100.0%, 100.0%) | 1364.9/1364.9 = 100.0% (100.0%, 100.0%) | 1364.9/1364.9 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Female | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 226 | 1364.9/1364.9 = 100.0% (100.0%, 100.0%) | 1364.9/1364.9 = 100.0% (100.0%, 100.0%) | 1364.9/1364.9 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Female | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 73 | 150.7/150.7 = 100.0% (100.0%, 100.0%) | 150.7/150.7 = 100.0% (100.0%, 100.0%) | 150.7/150.7 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Female | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 73 | 150.7/150.7 = 100.0% (100.0%, 100.0%) | 150.7/150.7 = 100.0% (100.0%, 100.0%) | 150.7/150.7 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Female | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 73 | 150.7/150.7 = 100.0% (100.0%, 100.0%) | 150.7/150.7 = 100.0% (100.0%, 100.0%) | 150.7/150.7 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Female | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 37 | 0/1585.6 = 0.0% (0.0%, 0.0%) | 0/1585.6 = 0.0% (0.0%, 0.0%) | 0/1585.6 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 Female | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 37 | 0/1585.6 = 0.0% (0.0%, 0.0%) | 0/1585.6 = 0.0% (0.0%, 0.0%) | 0/1585.6 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 Female | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 37 | 0/1585.6 = 0.0% (0.0%, 0.0%) | 0/1585.6 = 0.0% (0.0%, 0.0%) | 0/1585.6 = 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 Female | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 63 | 111.4/121.3 = 91.9% (81.6%, 96.7%) | 111.4/121.3 = 91.9% (81.6%, 96.7%) | 111.4/121.3 = 91.9% (81.6%, 96.7%) |
| Age ≥ 65 Female | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 63 | 121.3/121.3 = 100.0% (100.0%, 100.0%) | 121.3/121.3 = 100.0% (100.0%, 100.0%) | 121.3/121.3 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Female | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 63 | 121.3/121.3 = 100.0% (100.0%, 100.0%) | 121.3/121.3 = 100.0% (100.0%, 100.0%) | 121.3/121.3 = 100.0% (100.0%, 100.0%) |

Binding Antibody Responders are defined as participants with concentration above the specified positivity cut-off, with a separate cut-off for each antigen Spike, RBD, N (10.8424, 14.0858, and 23.4711 respectively, in IU/ml).

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

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) | 99 | 715.5/1009.2 = 70.9% (58.3%, 80.9%) | 845.6/1009.2 = 83.8% (71.3%, 91.5%) | 729.9/1009.2 = 72.3% (59.7%, 82.2%) |
| Hispanic or Latino | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 99 | 1009.2/1009.2 = 100.0% (100.0%, 100.0%) | 1009.2/1009.2 = 100.0% (100.0%, 100.0%) | 1009.2/1009.2 = 100.0% (100.0%, 100.0%) |
| Hispanic or Latino | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 99 | 1009.2/1009.2 = 100.0% (100.0%, 100.0%) | 1009.2/1009.2 = 100.0% (100.0%, 100.0%) | 1009.2/1009.2 = 100.0% (100.0%, 100.0%) |
| Hispanic or Latino | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 31 | 57.3/105.1 = 54.5% (32.0%, 75.3%) | 89.8/105.1 = 85.4% (64.1%, 95.1%) | 63.3/105.1 = 60.3% (36.5%, 80.0%) |
| Hispanic or Latino | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 31 | 100.5/105.1 = 95.6% (72.3%, 99.5%) | 105.1/105.1 = 100.0% (100.0%, 100.0%) | 100.5/105.1 = 95.6% (72.3%, 99.5%) |
| Hispanic or Latino | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 31 | 105.1/105.1 = 100.0% (100.0%, 100.0%) | 105.1/105.1 = 100.0% (100.0%, 100.0%) | 105.1/105.1 = 100.0% (100.0%, 100.0%) |
| Hispanic or Latino | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 20 | 0/991.8 = 0.0% (0.0%, 0.0%) | 0/991.8 = 0.0% (0.0%, 0.0%) | 0/991.8 = 0.0% (0.0%, 0.0%) |
| Hispanic or Latino | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 20 | 0/991.8 = 0.0% (0.0%, 0.0%) | 0/991.8 = 0.0% (0.0%, 0.0%) | 0/991.8 = 0.0% (0.0%, 0.0%) |
| Hispanic or Latino | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 20 | 0/991.8 = 0.0% (0.0%, 0.0%) | 0/991.8 = 0.0% (0.0%, 0.0%) | 0/991.8 = 0.0% (0.0%, 0.0%) |
| Hispanic or Latino | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 34 | 64.3/148.4 = 43.3% (25.2%, 63.4%) | 113.2/148.4 = 76.3% (54.2%, 89.7%) | 72/148.4 = 48.5% (29.1%, 68.3%) |
| Hispanic or Latino | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 34 | 148.4/148.4 = 100.0% (100.0%, 100.0%) | 148.4/148.4 = 100.0% (100.0%, 100.0%) | 148.4/148.4 = 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) | 34 | 140.7/148.4 = 94.8% (68.8%, 99.3%) | 148.4/148.4 = 100.0% (100.0%, 100.0%) | 148.4/148.4 = 100.0% (100.0%, 100.0%) |
| Hispanic or Latino | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 99 | 819.5/1009.2 = 81.2% (68.1%, 89.7%) | 911.9/1009.2 = 90.4% (78.6%, 96.0%) | 830.5/1009.2 = 82.3% (69.2%, 90.6%) |
| Hispanic or Latino | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 99 | 1009.2/1009.2 = 100.0% (100.0%, 100.0%) | 1009.2/1009.2 = 100.0% (100.0%, 100.0%) | 1009.2/1009.2 = 100.0% (100.0%, 100.0%) |
| Hispanic or Latino | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 99 | 1009.2/1009.2 = 100.0% (100.0%, 100.0%) | 1009.2/1009.2 = 100.0% (100.0%, 100.0%) | 1009.2/1009.2 = 100.0% (100.0%, 100.0%) |
| Hispanic or Latino | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 31 | 91.9/105.1 = 87.4% (58.2%, 97.2%) | 91.9/105.1 = 87.4% (58.2%, 97.2%) | 91.9/105.1 = 87.4% (58.2%, 97.2%) |
| Hispanic or Latino | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 31 | 105.1/105.1 = 100.0% (100.0%, 100.0%) | 105.1/105.1 = 100.0% (100.0%, 100.0%) | 105.1/105.1 = 100.0% (100.0%, 100.0%) |
| Hispanic or Latino | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 31 | 105.1/105.1 = 100.0% (100.0%, 100.0%) | 105.1/105.1 = 100.0% (100.0%, 100.0%) | 105.1/105.1 = 100.0% (100.0%, 100.0%) |
| Hispanic or Latino | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 20 | 0/991.8 = 0.0% (0.0%, 0.0%) | 0/991.8 = 0.0% (0.0%, 0.0%) | 0/991.8 = 0.0% (0.0%, 0.0%) |
| Hispanic or Latino | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 20 | 0/991.8 = 0.0% (0.0%, 0.0%) | 0/991.8 = 0.0% (0.0%, 0.0%) | 0/991.8 = 0.0% (0.0%, 0.0%) |
| Hispanic or Latino | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 20 | 0/991.8 = 0.0% (0.0%, 0.0%) | 0/991.8 = 0.0% (0.0%, 0.0%) | 0/991.8 = 0.0% (0.0%, 0.0%) |
| Hispanic or Latino | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 34 | 120.9/148.4 = 81.5% (58.3%, 93.3%) | 136.3/148.4 = 91.9% (69.9%, 98.2%) | 128.6/148.4 = 86.7% (63.8%, 96.0%) |
| Hispanic or Latino | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 34 | 148.4/148.4 = 100.0% (100.0%, 100.0%) | 148.4/148.4 = 100.0% (100.0%, 100.0%) | 148.4/148.4 = 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) | 34 | 148.4/148.4 = 100.0% (100.0%, 100.0%) | 148.4/148.4 = 100.0% (100.0%, 100.0%) | 148.4/148.4 = 100.0% (100.0%, 100.0%) |
| Not Hispanic or Latino | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 623 | 6012.3/9866.2 = 60.9% (56.0%, 65.7%) | 7809.2/9866.2 = 79.2% (74.6%, 83.0%) | 6448.3/9866.2 = 65.4% (60.4%, 70.0%) |
| Not Hispanic or Latino | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 623 | 9693/9866.2 = 98.2% (96.2%, 99.2%) | 9855.2/9866.2 = 99.9% (99.2%, 100.0%) | 9693/9866.2 = 98.2% (96.2%, 99.2%) |
| Not Hispanic or Latino | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 623 | 9778/9866.2 = 99.1% (97.4%, 99.7%) | 9866.2/9866.2 = 100.0% (100.0%, 100.0%) | 9846.4/9866.2 = 99.8% (98.6%, 100.0%) |
| Not Hispanic or Latino | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 194 | 864.6/1101.6 = 78.5% (70.3%, 84.9%) | 955.8/1101.6 = 86.8% (78.9%, 92.0%) | 904.1/1101.6 = 82.1% (74.0%, 88.0%) |
| Not Hispanic or Latino | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 194 | 1101.6/1101.6 = 100.0% (100.0%, 100.0%) | 1101.6/1101.6 = 100.0% (100.0%, 100.0%) | 1101.6/1101.6 = 100.0% (100.0%, 100.0%) |
| Not Hispanic or Latino | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 194 | 1093/1101.6 = 99.2% (94.6%, 99.9%) | 1101.6/1101.6 = 100.0% (100.0%, 100.0%) | 1093/1101.6 = 99.2% (94.6%, 99.9%) |
| Not Hispanic or Latino | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 113 | 0/9818.5 = 0.0% (0.0%, 0.0%) | 0/9818.5 = 0.0% (0.0%, 0.0%) | 0/9818.5 = 0.0% (0.0%, 0.0%) |
| Not Hispanic or Latino | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 113 | 0/9818.5 = 0.0% (0.0%, 0.0%) | 0/9818.5 = 0.0% (0.0%, 0.0%) | 0/9818.5 = 0.0% (0.0%, 0.0%) |
| Not Hispanic or Latino | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 113 | 0/9818.5 = 0.0% (0.0%, 0.0%) | 0/9818.5 = 0.0% (0.0%, 0.0%) | 0/9818.5 = 0.0% (0.0%, 0.0%) |
| Not Hispanic or Latino | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 201 | 526.9/949.1 = 55.5% (46.8%, 63.9%) | 700.5/949.1 = 73.8% (65.1%, 81.0%) | 574.9/949.1 = 60.6% (51.7%, 68.8%) |
| Not Hispanic or Latino | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 201 | 888.1/949.1 = 93.6% (86.3%, 97.1%) | 932.7/949.1 = 98.3% (92.6%, 99.6%) | 888.1/949.1 = 93.6% (86.3%, 97.1%) |

(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) | 201 | 922.5/949.1 = 97.2% (91.5%, 99.1%) | 949.1/949.1 = 100.0% (100.0%, 100.0%) | 930.2/949.1 = 98.0% (92.1%, 99.5%) |
| Not Hispanic or Latino | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 623 | 8023.8/9866.2 = 81.3% (77.0%, 85.0%) | 8951.7/9866.2 = 90.7% (87.3%, 93.3%) | 8301.9/9866.2 = 84.1% (80.0%, 87.6%) |
| Not Hispanic or Latino | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 623 | 9846.4/9866.2 = 99.8% (98.6%, 100.0%) | 9866.2/9866.2 = 100.0% (100.0%, 100.0%) | 9846.4/9866.2 = 99.8% (98.6%, 100.0%) |
| Not Hispanic or Latino | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 623 | 9866.2/9866.2 = 100.0% (100.0%, 100.0%) | 9866.2/9866.2 = 100.0% (100.0%, 100.0%) | 9866.2/9866.2 = 100.0% (100.0%, 100.0%) |
| Not Hispanic or Latino | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 194 | 1059.9/1101.6 = 96.2% (89.9%, 98.6%) | 1068.5/1101.6 = 97.0% (90.6%, 99.1%) | 1059.9/1101.6 = 96.2% (89.9%, 98.6%) |
| Not Hispanic or Latino | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 194 | 1101.6/1101.6 = 100.0% (100.0%, 100.0%) | 1101.6/1101.6 = 100.0% (100.0%, 100.0%) | 1101.6/1101.6 = 100.0% (100.0%, 100.0%) |
| Not Hispanic or Latino | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 194 | 1101.6/1101.6 = 100.0% (100.0%, 100.0%) | 1101.6/1101.6 = 100.0% (100.0%, 100.0%) | 1101.6/1101.6 = 100.0% (100.0%, 100.0%) |
| Not Hispanic or Latino | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 113 | 0/9818.5 = 0.0% (0.0%, 0.0%) | 0/9818.5 = 0.0% (0.0%, 0.0%) | 0/9818.5 = 0.0% (0.0%, 0.0%) |
| Not Hispanic or Latino | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 113 | 0/9818.5 = 0.0% (0.0%, 0.0%) | 0/9818.5 = 0.0% (0.0%, 0.0%) | 0/9818.5 = 0.0% (0.0%, 0.0%) |
| Not Hispanic or Latino | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 113 | 0/9818.5 = 0.0% (0.0%, 0.0%) | 0/9818.5 = 0.0% (0.0%, 0.0%) | 0/9818.5 = 0.0% (0.0%, 0.0%) |
| Not Hispanic or Latino | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 201 | 722.4/949.1 = 76.1% (67.4%, 83.1%) | 814.1/949.1 = 85.8% (77.8%, 91.2%) | 737/949.1 = 77.6% (69.0%, 84.4%) |
| Not Hispanic or Latino | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 201 | 949.1/949.1 = 100.0% (100.0%, 100.0%) | 949.1/949.1 = 100.0% (100.0%, 100.0%) | 949.1/949.1 = 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) | 201 | 949.1/949.1 = 100.0% (100.0%, 100.0%) | 949.1/949.1 = 100.0% (100.0%, 100.0%) | 949.1/949.1 = 100.0% (100.0%, 100.0%) |
| Not reported and unknown | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 25 | 171.5/251.7 = 68.1% (38.0%, 88.2%) | 208.5/251.7 = 82.9% (50.2%, 95.9%) | 203.7/251.7 = 80.9% (49.8%, 94.8%) |
| Not reported and unknown | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 25 | 251.7/251.7 = 100.0% (100.0%, 100.0%) | 251.7/251.7 = 100.0% (100.0%, 100.0%) | 251.7/251.7 = 100.0% (100.0%, 100.0%) |
| Not reported and unknown | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 25 | 251.7/251.7 = 100.0% (100.0%, 100.0%) | 251.7/251.7 = 100.0% (100.0%, 100.0%) | 251.7/251.7 = 100.0% (100.0%, 100.0%) |
| Not reported and unknown | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 9 | 18.7/27.3 = 68.4% (12.9%, 97.0%) | 27.3/27.3 = 100.0% (100.0%, 100.0%) | 18.7/27.3 = 68.4% (12.9%, 97.0%) |
| Not reported and unknown | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 9 | 27.3/27.3 = 100.0% (100.0%, 100.0%) | 27.3/27.3 = 100.0% (100.0%, 100.0%) | 27.3/27.3 = 100.0% (100.0%, 100.0%) |
| Not reported and unknown | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 9 | 27.3/27.3 = 100.0% (100.0%, 100.0%) | 27.3/27.3 = 100.0% (100.0%, 100.0%) | 27.3/27.3 = 100.0% (100.0%, 100.0%) |
| Not reported and unknown | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 5 | 0/292.8 = 0.0% (0.0%, 0.0%) | 0/292.8 = 0.0% (0.0%, 0.0%) | 0/292.8 = 0.0% (0.0%, 0.0%) |
| Not reported and unknown | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 5 | 0/292.8 = 0.0% (0.0%, 0.0%) | 0/292.8 = 0.0% (0.0%, 0.0%) | 0/292.8 = 0.0% (0.0%, 0.0%) |
| Not reported and unknown | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 5 | 0/292.8 = 0.0% (0.0%, 0.0%) | 0/292.8 = 0.0% (0.0%, 0.0%) | 0/292.8 = 0.0% (0.0%, 0.0%) |
| Not reported and unknown | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 6 | 11.1/27.5 = 40.3% (3.1%, 93.3%) | 11.1/27.5 = 40.3% (3.1%, 93.3%) | 11.1/27.5 = 40.3% (3.1%, 93.3%) |
| Not reported and unknown | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 6 | 27.5/27.5 = 100.0% (100.0%, 100.0%) | 27.5/27.5 = 100.0% (100.0%, 100.0%) | 27.5/27.5 = 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 reported and unknown | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 6 | 27.5/27.5 = 100.0% (100.0%, 100.0%) | 27.5/27.5 = 100.0% (100.0%, 100.0%) | 27.5/27.5 = 100.0% (100.0%, 100.0%) |
| Not reported and unknown | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 25 | 208.5/251.7 = 82.9% (50.2%, 95.9%) | 251.7/251.7 = 100.0% (100.0%, 100.0%) | 246.8/251.7 = 98.1% (85.7%, 99.8%) |
| Not reported and unknown | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 25 | 251.7/251.7 = 100.0% (100.0%, 100.0%) | 251.7/251.7 = 100.0% (100.0%, 100.0%) | 251.7/251.7 = 100.0% (100.0%, 100.0%) |
| Not reported and unknown | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 25 | 251.7/251.7 = 100.0% (100.0%, 100.0%) | 251.7/251.7 = 100.0% (100.0%, 100.0%) | 251.7/251.7 = 100.0% (100.0%, 100.0%) |
| Not reported and unknown | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 9 | 27.3/27.3 = 100.0% (100.0%, 100.0%) | 27.3/27.3 = 100.0% (100.0%, 100.0%) | 27.3/27.3 = 100.0% (100.0%, 100.0%) |
| Not reported and unknown | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 9 | 27.3/27.3 = 100.0% (100.0%, 100.0%) | 27.3/27.3 = 100.0% (100.0%, 100.0%) | 27.3/27.3 = 100.0% (100.0%, 100.0%) |
| Not reported and unknown | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 9 | 27.3/27.3 = 100.0% (100.0%, 100.0%) | 27.3/27.3 = 100.0% (100.0%, 100.0%) | 27.3/27.3 = 100.0% (100.0%, 100.0%) |
| Not reported and unknown | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 5 | 0/292.8 = 0.0% (0.0%, 0.0%) | 0/292.8 = 0.0% (0.0%, 0.0%) | 0/292.8 = 0.0% (0.0%, 0.0%) |
| Not reported and unknown | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 5 | 0/292.8 = 0.0% (0.0%, 0.0%) | 0/292.8 = 0.0% (0.0%, 0.0%) | 0/292.8 = 0.0% (0.0%, 0.0%) |
| Not reported and unknown | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 5 | 0/292.8 = 0.0% (0.0%, 0.0%) | 0/292.8 = 0.0% (0.0%, 0.0%) | 0/292.8 = 0.0% (0.0%, 0.0%) |
| Not reported and unknown | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 6 | 19.8/27.5 = 72.0% (6.5%, 99.0%) | 19.8/27.5 = 72.0% (6.5%, 99.0%) | 19.8/27.5 = 72.0% (6.5%, 99.0%) |
| Not reported and unknown | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 6 | 27.5/27.5 = 100.0% (100.0%, 100.0%) | 27.5/27.5 = 100.0% (100.0%, 100.0%) | 27.5/27.5 = 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 reported and unknown | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 6 | 27.5/27.5 = 100.0% (100.0%, 100.0%) | 27.5/27.5 = 100.0% (100.0%, 100.0%) | 27.5/27.5 = 100.0% (100.0%, 100.0%) |

Binding Antibody Responders are defined as participants with concentration above the specified positivity cut-off, with a separate cut-off for each antigen Spike, RBD, N (10.8424, 14.0858, and 23.4711 respectively, in IU/ml).

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

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) | 370 | 3671.4/6391.7 = 57.4% (51.0%, 63.6%) | 4873/6391.7 = 76.2% (70.1%, 81.4%) | 4015.5/6391.7 = 62.8% (56.4%, 68.8%) |
| White Non-Hispanic | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 370 | 6276.7/6391.7 = 98.2% (95.1%, 99.4%) | 6391.7/6391.7 = 100.0% (100.0%, 100.0%) | 6276.7/6391.7 = 98.2% (95.1%, 99.4%) |
| White Non-Hispanic | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 370 | 6314.5/6391.7 = 98.8% (96.1%, 99.6%) | 6391.7/6391.7 = 100.0% (100.0%, 100.0%) | 6372/6391.7 = 99.7% (97.8%, 100.0%) |
| White Non-Hispanic | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 118 | 569.8/723.7 = 78.7% (67.6%, 86.8%) | 619.4/723.7 = 85.6% (74.6%, 92.3%) | 585.4/723.7 = 80.9% (69.7%, 88.6%) |
| White Non-Hispanic | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 118 | 723.7/723.7 = 100.0% (100.0%, 100.0%) | 723.7/723.7 = 100.0% (100.0%, 100.0%) | 723.7/723.7 = 100.0% (100.0%, 100.0%) |
| White Non-Hispanic | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 118 | 723.7/723.7 = 100.0% (100.0%, 100.0%) | 723.7/723.7 = 100.0% (100.0%, 100.0%) | 723.7/723.7 = 100.0% (100.0%, 100.0%) |
| White Non-Hispanic | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 63 | 0/6564.1 = 0.0% (0.0%, 0.0%) | 0/6564.1 = 0.0% (0.0%, 0.0%) | 0/6564.1 = 0.0% (0.0%, 0.0%) |
| White Non-Hispanic | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 63 | 0/6564.1 = 0.0% (0.0%, 0.0%) | 0/6564.1 = 0.0% (0.0%, 0.0%) | 0/6564.1 = 0.0% (0.0%, 0.0%) |
| White Non-Hispanic | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 63 | 0/6564.1 = 0.0% (0.0%, 0.0%) | 0/6564.1 = 0.0% (0.0%, 0.0%) | 0/6564.1 = 0.0% (0.0%, 0.0%) |
| White Non-Hispanic | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 121 | 339/609.5 = 55.6% (44.3%, 66.4%) | 432.7/609.5 = 71.0% (59.3%, 80.4%) | 360.3/609.5 = 59.1% (47.6%, 69.7%) |
| White Non-Hispanic | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 121 | 553.7/609.5 = 90.8% (80.0%, 96.1%) | 598.3/609.5 = 98.2% (87.8%, 99.8%) | 553.7/609.5 = 90.8% (80.0%, 96.1%) |

(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) | 121 | 598.3/609.5 = 98.2% (87.8%, 99.8%) | 609.5/609.5 = 100.0% (100.0%, 100.0%) | 598.3/609.5 = 98.2% (87.8%, 99.8%) |
| White Non-Hispanic | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 370 | 5052.5/6391.7 = 79.0% (73.1%, 84.0%) | 5723/6391.7 = 89.5% (84.7%, 93.0%) | 5219/6391.7 = 81.7% (75.9%, 86.3%) |
| White Non-Hispanic | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 370 | 6372/6391.7 = 99.7% (97.8%, 100.0%) | 6391.7/6391.7 = 100.0% (100.0%, 100.0%) | 6372/6391.7 = 99.7% (97.8%, 100.0%) |
| White Non-Hispanic | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 370 | 6391.7/6391.7 = 100.0% (100.0%, 100.0%) | 6391.7/6391.7 = 100.0% (100.0%, 100.0%) | 6391.7/6391.7 = 100.0% (100.0%, 100.0%) |
| White Non-Hispanic | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 118 | 690.6/723.7 = 95.4% (86.0%, 98.6%) | 690.6/723.7 = 95.4% (86.0%, 98.6%) | 690.6/723.7 = 95.4% (86.0%, 98.6%) |
| White Non-Hispanic | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 118 | 723.7/723.7 = 100.0% (100.0%, 100.0%) | 723.7/723.7 = 100.0% (100.0%, 100.0%) | 723.7/723.7 = 100.0% (100.0%, 100.0%) |
| White Non-Hispanic | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 118 | 723.7/723.7 = 100.0% (100.0%, 100.0%) | 723.7/723.7 = 100.0% (100.0%, 100.0%) | 723.7/723.7 = 100.0% (100.0%, 100.0%) |
| White Non-Hispanic | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 63 | 0/6564.1 = 0.0% (0.0%, 0.0%) | 0/6564.1 = 0.0% (0.0%, 0.0%) | 0/6564.1 = 0.0% (0.0%, 0.0%) |
| White Non-Hispanic | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 63 | 0/6564.1 = 0.0% (0.0%, 0.0%) | 0/6564.1 = 0.0% (0.0%, 0.0%) | 0/6564.1 = 0.0% (0.0%, 0.0%) |
| White Non-Hispanic | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 63 | 0/6564.1 = 0.0% (0.0%, 0.0%) | 0/6564.1 = 0.0% (0.0%, 0.0%) | 0/6564.1 = 0.0% (0.0%, 0.0%) |
| White Non-Hispanic | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 121 | 455.4/609.5 = 74.7% (63.2%, 83.6%) | 518.7/609.5 = 85.1% (74.3%, 91.9%) | 464.8/609.5 = 76.3% (64.6%, 84.9%) |
| White Non-Hispanic | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 121 | 609.5/609.5 = 100.0% (100.0%, 100.0%) | 609.5/609.5 = 100.0% (100.0%, 100.0%) | 609.5/609.5 = 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 |
|---------------------------|--------|---------|---------------------|------------------------|-----|--|--|--|
| White Non-Hispanic | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 121 | 609.5/609.5 = 100.0% (100.0%, 100.0%) | 609.5/609.5 = 100.0% (100.0%, 100.0%) | 609.5/609.5 = 100.0% (100.0%, 100.0%) |
| Black or African American | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 184 | 1460.2/2208.2 = 66.1% (56.8%, 74.3%) | 1873.4/2208.2 = 84.8% (76.9%, 90.4%) | 1567.8/2208.2 = 71.0% (61.9%, 78.7%) |
| Black or African American | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 184 | 2169.9/2208.2 = 98.3% (92.4%, 99.6%) | 2197.3/2208.2 = 99.5% (96.5%, 99.9%) | 2169.9/2208.2 = 98.3% (92.4%, 99.6%) |
| Black or African American | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 184 | 2197.3/2208.2 = 99.5% (96.5%, 99.9%) | 2208.2/2208.2 = 100.0% (100.0%, 100.0%) | 2208.2/2208.2 = 100.0% (100.0%, 100.0%) |
| Black or African American | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 58 | 189.8/246.7 = 76.9% (59.3%, 88.4%) | 220.3/246.7 = 89.3% (73.1%, 96.2%) | 198.4/246.7 = 80.4% (63.1%, 90.8%) |
| Black or African American | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 58 | 246.7/246.7 = 100.0% (100.0%, 100.0%) | 246.7/246.7 = 100.0% (100.0%, 100.0%) | 246.7/246.7 = 100.0% (100.0%, 100.0%) |
| Black or African American | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 58 | 246.7/246.7 = 100.0% (100.0%, 100.0%) | 246.7/246.7 = 100.0% (100.0%, 100.0%) | 246.7/246.7 = 100.0% (100.0%, 100.0%) |
| Black or African American | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 40 | 0/2287.9 = 0.0% (0.0%, 0.0%) | 0/2287.9 = 0.0% (0.0%, 0.0%) | 0/2287.9 = 0.0% (0.0%, 0.0%) |
| Black or African American | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 40 | 0/2287.9 = 0.0% (0.0%, 0.0%) | 0/2287.9 = 0.0% (0.0%, 0.0%) | 0/2287.9 = 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) | 40 | 0/2287.9 = 0.0% (0.0%, 0.0%) | 0/2287.9 = 0.0% (0.0%, 0.0%) | 0/2287.9 = 0.0% (0.0%, 0.0%) |
| Black or African American | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 45 | 106.3/163.1 = 65.2% (46.0%, 80.5%) | 121.8/163.1 = 74.7% (55.0%, 87.7%) | 106.3/163.1 = 65.2% (46.0%, 80.5%) |
| Black or African American | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 45 | 163.1/163.1 = 100.0% (100.0%, 100.0%) | 163.1/163.1 = 100.0% (100.0%, 100.0%) | 163.1/163.1 = 100.0% (100.0%, 100.0%) |
| Black or African American | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 45 | 147.7/163.1 = 90.6% (68.6%, 97.7%) | 163.1/163.1 = 100.0% (100.0%, 100.0%) | 155.4/163.1 = 95.3% (71.7%, 99.4%) |
| Black or African American | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 184 | 1896/2208.2 = 85.9% (78.2%, 91.1%) | 2029.5/2208.2 = 91.9% (84.9%, 95.8%) | 1970.6/2208.2 = 89.2% (81.9%, 93.8%) |
| Black or African American | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 184 | 2208.2/2208.2 = 100.0% (100.0%, 100.0%) | 2208.2/2208.2 = 100.0% (100.0%, 100.0%) | 2208.2/2208.2 = 100.0% (100.0%, 100.0%) |
| Black or African American | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 184 | 2208.2/2208.2 = 100.0% (100.0%, 100.0%) | 2208.2/2208.2 = 100.0% (100.0%, 100.0%) | 2208.2/2208.2 = 100.0% (100.0%, 100.0%) |
| Black or African American | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 58 | 238.1/246.7 = 96.5% (77.9%, 99.5%) | 246.7/246.7 = 100.0% (100.0%, 100.0%) | 238.1/246.7 = 96.5% (77.9%, 99.5%) |
| Black or African American | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 58 | 246.7/246.7 = 100.0% (100.0%, 100.0%) | 246.7/246.7 = 100.0% (100.0%, 100.0%) | 246.7/246.7 = 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 |
|---------------------------|--------|---------|---------------------|------------------------|----|--|--|--|
| Black or African American | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 58 | 246.7/246.7 = 100.0% (100.0%, 100.0%) | 246.7/246.7 = 100.0% (100.0%, 100.0%) | 246.7/246.7 = 100.0% (100.0%, 100.0%) |
| Black or African American | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 40 | 0/2287.9 = 0.0% (0.0%, 0.0%) | 0/2287.9 = 0.0% (0.0%, 0.0%) | 0/2287.9 = 0.0% (0.0%, 0.0%) |
| Black or African American | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 40 | 0/2287.9 = 0.0% (0.0%, 0.0%) | 0/2287.9 = 0.0% (0.0%, 0.0%) | 0/2287.9 = 0.0% (0.0%, 0.0%) |
| Black or African American | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 40 | 0/2287.9 = 0.0% (0.0%, 0.0%) | 0/2287.9 = 0.0% (0.0%, 0.0%) | 0/2287.9 = 0.0% (0.0%, 0.0%) |
| Black or African American | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 45 | 126.2/163.1 = 77.4% (56.8%, 89.9%) | 146/163.1 = 89.5% (68.7%, 97.1%) | 133.9/163.1 = 82.1% (61.5%, 93.0%) |
| Black or African American | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 45 | 163.1/163.1 = 100.0% (100.0%, 100.0%) | 163.1/163.1 = 100.0% (100.0%, 100.0%) | 163.1/163.1 = 100.0% (100.0%, 100.0%) |
| Black or African American | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 45 | 163.1/163.1 = 100.0% (100.0%, 100.0%) | 163.1/163.1 = 100.0% (100.0%, 100.0%) | 163.1/163.1 = 100.0% (100.0%, 100.0%) |
| Asian | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 56 | 675.8/943.6 = 71.6% (54.7%, 84.1%) | 838.1/943.6 = 88.8% (73.5%, 95.8%) | 682.7/943.6 = 72.4% (55.3%, 84.7%) |
| Asian | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 56 | 923.8/943.6 = 97.9% (85.9%, 99.7%) | 943.6/943.6 = 100.0% (100.0%, 100.0%) | 923.8/943.6 = 97.9% (85.9%, 99.7%) |
| Asian | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 56 | 943.6/943.6 = 100.0% (100.0%, 100.0%) | 943.6/943.6 = 100.0% (100.0%, 100.0%) | 943.6/943.6 = 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 |
|-------|--------|---------|---------------------|------------------------|----|--|--|--|
| Asian | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 19 | 89.3/122.1 = 73.1% (46.3%, 89.6%) | 102.4/122.1 = 83.9% (56.8%, 95.4%) | 95.9/122.1 = 78.5% (51.5%, 92.6%) |
| Asian | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 19 | 122.1/122.1 = 100.0% (100.0%, 100.0%) | 122.1/122.1 = 100.0% (100.0%, 100.0%) | 122.1/122.1 = 100.0% (100.0%, 100.0%) |
| Asian | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 19 | 122.1/122.1 = 100.0% (100.0%, 100.0%) | 122.1/122.1 = 100.0% (100.0%, 100.0%) | 122.1/122.1 = 100.0% (100.0%, 100.0%) |
| Asian | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 10 | 0/921.8 = 0.0% (0.0%, 0.0%) | 0/921.8 = 0.0% (0.0%, 0.0%) | 0/921.8 = 0.0% (0.0%, 0.0%) |
| Asian | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 10 | 0/921.8 = 0.0% (0.0%, 0.0%) | 0/921.8 = 0.0% (0.0%, 0.0%) | 0/921.8 = 0.0% (0.0%, 0.0%) |
| Asian | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 10 | 0/921.8 = 0.0% (0.0%, 0.0%) | 0/921.8 = 0.0% (0.0%, 0.0%) | 0/921.8 = 0.0% (0.0%, 0.0%) |
| Asian | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 27 | 60.4/140.4 = 43.0% (22.4%, 66.3%) | 97.2/140.4 = 69.2% (43.3%, 86.9%) | 82.7/140.4 = 58.9% (35.1%, 79.1%) |
| Asian | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 27 | 135.2/140.4 = 96.3% (75.3%, 99.5%) | 135.2/140.4 = 96.3% (75.3%, 99.5%) | 135.2/140.4 = 96.3% (75.3%, 99.5%) |
| Asian | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 27 | 140.4/140.4 = 100.0% (100.0%, 100.0%) | 140.4/140.4 = 100.0% (100.0%, 100.0%) | 140.4/140.4 = 100.0% (100.0%, 100.0%) |
| Asian | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 56 | 832/943.6 = 88.2% (72.3%, 95.5%) | 916.1/943.6 = 97.1% (81.4%, 99.6%) | 896.4/943.6 = 95.0% (81.3%, 98.8%) |
| Asian | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 56 | 943.6/943.6 = 100.0% (100.0%, 100.0%) | 943.6/943.6 = 100.0% (100.0%, 100.0%) | 943.6/943.6 = 100.0% (100.0%, 100.0%) |
| Asian | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 56 | 943.6/943.6 = 100.0% (100.0%, 100.0%) | 943.6/943.6 = 100.0% (100.0%, 100.0%) | 943.6/943.6 = 100.0% (100.0%, 100.0%) |
| Asian | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 19 | 122.1/122.1 = 100.0% (100.0%, 100.0%) | 122.1/122.1 = 100.0% (100.0%, 100.0%) | 122.1/122.1 = 100.0% (100.0%, 100.0%) |
| Asian | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 19 | 122.1/122.1 = 100.0% (100.0%, 100.0%) | 122.1/122.1 = 100.0% (100.0%, 100.0%) | 122.1/122.1 = 100.0% (100.0%, 100.0%) |
| Asian | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 19 | 122.1/122.1 = 100.0% (100.0%, 100.0%) | 122.1/122.1 = 100.0% (100.0%, 100.0%) | 122.1/122.1 = 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) | 10 | 0/921.8 = 0.0% (0.0%, 0.0%) | 0/921.8 = 0.0% (0.0%, 0.0%) | 0/921.8 = 0.0% (0.0%, 0.0%) |
| Asian | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 10 | 0/921.8 = 0.0% (0.0%, 0.0%) | 0/921.8 = 0.0% (0.0%, 0.0%) | 0/921.8 = 0.0% (0.0%, 0.0%) |
| Asian | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 10 | 0/921.8 = 0.0% (0.0%, 0.0%) | 0/921.8 = 0.0% (0.0%, 0.0%) | 0/921.8 = 0.0% (0.0%, 0.0%) |
| Asian | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 27 | 100.4/140.4 = 71.5% (45.2%, 88.4%) | 105.6/140.4 = 75.2% (48.1%, 90.9%) | 105.6/140.4 = 75.2% (48.1%, 90.9%) |
| Asian | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 27 | 140.4/140.4 = 100.0% (100.0%, 100.0%) | 140.4/140.4 = 100.0% (100.0%, 100.0%) | 140.4/140.4 = 100.0% (100.0%, 100.0%) |
| Asian | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 27 | 140.4/140.4 = 100.0% (100.0%, 100.0%) | 140.4/140.4 = 100.0% (100.0%, 100.0%) | 140.4/140.4 = 100.0% (100.0%, 100.0%) |
| American Indian or Alaska Native | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 16 | 87.8/185.7 = 47.2% (18.5%, 77.9%) | 120/185.7 = 64.6% (27.9%, 89.6%) | 92.6/185.7 = 49.8% (19.9%, 79.9%) |
| American Indian or Alaska Native | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 16 | 185.7/185.7 = 100.0% (100.0%, 100.0%) | 185.7/185.7 = 100.0% (100.0%, 100.0%) | 185.7/185.7 = 100.0% (100.0%, 100.0%) |
| American Indian or Alaska Native | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 16 | 185.7/185.7 = 100.0% (100.0%, 100.0%) | 185.7/185.7 = 100.0% (100.0%, 100.0%) | 185.7/185.7 = 100.0% (100.0%, 100.0%) |
| American Indian or Alaska Native | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 10 | 32.2/42.3 = 76.2% (23.7%, 97.1%) | 42.3/42.3 = 100.0% (100.0%, 100.0%) | 42.3/42.3 = 100.0% (100.0%, 100.0%) |
| American Indian or Alaska Native | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 10 | 42.3/42.3 = 100.0% (100.0%, 100.0%) | 42.3/42.3 = 100.0% (100.0%, 100.0%) | 42.3/42.3 = 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 |
|----------------------------------|--------|---------|---------------------|------------------------|----|--|--|--|
| American Indian or Alaska Native | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 10 | 33.7/42.3 = 79.6% (22.4%, 98.1%) | 42.3/42.3 = 100.0% (100.0%, 100.0%) | 33.7/42.3 = 79.6% (22.4%, 98.1%) |
| American Indian or Alaska Native | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 2 | 0/130 = 0.0% | 0/130 = 0.0% | 0/130 = 0.0% |
| American Indian or Alaska Native | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 2 | 0/130 = 0.0% | 0/130 = 0.0% | 0/130 = 0.0% |
| American Indian or Alaska Native | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 2 | 0/130 = 0.0% | 0/130 = 0.0% | 0/130 = 0.0% |
| American Indian or Alaska Native | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 7 | 13.8/31.9 = 43.2% (6.3%, 89.5%) | 30.2/31.9 = 94.7% (46.4%, 99.7%) | 18.1/31.9 = 56.8% (10.5%, 93.7%) |
| American Indian or Alaska Native | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 7 | 31.9/31.9 = 100.0% (100.0%, 100.0%) | 31.9/31.9 = 100.0% (100.0%, 100.0%) | 31.9/31.9 = 100.0% (100.0%, 100.0%) |
| American Indian or Alaska Native | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 7 | 31.9/31.9 = 100.0% (100.0%, 100.0%) | 31.9/31.9 = 100.0% (100.0%, 100.0%) | 31.9/31.9 = 100.0% (100.0%, 100.0%) |
| American Indian or Alaska Native | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 16 | 120/185.7 = 64.6% (27.9%, 89.6%) | 158.3/185.7 = 85.2% (36.9%, 98.3%) | 130.9/185.7 = 70.5% (30.2%, 92.9%) |
| American Indian or Alaska Native | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 16 | 185.7/185.7 = 100.0% (100.0%, 100.0%) | 185.7/185.7 = 100.0% (100.0%, 100.0%) | 185.7/185.7 = 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 |
|----------------------------------|--------|---------|---------------------|------------------------|----|--|--|--|
| American Indian or Alaska Native | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 16 | 185.7/185.7 = 100.0% (100.0%, 100.0%) | 185.7/185.7 = 100.0% (100.0%, 100.0%) | 185.7/185.7 = 100.0% (100.0%, 100.0%) |
| American Indian or Alaska Native | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 10 | 42.3/42.3 = 100.0% (100.0%, 100.0%) | 42.3/42.3 = 100.0% (100.0%, 100.0%) | 42.3/42.3 = 100.0% (100.0%, 100.0%) |
| American Indian or Alaska Native | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 10 | 42.3/42.3 = 100.0% (100.0%, 100.0%) | 42.3/42.3 = 100.0% (100.0%, 100.0%) | 42.3/42.3 = 100.0% (100.0%, 100.0%) |
| American Indian or Alaska Native | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 10 | 42.3/42.3 = 100.0% (100.0%, 100.0%) | 42.3/42.3 = 100.0% (100.0%, 100.0%) | 42.3/42.3 = 100.0% (100.0%, 100.0%) |
| American Indian or Alaska Native | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 2 | 0/130 = 0.0% | 0/130 = 0.0% | 0/130 = 0.0% |
| American Indian or Alaska Native | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 2 | 0/130 = 0.0% | 0/130 = 0.0% | 0/130 = 0.0% |
| American Indian or Alaska Native | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 2 | 0/130 = 0.0% | 0/130 = 0.0% | 0/130 = 0.0% |
| American Indian or Alaska Native | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 7 | 31.9/31.9 = 100.0% (100.0%, 100.0%) | 31.9/31.9 = 100.0% (100.0%, 100.0%) | 31.9/31.9 = 100.0% (100.0%, 100.0%) |
| American Indian or Alaska Native | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 7 | 31.9/31.9 = 100.0% (100.0%, 100.0%) | 31.9/31.9 = 100.0% (100.0%, 100.0%) | 31.9/31.9 = 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 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 7 | 31.9/31.9 = 100.0% (100.0%, 100.0%) | 31.9/31.9 = 100.0% (100.0%, 100.0%) | 31.9/31.9 = 100.0% (100.0%, 100.0%) |
| Native Hawaiian or Other Pacific Islander | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 17 | 105.6/186.3 = 56.7% (26.3%, 82.8%) | 132.2/186.3 = 71.0% (35.8%, 91.5%) | 110.4/186.3 = 59.2% (28.1%, 84.4%) |
| Native Hawaiian or Other Pacific Islander | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 17 | 186.3/186.3 = 100.0% (100.0%, 100.0%) | 186.3/186.3 = 100.0% (100.0%, 100.0%) | 186.3/186.3 = 100.0% (100.0%, 100.0%) |
| Native Hawaiian or Other Pacific Islander | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 17 | 186.3/186.3 = 100.0% (100.0%, 100.0%) | 186.3/186.3 = 100.0% (100.0%, 100.0%) | 186.3/186.3 = 100.0% (100.0%, 100.0%) |
| Native Hawaiian or Other Pacific Islander | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 4 | 12.9/12.9 = 100.0% (100.0%, 100.0%) | 12.9/12.9 = 100.0% (100.0%, 100.0%) | 12.9/12.9 = 100.0% (100.0%, 100.0%) |
| Native Hawaiian or Other Pacific Islander | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 4 | 12.9/12.9 = 100.0% (100.0%, 100.0%) | 12.9/12.9 = 100.0% (100.0%, 100.0%) | 12.9/12.9 = 100.0% (100.0%, 100.0%) |
| Native Hawaiian or Other Pacific Islander | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 4 | 12.9/12.9 = 100.0% (100.0%, 100.0%) | 12.9/12.9 = 100.0% (100.0%, 100.0%) | 12.9/12.9 = 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 |
|---|--------|---------|---------------------|------------------------|----|--|--|--|
| Native Hawaiian or Other Pacific Islander | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 2 | 0/194.3 = 0.0% | 0/194.3 = 0.0% | 0/194.3 = 0.0% |
| Native Hawaiian or Other Pacific Islander | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 2 | 0/194.3 = 0.0% | 0/194.3 = 0.0% | 0/194.3 = 0.0% |
| Native Hawaiian or Other Pacific Islander | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 2 | 0/194.3 = 0.0% | 0/194.3 = 0.0% | 0/194.3 = 0.0% |
| Native Hawaiian or Other Pacific Islander | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 2 | 9.4/9.4 = 100.0% | 9.4/9.4 = 100.0% | 9.4/9.4 = 100.0% |
| Native Hawaiian or Other Pacific Islander | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 2 | 9.4/9.4 = 100.0% | 9.4/9.4 = 100.0% | 9.4/9.4 = 100.0% |
| Native Hawaiian or Other Pacific Islander | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 2 | 9.4/9.4 = 100.0% | 9.4/9.4 = 100.0% | 9.4/9.4 = 100.0% |
| Native Hawaiian or Other Pacific Islander | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 17 | 186.3/186.3 = 100.0% (100.0%, 100.0%) | 186.3/186.3 = 100.0% (100.0%, 100.0%) | 186.3/186.3 = 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 |
|---|--------|---------|---------------------|------------------------|----|--|--|--|
| Native Hawaiian or Other Pacific Islander | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 17 | 186.3/186.3 = 100.0% (100.0%, 100.0%) | 186.3/186.3 = 100.0% (100.0%, 100.0%) | 186.3/186.3 = 100.0% (100.0%, 100.0%) |
| Native Hawaiian or Other Pacific Islander | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 17 | 186.3/186.3 = 100.0% (100.0%, 100.0%) | 186.3/186.3 = 100.0% (100.0%, 100.0%) | 186.3/186.3 = 100.0% (100.0%, 100.0%) |
| Native Hawaiian or Other Pacific Islander | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 4 | 12.9/12.9 = 100.0% (100.0%, 100.0%) | 12.9/12.9 = 100.0% (100.0%, 100.0%) | 12.9/12.9 = 100.0% (100.0%, 100.0%) |
| Native Hawaiian or Other Pacific Islander | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 4 | 12.9/12.9 = 100.0% (100.0%, 100.0%) | 12.9/12.9 = 100.0% (100.0%, 100.0%) | 12.9/12.9 = 100.0% (100.0%, 100.0%) |
| Native Hawaiian or Other Pacific Islander | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 4 | 12.9/12.9 = 100.0% (100.0%, 100.0%) | 12.9/12.9 = 100.0% (100.0%, 100.0%) | 12.9/12.9 = 100.0% (100.0%, 100.0%) |
| Native Hawaiian or Other Pacific Islander | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 2 | 0/194.3 = 0.0% | 0/194.3 = 0.0% | 0/194.3 = 0.0% |
| Native Hawaiian or Other Pacific Islander | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 2 | 0/194.3 = 0.0% | 0/194.3 = 0.0% | 0/194.3 = 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) | 2 | 0/194.3 = 0.0% | 0/194.3 = 0.0% | 0/194.3 = 0.0% |
| Native Hawaiian or Other Pacific Islander | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 2 | 9.4/9.4 = 100.0% | 9.4/9.4 = 100.0% | 9.4/9.4 = 100.0% |
| Native Hawaiian or Other Pacific Islander | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 2 | 9.4/9.4 = 100.0% | 9.4/9.4 = 100.0% | 9.4/9.4 = 100.0% |
| Native Hawaiian or Other Pacific Islander | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 2 | 9.4/9.4 = 100.0% | 9.4/9.4 = 100.0% | 9.4/9.4 = 100.0% |
| Multiracial | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 57 | 608.5/725.5 = 83.9% (70.5%, 91.9%) | 658.5/725.5 = 90.8% (76.9%, 96.7%) | 608.5/725.5 = 83.9% (70.5%, 91.9%) |
| Multiracial | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 57 | 725.5/725.5 = 100.0% (100.0%, 100.0%) | 725.5/725.5 = 100.0% (100.0%, 100.0%) | 725.5/725.5 = 100.0% (100.0%, 100.0%) |
| Multiracial | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 57 | 725.5/725.5 = 100.0% (100.0%, 100.0%) | 725.5/725.5 = 100.0% (100.0%, 100.0%) | 725.5/725.5 = 100.0% (100.0%, 100.0%) |
| Multiracial | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 10 | 20.7/40.5 = 51.1% (13.8%, 87.2%) | 40.5/40.5 = 100.0% (100.0%, 100.0%) | 20.7/40.5 = 51.1% (13.8%, 87.2%) |
| Multiracial | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 10 | 40.5/40.5 = 100.0% (100.0%, 100.0%) | 40.5/40.5 = 100.0% (100.0%, 100.0%) | 40.5/40.5 = 100.0% (100.0%, 100.0%) |
| Multiracial | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 10 | 40.5/40.5 = 100.0% (100.0%, 100.0%) | 40.5/40.5 = 100.0% (100.0%, 100.0%) | 40.5/40.5 = 100.0% (100.0%, 100.0%) |
| Multiracial | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 8 | 0/387.8 = 0.0% (0.0%, 0.0%) | 0/387.8 = 0.0% (0.0%, 0.0%) | 0/387.8 = 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 |
|-------------|--------|---------|---------------------|------------------------|----|--|--|--|
| Multiracial | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 8 | 0/387.8 = 0.0% (0.0%, 0.0%) | 0/387.8 = 0.0% (0.0%, 0.0%) | 0/387.8 = 0.0% (0.0%, 0.0%) |
| Multiracial | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 8 | 0/387.8 = 0.0% (0.0%, 0.0%) | 0/387.8 = 0.0% (0.0%, 0.0%) | 0/387.8 = 0.0% (0.0%, 0.0%) |
| Multiracial | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 16 | 20.3/48.2 = 42.2% (17.5%, 71.5%) | 35.7/48.2 = 74.1% (41.3%, 92.1%) | 20.3/48.2 = 42.2% (17.5%, 71.5%) |
| Multiracial | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 16 | 48.2/48.2 = 100.0% (100.0%, 100.0%) | 48.2/48.2 = 100.0% (100.0%, 100.0%) | 48.2/48.2 = 100.0% (100.0%, 100.0%) |
| Multiracial | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 16 | 48.2/48.2 = 100.0% (100.0%, 100.0%) | 48.2/48.2 = 100.0% (100.0%, 100.0%) | 48.2/48.2 = 100.0% (100.0%, 100.0%) |
| Multiracial | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 57 | 601/725.5 = 82.8% (64.9%, 92.6%) | 683.9/725.5 = 94.3% (82.4%, 98.3%) | 601/725.5 = 82.8% (64.9%, 92.6%) |
| Multiracial | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 57 | 725.5/725.5 = 100.0% (100.0%, 100.0%) | 725.5/725.5 = 100.0% (100.0%, 100.0%) | 725.5/725.5 = 100.0% (100.0%, 100.0%) |
| Multiracial | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 57 | 725.5/725.5 = 100.0% (100.0%, 100.0%) | 725.5/725.5 = 100.0% (100.0%, 100.0%) | 725.5/725.5 = 100.0% (100.0%, 100.0%) |
| Multiracial | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 10 | 31.9/40.5 = 78.7% (19.4%, 98.3%) | 31.9/40.5 = 78.7% (19.4%, 98.3%) | 31.9/40.5 = 78.7% (19.4%, 98.3%) |
| Multiracial | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 10 | 40.5/40.5 = 100.0% (100.0%, 100.0%) | 40.5/40.5 = 100.0% (100.0%, 100.0%) | 40.5/40.5 = 100.0% (100.0%, 100.0%) |
| Multiracial | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 10 | 40.5/40.5 = 100.0% (100.0%, 100.0%) | 40.5/40.5 = 100.0% (100.0%, 100.0%) | 40.5/40.5 = 100.0% (100.0%, 100.0%) |
| Multiracial | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 8 | 0/387.8 = 0.0% (0.0%, 0.0%) | 0/387.8 = 0.0% (0.0%, 0.0%) | 0/387.8 = 0.0% (0.0%, 0.0%) |
| Multiracial | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 8 | 0/387.8 = 0.0% (0.0%, 0.0%) | 0/387.8 = 0.0% (0.0%, 0.0%) | 0/387.8 = 0.0% (0.0%, 0.0%) |
| Multiracial | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 8 | 0/387.8 = 0.0% (0.0%, 0.0%) | 0/387.8 = 0.0% (0.0%, 0.0%) | 0/387.8 = 0.0% (0.0%, 0.0%) |
| Multiracial | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 16 | 43.8/48.2 = 90.9% (50.2%, 99.0%) | 43.8/48.2 = 90.9% (50.2%, 99.0%) | 43.8/48.2 = 90.9% (50.2%, 99.0%) |

(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) | 16 | 48.2/48.2 = 100.0% (100.0%, 100.0%) | 48.2/48.2 = 100.0% (100.0%, 100.0%) | 48.2/48.2 = 100.0% (100.0%, 100.0%) |
| Multiracial | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 16 | 48.2/48.2 = 100.0% (100.0%, 100.0%) | 48.2/48.2 = 100.0% (100.0%, 100.0%) | 48.2/48.2 = 100.0% (100.0%, 100.0%) |
| Other | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 16 | 141.2/203.6 = 69.4% (28.5%, 92.8%) | 146/203.6 = 71.7% (29.0%, 94.0%) | 141.2/203.6 = 69.4% (28.5%, 92.8%) |
| Other | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 16 | 203.6/203.6 = 100.0% (100.0%, 100.0%) | 203.6/203.6 = 100.0% (100.0%, 100.0%) | 203.6/203.6 = 100.0% (100.0%, 100.0%) |
| Other | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 16 | 203.6/203.6 = 100.0% (100.0%, 100.0%) | 203.6/203.6 = 100.0% (100.0%, 100.0%) | 203.6/203.6 = 100.0% (100.0%, 100.0%) |
| Other | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 7 | 20.1/24.7 = 81.3% (10.5%, 99.4%) | 24.7/24.7 = 100.0% (100.0%, 100.0%) | 20.1/24.7 = 81.3% (10.5%, 99.4%) |
| Other | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 7 | 24.7/24.7 = 100.0% (100.0%, 100.0%) | 24.7/24.7 = 100.0% (100.0%, 100.0%) | 24.7/24.7 = 100.0% (100.0%, 100.0%) |
| Other | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 7 | 24.7/24.7 = 100.0% (100.0%, 100.0%) | 24.7/24.7 = 100.0% (100.0%, 100.0%) | 24.7/24.7 = 100.0% (100.0%, 100.0%) |
| Other | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 1 | 0/47.7 = 0.0% | 0/47.7 = 0.0% | 0/47.7 = 0.0% |
| Other | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 1 | 0/47.7 = 0.0% | 0/47.7 = 0.0% | 0/47.7 = 0.0% |
| Other | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 1 | 0/47.7 = 0.0% | 0/47.7 = 0.0% | 0/47.7 = 0.0% |
| Other | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 13 | 42/72.9 = 57.6% (22.1%, 86.7%) | 65.2/72.9 = 89.4% (40.7%, 99.1%) | 42/72.9 = 57.6% (22.1%, 86.7%) |
| Other | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 13 | 72.9/72.9 = 100.0% (100.0%, 100.0%) | 72.9/72.9 = 100.0% (100.0%, 100.0%) | 72.9/72.9 = 100.0% (100.0%, 100.0%) |
| Other | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 13 | 72.9/72.9 = 100.0% (100.0%, 100.0%) | 72.9/72.9 = 100.0% (100.0%, 100.0%) | 72.9/72.9 = 100.0% (100.0%, 100.0%) |
| Other | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 16 | 183.8/203.6 = 90.3% (47.3%, 99.0%) | 183.8/203.6 = 90.3% (47.3%, 99.0%) | 183.8/203.6 = 90.3% (47.3%, 99.0%) |
| Other | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 16 | 203.6/203.6 = 100.0% (100.0%, 100.0%) | 203.6/203.6 = 100.0% (100.0%, 100.0%) | 203.6/203.6 = 100.0% (100.0%, 100.0%) |
| Other | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 16 | 203.6/203.6 = 100.0% (100.0%, 100.0%) | 203.6/203.6 = 100.0% (100.0%, 100.0%) | 203.6/203.6 = 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 |
|--------------------------|--------|---------|---------------------|------------------------|----|--|--|--|
| Other | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 7 | 24.7/24.7 = 100.0% (100.0%, 100.0%) | 24.7/24.7 = 100.0% (100.0%, 100.0%) | 24.7/24.7 = 100.0% (100.0%, 100.0%) |
| Other | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 7 | 24.7/24.7 = 100.0% (100.0%, 100.0%) | 24.7/24.7 = 100.0% (100.0%, 100.0%) | 24.7/24.7 = 100.0% (100.0%, 100.0%) |
| Other | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 7 | 24.7/24.7 = 100.0% (100.0%, 100.0%) | 24.7/24.7 = 100.0% (100.0%, 100.0%) | 24.7/24.7 = 100.0% (100.0%, 100.0%) |
| Other | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 1 | 0/47.7 = 0.0% | 0/47.7 = 0.0% | 0/47.7 = 0.0% |
| Other | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 1 | 0/47.7 = 0.0% | 0/47.7 = 0.0% | 0/47.7 = 0.0% |
| Other | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 1 | 0/47.7 = 0.0% | 0/47.7 = 0.0% | 0/47.7 = 0.0% |
| Other | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 13 | 54.1/72.9 = 74.1% (29.8%, 95.1%) | 65.2/72.9 = 89.4% (40.7%, 99.1%) | 54.1/72.9 = 74.1% (29.8%, 95.1%) |
| Other | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 13 | 72.9/72.9 = 100.0% (100.0%, 100.0%) | 72.9/72.9 = 100.0% (100.0%, 100.0%) | 72.9/72.9 = 100.0% (100.0%, 100.0%) |
| Other | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 13 | 72.9/72.9 = 100.0% (100.0%, 100.0%) | 72.9/72.9 = 100.0% (100.0%, 100.0%) | 72.9/72.9 = 100.0% (100.0%, 100.0%) |
| Not reported and unknown | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 4 | 14.4/25.4 = 56.9% (0.9%, 99.5%) | 14.4/25.4 = 56.9% (0.9%, 99.5%) | 14.4/25.4 = 56.9% (0.9%, 99.5%) |
| Not reported and unknown | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 4 | 25.4/25.4 = 100.0% (100.0%, 100.0%) | 25.4/25.4 = 100.0% (100.0%, 100.0%) | 25.4/25.4 = 100.0% (100.0%, 100.0%) |
| Not reported and unknown | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 4 | 25.4/25.4 = 100.0% (100.0%, 100.0%) | 25.4/25.4 = 100.0% (100.0%, 100.0%) | 25.4/25.4 = 100.0% (100.0%, 100.0%) |
| Not reported and unknown | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 1 | 0/48.4 = 0.0% | 0/48.4 = 0.0% | 0/48.4 = 0.0% |
| Not reported and unknown | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 1 | 0/48.4 = 0.0% | 0/48.4 = 0.0% | 0/48.4 = 0.0% |
| Not reported and unknown | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 1 | 0/48.4 = 0.0% | 0/48.4 = 0.0% | 0/48.4 = 0.0% |
| Not reported and unknown | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 2 | 0/15.4 = 0.0% | 7.7/15.4 = 50.0% | 0/15.4 = 0.0% |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | Responder | % Greater than 2 × LLOQ | % Greater than 4 × LLOQ |
|--------------------------|--------|---------|---------------------|------------------------|---|-------------------------------------|-------------------------------------|-------------------------------------|
| Not reported and unknown | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 2 | 15.4/15.4 = 100.0% | 15.4/15.4 = 100.0% | 15.4/15.4 = 100.0% |
| Not reported and unknown | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 2 | 15.4/15.4 = 100.0% | 15.4/15.4 = 100.0% | 15.4/15.4 = 100.0% |
| Not reported and unknown | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 4 | 25.4/25.4 = 100.0% (100.0%, 100.0%) | 25.4/25.4 = 100.0% (100.0%, 100.0%) | 25.4/25.4 = 100.0% (100.0%, 100.0%) |
| Not reported and unknown | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 4 | 25.4/25.4 = 100.0% (100.0%, 100.0%) | 25.4/25.4 = 100.0% (100.0%, 100.0%) | 25.4/25.4 = 100.0% (100.0%, 100.0%) |
| Not reported and unknown | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 4 | 25.4/25.4 = 100.0% (100.0%, 100.0%) | 25.4/25.4 = 100.0% (100.0%, 100.0%) | 25.4/25.4 = 100.0% (100.0%, 100.0%) |
| Not reported and unknown | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 1 | 0/48.4 = 0.0% | 0/48.4 = 0.0% | 0/48.4 = 0.0% |
| Not reported and unknown | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 1 | 0/48.4 = 0.0% | 0/48.4 = 0.0% | 0/48.4 = 0.0% |
| Not reported and unknown | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 1 | 0/48.4 = 0.0% | 0/48.4 = 0.0% | 0/48.4 = 0.0% |
| Not reported and unknown | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 2 | 7.7/15.4 = 50.0% | 15.4/15.4 = 100.0% | 7.7/15.4 = 50.0% |
| Not reported and unknown | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 2 | 15.4/15.4 = 100.0% | 15.4/15.4 = 100.0% | 15.4/15.4 = 100.0% |
| Not reported and unknown | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 2 | 15.4/15.4 = 100.0% | 15.4/15.4 = 100.0% | 15.4/15.4 = 100.0% |

Binding Antibody Responders are defined as participants with concentration above the specified positivity cut-off, with a separate cut-off for each antigen Spike, RBD, N (10.8424, 14.0858, and 23.4711 respectively, in IU/ml).

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

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) | 377 | 3227.9/4735.3 = 68.2% (61.8%, 73.9%) | 3990.3/4735.3 = 84.3% (78.8%, 88.5%) | 3366.4/4735.3 = 71.1% (64.8%, 76.6%) |
| Communities of Color | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 377 | 4677.2/4735.3 = 98.8% (96.0%, 99.6%) | 4724.3/4735.3 = 99.8% (98.4%, 100.0%) | 4677.2/4735.3 = 98.8% (96.0%, 99.6%) |
| Communities of Color | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 377 | 4724.3/4735.3 = 99.8% (98.4%, 100.0%) | 4735.3/4735.3 = 100.0% (100.0%, 100.0%) | 4735.3/4735.3 = 100.0% (100.0%, 100.0%) |
| Communities of Color | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 116 | 370.8/510.3 = 72.7% (61.4%, 81.6%) | 453.5/510.3 = 88.9% (79.6%, 94.2%) | 400.6/510.3 = 78.5% (67.7%, 86.4%) |
| Communities of Color | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 116 | 505.7/510.3 = 99.1% (93.7%, 99.9%) | 510.3/510.3 = 100.0% (100.0%, 100.0%) | 505.7/510.3 = 99.1% (93.7%, 99.9%) |
| Communities of Color | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 116 | 501.7/510.3 = 98.3% (88.6%, 99.8%) | 510.3/510.3 = 100.0% (100.0%, 100.0%) | 501.7/510.3 = 98.3% (88.6%, 99.8%) |
| Communities of Color | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 75 | 0/4538.9 = 0.0% (0.0%, 0.0%) | 0/4538.9 = 0.0% (0.0%, 0.0%) | 0/4538.9 = 0.0% (0.0%, 0.0%) |
| Communities of Color | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 75 | 0/4538.9 = 0.0% (0.0%, 0.0%) | 0/4538.9 = 0.0% (0.0%, 0.0%) | 0/4538.9 = 0.0% (0.0%, 0.0%) |
| Communities of Color | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 75 | 0/4538.9 = 0.0% (0.0%, 0.0%) | 0/4538.9 = 0.0% (0.0%, 0.0%) | 0/4538.9 = 0.0% (0.0%, 0.0%) |
| Communities of Color | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 120 | 263.3/515.5 = 51.1% (40.2%, 61.9%) | 392.1/515.5 = 76.1% (65.1%, 84.4%) | 297.7/515.5 = 57.7% (46.6%, 68.2%) |
| Communities of Color | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 120 | 510.3/515.5 = 99.0% (93.0%, 99.9%) | 510.3/515.5 = 99.0% (93.0%, 99.9%) | 510.3/515.5 = 99.0% (93.0%, 99.9%) |

(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) | 120 | 492.5/515.5 = 95.5% (87.1%, 98.5%) | 515.5/515.5 = 100.0% (100.0%, 100.0%) | 507.8/515.5 = 98.5% (89.8%, 99.8%) |
| Communities of Color | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 377 | 3999.4/4735.3 = 84.5% (79.0%, 88.7%) | 4392.4/4735.3 = 92.8% (88.6%, 95.5%) | 4160.2/4735.3 = 87.9% (82.8%, 91.6%) |
| Communities of Color | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 377 | 4735.3/4735.3 = 100.0% (100.0%, 100.0%) | 4735.3/4735.3 = 100.0% (100.0%, 100.0%) | 4735.3/4735.3 = 100.0% (100.0%, 100.0%) |
| Communities of Color | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 377 | 4735.3/4735.3 = 100.0% (100.0%, 100.0%) | 4735.3/4735.3 = 100.0% (100.0%, 100.0%) | 4735.3/4735.3 = 100.0% (100.0%, 100.0%) |
| Communities of Color | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 116 | 488.5/510.3 = 95.7% (86.9%, 98.7%) | 497.1/510.3 = 97.4% (89.3%, 99.4%) | 488.5/510.3 = 95.7% (86.9%, 98.7%) |
| Communities of Color | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 116 | 510.3/510.3 = 100.0% (100.0%, 100.0%) | 510.3/510.3 = 100.0% (100.0%, 100.0%) | 510.3/510.3 = 100.0% (100.0%, 100.0%) |
| Communities of Color | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 116 | 510.3/510.3 = 100.0% (100.0%, 100.0%) | 510.3/510.3 = 100.0% (100.0%, 100.0%) | 510.3/510.3 = 100.0% (100.0%, 100.0%) |
| Communities of Color | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 75 | 0/4538.9 = 0.0% (0.0%, 0.0%) | 0/4538.9 = 0.0% (0.0%, 0.0%) | 0/4538.9 = 0.0% (0.0%, 0.0%) |
| Communities of Color | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 75 | 0/4538.9 = 0.0% (0.0%, 0.0%) | 0/4538.9 = 0.0% (0.0%, 0.0%) | 0/4538.9 = 0.0% (0.0%, 0.0%) |
| Communities of Color | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 75 | 0/4538.9 = 0.0% (0.0%, 0.0%) | 0/4538.9 = 0.0% (0.0%, 0.0%) | 0/4538.9 = 0.0% (0.0%, 0.0%) |
| Communities of Color | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 120 | 407.7/515.5 = 79.1% (67.7%, 87.2%) | 451.6/515.5 = 87.6% (77.1%, 93.7%) | 420.7/515.5 = 81.6% (70.3%, 89.3%) |
| Communities of Color | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 120 | 515.5/515.5 = 100.0% (100.0%, 100.0%) | 515.5/515.5 = 100.0% (100.0%, 100.0%) | 515.5/515.5 = 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 |
|----------------------|--------|---------|---------------------|------------------------|-----|--|--|--|
| Communities of Color | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 120 | 515.5/515.5 = 100.0% (100.0%, 100.0%) | 515.5/515.5 = 100.0% (100.0%, 100.0%) | 515.5/515.5 = 100.0% (100.0%, 100.0%) |
| White Non-Hispanic | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 370 | 3671.4/6391.7 = 57.4% (51.0%, 63.6%) | 4873/6391.7 = 76.2% (70.1%, 81.4%) | 4015.5/6391.7 = 62.8% (56.4%, 68.8%) |
| White Non-Hispanic | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 370 | 6276.7/6391.7 = 98.2% (95.1%, 99.4%) | 6391.7/6391.7 = 100.0% (100.0%, 100.0%) | 6276.7/6391.7 = 98.2% (95.1%, 99.4%) |
| White Non-Hispanic | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 370 | 6314.5/6391.7 = 98.8% (96.1%, 99.6%) | 6391.7/6391.7 = 100.0% (100.0%, 100.0%) | 6372/6391.7 = 99.7% (97.8%, 100.0%) |
| White Non-Hispanic | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 118 | 569.8/723.7 = 78.7% (67.6%, 86.8%) | 619.4/723.7 = 85.6% (74.6%, 92.3%) | 585.4/723.7 = 80.9% (69.7%, 88.6%) |
| White Non-Hispanic | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 118 | 723.7/723.7 = 100.0% (100.0%, 100.0%) | 723.7/723.7 = 100.0% (100.0%, 100.0%) | 723.7/723.7 = 100.0% (100.0%, 100.0%) |
| White Non-Hispanic | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 118 | 723.7/723.7 = 100.0% (100.0%, 100.0%) | 723.7/723.7 = 100.0% (100.0%, 100.0%) | 723.7/723.7 = 100.0% (100.0%, 100.0%) |
| White Non-Hispanic | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 63 | 0/6564.1 = 0.0% (0.0%, 0.0%) | 0/6564.1 = 0.0% (0.0%, 0.0%) | 0/6564.1 = 0.0% (0.0%, 0.0%) |
| White Non-Hispanic | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 63 | 0/6564.1 = 0.0% (0.0%, 0.0%) | 0/6564.1 = 0.0% (0.0%, 0.0%) | 0/6564.1 = 0.0% (0.0%, 0.0%) |
| White Non-Hispanic | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 63 | 0/6564.1 = 0.0% (0.0%, 0.0%) | 0/6564.1 = 0.0% (0.0%, 0.0%) | 0/6564.1 = 0.0% (0.0%, 0.0%) |
| White Non-Hispanic | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 121 | 339/609.5 = 55.6% (44.3%, 66.4%) | 432.7/609.5 = 71.0% (59.3%, 80.4%) | 360.3/609.5 = 59.1% (47.6%, 69.7%) |
| White Non-Hispanic | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 121 | 553.7/609.5 = 90.8% (80.0%, 96.1%) | 598.3/609.5 = 98.2% (87.8%, 99.8%) | 553.7/609.5 = 90.8% (80.0%, 96.1%) |

(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) | 121 | 598.3/609.5 = 98.2% (87.8%, 99.8%) | 609.5/609.5 = 100.0% (100.0%, 100.0%) | 598.3/609.5 = 98.2% (87.8%, 99.8%) |
| White Non-Hispanic | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 370 | 5052.5/6391.7 = 79.0% (73.1%, 84.0%) | 5723/6391.7 = 89.5% (84.7%, 93.0%) | 5219/6391.7 = 81.7% (75.9%, 86.3%) |
| White Non-Hispanic | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 370 | 6372/6391.7 = 99.7% (97.8%, 100.0%) | 6391.7/6391.7 = 100.0% (100.0%, 100.0%) | 6372/6391.7 = 99.7% (97.8%, 100.0%) |
| White Non-Hispanic | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 370 | 6391.7/6391.7 = 100.0% (100.0%, 100.0%) | 6391.7/6391.7 = 100.0% (100.0%, 100.0%) | 6391.7/6391.7 = 100.0% (100.0%, 100.0%) |
| White Non-Hispanic | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 118 | 690.6/723.7 = 95.4% (86.0%, 98.6%) | 690.6/723.7 = 95.4% (86.0%, 98.6%) | 690.6/723.7 = 95.4% (86.0%, 98.6%) |
| White Non-Hispanic | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 118 | 723.7/723.7 = 100.0% (100.0%, 100.0%) | 723.7/723.7 = 100.0% (100.0%, 100.0%) | 723.7/723.7 = 100.0% (100.0%, 100.0%) |
| White Non-Hispanic | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 118 | 723.7/723.7 = 100.0% (100.0%, 100.0%) | 723.7/723.7 = 100.0% (100.0%, 100.0%) | 723.7/723.7 = 100.0% (100.0%, 100.0%) |
| White Non-Hispanic | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 63 | 0/6564.1 = 0.0% (0.0%, 0.0%) | 0/6564.1 = 0.0% (0.0%, 0.0%) | 0/6564.1 = 0.0% (0.0%, 0.0%) |
| White Non-Hispanic | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 63 | 0/6564.1 = 0.0% (0.0%, 0.0%) | 0/6564.1 = 0.0% (0.0%, 0.0%) | 0/6564.1 = 0.0% (0.0%, 0.0%) |
| White Non-Hispanic | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 63 | 0/6564.1 = 0.0% (0.0%, 0.0%) | 0/6564.1 = 0.0% (0.0%, 0.0%) | 0/6564.1 = 0.0% (0.0%, 0.0%) |
| White Non-Hispanic | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 121 | 455.4/609.5 = 74.7% (63.2%, 83.6%) | 518.7/609.5 = 85.1% (74.3%, 91.9%) | 464.8/609.5 = 76.3% (64.6%, 84.9%) |
| White Non-Hispanic | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 121 | 609.5/609.5 = 100.0% (100.0%, 100.0%) | 609.5/609.5 = 100.0% (100.0%, 100.0%) | 609.5/609.5 = 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 |
|--------------------|--------|---------|---------------------|------------------------|-----|--|--|--|
| White Non-Hispanic | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 121 | 609.5/609.5 = 100.0% (100.0%, 100.0%) | 609.5/609.5 = 100.0% (100.0%, 100.0%) | 609.5/609.5 = 100.0% (100.0%, 100.0%) |

Binding Antibody Responders are defined as participants with concentration above the specified positivity cut-off, with a separate cut-off for each antigen Spike, RBD, N (10.8424, 14.0858, and 23.4711 respectively, in IU/ml).

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

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) | 181 | 2421.6/3706.5 = 65.3% (57.4%, 72.5%) | 3027.5/3706.5 = 81.7% (74.8%, 87.0%) | 2514.8/3706.5 = 67.8% (60.0%, 74.8%) |
| Age < 65 Communities of Color | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 181 | 3648.4/3706.5 = 98.4% (94.9%, 99.5%) | 3695.6/3706.5 = 99.7% (97.9%, 100.0%) | 3648.4/3706.5 = 98.4% (94.9%, 99.5%) |
| Age < 65 Communities of Color | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 181 | 3695.6/3706.5 = 99.7% (97.9%, 100.0%) | 3706.5/3706.5 = 100.0% (100.0%, 100.0%) | 3706.5/3706.5 = 100.0% (100.0%, 100.0%) |
| Age < 65 Communities of Color | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 60 | 284.5/421.1 = 67.6% (54.1%, 78.6%) | 365.7/421.1 = 86.8% (75.7%, 93.3%) | 312.9/421.1 = 74.3% (61.3%, 84.0%) |
| Age < 65 Communities of Color | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 60 | 416.5/421.1 = 98.9% (92.2%, 99.9%) | 421.1/421.1 = 100.0% (100.0%, 100.0%) | 416.5/421.1 = 98.9% (92.2%, 99.9%) |
| Age < 65 Communities of Color | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 60 | 412.5/421.1 = 98.0% (86.1%, 99.7%) | 421.1/421.1 = 100.0% (100.0%, 100.0%) | 412.5/421.1 = 98.0% (86.1%, 99.7%) |
| Age < 65 Communities of Color | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 40 | 0/3256.8 = 0.0% (0.0%, 0.0%) | 0/3256.8 = 0.0% (0.0%, 0.0%) | 0/3256.8 = 0.0% (0.0%, 0.0%) |
| Age < 65 Communities of Color | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 40 | 0/3256.8 = 0.0% (0.0%, 0.0%) | 0/3256.8 = 0.0% (0.0%, 0.0%) | 0/3256.8 = 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 Communities of Color | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 40 | 0/3256.8 = 0.0% (0.0%, 0.0%) | 0/3256.8 = 0.0% (0.0%, 0.0%) | 0/3256.8 = 0.0% (0.0%, 0.0%) |
| Age < 65 Communities of Color | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 62 | 181.1/412 = 44.0% (31.2%, 57.5%) | 300.7/412 = 73.0% (59.5%, 83.3%) | 215.5/412 = 52.3% (38.9%, 65.4%) |
| Age < 65 Communities of Color | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 62 | 406.7/412 = 98.7% (91.2%, 99.8%) | 406.7/412 = 98.7% (91.2%, 99.8%) | 406.7/412 = 98.7% (91.2%, 99.8%) |
| Age < 65 Communities of Color | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 62 | 388.9/412 = 94.4% (83.8%, 98.2%) | 412/412 = 100.0% (100.0%, 100.0%) | 404.3/412 = 98.1% (87.2%, 99.8%) |
| Age < 65 Communities of Color | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 181 | 3037.2/3706.5 = 81.9% (75.1%, 87.2%) | 3387.7/3706.5 = 91.4% (86.0%, 94.8%) | 3176.8/3706.5 = 85.7% (79.3%, 90.4%) |
| Age < 65 Communities of Color | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 181 | 3706.5/3706.5 = 100.0% (100.0%, 100.0%) | 3706.5/3706.5 = 100.0% (100.0%, 100.0%) | 3706.5/3706.5 = 100.0% (100.0%, 100.0%) |
| Age < 65 Communities of Color | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 181 | 3706.5/3706.5 = 100.0% (100.0%, 100.0%) | 3706.5/3706.5 = 100.0% (100.0%, 100.0%) | 3706.5/3706.5 = 100.0% (100.0%, 100.0%) |
| Age < 65 Communities of Color | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 60 | 399.2/421.1 = 94.8% (84.1%, 98.4%) | 407.9/421.1 = 96.9% (87.0%, 99.3%) | 399.2/421.1 = 94.8% (84.1%, 98.4%) |
| Age < 65 Communities of Color | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 60 | 421.1/421.1 = 100.0% (100.0%, 100.0%) | 421.1/421.1 = 100.0% (100.0%, 100.0%) | 421.1/421.1 = 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) | 60 | 421.1/421.1 = 100.0% (100.0%, 100.0%) | 421.1/421.1 = 100.0% (100.0%, 100.0%) | 421.1/421.1 = 100.0% (100.0%, 100.0%) |
| Age < 65 Communities of Color | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 40 | 0/3256.8 = 0.0% (0.0%, 0.0%) | 0/3256.8 = 0.0% (0.0%, 0.0%) | 0/3256.8 = 0.0% (0.0%, 0.0%) |
| Age < 65 Communities of Color | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 40 | 0/3256.8 = 0.0% (0.0%, 0.0%) | 0/3256.8 = 0.0% (0.0%, 0.0%) | 0/3256.8 = 0.0% (0.0%, 0.0%) |
| Age < 65 Communities of Color | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 40 | 0/3256.8 = 0.0% (0.0%, 0.0%) | 0/3256.8 = 0.0% (0.0%, 0.0%) | 0/3256.8 = 0.0% (0.0%, 0.0%) |
| Age < 65 Communities of Color | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 62 | 307.9/412 = 74.7% (60.9%, 84.9%) | 351.7/412 = 85.4% (72.3%, 92.9%) | 320.8/412 = 77.9% (64.0%, 87.4%) |
| Age < 65 Communities of Color | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 62 | 412/412 = 100.0% (100.0%, 100.0%) | 412/412 = 100.0% (100.0%, 100.0%) | 412/412 = 100.0% (100.0%, 100.0%) |
| Age < 65 Communities of Color | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 62 | 412/412 = 100.0% (100.0%, 100.0%) | 412/412 = 100.0% (100.0%, 100.0%) | 412/412 = 100.0% (100.0%, 100.0%) |
| Age < 65 White Non-Hispanic | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 176 | 2588.8/5062.5 = 51.1% (43.3%, 58.9%) | 3626/5062.5 = 71.6% (64.0%, 78.2%) | 2878.1/5062.5 = 56.9% (49.0%, 64.4%) |
| Age < 65 White Non-Hispanic | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 176 | 4947.5/5062.5 = 97.7% (93.8%, 99.2%) | 5062.5/5062.5 = 100.0% (100.0%, 100.0%) | 4947.5/5062.5 = 97.7% (93.8%, 99.2%) |

(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) | 176 | 4985.2/5062.5 = 98.5% (95.0%, 99.5%) | 5062.5/5062.5 = 100.0% (100.0%, 100.0%) | 5042.8/5062.5 = 99.6% (97.2%, 99.9%) |
| Age < 65 White Non-Hispanic | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 54 | 423.2/561.9 = 75.3% (61.1%, 85.6%) | 462.7/561.9 = 82.3% (68.3%, 91.0%) | 436.3/561.9 = 77.6% (63.3%, 87.5%) |
| Age < 65 White Non-Hispanic | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 54 | 561.9/561.9 = 100.0% (100.0%, 100.0%) | 561.9/561.9 = 100.0% (100.0%, 100.0%) | 561.9/561.9 = 100.0% (100.0%, 100.0%) |
| Age < 65 White Non-Hispanic | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 54 | 561.9/561.9 = 100.0% (100.0%, 100.0%) | 561.9/561.9 = 100.0% (100.0%, 100.0%) | 561.9/561.9 = 100.0% (100.0%, 100.0%) |
| Age < 65 White Non-Hispanic | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 32 | 0/5086.2 = 0.0% (0.0%, 0.0%) | 0/5086.2 = 0.0% (0.0%, 0.0%) | 0/5086.2 = 0.0% (0.0%, 0.0%) |
| Age < 65 White Non-Hispanic | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 32 | 0/5086.2 = 0.0% (0.0%, 0.0%) | 0/5086.2 = 0.0% (0.0%, 0.0%) | 0/5086.2 = 0.0% (0.0%, 0.0%) |
| Age < 65 White Non-Hispanic | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 32 | 0/5086.2 = 0.0% (0.0%, 0.0%) | 0/5086.2 = 0.0% (0.0%, 0.0%) | 0/5086.2 = 0.0% (0.0%, 0.0%) |
| Age < 65 White Non-Hispanic | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 58 | 239.1/481 = 49.7% (36.1%, 63.4%) | 316.5/481 = 65.8% (51.4%, 77.8%) | 250.3/481 = 52.0% (38.2%, 65.6%) |
| Age < 65 White Non-Hispanic | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 58 | 425.2/481 = 88.4% (74.8%, 95.1%) | 469.9/481 = 97.7% (84.5%, 99.7%) | 425.2/481 = 88.4% (74.8%, 95.1%) |

(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) | 58 | 469.9/481 = 97.7% (84.5%, 99.7%) | 481/481 = 100.0% (100.0%, 100.0%) | 469.9/481 = 97.7% (84.5%, 99.7%) |
| Age < 65 White Non-Hispanic | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 176 | 3798.6/5062.5 = 75.0% (67.6%, 81.2%) | 4428/5062.5 = 87.5% (81.4%, 91.7%) | 3951.4/5062.5 = 78.1% (70.9%, 83.9%) |
| Age < 65 White Non-Hispanic | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 176 | 5042.8/5062.5 = 99.6% (97.2%, 99.9%) | 5062.5/5062.5 = 100.0% (100.0%, 100.0%) | 5042.8/5062.5 = 99.6% (97.2%, 99.9%) |
| Age < 65 White Non-Hispanic | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 176 | 5062.5/5062.5 = 100.0% (100.0%, 100.0%) | 5062.5/5062.5 = 100.0% (100.0%, 100.0%) | 5062.5/5062.5 = 100.0% (100.0%, 100.0%) |
| Age < 65 White Non-Hispanic | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 54 | 528.8/561.9 = 94.1% (82.0%, 98.3%) | 528.8/561.9 = 94.1% (82.0%, 98.3%) | 528.8/561.9 = 94.1% (82.0%, 98.3%) |
| Age < 65 White Non-Hispanic | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 54 | 561.9/561.9 = 100.0% (100.0%, 100.0%) | 561.9/561.9 = 100.0% (100.0%, 100.0%) | 561.9/561.9 = 100.0% (100.0%, 100.0%) |
| Age < 65 White Non-Hispanic | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 54 | 561.9/561.9 = 100.0% (100.0%, 100.0%) | 561.9/561.9 = 100.0% (100.0%, 100.0%) | 561.9/561.9 = 100.0% (100.0%, 100.0%) |
| Age < 65 White Non-Hispanic | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 32 | 0/5086.2 = 0.0% (0.0%, 0.0%) | 0/5086.2 = 0.0% (0.0%, 0.0%) | 0/5086.2 = 0.0% (0.0%, 0.0%) |
| Age < 65 White Non-Hispanic | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 32 | 0/5086.2 = 0.0% (0.0%, 0.0%) | 0/5086.2 = 0.0% (0.0%, 0.0%) | 0/5086.2 = 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 White Non-Hispanic | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 32 | 0/5086.2 = 0.0% (0.0%, 0.0%) | 0/5086.2 = 0.0% (0.0%, 0.0%) | 0/5086.2 = 0.0% (0.0%, 0.0%) |
| Age < 65 White Non-Hispanic | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 58 | 343.3/481 = 71.4% (56.9%, 82.5%) | 398.4/481 = 82.8% (69.1%, 91.2%) | 348.6/481 = 72.5% (58.0%, 83.4%) |
| Age < 65 White Non-Hispanic | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 58 | 481/481 = 100.0% (100.0%, 100.0%) | 481/481 = 100.0% (100.0%, 100.0%) | 481/481 = 100.0% (100.0%, 100.0%) |
| Age < 65 White Non-Hispanic | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 58 | 481/481 = 100.0% (100.0%, 100.0%) | 481/481 = 100.0% (100.0%, 100.0%) | 481/481 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Communities of Color | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 196 | 806.3/1028.8 = 78.4% (71.9%, 83.7%) | 962.9/1028.8 = 93.6% (88.9%, 96.4%) | 851.6/1028.8 = 82.8% (76.6%, 87.6%) |
| Age ≥ 65 Communities of Color | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 196 | 1028.8/1028.8 = 100.0% (100.0%, 100.0%) | 1028.8/1028.8 = 100.0% (100.0%, 100.0%) | 1028.8/1028.8 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Communities of Color | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 196 | 1028.8/1028.8 = 100.0% (100.0%, 100.0%) | 1028.8/1028.8 = 100.0% (100.0%, 100.0%) | 1028.8/1028.8 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Communities of Color | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 56 | 86.3/89.2 = 96.8% (87.6%, 99.2%) | 87.8/89.2 = 98.4% (88.9%, 99.8%) | 87.8/89.2 = 98.4% (88.9%, 99.8%) |
| Age ≥ 65 Communities of Color | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 56 | 89.2/89.2 = 100.0% (100.0%, 100.0%) | 89.2/89.2 = 100.0% (100.0%, 100.0%) | 89.2/89.2 = 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 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 56 | 89.2/89.2 = 100.0% (100.0%, 100.0%) | 89.2/89.2 = 100.0% (100.0%, 100.0%) | 89.2/89.2 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Communities of Color | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 35 | 0/1282.1 = 0.0% (0.0%, 0.0%) | 0/1282.1 = 0.0% (0.0%, 0.0%) | 0/1282.1 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 Communities of Color | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 35 | 0/1282.1 = 0.0% (0.0%, 0.0%) | 0/1282.1 = 0.0% (0.0%, 0.0%) | 0/1282.1 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 Communities of Color | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 35 | 0/1282.1 = 0.0% (0.0%, 0.0%) | 0/1282.1 = 0.0% (0.0%, 0.0%) | 0/1282.1 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 Communities of Color | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 58 | 82.2/103.6 = 79.3% (66.6%, 88.1%) | 91.4/103.6 = 88.2% (76.8%, 94.4%) | 82.2/103.6 = 79.3% (66.6%, 88.1%) |
| Age ≥ 65 Communities of Color | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 58 | 103.6/103.6 = 100.0% (100.0%, 100.0%) | 103.6/103.6 = 100.0% (100.0%, 100.0%) | 103.6/103.6 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Communities of Color | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 58 | 103.6/103.6 = 100.0% (100.0%, 100.0%) | 103.6/103.6 = 100.0% (100.0%, 100.0%) | 103.6/103.6 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Communities of Color | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 196 | 962.1/1028.8 = 93.5% (89.1%, 96.2%) | 1004.7/1028.8 = 97.7% (94.5%, 99.0%) | 983.4/1028.8 = 95.6% (91.7%, 97.7%) |
| Age ≥ 65 Communities of Color | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 196 | 1028.8/1028.8 = 100.0% (100.0%, 100.0%) | 1028.8/1028.8 = 100.0% (100.0%, 100.0%) | 1028.8/1028.8 = 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) | 196 | 1028.8/1028.8 = 100.0% (100.0%, 100.0%) | 1028.8/1028.8 = 100.0% (100.0%, 100.0%) | 1028.8/1028.8 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Communities of Color | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 56 | 89.2/89.2 = 100.0% (100.0%, 100.0%) | 89.2/89.2 = 100.0% (100.0%, 100.0%) | 89.2/89.2 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Communities of Color | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 56 | 89.2/89.2 = 100.0% (100.0%, 100.0%) | 89.2/89.2 = 100.0% (100.0%, 100.0%) | 89.2/89.2 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Communities of Color | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 56 | 89.2/89.2 = 100.0% (100.0%, 100.0%) | 89.2/89.2 = 100.0% (100.0%, 100.0%) | 89.2/89.2 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Communities of Color | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 35 | 0/1282.1 = 0.0% (0.0%, 0.0%) | 0/1282.1 = 0.0% (0.0%, 0.0%) | 0/1282.1 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 Communities of Color | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 35 | 0/1282.1 = 0.0% (0.0%, 0.0%) | 0/1282.1 = 0.0% (0.0%, 0.0%) | 0/1282.1 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 Communities of Color | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 35 | 0/1282.1 = 0.0% (0.0%, 0.0%) | 0/1282.1 = 0.0% (0.0%, 0.0%) | 0/1282.1 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 Communities of Color | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 58 | 99.8/103.6 = 96.4% (86.2%, 99.1%) | 99.8/103.6 = 96.4% (86.2%, 99.1%) | 99.8/103.6 = 96.4% (86.2%, 99.1%) |
| Age ≥ 65 Communities of Color | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 58 | 103.6/103.6 = 100.0% (100.0%, 100.0%) | 103.6/103.6 = 100.0% (100.0%, 100.0%) | 103.6/103.6 = 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 Communities of Color | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 58 | 103.6/103.6 = 100.0% (100.0%, 100.0%) | 103.6/103.6 = 100.0% (100.0%, 100.0%) | 103.6/103.6 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 White Non-Hispanic | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 194 | 1082.6/1329.2 = 81.4% (75.3%, 86.3%) | 1247/1329.2 = 93.8% (89.4%, 96.5%) | 1137.4/1329.2 = 85.6% (79.8%, 89.9%) |
| Age ≥ 65 White Non-Hispanic | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 194 | 1329.2/1329.2 = 100.0% (100.0%, 100.0%) | 1329.2/1329.2 = 100.0% (100.0%, 100.0%) | 1329.2/1329.2 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 White Non-Hispanic | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 194 | 1329.2/1329.2 = 100.0% (100.0%, 100.0%) | 1329.2/1329.2 = 100.0% (100.0%, 100.0%) | 1329.2/1329.2 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 White Non-Hispanic | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 64 | 146.6/161.8 = 90.6% (80.3%, 95.8%) | 156.7/161.8 = 96.9% (88.0%, 99.2%) | 149.1/161.8 = 92.2% (82.2%, 96.8%) |
| Age ≥ 65 White Non-Hispanic | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 64 | 161.8/161.8 = 100.0% (100.0%, 100.0%) | 161.8/161.8 = 100.0% (100.0%, 100.0%) | 161.8/161.8 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 White Non-Hispanic | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 64 | 161.8/161.8 = 100.0% (100.0%, 100.0%) | 161.8/161.8 = 100.0% (100.0%, 100.0%) | 161.8/161.8 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 White Non-Hispanic | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 31 | 0/1477.9 = 0.0% (0.0%, 0.0%) | 0/1477.9 = 0.0% (0.0%, 0.0%) | 0/1477.9 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 White Non-Hispanic | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 31 | 0/1477.9 = 0.0% (0.0%, 0.0%) | 0/1477.9 = 0.0% (0.0%, 0.0%) | 0/1477.9 = 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) | 31 | 0/1477.9 = 0.0% (0.0%, 0.0%) | 0/1477.9 = 0.0% (0.0%, 0.0%) | 0/1477.9 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 White Non-Hispanic | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 63 | 99.9/128.4 = 77.8% (65.6%, 86.5%) | 116.2/128.4 = 90.5% (80.1%, 95.7%) | 110.1/128.4 = 85.7% (74.5%, 92.5%) |
| Age ≥ 65 White Non-Hispanic | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 63 | 128.4/128.4 = 100.0% (100.0%, 100.0%) | 128.4/128.4 = 100.0% (100.0%, 100.0%) | 128.4/128.4 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 White Non-Hispanic | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 63 | 128.4/128.4 = 100.0% (100.0%, 100.0%) | 128.4/128.4 = 100.0% (100.0%, 100.0%) | 128.4/128.4 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 White Non-Hispanic | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 194 | 1253.9/1329.2 = 94.3% (90.0%, 96.8%) | 1295/1329.2 = 97.4% (93.9%, 98.9%) | 1267.6/1329.2 = 95.4% (91.3%, 97.6%) |
| Age ≥ 65 White Non-Hispanic | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 194 | 1329.2/1329.2 = 100.0% (100.0%, 100.0%) | 1329.2/1329.2 = 100.0% (100.0%, 100.0%) | 1329.2/1329.2 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 White Non-Hispanic | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 194 | 1329.2/1329.2 = 100.0% (100.0%, 100.0%) | 1329.2/1329.2 = 100.0% (100.0%, 100.0%) | 1329.2/1329.2 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 White Non-Hispanic | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 64 | 161.8/161.8 = 100.0% (100.0%, 100.0%) | 161.8/161.8 = 100.0% (100.0%, 100.0%) | 161.8/161.8 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 White Non-Hispanic | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 64 | 161.8/161.8 = 100.0% (100.0%, 100.0%) | 161.8/161.8 = 100.0% (100.0%, 100.0%) | 161.8/161.8 = 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 | 161.8/161.8 = 100.0% (100.0%, 100.0%) | 161.8/161.8 = 100.0% (100.0%, 100.0%) | 161.8/161.8 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 White Non-Hispanic | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 31 | 0/1477.9 = 0.0% (0.0%, 0.0%) | 0/1477.9 = 0.0% (0.0%, 0.0%) | 0/1477.9 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 White Non-Hispanic | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 31 | 0/1477.9 = 0.0% (0.0%, 0.0%) | 0/1477.9 = 0.0% (0.0%, 0.0%) | 0/1477.9 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 White Non-Hispanic | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 31 | 0/1477.9 = 0.0% (0.0%, 0.0%) | 0/1477.9 = 0.0% (0.0%, 0.0%) | 0/1477.9 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 White Non-Hispanic | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 63 | 112.1/128.4 = 87.3% (76.3%, 93.6%) | 120.3/128.4 = 93.7% (84.0%, 97.7%) | 116.2/128.4 = 90.5% (80.1%, 95.7%) |
| Age ≥ 65 White Non-Hispanic | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 63 | 128.4/128.4 = 100.0% (100.0%, 100.0%) | 128.4/128.4 = 100.0% (100.0%, 100.0%) | 128.4/128.4 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 White Non-Hispanic | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 63 | 128.4/128.4 = 100.0% (100.0%, 100.0%) | 128.4/128.4 = 100.0% (100.0%, 100.0%) | 128.4/128.4 = 100.0% (100.0%, 100.0%) |

Binding Antibody Responders are defined as participants with concentration above the specified positivity cut-off, with a separate cut-off for each antigen Spike, RBD, N (10.8424, 14.0858, and 23.4711 respectively, in IU/ml).

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

2.5 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) | 747 | 6899.3/11127 = 62.0% (57.4%, 66.4%) | 9824.7/11127 = 88.3% (84.8%, 91.1%) | 8863.3/11127 = 79.7% (75.5%, 83.2%) |
| | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 747 | 10953.9/11127 = 98.4% (96.6%, 99.3%) | 11127/11127 = 100.0% (100.0%, 100.0%) | 11116.1/11127 = 99.9% (99.3%, 100.0%) |
| | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 747 | 11038.8/11127 = 99.2% (97.7%, 99.7%) | 11127/11127 = 100.0% (100.0%, 100.0%) | 11127/11127 = 100.0% (100.0%, 100.0%) |
| | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 234 | 940.6/1234 = 76.2% (68.6%, 82.5%) | 1169.9/1234 = 94.8% (89.3%, 97.5%) | 1072.9/1234 = 86.9% (79.9%, 91.8%) |
| | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 234 | 1229.4/1234 = 99.6% (97.4%, 99.9%) | 1234/1234 = 100.0% (100.0%, 100.0%) | 1234/1234 = 100.0% (100.0%, 100.0%) |
| | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 234 | 1225.4/1234 = 99.3% (95.1%, 99.9%) | 1234/1234 = 100.0% (100.0%, 100.0%) | 1234/1234 = 100.0% (100.0%, 100.0%) |
| | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 138 | 0/11103 = 0.0% (0.0%, 0.0%) | 0/11103 = 0.0% (0.0%, 0.0%) | 0/11103 = 0.0% (0.0%, 0.0%) |
| | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 138 | 0/11103 = 0.0% (0.0%, 0.0%) | 0/11103 = 0.0% (0.0%, 0.0%) | 0/11103 = 0.0% (0.0%, 0.0%) |
| | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 138 | 0/11103 = 0.0% (0.0%, 0.0%) | 0/11103 = 0.0% (0.0%, 0.0%) | 0/11103 = 0.0% (0.0%, 0.0%) |
| | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 241 | 602.3/1125 = 53.5% (45.7%, 61.2%) | 897.8/1125 = 79.8% (72.1%, 85.8%) | 824.8/1125 = 73.3% (65.5%, 79.9%) |
| | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 241 | 1064/1125 = 94.6% (88.4%, 97.6%) | 1125/1125 = 100.0% (100.0%, 100.0%) | 1108.6/1125 = 98.5% (93.8%, 99.7%) |
| | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 241 | 1090.8/1125 = 97.0% (92.1%, 98.9%) | 1125/1125 = 100.0% (100.0%, 100.0%) | 1125/1125 = 100.0% (100.0%, 100.0%) |
| | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 747 | 9051.8/11127 = 81.4% (77.3%, 84.8%) | 10551.3/11127 = 94.8% (92.2%, 96.6%) | 10115.3/11127 = 90.9% (87.8%, 93.3%) |

(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) | 747 | 11107.3/11127 = 99.8% (98.7%, 100.0%) | 11127/11127 = 100.0% (100.0%, 100.0%) | 11127/11127 = 100.0% (100.0%, 100.0%) |
| | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 747 | 11127/11127 = 100.0% (100.0%, 100.0%) | 11127/11127 = 100.0% (100.0%, 100.0%) | 11127/11127 = 100.0% (100.0%, 100.0%) |
| | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 234 | 1179.1/1234 = 95.5% (89.9%, 98.1%) | 1216.1/1234 = 98.6% (93.4%, 99.7%) | 1187.7/1234 = 96.2% (90.7%, 98.5%) |
| | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 234 | 1234/1234 = 100.0% (100.0%, 100.0%) | 1234/1234 = 100.0% (100.0%, 100.0%) | 1234/1234 = 100.0% (100.0%, 100.0%) |
| | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 234 | 1234/1234 = 100.0% (100.0%, 100.0%) | 1234/1234 = 100.0% (100.0%, 100.0%) | 1234/1234 = 100.0% (100.0%, 100.0%) |
| | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 138 | 0/11103 = 0.0% (0.0%, 0.0%) | 0/11103 = 0.0% (0.0%, 0.0%) | 0/11103 = 0.0% (0.0%, 0.0%) |
| | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 138 | 0/11103 = 0.0% (0.0%, 0.0%) | 0/11103 = 0.0% (0.0%, 0.0%) | 0/11103 = 0.0% (0.0%, 0.0%) |
| | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 138 | 0/11103 = 0.0% (0.0%, 0.0%) | 0/11103 = 0.0% (0.0%, 0.0%) | 0/11103 = 0.0% (0.0%, 0.0%) |
| | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 241 | 863.2/1125 = 76.7% (68.9%, 83.0%) | 1023.8/1125 = 91.0% (84.5%, 94.9%) | 970.3/1125 = 86.2% (79.2%, 91.2%) |
| | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 241 | 1125/1125 = 100.0% (100.0%, 100.0%) | 1125/1125 = 100.0% (100.0%, 100.0%) | 1125/1125 = 100.0% (100.0%, 100.0%) |
| | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 241 | 1125/1125 = 100.0% (100.0%, 100.0%) | 1125/1125 = 100.0% (100.0%, 100.0%) | 1125/1125 = 100.0% (100.0%, 100.0%) |

Binding Antibody Responders are defined as participants with concentration above the specified positivity cut-off, with a separate cut-off for each antigen Spike, RBD, N (10.8424, 14.0858, and 23.4711 respectively, in IU/ml).

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

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) | 357 | 5010.4/8769 = 57.1% (51.5%, 62.6%) | 7544.9/8769 = 86.0% (81.6%, 89.6%) | 6653.5/8769 = 75.9% (70.7%, 80.4%) |
| Age < 65 | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 357 | 8595.9/8769 = 98.0% (95.7%, 99.1%) | 8769/8769 = 100.0% (100.0%, 100.0%) | 8758.1/8769 = 99.9% (99.1%, 100.0%) |
| Age < 65 | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 357 | 8680.8/8769 = 99.0% (97.1%, 99.7%) | 8769/8769 = 100.0% (100.0%, 100.0%) | 8769/8769 = 100.0% (100.0%, 100.0%) |
| Age < 65 | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 114 | 707.6/983 = 72.0% (62.6%, 79.8%) | 918.9/983 = 93.5% (86.6%, 96.9%) | 828.4/983 = 84.3% (75.5%, 90.3%) |
| Age < 65 | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 114 | 978.4/983 = 99.5% (96.7%, 99.9%) | 983/983 = 100.0% (100.0%, 100.0%) | 983/983 = 100.0% (100.0%, 100.0%) |
| Age < 65 | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 114 | 974.4/983 = 99.1% (93.9%, 99.9%) | 983/983 = 100.0% (100.0%, 100.0%) | 983/983 = 100.0% (100.0%, 100.0%) |
| Age < 65 | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 72 | 0/8343 = 0.0% (0.0%, 0.0%) | 0/8343 = 0.0% (0.0%, 0.0%) | 0/8343 = 0.0% (0.0%, 0.0%) |
| Age < 65 | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 72 | 0/8343 = 0.0% (0.0%, 0.0%) | 0/8343 = 0.0% (0.0%, 0.0%) | 0/8343 = 0.0% (0.0%, 0.0%) |
| Age < 65 | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 72 | 0/8343 = 0.0% (0.0%, 0.0%) | 0/8343 = 0.0% (0.0%, 0.0%) | 0/8343 = 0.0% (0.0%, 0.0%) |
| Age < 65 | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 120 | 420.2/893 = 47.1% (37.6%, 56.7%) | 675.3/893 = 75.6% (66.1%, 83.2%) | 617.2/893 = 69.1% (59.4%, 77.4%) |
| Age < 65 | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 120 | 832/893 = 93.2% (85.5%, 96.9%) | 893/893 = 100.0% (100.0%, 100.0%) | 876.6/893 = 98.2% (92.2%, 99.6%) |
| Age < 65 | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 120 | 858.8/893 = 96.2% (90.1%, 98.6%) | 893/893 = 100.0% (100.0%, 100.0%) | 893/893 = 100.0% (100.0%, 100.0%) |
| Age < 65 | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 357 | 6835.8/8769 = 78.0% (72.9%, 82.3%) | 8211.8/8769 = 93.6% (90.3%, 95.9%) | 7815.7/8769 = 89.1% (85.2%, 92.1%) |
| Age < 65 | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 357 | 8749.3/8769 = 99.8% (98.4%, 100.0%) | 8769/8769 = 100.0% (100.0%, 100.0%) | 8769/8769 = 100.0% (100.0%, 100.0%) |
| Age < 65 | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 357 | 8769/8769 = 100.0% (100.0%, 100.0%) | 8769/8769 = 100.0% (100.0%, 100.0%) | 8769/8769 = 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) | 114 | 928.1/983 = 94.4% (87.4%, 97.6%) | 965.1/983 = 98.2% (91.7%, 99.6%) | 936.7/983 = 95.3% (88.3%, 98.2%) |
| Age < 65 | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 114 | 983/983 = 100.0% (100.0%, 100.0%) | 983/983 = 100.0% (100.0%, 100.0%) | 983/983 = 100.0% (100.0%, 100.0%) |
| Age < 65 | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 114 | 983/983 = 100.0% (100.0%, 100.0%) | 983/983 = 100.0% (100.0%, 100.0%) | 983/983 = 100.0% (100.0%, 100.0%) |
| Age < 65 | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 72 | 0/8343 = 0.0% (0.0%, 0.0%) | 0/8343 = 0.0% (0.0%, 0.0%) | 0/8343 = 0.0% (0.0%, 0.0%) |
| Age < 65 | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 72 | 0/8343 = 0.0% (0.0%, 0.0%) | 0/8343 = 0.0% (0.0%, 0.0%) | 0/8343 = 0.0% (0.0%, 0.0%) |
| Age < 65 | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 72 | 0/8343 = 0.0% (0.0%, 0.0%) | 0/8343 = 0.0% (0.0%, 0.0%) | 0/8343 = 0.0% (0.0%, 0.0%) |
| Age < 65 | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 120 | 651.2/893 = 72.9% (63.3%, 80.8%) | 795.8/893 = 89.1% (80.9%, 94.1%) | 750.2/893 = 84.0% (75.2%, 90.1%) |
| Age < 65 | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 120 | 893/893 = 100.0% (100.0%, 100.0%) | 893/893 = 100.0% (100.0%, 100.0%) | 893/893 = 100.0% (100.0%, 100.0%) |
| Age < 65 | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 120 | 893/893 = 100.0% (100.0%, 100.0%) | 893/893 = 100.0% (100.0%, 100.0%) | 893/893 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 390 | 1888.8/2358 = 80.1% (75.8%, 83.8%) | 2279.9/2358 = 96.7% (94.2%, 98.1%) | 2209.9/2358 = 93.7% (90.7%, 95.8%) |
| Age ≥ 65 | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 390 | 2358/2358 = 100.0% (100.0%, 100.0%) | 2358/2358 = 100.0% (100.0%, 100.0%) | 2358/2358 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 390 | 2358/2358 = 100.0% (100.0%, 100.0%) | 2358/2358 = 100.0% (100.0%, 100.0%) | 2358/2358 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 120 | 233/251 = 92.8% (86.0%, 96.4%) | 251/251 = 100.0% (100.0%, 100.0%) | 244.5/251 = 97.4% (91.9%, 99.2%) |
| Age ≥ 65 | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 120 | 251/251 = 100.0% (100.0%, 100.0%) | 251/251 = 100.0% (100.0%, 100.0%) | 251/251 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 120 | 251/251 = 100.0% (100.0%, 100.0%) | 251/251 = 100.0% (100.0%, 100.0%) | 251/251 = 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 29 | Placebo | Negative | Anti N IgG (IU/ml) | 66 | 0/2760 = 0.0% (0.0%, 0.0%) | 0/2760 = 0.0% (0.0%, 0.0%) | 0/2760 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 66 | 0/2760 = 0.0% (0.0%, 0.0%) | 0/2760 = 0.0% (0.0%, 0.0%) | 0/2760 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 66 | 0/2760 = 0.0% (0.0%, 0.0%) | 0/2760 = 0.0% (0.0%, 0.0%) | 0/2760 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 121 | 182.1/232 = 78.5% (70.1%, 85.0%) | 222.5/232 = 95.9% (90.4%, 98.3%) | 207.5/232 = 89.5% (82.5%, 93.8%) |
| Age ≥ 65 | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 121 | 232/232 = 100.0% (100.0%, 100.0%) | 232/232 = 100.0% (100.0%, 100.0%) | 232/232 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 121 | 232/232 = 100.0% (100.0%, 100.0%) | 232/232 = 100.0% (100.0%, 100.0%) | 232/232 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 390 | 2216/2358 = 94.0% (91.1%, 96.0%) | 2339.5/2358 = 99.2% (97.5%, 99.8%) | 2299.7/2358 = 97.5% (95.4%, 98.7%) |
| Age ≥ 65 | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 390 | 2358/2358 = 100.0% (100.0%, 100.0%) | 2358/2358 = 100.0% (100.0%, 100.0%) | 2358/2358 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 390 | 2358/2358 = 100.0% (100.0%, 100.0%) | 2358/2358 = 100.0% (100.0%, 100.0%) | 2358/2358 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 120 | 251/251 = 100.0% (100.0%, 100.0%) | 251/251 = 100.0% (100.0%, 100.0%) | 251/251 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 120 | 251/251 = 100.0% (100.0%, 100.0%) | 251/251 = 100.0% (100.0%, 100.0%) | 251/251 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 120 | 251/251 = 100.0% (100.0%, 100.0%) | 251/251 = 100.0% (100.0%, 100.0%) | 251/251 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 66 | 0/2760 = 0.0% (0.0%, 0.0%) | 0/2760 = 0.0% (0.0%, 0.0%) | 0/2760 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 66 | 0/2760 = 0.0% (0.0%, 0.0%) | 0/2760 = 0.0% (0.0%, 0.0%) | 0/2760 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 66 | 0/2760 = 0.0% (0.0%, 0.0%) | 0/2760 = 0.0% (0.0%, 0.0%) | 0/2760 = 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) | 121 | 212/232 = 91.4% (84.6%, 95.3%) | 227.9/232 = 98.2% (93.1%, 99.6%) | 220.1/232 = 94.9% (89.0%, 97.7%) |
| Age \geq 65 | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 121 | 232/232 = 100.0% (100.0%, 100.0%) | 232/232 = 100.0% (100.0%, 100.0%) | 232/232 = 100.0% (100.0%, 100.0%) |
| Age \geq 65 | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 121 | 232/232 = 100.0% (100.0%, 100.0%) | 232/232 = 100.0% (100.0%, 100.0%) | 232/232 = 100.0% (100.0%, 100.0%) |

Binding Antibody Responders are defined as participants with concentration above the specified positivity cut-off, with a separate cut-off for each antigen Spike, RBD, N (10.8424, 14.0858, and 23.4711 respectively, in IU/ml).

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

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) | 381 | 2604.4/4152.9 = 62.7% (57.0%, 68.1%) | 3715.2/4152.9 = 89.5% (85.1%, 92.7%) | 3368.7/4152.9 = 81.1% (76.0%, 85.4%) |
| At-risk | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 381 | 4082.7/4152.9 = 98.3% (95.5%, 99.4%) | 4152.9/4152.9 = 100.0% (100.0%, 100.0%) | 4142/4152.9 = 99.7% (98.1%, 100.0%) |
| At-risk | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 381 | 4102.5/4152.9 = 98.8% (96.2%, 99.6%) | 4152.9/4152.9 = 100.0% (100.0%, 100.0%) | 4152.9/4152.9 = 100.0% (100.0%, 100.0%) |
| At-risk | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 111 | 309.1/440.4 = 70.2% (59.4%, 79.1%) | 411.5/440.4 = 93.4% (84.8%, 97.3%) | 382.5/440.4 = 86.9% (77.1%, 92.9%) |
| At-risk | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 111 | 435.8/440.4 = 98.9% (92.7%, 99.9%) | 440.4/440.4 = 100.0% (100.0%, 100.0%) | 440.4/440.4 = 100.0% (100.0%, 100.0%) |
| At-risk | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 111 | 440.4/440.4 = 100.0% (100.0%, 100.0%) | 440.4/440.4 = 100.0% (100.0%, 100.0%) | 440.4/440.4 = 100.0% (100.0%, 100.0%) |
| At-risk | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 71 | 0/4237.6 = 0.0% (0.0%, 0.0%) | 0/4237.6 = 0.0% (0.0%, 0.0%) | 0/4237.6 = 0.0% (0.0%, 0.0%) |
| At-risk | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 71 | 0/4237.6 = 0.0% (0.0%, 0.0%) | 0/4237.6 = 0.0% (0.0%, 0.0%) | 0/4237.6 = 0.0% (0.0%, 0.0%) |
| At-risk | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 71 | 0/4237.6 = 0.0% (0.0%, 0.0%) | 0/4237.6 = 0.0% (0.0%, 0.0%) | 0/4237.6 = 0.0% (0.0%, 0.0%) |
| At-risk | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 117 | 255.1/404.4 = 63.1% (52.8%, 72.3%) | 353.4/404.4 = 87.4% (78.5%, 92.9%) | 308/404.4 = 76.2% (66.1%, 83.9%) |
| At-risk | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 117 | 399.2/404.4 = 98.7% (91.1%, 99.8%) | 404.4/404.4 = 100.0% (100.0%, 100.0%) | 399.2/404.4 = 98.7% (91.1%, 99.8%) |
| At-risk | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 117 | 404.4/404.4 = 100.0% (100.0%, 100.0%) | 404.4/404.4 = 100.0% (100.0%, 100.0%) | 404.4/404.4 = 100.0% (100.0%, 100.0%) |
| At-risk | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 381 | 3426/4152.9 = 82.5% (77.4%, 86.6%) | 3935.5/4152.9 = 94.8% (91.0%, 97.0%) | 3743.9/4152.9 = 90.2% (85.8%, 93.3%) |
| At-risk | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 381 | 4133.1/4152.9 = 99.5% (96.7%, 99.9%) | 4152.9/4152.9 = 100.0% (100.0%, 100.0%) | 4152.9/4152.9 = 100.0% (100.0%, 100.0%) |
| At-risk | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 381 | 4152.9/4152.9 = 100.0% (100.0%, 100.0%) | 4152.9/4152.9 = 100.0% (100.0%, 100.0%) | 4152.9/4152.9 = 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) | 111 | 429.2/440.4 = 97.5% (89.9%, 99.4%) | 435.8/440.4 = 98.9% (92.7%, 99.9%) | 429.2/440.4 = 97.5% (89.9%, 99.4%) |
| At-risk | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 111 | 440.4/440.4 = 100.0% (100.0%, 100.0%) | 440.4/440.4 = 100.0% (100.0%, 100.0%) | 440.4/440.4 = 100.0% (100.0%, 100.0%) |
| At-risk | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 111 | 440.4/440.4 = 100.0% (100.0%, 100.0%) | 440.4/440.4 = 100.0% (100.0%, 100.0%) | 440.4/440.4 = 100.0% (100.0%, 100.0%) |
| At-risk | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 71 | 0/4237.6 = 0.0% (0.0%, 0.0%) | 0/4237.6 = 0.0% (0.0%, 0.0%) | 0/4237.6 = 0.0% (0.0%, 0.0%) |
| At-risk | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 71 | 0/4237.6 = 0.0% (0.0%, 0.0%) | 0/4237.6 = 0.0% (0.0%, 0.0%) | 0/4237.6 = 0.0% (0.0%, 0.0%) |
| At-risk | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 71 | 0/4237.6 = 0.0% (0.0%, 0.0%) | 0/4237.6 = 0.0% (0.0%, 0.0%) | 0/4237.6 = 0.0% (0.0%, 0.0%) |
| At-risk | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 117 | 343.7/404.4 = 85.0% (75.9%, 91.1%) | 389.6/404.4 = 96.3% (89.0%, 98.8%) | 369.9/404.4 = 91.5% (83.3%, 95.8%) |
| At-risk | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 117 | 404.4/404.4 = 100.0% (100.0%, 100.0%) | 404.4/404.4 = 100.0% (100.0%, 100.0%) | 404.4/404.4 = 100.0% (100.0%, 100.0%) |
| At-risk | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 117 | 404.4/404.4 = 100.0% (100.0%, 100.0%) | 404.4/404.4 = 100.0% (100.0%, 100.0%) | 404.4/404.4 = 100.0% (100.0%, 100.0%) |
| Not at-risk | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 366 | 4294.9/6974.1 = 61.6% (55.1%, 67.7%) | 6109.6/6974.1 = 87.6% (82.3%, 91.5%) | 5494.6/6974.1 = 78.8% (72.8%, 83.8%) |
| Not at-risk | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 366 | 6871.1/6974.1 = 98.5% (95.4%, 99.5%) | 6974.1/6974.1 = 100.0% (100.0%, 100.0%) | 6974.1/6974.1 = 100.0% (100.0%, 100.0%) |
| Not at-risk | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 366 | 6936.3/6974.1 = 99.5% (96.2%, 99.9%) | 6974.1/6974.1 = 100.0% (100.0%, 100.0%) | 6974.1/6974.1 = 100.0% (100.0%, 100.0%) |
| Not at-risk | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 123 | 631.5/793.6 = 79.6% (68.6%, 87.4%) | 758.5/793.6 = 95.6% (86.7%, 98.6%) | 690.3/793.6 = 87.0% (76.6%, 93.2%) |
| Not at-risk | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 123 | 793.6/793.6 = 100.0% (100.0%, 100.0%) | 793.6/793.6 = 100.0% (100.0%, 100.0%) | 793.6/793.6 = 100.0% (100.0%, 100.0%) |
| Not at-risk | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 123 | 785/793.6 = 98.9% (92.5%, 99.9%) | 793.6/793.6 = 100.0% (100.0%, 100.0%) | 793.6/793.6 = 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) | 67 | 0/6865.4 = 0.0% (0.0%, 0.0%) | 0/6865.4 = 0.0% (0.0%, 0.0%) | 0/6865.4 = 0.0% (0.0%, 0.0%) |
| Not at-risk | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 67 | 0/6865.4 = 0.0% (0.0%, 0.0%) | 0/6865.4 = 0.0% (0.0%, 0.0%) | 0/6865.4 = 0.0% (0.0%, 0.0%) |
| Not at-risk | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 67 | 0/6865.4 = 0.0% (0.0%, 0.0%) | 0/6865.4 = 0.0% (0.0%, 0.0%) | 0/6865.4 = 0.0% (0.0%, 0.0%) |
| Not at-risk | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 124 | 347.2/720.6 = 48.2% (37.5%, 59.0%) | 544.5/720.6 = 75.6% (64.4%, 84.1%) | 516.8/720.6 = 71.7% (60.5%, 80.8%) |
| Not at-risk | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 124 | 664.8/720.6 = 92.3% (82.8%, 96.7%) | 720.6/720.6 = 100.0% (100.0%, 100.0%) | 709.4/720.6 = 98.5% (89.5%, 99.8%) |
| Not at-risk | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 124 | 686.3/720.6 = 95.2% (87.8%, 98.2%) | 720.6/720.6 = 100.0% (100.0%, 100.0%) | 720.6/720.6 = 100.0% (100.0%, 100.0%) |
| Not at-risk | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 366 | 5625.8/6974.1 = 80.7% (74.8%, 85.4%) | 6615.7/6974.1 = 94.9% (90.8%, 97.2%) | 6371.4/6974.1 = 91.4% (86.7%, 94.5%) |
| Not at-risk | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 366 | 6974.1/6974.1 = 100.0% (100.0%, 100.0%) | 6974.1/6974.1 = 100.0% (100.0%, 100.0%) | 6974.1/6974.1 = 100.0% (100.0%, 100.0%) |
| Not at-risk | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 366 | 6974.1/6974.1 = 100.0% (100.0%, 100.0%) | 6974.1/6974.1 = 100.0% (100.0%, 100.0%) | 6974.1/6974.1 = 100.0% (100.0%, 100.0%) |
| Not at-risk | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 123 | 749.9/793.6 = 94.5% (85.7%, 98.0%) | 780.3/793.6 = 98.3% (88.7%, 99.8%) | 758.5/793.6 = 95.6% (86.7%, 98.6%) |
| Not at-risk | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 123 | 793.6/793.6 = 100.0% (100.0%, 100.0%) | 793.6/793.6 = 100.0% (100.0%, 100.0%) | 793.6/793.6 = 100.0% (100.0%, 100.0%) |
| Not at-risk | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 123 | 793.6/793.6 = 100.0% (100.0%, 100.0%) | 793.6/793.6 = 100.0% (100.0%, 100.0%) | 793.6/793.6 = 100.0% (100.0%, 100.0%) |
| Not at-risk | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 67 | 0/6865.4 = 0.0% (0.0%, 0.0%) | 0/6865.4 = 0.0% (0.0%, 0.0%) | 0/6865.4 = 0.0% (0.0%, 0.0%) |
| Not at-risk | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 67 | 0/6865.4 = 0.0% (0.0%, 0.0%) | 0/6865.4 = 0.0% (0.0%, 0.0%) | 0/6865.4 = 0.0% (0.0%, 0.0%) |
| Not at-risk | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 67 | 0/6865.4 = 0.0% (0.0%, 0.0%) | 0/6865.4 = 0.0% (0.0%, 0.0%) | 0/6865.4 = 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) | 124 | 519.5/720.6 = 72.1% (60.8%, 81.1%) | 634.1/720.6 = 88.0% (78.1%, 93.8%) | 600.4/720.6 = 83.3% (72.9%, 90.3%) |
| Not at-risk | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 124 | 720.6/720.6 = 100.0% (100.0%, 100.0%) | 720.6/720.6 = 100.0% (100.0%, 100.0%) | 720.6/720.6 = 100.0% (100.0%, 100.0%) |
| Not at-risk | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 124 | 720.6/720.6 = 100.0% (100.0%, 100.0%) | 720.6/720.6 = 100.0% (100.0%, 100.0%) | 720.6/720.6 = 100.0% (100.0%, 100.0%) |

Binding Antibody Responders are defined as participants with concentration above the specified positivity cut-off, with a separate cut-off for each antigen Spike, RBD, N (10.8424, 14.0858, and 23.4711 respectively, in IU/ml).

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

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) | 185 | 1667.6/2965 = 56.2% (48.7%, 63.5%) | 2568.4/2965 = 86.6% (80.6%, 91.0%) | 2263.8/2965 = 76.3% (69.4%, 82.2%) |
| Age < 65 At-risk | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 185 | 2894.8/2965 = 97.6% (93.7%, 99.1%) | 2965/2965 = 100.0% (100.0%, 100.0%) | 2954.1/2965 = 99.6% (97.4%, 99.9%) |
| Age < 65 At-risk | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 185 | 2914.6/2965 = 98.3% (94.6%, 99.5%) | 2965/2965 = 100.0% (100.0%, 100.0%) | 2965/2965 = 100.0% (100.0%, 100.0%) |
| Age < 65 At-risk | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 56 | 198.7/321 = 61.9% (47.9%, 74.1%) | 292.1/321 = 91.0% (79.3%, 96.4%) | 263.1/321 = 82.0% (68.9%, 90.3%) |
| Age < 65 At-risk | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 56 | 316.4/321 = 98.6% (90.0%, 99.8%) | 321/321 = 100.0% (100.0%, 100.0%) | 321/321 = 100.0% (100.0%, 100.0%) |
| Age < 65 At-risk | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 56 | 321/321 = 100.0% (100.0%, 100.0%) | 321/321 = 100.0% (100.0%, 100.0%) | 321/321 = 100.0% (100.0%, 100.0%) |
| Age < 65 At-risk | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 36 | 0/2792 = 0.0% (0.0%, 0.0%) | 0/2792 = 0.0% (0.0%, 0.0%) | 0/2792 = 0.0% (0.0%, 0.0%) |
| Age < 65 At-risk | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 36 | 0/2792 = 0.0% (0.0%, 0.0%) | 0/2792 = 0.0% (0.0%, 0.0%) | 0/2792 = 0.0% (0.0%, 0.0%) |
| Age < 65 At-risk | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 36 | 0/2792 = 0.0% (0.0%, 0.0%) | 0/2792 = 0.0% (0.0%, 0.0%) | 0/2792 = 0.0% (0.0%, 0.0%) |
| Age < 65 At-risk | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 59 | 164.7/292 = 56.4% (43.2%, 68.8%) | 246.7/292 = 84.5% (72.3%, 91.9%) | 207.5/292 = 71.0% (57.8%, 81.5%) |
| Age < 65 At-risk | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 59 | 286.8/292 = 98.2% (87.8%, 99.8%) | 292/292 = 100.0% (100.0%, 100.0%) | 286.8/292 = 98.2% (87.8%, 99.8%) |

(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) | 59 | 292/292 = 100.0% (100.0%, 100.0%) | 292/292 = 100.0% (100.0%, 100.0%) | 292/292 = 100.0% (100.0%, 100.0%) |
| Age < 65 At-risk | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 185 | 2305.4/2965 = 77.8% (70.8%, 83.4%) | 2754.5/2965 = 92.9% (87.7%, 96.0%) | 2581.4/2965 = 87.1% (81.0%, 91.4%) |
| Age < 65 At-risk | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 185 | 2945.3/2965 = 99.3% (95.3%, 99.9%) | 2965/2965 = 100.0% (100.0%, 100.0%) | 2965/2965 = 100.0% (100.0%, 100.0%) |
| Age < 65 At-risk | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 185 | 2965/2965 = 100.0% (100.0%, 100.0%) | 2965/2965 = 100.0% (100.0%, 100.0%) | 2965/2965 = 100.0% (100.0%, 100.0%) |
| Age < 65 At-risk | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 56 | 309.8/321 = 96.5% (86.2%, 99.2%) | 316.4/321 = 98.6% (90.0%, 99.8%) | 309.8/321 = 96.5% (86.2%, 99.2%) |
| Age < 65 At-risk | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 56 | 321/321 = 100.0% (100.0%, 100.0%) | 321/321 = 100.0% (100.0%, 100.0%) | 321/321 = 100.0% (100.0%, 100.0%) |
| Age < 65 At-risk | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 56 | 321/321 = 100.0% (100.0%, 100.0%) | 321/321 = 100.0% (100.0%, 100.0%) | 321/321 = 100.0% (100.0%, 100.0%) |
| Age < 65 At-risk | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 36 | 0/2792 = 0.0% (0.0%, 0.0%) | 0/2792 = 0.0% (0.0%, 0.0%) | 0/2792 = 0.0% (0.0%, 0.0%) |
| Age < 65 At-risk | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 36 | 0/2792 = 0.0% (0.0%, 0.0%) | 0/2792 = 0.0% (0.0%, 0.0%) | 0/2792 = 0.0% (0.0%, 0.0%) |
| Age < 65 At-risk | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 36 | 0/2792 = 0.0% (0.0%, 0.0%) | 0/2792 = 0.0% (0.0%, 0.0%) | 0/2792 = 0.0% (0.0%, 0.0%) |
| Age < 65 At-risk | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 59 | 241.5/292 = 82.7% (70.3%, 90.6%) | 277.2/292 = 94.9% (84.8%, 98.4%) | 261.5/292 = 89.6% (78.2%, 95.3%) |
| Age < 65 At-risk | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 59 | 292/292 = 100.0% (100.0%, 100.0%) | 292/292 = 100.0% (100.0%, 100.0%) | 292/292 = 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) | 59 | 292/292 = 100.0% (100.0%, 100.0%) | 292/292 = 100.0% (100.0%, 100.0%) | 292/292 = 100.0% (100.0%, 100.0%) |
| Age < 65 Not at-risk | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 172 | 3342.8/5804 = 57.6% (49.9%, 64.9%) | 4976.5/5804 = 85.7% (79.4%, 90.3%) | 4389.7/5804 = 75.6% (68.5%, 81.6%) |
| Age < 65 Not at-risk | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 172 | 5701/5804 = 98.2% (94.5%, 99.4%) | 5804/5804 = 100.0% (100.0%, 100.0%) | 5804/5804 = 100.0% (100.0%, 100.0%) |
| Age < 65 Not at-risk | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 172 | 5766.2/5804 = 99.3% (95.4%, 99.9%) | 5804/5804 = 100.0% (100.0%, 100.0%) | 5804/5804 = 100.0% (100.0%, 100.0%) |
| Age < 65 Not at-risk | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 58 | 508.9/662 = 76.9% (63.8%, 86.2%) | 626.9/662 = 94.7% (84.0%, 98.4%) | 565.2/662 = 85.4% (72.8%, 92.7%) |
| Age < 65 Not at-risk | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 58 | 662/662 = 100.0% (100.0%, 100.0%) | 662/662 = 100.0% (100.0%, 100.0%) | 662/662 = 100.0% (100.0%, 100.0%) |
| Age < 65 Not at-risk | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 58 | 653.4/662 = 98.7% (90.9%, 99.8%) | 662/662 = 100.0% (100.0%, 100.0%) | 662/662 = 100.0% (100.0%, 100.0%) |
| Age < 65 Not at-risk | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 36 | 0/5551 = 0.0% (0.0%, 0.0%) | 0/5551 = 0.0% (0.0%, 0.0%) | 0/5551 = 0.0% (0.0%, 0.0%) |
| Age < 65 Not at-risk | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 36 | 0/5551 = 0.0% (0.0%, 0.0%) | 0/5551 = 0.0% (0.0%, 0.0%) | 0/5551 = 0.0% (0.0%, 0.0%) |
| Age < 65 Not at-risk | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 36 | 0/5551 = 0.0% (0.0%, 0.0%) | 0/5551 = 0.0% (0.0%, 0.0%) | 0/5551 = 0.0% (0.0%, 0.0%) |
| Age < 65 Not at-risk | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 61 | 255.5/601 = 42.5% (30.3%, 55.7%) | 428.6/601 = 71.3% (58.1%, 81.7%) | 409.8/601 = 68.2% (54.9%, 79.1%) |
| Age < 65 Not at-risk | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 61 | 545.2/601 = 90.7% (79.4%, 96.1%) | 601/601 = 100.0% (100.0%, 100.0%) | 589.8/601 = 98.1% (87.3%, 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) | 61 | 566.8/601 = 94.3% (85.3%, 97.9%) | 601/601 = 100.0% (100.0%, 100.0%) | 601/601 = 100.0% (100.0%, 100.0%) |
| Age < 65 Not at-risk | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 172 | 4530.5/5804 = 78.1% (71.0%, 83.8%) | 5457.3/5804 = 94.0% (89.1%, 96.8%) | 5234.3/5804 = 90.2% (84.6%, 93.9%) |
| Age < 65 Not at-risk | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 172 | 5804/5804 = 100.0% (100.0%, 100.0%) | 5804/5804 = 100.0% (100.0%, 100.0%) | 5804/5804 = 100.0% (100.0%, 100.0%) |
| Age < 65 Not at-risk | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 172 | 5804/5804 = 100.0% (100.0%, 100.0%) | 5804/5804 = 100.0% (100.0%, 100.0%) | 5804/5804 = 100.0% (100.0%, 100.0%) |
| Age < 65 Not at-risk | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 58 | 618.3/662 = 93.4% (82.8%, 97.6%) | 648.7/662 = 98.0% (86.4%, 99.7%) | 626.9/662 = 94.7% (84.0%, 98.4%) |
| Age < 65 Not at-risk | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 58 | 662/662 = 100.0% (100.0%, 100.0%) | 662/662 = 100.0% (100.0%, 100.0%) | 662/662 = 100.0% (100.0%, 100.0%) |
| Age < 65 Not at-risk | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 58 | 662/662 = 100.0% (100.0%, 100.0%) | 662/662 = 100.0% (100.0%, 100.0%) | 662/662 = 100.0% (100.0%, 100.0%) |
| Age < 65 Not at-risk | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 36 | 0/5551 = 0.0% (0.0%, 0.0%) | 0/5551 = 0.0% (0.0%, 0.0%) | 0/5551 = 0.0% (0.0%, 0.0%) |
| Age < 65 Not at-risk | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 36 | 0/5551 = 0.0% (0.0%, 0.0%) | 0/5551 = 0.0% (0.0%, 0.0%) | 0/5551 = 0.0% (0.0%, 0.0%) |
| Age < 65 Not at-risk | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 36 | 0/5551 = 0.0% (0.0%, 0.0%) | 0/5551 = 0.0% (0.0%, 0.0%) | 0/5551 = 0.0% (0.0%, 0.0%) |
| Age < 65 Not at-risk | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 61 | 409.8/601 = 68.2% (54.9%, 79.1%) | 518.7/601 = 86.3% (74.4%, 93.2%) | 488.6/601 = 81.3% (68.8%, 89.6%) |
| Age < 65 Not at-risk | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 61 | 601/601 = 100.0% (100.0%, 100.0%) | 601/601 = 100.0% (100.0%, 100.0%) | 601/601 = 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) | 61 | 601/601 = 100.0% (100.0%, 100.0%) | 601/601 = 100.0% (100.0%, 100.0%) | 601/601 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 At-risk | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 196 | 936.8/1187.9 = 78.9% (72.5%, 84.1%) | 1146.8/1187.9 = 96.5% (92.5%, 98.4%) | 1104.9/1187.9 = 93.0% (88.3%, 95.9%) |
| Age ≥ 65 At-risk | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 196 | 1187.9/1187.9 = 100.0% (100.0%, 100.0%) | 1187.9/1187.9 = 100.0% (100.0%, 100.0%) | 1187.9/1187.9 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 At-risk | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 196 | 1187.9/1187.9 = 100.0% (100.0%, 100.0%) | 1187.9/1187.9 = 100.0% (100.0%, 100.0%) | 1187.9/1187.9 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 At-risk | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 55 | 110.4/119.4 = 92.4% (80.8%, 97.3%) | 119.4/119.4 = 100.0% (100.0%, 100.0%) | 119.4/119.4 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 At-risk | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 55 | 119.4/119.4 = 100.0% (100.0%, 100.0%) | 119.4/119.4 = 100.0% (100.0%, 100.0%) | 119.4/119.4 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 At-risk | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 55 | 119.4/119.4 = 100.0% (100.0%, 100.0%) | 119.4/119.4 = 100.0% (100.0%, 100.0%) | 119.4/119.4 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 At-risk | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 35 | 0/1445.6 = 0.0% (0.0%, 0.0%) | 0/1445.6 = 0.0% (0.0%, 0.0%) | 0/1445.6 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 At-risk | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 35 | 0/1445.6 = 0.0% (0.0%, 0.0%) | 0/1445.6 = 0.0% (0.0%, 0.0%) | 0/1445.6 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 At-risk | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 35 | 0/1445.6 = 0.0% (0.0%, 0.0%) | 0/1445.6 = 0.0% (0.0%, 0.0%) | 0/1445.6 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 At-risk | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 58 | 90.4/112.4 = 80.4% (67.6%, 88.9%) | 106.7/112.4 = 94.9% (84.8%, 98.4%) | 100.5/112.4 = 89.4% (78.0%, 95.3%) |
| Age ≥ 65 At-risk | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 58 | 112.4/112.4 = 100.0% (100.0%, 100.0%) | 112.4/112.4 = 100.0% (100.0%, 100.0%) | 112.4/112.4 = 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 At-risk | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 58 | 112.4/112.4 = 100.0% (100.0%, 100.0%) | 112.4/112.4 = 100.0% (100.0%, 100.0%) | 112.4/112.4 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 At-risk | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 196 | 1120.7/1187.9 = 94.3% (90.0%, 96.9%) | 1181/1187.9 = 99.4% (96.0%, 99.9%) | 1162.5/1187.9 = 97.9% (94.4%, 99.2%) |
| Age ≥ 65 At-risk | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 196 | 1187.9/1187.9 = 100.0% (100.0%, 100.0%) | 1187.9/1187.9 = 100.0% (100.0%, 100.0%) | 1187.9/1187.9 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 At-risk | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 196 | 1187.9/1187.9 = 100.0% (100.0%, 100.0%) | 1187.9/1187.9 = 100.0% (100.0%, 100.0%) | 1187.9/1187.9 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 At-risk | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 55 | 119.4/119.4 = 100.0% (100.0%, 100.0%) | 119.4/119.4 = 100.0% (100.0%, 100.0%) | 119.4/119.4 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 At-risk | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 55 | 119.4/119.4 = 100.0% (100.0%, 100.0%) | 119.4/119.4 = 100.0% (100.0%, 100.0%) | 119.4/119.4 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 At-risk | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 55 | 119.4/119.4 = 100.0% (100.0%, 100.0%) | 119.4/119.4 = 100.0% (100.0%, 100.0%) | 119.4/119.4 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 At-risk | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 35 | 0/1445.6 = 0.0% (0.0%, 0.0%) | 0/1445.6 = 0.0% (0.0%, 0.0%) | 0/1445.6 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 At-risk | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 35 | 0/1445.6 = 0.0% (0.0%, 0.0%) | 0/1445.6 = 0.0% (0.0%, 0.0%) | 0/1445.6 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 At-risk | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 35 | 0/1445.6 = 0.0% (0.0%, 0.0%) | 0/1445.6 = 0.0% (0.0%, 0.0%) | 0/1445.6 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 At-risk | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 58 | 102.2/112.4 = 90.9% (79.7%, 96.2%) | 112.4/112.4 = 100.0% (100.0%, 100.0%) | 108.4/112.4 = 96.4% (86.2%, 99.1%) |
| Age ≥ 65 At-risk | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 58 | 112.4/112.4 = 100.0% (100.0%, 100.0%) | 112.4/112.4 = 100.0% (100.0%, 100.0%) | 112.4/112.4 = 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 At-risk | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 58 | 112.4/112.4 = 100.0% (100.0%, 100.0%) | 112.4/112.4 = 100.0% (100.0%, 100.0%) | 112.4/112.4 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Not at-risk | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 194 | 952/1170.1 = 81.4% (75.1%, 86.3%) | 1133.1/1170.1 = 96.8% (93.0%, 98.6%) | 1104.9/1170.1 = 94.4% (90.1%, 96.9%) |
| Age ≥ 65 Not at-risk | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 194 | 1170.1/1170.1 = 100.0% (100.0%, 100.0%) | 1170.1/1170.1 = 100.0% (100.0%, 100.0%) | 1170.1/1170.1 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Not at-risk | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 194 | 1170.1/1170.1 = 100.0% (100.0%, 100.0%) | 1170.1/1170.1 = 100.0% (100.0%, 100.0%) | 1170.1/1170.1 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Not at-risk | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 65 | 122.6/131.6 = 93.1% (82.5%, 97.5%) | 131.6/131.6 = 100.0% (100.0%, 100.0%) | 125.1/131.6 = 95.1% (85.1%, 98.5%) |
| Age ≥ 65 Not at-risk | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 65 | 131.6/131.6 = 100.0% (100.0%, 100.0%) | 131.6/131.6 = 100.0% (100.0%, 100.0%) | 131.6/131.6 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Not at-risk | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 65 | 131.6/131.6 = 100.0% (100.0%, 100.0%) | 131.6/131.6 = 100.0% (100.0%, 100.0%) | 131.6/131.6 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Not at-risk | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 31 | 0/1314.4 = 0.0% (0.0%, 0.0%) | 0/1314.4 = 0.0% (0.0%, 0.0%) | 0/1314.4 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 Not at-risk | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 31 | 0/1314.4 = 0.0% (0.0%, 0.0%) | 0/1314.4 = 0.0% (0.0%, 0.0%) | 0/1314.4 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 Not at-risk | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 31 | 0/1314.4 = 0.0% (0.0%, 0.0%) | 0/1314.4 = 0.0% (0.0%, 0.0%) | 0/1314.4 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 Not at-risk | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 63 | 91.7/119.6 = 76.7% (64.5%, 85.7%) | 115.8/119.6 = 96.9% (87.9%, 99.2%) | 107/119.6 = 89.5% (79.2%, 95.0%) |
| Age ≥ 65 Not at-risk | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 63 | 119.6/119.6 = 100.0% (100.0%, 100.0%) | 119.6/119.6 = 100.0% (100.0%, 100.0%) | 119.6/119.6 = 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 Not at-risk | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 63 | 119.6/119.6 = 100.0% (100.0%, 100.0%) | 119.6/119.6 = 100.0% (100.0%, 100.0%) | 119.6/119.6 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Not at-risk | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 194 | 1095.3/1170.1 = 93.6% (89.2%, 96.3%) | 1158.4/1170.1 = 99.0% (96.0%, 99.8%) | 1137.2/1170.1 = 97.2% (93.8%, 98.8%) |
| Age ≥ 65 Not at-risk | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 194 | 1170.1/1170.1 = 100.0% (100.0%, 100.0%) | 1170.1/1170.1 = 100.0% (100.0%, 100.0%) | 1170.1/1170.1 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Not at-risk | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 194 | 1170.1/1170.1 = 100.0% (100.0%, 100.0%) | 1170.1/1170.1 = 100.0% (100.0%, 100.0%) | 1170.1/1170.1 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Not at-risk | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 65 | 131.6/131.6 = 100.0% (100.0%, 100.0%) | 131.6/131.6 = 100.0% (100.0%, 100.0%) | 131.6/131.6 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Not at-risk | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 65 | 131.6/131.6 = 100.0% (100.0%, 100.0%) | 131.6/131.6 = 100.0% (100.0%, 100.0%) | 131.6/131.6 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Not at-risk | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 65 | 131.6/131.6 = 100.0% (100.0%, 100.0%) | 131.6/131.6 = 100.0% (100.0%, 100.0%) | 131.6/131.6 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Not at-risk | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 31 | 0/1314.4 = 0.0% (0.0%, 0.0%) | 0/1314.4 = 0.0% (0.0%, 0.0%) | 0/1314.4 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 Not at-risk | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 31 | 0/1314.4 = 0.0% (0.0%, 0.0%) | 0/1314.4 = 0.0% (0.0%, 0.0%) | 0/1314.4 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 Not at-risk | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 31 | 0/1314.4 = 0.0% (0.0%, 0.0%) | 0/1314.4 = 0.0% (0.0%, 0.0%) | 0/1314.4 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 Not at-risk | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 63 | 109.7/119.6 = 91.8% (81.4%, 96.6%) | 115.5/119.6 = 96.6% (87.0%, 99.2%) | 111.7/119.6 = 93.5% (83.5%, 97.6%) |
| Age ≥ 65 Not at-risk | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 63 | 119.6/119.6 = 100.0% (100.0%, 100.0%) | 119.6/119.6 = 100.0% (100.0%, 100.0%) | 119.6/119.6 = 100.0% (100.0%, 100.0%) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | Responder | % 2-Fold Rise | % 4-Fold Rise |
|---------------------------|--------|---------|---------------------|------------------------|----|--|--|--|
| Age \geq 65 Not at-risk | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 63 | 119.6/119.6 = 100.0% (100.0%, 100.0%) | 119.6/119.6 = 100.0% (100.0%, 100.0%) | 119.6/119.6 = 100.0% (100.0%, 100.0%) |

Binding Antibody Responders are defined as participants with concentration above the specified positivity cut-off, with a separate cut-off for each antigen Spike, RBD, N (10.8424, 14.0858, and 23.4711 respectively, in IU/ml).

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

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) | 320 | 2969.6/4733.6 = 62.7% (55.7%, 69.3%) | 4140.5/4733.6 = 87.5% (81.7%, 91.6%) | 3704.8/4733.6 = 78.3% (71.6%, 83.7%) |
| Male | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 320 | 4686.4/4733.6 = 99.0% (96.0%, 99.8%) | 4733.6/4733.6 = 100.0% (100.0%, 100.0%) | 4733.6/4733.6 = 100.0% (100.0%, 100.0%) |
| Male | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 320 | 4665.1/4733.6 = 98.6% (95.0%, 99.6%) | 4733.6/4733.6 = 100.0% (100.0%, 100.0%) | 4733.6/4733.6 = 100.0% (100.0%, 100.0%) |
| Male | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 95 | 376.7/510.2 = 73.8% (61.1%, 83.5%) | 475.2/510.2 = 93.1% (82.1%, 97.6%) | 444.2/510.2 = 87.1% (74.9%, 93.8%) |
| Male | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 95 | 510.2/510.2 = 100.0% (100.0%, 100.0%) | 510.2/510.2 = 100.0% (100.0%, 100.0%) | 510.2/510.2 = 100.0% (100.0%, 100.0%) |
| Male | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 95 | 501.6/510.2 = 98.3% (88.6%, 99.8%) | 510.2/510.2 = 100.0% (100.0%, 100.0%) | 510.2/510.2 = 100.0% (100.0%, 100.0%) |
| Male | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 63 | 0/5325.1 = 0.0% (0.0%, 0.0%) | 0/5325.1 = 0.0% (0.0%, 0.0%) | 0/5325.1 = 0.0% (0.0%, 0.0%) |
| Male | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 63 | 0/5325.1 = 0.0% (0.0%, 0.0%) | 0/5325.1 = 0.0% (0.0%, 0.0%) | 0/5325.1 = 0.0% (0.0%, 0.0%) |
| Male | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 63 | 0/5325.1 = 0.0% (0.0%, 0.0%) | 0/5325.1 = 0.0% (0.0%, 0.0%) | 0/5325.1 = 0.0% (0.0%, 0.0%) |
| Male | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 108 | 256.4/501.1 = 51.2% (39.3%, 62.9%) | 374.4/501.1 = 74.7% (61.9%, 84.3%) | 337.7/501.1 = 67.4% (54.8%, 77.9%) |
| Male | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 108 | 489.9/501.1 = 97.8% (85.4%, 99.7%) | 501.1/501.1 = 100.0% (100.0%, 100.0%) | 501.1/501.1 = 100.0% (100.0%, 100.0%) |
| Male | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 108 | 474.5/501.1 = 94.7% (84.5%, 98.3%) | 501.1/501.1 = 100.0% (100.0%, 100.0%) | 501.1/501.1 = 100.0% (100.0%, 100.0%) |
| Male | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 320 | 3909/4733.6 = 82.6% (76.3%, 87.5%) | 4521.1/4733.6 = 95.5% (90.8%, 97.9%) | 4347.4/4733.6 = 91.8% (86.8%, 95.1%) |
| Male | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 320 | 4733.6/4733.6 = 100.0% (100.0%, 100.0%) | 4733.6/4733.6 = 100.0% (100.0%, 100.0%) | 4733.6/4733.6 = 100.0% (100.0%, 100.0%) |
| Male | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 320 | 4733.6/4733.6 = 100.0% (100.0%, 100.0%) | 4733.6/4733.6 = 100.0% (100.0%, 100.0%) | 4733.6/4733.6 = 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) | 95 | 481.8/510.2 = 94.4% (83.1%, 98.3%) | 510.2/510.2 = 100.0% (100.0%, 100.0%) | 490.4/510.2 = 96.1% (84.4%, 99.1%) |
| Male | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 95 | 510.2/510.2 = 100.0% (100.0%, 100.0%) | 510.2/510.2 = 100.0% (100.0%, 100.0%) | 510.2/510.2 = 100.0% (100.0%, 100.0%) |
| Male | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 95 | 510.2/510.2 = 100.0% (100.0%, 100.0%) | 510.2/510.2 = 100.0% (100.0%, 100.0%) | 510.2/510.2 = 100.0% (100.0%, 100.0%) |
| Male | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 63 | 0/5325.1 = 0.0% (0.0%, 0.0%) | 0/5325.1 = 0.0% (0.0%, 0.0%) | 0/5325.1 = 0.0% (0.0%, 0.0%) |
| Male | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 63 | 0/5325.1 = 0.0% (0.0%, 0.0%) | 0/5325.1 = 0.0% (0.0%, 0.0%) | 0/5325.1 = 0.0% (0.0%, 0.0%) |
| Male | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 63 | 0/5325.1 = 0.0% (0.0%, 0.0%) | 0/5325.1 = 0.0% (0.0%, 0.0%) | 0/5325.1 = 0.0% (0.0%, 0.0%) |
| Male | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 108 | 366.2/501.1 = 73.1% (60.3%, 82.9%) | 442.3/501.1 = 88.3% (76.2%, 94.6%) | 418.3/501.1 = 83.5% (71.0%, 91.2%) |
| Male | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 108 | 501.1/501.1 = 100.0% (100.0%, 100.0%) | 501.1/501.1 = 100.0% (100.0%, 100.0%) | 501.1/501.1 = 100.0% (100.0%, 100.0%) |
| Male | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 108 | 501.1/501.1 = 100.0% (100.0%, 100.0%) | 501.1/501.1 = 100.0% (100.0%, 100.0%) | 501.1/501.1 = 100.0% (100.0%, 100.0%) |
| Female | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 427 | 3929.7/6393.4 = 61.5% (55.3%, 67.3%) | 5684.3/6393.4 = 88.9% (84.0%, 92.4%) | 5158.5/6393.4 = 80.7% (75.1%, 85.2%) |
| Female | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 427 | 6267.4/6393.4 = 98.0% (95.0%, 99.2%) | 6393.4/6393.4 = 100.0% (100.0%, 100.0%) | 6382.5/6393.4 = 99.8% (98.8%, 100.0%) |
| Female | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 427 | 6373.7/6393.4 = 99.7% (97.8%, 100.0%) | 6393.4/6393.4 = 100.0% (100.0%, 100.0%) | 6393.4/6393.4 = 100.0% (100.0%, 100.0%) |
| Female | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 139 | 563.9/723.8 = 77.9% (67.7%, 85.6%) | 694.7/723.8 = 96.0% (88.5%, 98.7%) | 628.6/723.8 = 86.8% (77.1%, 92.8%) |
| Female | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 139 | 719.2/723.8 = 99.4% (95.5%, 99.9%) | 723.8/723.8 = 100.0% (100.0%, 100.0%) | 723.8/723.8 = 100.0% (100.0%, 100.0%) |
| Female | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 139 | 723.8/723.8 = 100.0% (100.0%, 100.0%) | 723.8/723.8 = 100.0% (100.0%, 100.0%) | 723.8/723.8 = 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 | 0/5777.9 = 0.0% (0.0%, 0.0%) | 0/5777.9 = 0.0% (0.0%, 0.0%) | 0/5777.9 = 0.0% (0.0%, 0.0%) |
| Female | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 75 | 0/5777.9 = 0.0% (0.0%, 0.0%) | 0/5777.9 = 0.0% (0.0%, 0.0%) | 0/5777.9 = 0.0% (0.0%, 0.0%) |
| Female | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 75 | 0/5777.9 = 0.0% (0.0%, 0.0%) | 0/5777.9 = 0.0% (0.0%, 0.0%) | 0/5777.9 = 0.0% (0.0%, 0.0%) |
| Female | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 133 | 345.8/623.9 = 55.4% (44.8%, 65.6%) | 523.4/623.9 = 83.9% (73.6%, 90.7%) | 487/623.9 = 78.1% (67.7%, 85.8%) |
| Female | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 133 | 574.1/623.9 = 92.0% (82.1%, 96.7%) | 623.9/623.9 = 100.0% (100.0%, 100.0%) | 607.5/623.9 = 97.4% (89.1%, 99.4%) |
| Female | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 133 | 616.2/623.9 = 98.8% (91.6%, 99.8%) | 623.9/623.9 = 100.0% (100.0%, 100.0%) | 623.9/623.9 = 100.0% (100.0%, 100.0%) |
| Female | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 427 | 5142.9/6393.4 = 80.4% (74.9%, 85.0%) | 6030.2/6393.4 = 94.3% (90.6%, 96.6%) | 5767.9/6393.4 = 90.2% (85.8%, 93.4%) |
| Female | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 427 | 6373.7/6393.4 = 99.7% (97.8%, 100.0%) | 6393.4/6393.4 = 100.0% (100.0%, 100.0%) | 6393.4/6393.4 = 100.0% (100.0%, 100.0%) |
| Female | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 427 | 6393.4/6393.4 = 100.0% (100.0%, 100.0%) | 6393.4/6393.4 = 100.0% (100.0%, 100.0%) | 6393.4/6393.4 = 100.0% (100.0%, 100.0%) |
| Female | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 139 | 697.3/723.8 = 96.3% (88.2%, 98.9%) | 705.9/723.8 = 97.5% (89.0%, 99.5%) | 697.3/723.8 = 96.3% (88.2%, 98.9%) |
| Female | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 139 | 723.8/723.8 = 100.0% (100.0%, 100.0%) | 723.8/723.8 = 100.0% (100.0%, 100.0%) | 723.8/723.8 = 100.0% (100.0%, 100.0%) |
| Female | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 139 | 723.8/723.8 = 100.0% (100.0%, 100.0%) | 723.8/723.8 = 100.0% (100.0%, 100.0%) | 723.8/723.8 = 100.0% (100.0%, 100.0%) |
| Female | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 75 | 0/5777.9 = 0.0% (0.0%, 0.0%) | 0/5777.9 = 0.0% (0.0%, 0.0%) | 0/5777.9 = 0.0% (0.0%, 0.0%) |
| Female | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 75 | 0/5777.9 = 0.0% (0.0%, 0.0%) | 0/5777.9 = 0.0% (0.0%, 0.0%) | 0/5777.9 = 0.0% (0.0%, 0.0%) |
| Female | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 75 | 0/5777.9 = 0.0% (0.0%, 0.0%) | 0/5777.9 = 0.0% (0.0%, 0.0%) | 0/5777.9 = 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) | 133 | 497/623.9 = 79.7% (69.2%, 87.2%) | 581.4/623.9 = 93.2% (84.4%, 97.2%) | 552/623.9 = 88.5% (79.3%, 93.9%) |
| Female | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 133 | 623.9/623.9 = 100.0% (100.0%, 100.0%) | 623.9/623.9 = 100.0% (100.0%, 100.0%) | 623.9/623.9 = 100.0% (100.0%, 100.0%) |
| Female | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 133 | 623.9/623.9 = 100.0% (100.0%, 100.0%) | 623.9/623.9 = 100.0% (100.0%, 100.0%) | 623.9/623.9 = 100.0% (100.0%, 100.0%) |

Binding Antibody Responders are defined as participants with concentration above the specified positivity cut-off, with a separate cut-off for each antigen Spike, RBD, N (10.8424, 14.0858, and 23.4711 respectively, in IU/ml).

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

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) | 201 | 2824/5028.5 = 56.2% (48.6%, 63.4%) | 4367.3/5028.5 = 86.9% (80.7%, 91.3%) | 3878.6/5028.5 = 77.1% (70.2%, 82.9%) |
| Age < 65 Female | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 201 | 4902.5/5028.5 = 97.5% (93.6%, 99.0%) | 5028.5/5028.5 = 100.0% (100.0%, 100.0%) | 5017.6/5028.5 = 99.8% (98.5%, 100.0%) |
| Age < 65 Female | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 201 | 5008.8/5028.5 = 99.6% (97.2%, 99.9%) | 5028.5/5028.5 = 100.0% (100.0%, 100.0%) | 5028.5/5028.5 = 100.0% (100.0%, 100.0%) |
| Age < 65 Female | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 66 | 418.6/573.1 = 73.0% (60.4%, 82.8%) | 544/573.1 = 94.9% (85.5%, 98.3%) | 481.9/573.1 = 84.1% (71.9%, 91.6%) |
| Age < 65 Female | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 66 | 568.5/573.1 = 99.2% (94.3%, 99.9%) | 573.1/573.1 = 100.0% (100.0%, 100.0%) | 573.1/573.1 = 100.0% (100.0%, 100.0%) |
| Age < 65 Female | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 66 | 573.1/573.1 = 100.0% (100.0%, 100.0%) | 573.1/573.1 = 100.0% (100.0%, 100.0%) | 573.1/573.1 = 100.0% (100.0%, 100.0%) |
| Age < 65 Female | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 38 | 0/4192.3 = 0.0% (0.0%, 0.0%) | 0/4192.3 = 0.0% (0.0%, 0.0%) | 0/4192.3 = 0.0% (0.0%, 0.0%) |
| Age < 65 Female | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 38 | 0/4192.3 = 0.0% (0.0%, 0.0%) | 0/4192.3 = 0.0% (0.0%, 0.0%) | 0/4192.3 = 0.0% (0.0%, 0.0%) |
| Age < 65 Female | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 38 | 0/4192.3 = 0.0% (0.0%, 0.0%) | 0/4192.3 = 0.0% (0.0%, 0.0%) | 0/4192.3 = 0.0% (0.0%, 0.0%) |
| Age < 65 Female | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 70 | 252.1/502.7 = 50.2% (37.6%, 62.7%) | 406.2/502.7 = 80.8% (68.2%, 89.2%) | 373.2/502.7 = 74.3% (61.6%, 83.8%) |
| Age < 65 Female | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 70 | 452.8/502.7 = 90.1% (78.0%, 95.9%) | 502.7/502.7 = 100.0% (100.0%, 100.0%) | 486.3/502.7 = 96.7% (86.5%, 99.3%) |

(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) | 70 | 495/502.7 = 98.5% (89.5%, 99.8%) | 502.7/502.7 = 100.0% (100.0%, 100.0%) | 502.7/502.7 = 100.0% (100.0%, 100.0%) |
| Age < 65 Female | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 201 | 3854.1/5028.5 = 76.6% (69.7%, 82.4%) | 4679/5028.5 = 93.0% (88.3%, 96.0%) | 4440.1/5028.5 = 88.3% (82.7%, 92.2%) |
| Age < 65 Female | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 201 | 5008.8/5028.5 = 99.6% (97.2%, 99.9%) | 5028.5/5028.5 = 100.0% (100.0%, 100.0%) | 5028.5/5028.5 = 100.0% (100.0%, 100.0%) |
| Age < 65 Female | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 201 | 5028.5/5028.5 = 100.0% (100.0%, 100.0%) | 5028.5/5028.5 = 100.0% (100.0%, 100.0%) | 5028.5/5028.5 = 100.0% (100.0%, 100.0%) |
| Age < 65 Female | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 66 | 546.6/573.1 = 95.4% (85.1%, 98.7%) | 555.2/573.1 = 96.9% (86.2%, 99.4%) | 546.6/573.1 = 95.4% (85.1%, 98.7%) |
| Age < 65 Female | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 66 | 573.1/573.1 = 100.0% (100.0%, 100.0%) | 573.1/573.1 = 100.0% (100.0%, 100.0%) | 573.1/573.1 = 100.0% (100.0%, 100.0%) |
| Age < 65 Female | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 66 | 573.1/573.1 = 100.0% (100.0%, 100.0%) | 573.1/573.1 = 100.0% (100.0%, 100.0%) | 573.1/573.1 = 100.0% (100.0%, 100.0%) |
| Age < 65 Female | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 38 | 0/4192.3 = 0.0% (0.0%, 0.0%) | 0/4192.3 = 0.0% (0.0%, 0.0%) | 0/4192.3 = 0.0% (0.0%, 0.0%) |
| Age < 65 Female | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 38 | 0/4192.3 = 0.0% (0.0%, 0.0%) | 0/4192.3 = 0.0% (0.0%, 0.0%) | 0/4192.3 = 0.0% (0.0%, 0.0%) |
| Age < 65 Female | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 38 | 0/4192.3 = 0.0% (0.0%, 0.0%) | 0/4192.3 = 0.0% (0.0%, 0.0%) | 0/4192.3 = 0.0% (0.0%, 0.0%) |
| Age < 65 Female | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 70 | 385.6/502.7 = 76.7% (63.9%, 86.0%) | 462.2/502.7 = 92.0% (81.0%, 96.8%) | 440.6/502.7 = 87.7% (76.1%, 94.1%) |
| Age < 65 Female | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 70 | 502.7/502.7 = 100.0% (100.0%, 100.0%) | 502.7/502.7 = 100.0% (100.0%, 100.0%) | 502.7/502.7 = 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 Female | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 70 | 502.7/502.7 = 100.0% (100.0%, 100.0%) | 502.7/502.7 = 100.0% (100.0%, 100.0%) | 502.7/502.7 = 100.0% (100.0%, 100.0%) |
| Age < 65 Male | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 156 | 2186.4/3740.5 = 58.5% (49.8%, 66.6%) | 3177.5/3740.5 = 84.9% (77.7%, 90.2%) | 2774.9/3740.5 = 74.2% (65.9%, 81.0%) |
| Age < 65 Male | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 156 | 3693.3/3740.5 = 98.7% (94.9%, 99.7%) | 3740.5/3740.5 = 100.0% (100.0%, 100.0%) | 3740.5/3740.5 = 100.0% (100.0%, 100.0%) |
| Age < 65 Male | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 156 | 3672/3740.5 = 98.2% (93.7%, 99.5%) | 3740.5/3740.5 = 100.0% (100.0%, 100.0%) | 3740.5/3740.5 = 100.0% (100.0%, 100.0%) |
| Age < 65 Male | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 48 | 289/409.9 = 70.5% (54.9%, 82.5%) | 374.9/409.9 = 91.5% (77.8%, 97.0%) | 346.5/409.9 = 84.5% (69.5%, 92.9%) |
| Age < 65 Male | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 48 | 409.9/409.9 = 100.0% (100.0%, 100.0%) | 409.9/409.9 = 100.0% (100.0%, 100.0%) | 409.9/409.9 = 100.0% (100.0%, 100.0%) |
| Age < 65 Male | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 48 | 401.3/409.9 = 97.9% (85.7%, 99.7%) | 409.9/409.9 = 100.0% (100.0%, 100.0%) | 409.9/409.9 = 100.0% (100.0%, 100.0%) |
| Age < 65 Male | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 34 | 0/4150.7 = 0.0% (0.0%, 0.0%) | 0/4150.7 = 0.0% (0.0%, 0.0%) | 0/4150.7 = 0.0% (0.0%, 0.0%) |
| Age < 65 Male | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 34 | 0/4150.7 = 0.0% (0.0%, 0.0%) | 0/4150.7 = 0.0% (0.0%, 0.0%) | 0/4150.7 = 0.0% (0.0%, 0.0%) |
| Age < 65 Male | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 34 | 0/4150.7 = 0.0% (0.0%, 0.0%) | 0/4150.7 = 0.0% (0.0%, 0.0%) | 0/4150.7 = 0.0% (0.0%, 0.0%) |
| Age < 65 Male | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 50 | 168.1/390.3 = 43.1% (29.0%, 58.4%) | 269.1/390.3 = 68.9% (53.1%, 81.3%) | 244/390.3 = 62.5% (46.8%, 75.9%) |
| Age < 65 Male | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 50 | 379.2/390.3 = 97.1% (81.3%, 99.6%) | 390.3/390.3 = 100.0% (100.0%, 100.0%) | 390.3/390.3 = 100.0% (100.0%, 100.0%) |
| Age < 65 Male | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 50 | 363.8/390.3 = 93.2% (80.1%, 97.9%) | 390.3/390.3 = 100.0% (100.0%, 100.0%) | 390.3/390.3 = 100.0% (100.0%, 100.0%) |
| Age < 65 Male | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 156 | 2981.8/3740.5 = 79.7% (71.9%, 85.8%) | 3532.8/3740.5 = 94.4% (88.5%, 97.4%) | 3375.6/3740.5 = 90.2% (83.8%, 94.3%) |
| Age < 65 Male | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 156 | 3740.5/3740.5 = 100.0% (100.0%, 100.0%) | 3740.5/3740.5 = 100.0% (100.0%, 100.0%) | 3740.5/3740.5 = 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 | 3740.5/3740.5 = 100.0% (100.0%, 100.0%) | 3740.5/3740.5 = 100.0% (100.0%, 100.0%) | 3740.5/3740.5 = 100.0% (100.0%, 100.0%) |
| Age < 65 Male | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 48 | 381.5/409.9 = 93.1% (79.0%, 98.0%) | 409.9/409.9 = 100.0% (100.0%, 100.0%) | 390.1/409.9 = 95.2% (80.7%, 98.9%) |
| Age < 65 Male | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 48 | 409.9/409.9 = 100.0% (100.0%, 100.0%) | 409.9/409.9 = 100.0% (100.0%, 100.0%) | 409.9/409.9 = 100.0% (100.0%, 100.0%) |
| Age < 65 Male | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 48 | 409.9/409.9 = 100.0% (100.0%, 100.0%) | 409.9/409.9 = 100.0% (100.0%, 100.0%) | 409.9/409.9 = 100.0% (100.0%, 100.0%) |
| Age < 65 Male | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 34 | 0/4150.7 = 0.0% (0.0%, 0.0%) | 0/4150.7 = 0.0% (0.0%, 0.0%) | 0/4150.7 = 0.0% (0.0%, 0.0%) |
| Age < 65 Male | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 34 | 0/4150.7 = 0.0% (0.0%, 0.0%) | 0/4150.7 = 0.0% (0.0%, 0.0%) | 0/4150.7 = 0.0% (0.0%, 0.0%) |
| Age < 65 Male | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 34 | 0/4150.7 = 0.0% (0.0%, 0.0%) | 0/4150.7 = 0.0% (0.0%, 0.0%) | 0/4150.7 = 0.0% (0.0%, 0.0%) |
| Age < 65 Male | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 50 | 265.7/390.3 = 68.1% (52.1%, 80.7%) | 333.7/390.3 = 85.5% (70.1%, 93.6%) | 309.6/390.3 = 79.3% (63.7%, 89.3%) |
| Age < 65 Male | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 50 | 390.3/390.3 = 100.0% (100.0%, 100.0%) | 390.3/390.3 = 100.0% (100.0%, 100.0%) | 390.3/390.3 = 100.0% (100.0%, 100.0%) |
| Age < 65 Male | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 50 | 390.3/390.3 = 100.0% (100.0%, 100.0%) | 390.3/390.3 = 100.0% (100.0%, 100.0%) | 390.3/390.3 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Male | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 164 | 783.2/993.1 = 78.9% (71.9%, 84.5%) | 962.9/993.1 = 97.0% (92.8%, 98.8%) | 930/993.1 = 93.6% (88.7%, 96.5%) |
| Age ≥ 65 Male | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 164 | 993.1/993.1 = 100.0% (100.0%, 100.0%) | 993.1/993.1 = 100.0% (100.0%, 100.0%) | 993.1/993.1 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Male | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 164 | 993.1/993.1 = 100.0% (100.0%, 100.0%) | 993.1/993.1 = 100.0% (100.0%, 100.0%) | 993.1/993.1 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Male | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 47 | 87.6/100.3 = 87.4% (72.7%, 94.8%) | 100.3/100.3 = 100.0% (100.0%, 100.0%) | 97.7/100.3 = 97.5% (83.3%, 99.7%) |
| Age ≥ 65 Male | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 47 | 100.3/100.3 = 100.0% (100.0%, 100.0%) | 100.3/100.3 = 100.0% (100.0%, 100.0%) | 100.3/100.3 = 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) | 47 | 100.3/100.3 = 100.0% (100.0%, 100.0%) | 100.3/100.3 = 100.0% (100.0%, 100.0%) | 100.3/100.3 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Male | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 29 | 0/1174.4 = 0.0% (0.0%, 0.0%) | 0/1174.4 = 0.0% (0.0%, 0.0%) | 0/1174.4 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 Male | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 29 | 0/1174.4 = 0.0% (0.0%, 0.0%) | 0/1174.4 = 0.0% (0.0%, 0.0%) | 0/1174.4 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 Male | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 29 | 0/1174.4 = 0.0% (0.0%, 0.0%) | 0/1174.4 = 0.0% (0.0%, 0.0%) | 0/1174.4 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 Male | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 58 | 88.3/110.7 = 79.8% (67.2%, 88.3%) | 105.3/110.7 = 95.1% (85.4%, 98.5%) | 93.8/110.7 = 84.7% (72.6%, 92.0%) |
| Age ≥ 65 Male | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 58 | 110.7/110.7 = 100.0% (100.0%, 100.0%) | 110.7/110.7 = 100.0% (100.0%, 100.0%) | 110.7/110.7 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Male | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 58 | 110.7/110.7 = 100.0% (100.0%, 100.0%) | 110.7/110.7 = 100.0% (100.0%, 100.0%) | 110.7/110.7 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Male | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 164 | 927.2/993.1 = 93.4% (88.5%, 96.2%) | 988.3/993.1 = 99.5% (96.6%, 99.9%) | 971.8/993.1 = 97.9% (94.3%, 99.2%) |
| Age ≥ 65 Male | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 164 | 993.1/993.1 = 100.0% (100.0%, 100.0%) | 993.1/993.1 = 100.0% (100.0%, 100.0%) | 993.1/993.1 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Male | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 164 | 993.1/993.1 = 100.0% (100.0%, 100.0%) | 993.1/993.1 = 100.0% (100.0%, 100.0%) | 993.1/993.1 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Male | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 47 | 100.3/100.3 = 100.0% (100.0%, 100.0%) | 100.3/100.3 = 100.0% (100.0%, 100.0%) | 100.3/100.3 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Male | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 47 | 100.3/100.3 = 100.0% (100.0%, 100.0%) | 100.3/100.3 = 100.0% (100.0%, 100.0%) | 100.3/100.3 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Male | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 47 | 100.3/100.3 = 100.0% (100.0%, 100.0%) | 100.3/100.3 = 100.0% (100.0%, 100.0%) | 100.3/100.3 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Male | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 29 | 0/1174.4 = 0.0% (0.0%, 0.0%) | 0/1174.4 = 0.0% (0.0%, 0.0%) | 0/1174.4 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 Male | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 29 | 0/1174.4 = 0.0% (0.0%, 0.0%) | 0/1174.4 = 0.0% (0.0%, 0.0%) | 0/1174.4 = 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 Male | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 29 | 0/1174.4 = 0.0% (0.0%, 0.0%) | 0/1174.4 = 0.0% (0.0%, 0.0%) | 0/1174.4 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 Male | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 58 | 100.5/110.7 = 90.8% (79.5%, 96.2%) | 108.7/110.7 = 98.2% (87.6%, 99.8%) | 108.7/110.7 = 98.2% (87.6%, 99.8%) |
| Age ≥ 65 Male | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 58 | 110.7/110.7 = 100.0% (100.0%, 100.0%) | 110.7/110.7 = 100.0% (100.0%, 100.0%) | 110.7/110.7 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Male | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 58 | 110.7/110.7 = 100.0% (100.0%, 100.0%) | 110.7/110.7 = 100.0% (100.0%, 100.0%) | 110.7/110.7 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Female | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 226 | 1105.7/1364.9 = 81.0% (75.2%, 85.7%) | 1316.9/1364.9 = 96.5% (92.8%, 98.3%) | 1279.9/1364.9 = 93.8% (89.5%, 96.4%) |
| Age ≥ 65 Female | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 226 | 1364.9/1364.9 = 100.0% (100.0%, 100.0%) | 1364.9/1364.9 = 100.0% (100.0%, 100.0%) | 1364.9/1364.9 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Female | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 226 | 1364.9/1364.9 = 100.0% (100.0%, 100.0%) | 1364.9/1364.9 = 100.0% (100.0%, 100.0%) | 1364.9/1364.9 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Female | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 73 | 145.3/150.7 = 96.4% (88.8%, 98.9%) | 150.7/150.7 = 100.0% (100.0%, 100.0%) | 146.8/150.7 = 97.4% (89.3%, 99.4%) |
| Age ≥ 65 Female | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 73 | 150.7/150.7 = 100.0% (100.0%, 100.0%) | 150.7/150.7 = 100.0% (100.0%, 100.0%) | 150.7/150.7 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Female | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 73 | 150.7/150.7 = 100.0% (100.0%, 100.0%) | 150.7/150.7 = 100.0% (100.0%, 100.0%) | 150.7/150.7 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Female | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 37 | 0/1585.6 = 0.0% (0.0%, 0.0%) | 0/1585.6 = 0.0% (0.0%, 0.0%) | 0/1585.6 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 Female | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 37 | 0/1585.6 = 0.0% (0.0%, 0.0%) | 0/1585.6 = 0.0% (0.0%, 0.0%) | 0/1585.6 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 Female | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 37 | 0/1585.6 = 0.0% (0.0%, 0.0%) | 0/1585.6 = 0.0% (0.0%, 0.0%) | 0/1585.6 = 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 Female | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 63 | 93.8/121.3 = 77.3% (65.0%, 86.2%) | 117.2/121.3 = 96.6% (87.2%, 99.2%) | 113.8/121.3 = 93.8% (84.3%, 97.7%) |
| Age ≥ 65 Female | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 63 | 121.3/121.3 = 100.0% (100.0%, 100.0%) | 121.3/121.3 = 100.0% (100.0%, 100.0%) | 121.3/121.3 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Female | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 63 | 121.3/121.3 = 100.0% (100.0%, 100.0%) | 121.3/121.3 = 100.0% (100.0%, 100.0%) | 121.3/121.3 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Female | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 226 | 1288.8/1364.9 = 94.4% (90.4%, 96.8%) | 1351.2/1364.9 = 99.0% (96.0%, 99.8%) | 1327.9/1364.9 = 97.3% (94.0%, 98.8%) |
| Age ≥ 65 Female | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 226 | 1364.9/1364.9 = 100.0% (100.0%, 100.0%) | 1364.9/1364.9 = 100.0% (100.0%, 100.0%) | 1364.9/1364.9 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Female | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 226 | 1364.9/1364.9 = 100.0% (100.0%, 100.0%) | 1364.9/1364.9 = 100.0% (100.0%, 100.0%) | 1364.9/1364.9 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Female | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 73 | 150.7/150.7 = 100.0% (100.0%, 100.0%) | 150.7/150.7 = 100.0% (100.0%, 100.0%) | 150.7/150.7 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Female | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 73 | 150.7/150.7 = 100.0% (100.0%, 100.0%) | 150.7/150.7 = 100.0% (100.0%, 100.0%) | 150.7/150.7 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Female | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 73 | 150.7/150.7 = 100.0% (100.0%, 100.0%) | 150.7/150.7 = 100.0% (100.0%, 100.0%) | 150.7/150.7 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Female | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 37 | 0/1585.6 = 0.0% (0.0%, 0.0%) | 0/1585.6 = 0.0% (0.0%, 0.0%) | 0/1585.6 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 Female | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 37 | 0/1585.6 = 0.0% (0.0%, 0.0%) | 0/1585.6 = 0.0% (0.0%, 0.0%) | 0/1585.6 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 Female | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 37 | 0/1585.6 = 0.0% (0.0%, 0.0%) | 0/1585.6 = 0.0% (0.0%, 0.0%) | 0/1585.6 = 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 Female | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 63 | 111.4/121.3 = 91.9% (81.6%, 96.7%) | 119.2/121.3 = 98.3% (88.6%, 99.8%) | 111.4/121.3 = 91.9% (81.6%, 96.7%) |
| Age ≥ 65 Female | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 63 | 121.3/121.3 = 100.0% (100.0%, 100.0%) | 121.3/121.3 = 100.0% (100.0%, 100.0%) | 121.3/121.3 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Female | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 63 | 121.3/121.3 = 100.0% (100.0%, 100.0%) | 121.3/121.3 = 100.0% (100.0%, 100.0%) | 121.3/121.3 = 100.0% (100.0%, 100.0%) |

Binding Antibody Responders are defined as participants with concentration above the specified positivity cut-off, with a separate cut-off for each antigen Spike, RBD, N (10.8424, 14.0858, and 23.4711 respectively, in IU/ml).

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

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) | 99 | 715.5/1009.2 = 70.9% (58.3%, 80.9%) | 861.4/1009.2 = 85.4% (72.7%, 92.7%) | 845.6/1009.2 = 83.8% (71.3%, 91.5%) |
| Hispanic or Latino | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 99 | 1009.2/1009.2 = 100.0% (100.0%, 100.0%) | 1009.2/1009.2 = 100.0% (100.0%, 100.0%) | 1009.2/1009.2 = 100.0% (100.0%, 100.0%) |
| Hispanic or Latino | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 99 | 1009.2/1009.2 = 100.0% (100.0%, 100.0%) | 1009.2/1009.2 = 100.0% (100.0%, 100.0%) | 1009.2/1009.2 = 100.0% (100.0%, 100.0%) |
| Hispanic or Latino | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 31 | 57.3/105.1 = 54.5% (32.0%, 75.3%) | 95.9/105.1 = 91.2% (69.3%, 97.9%) | 89.8/105.1 = 85.4% (64.1%, 95.1%) |
| Hispanic or Latino | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 31 | 100.5/105.1 = 95.6% (72.3%, 99.5%) | 105.1/105.1 = 100.0% (100.0%, 100.0%) | 105.1/105.1 = 100.0% (100.0%, 100.0%) |
| Hispanic or Latino | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 31 | 105.1/105.1 = 100.0% (100.0%, 100.0%) | 105.1/105.1 = 100.0% (100.0%, 100.0%) | 105.1/105.1 = 100.0% (100.0%, 100.0%) |
| Hispanic or Latino | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 20 | 0/991.8 = 0.0% (0.0%, 0.0%) | 0/991.8 = 0.0% (0.0%, 0.0%) | 0/991.8 = 0.0% (0.0%, 0.0%) |
| Hispanic or Latino | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 20 | 0/991.8 = 0.0% (0.0%, 0.0%) | 0/991.8 = 0.0% (0.0%, 0.0%) | 0/991.8 = 0.0% (0.0%, 0.0%) |
| Hispanic or Latino | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 20 | 0/991.8 = 0.0% (0.0%, 0.0%) | 0/991.8 = 0.0% (0.0%, 0.0%) | 0/991.8 = 0.0% (0.0%, 0.0%) |
| Hispanic or Latino | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 34 | 64.3/148.4 = 43.3% (25.2%, 63.4%) | 128.6/148.4 = 86.7% (63.8%, 96.0%) | 113.2/148.4 = 76.3% (54.2%, 89.7%) |
| Hispanic or Latino | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 34 | 148.4/148.4 = 100.0% (100.0%, 100.0%) | 148.4/148.4 = 100.0% (100.0%, 100.0%) | 148.4/148.4 = 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) | 34 | 140.7/148.4 = 94.8% (68.8%, 99.3%) | 148.4/148.4 = 100.0% (100.0%, 100.0%) | 148.4/148.4 = 100.0% (100.0%, 100.0%) |
| Hispanic or Latino | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 99 | 819.5/1009.2 = 81.2% (68.1%, 89.7%) | 970.8/1009.2 = 96.2% (84.2%, 99.2%) | 911.9/1009.2 = 90.4% (78.6%, 96.0%) |
| Hispanic or Latino | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 99 | 1009.2/1009.2 = 100.0% (100.0%, 100.0%) | 1009.2/1009.2 = 100.0% (100.0%, 100.0%) | 1009.2/1009.2 = 100.0% (100.0%, 100.0%) |
| Hispanic or Latino | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 99 | 1009.2/1009.2 = 100.0% (100.0%, 100.0%) | 1009.2/1009.2 = 100.0% (100.0%, 100.0%) | 1009.2/1009.2 = 100.0% (100.0%, 100.0%) |
| Hispanic or Latino | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 31 | 91.9/105.1 = 87.4% (58.2%, 97.2%) | 100.5/105.1 = 95.6% (72.3%, 99.5%) | 91.9/105.1 = 87.4% (58.2%, 97.2%) |
| Hispanic or Latino | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 31 | 105.1/105.1 = 100.0% (100.0%, 100.0%) | 105.1/105.1 = 100.0% (100.0%, 100.0%) | 105.1/105.1 = 100.0% (100.0%, 100.0%) |
| Hispanic or Latino | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 31 | 105.1/105.1 = 100.0% (100.0%, 100.0%) | 105.1/105.1 = 100.0% (100.0%, 100.0%) | 105.1/105.1 = 100.0% (100.0%, 100.0%) |
| Hispanic or Latino | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 20 | 0/991.8 = 0.0% (0.0%, 0.0%) | 0/991.8 = 0.0% (0.0%, 0.0%) | 0/991.8 = 0.0% (0.0%, 0.0%) |
| Hispanic or Latino | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 20 | 0/991.8 = 0.0% (0.0%, 0.0%) | 0/991.8 = 0.0% (0.0%, 0.0%) | 0/991.8 = 0.0% (0.0%, 0.0%) |
| Hispanic or Latino | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 20 | 0/991.8 = 0.0% (0.0%, 0.0%) | 0/991.8 = 0.0% (0.0%, 0.0%) | 0/991.8 = 0.0% (0.0%, 0.0%) |
| Hispanic or Latino | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 34 | 120.9/148.4 = 81.5% (58.3%, 93.3%) | 136.3/148.4 = 91.9% (69.9%, 98.2%) | 136.3/148.4 = 91.9% (69.9%, 98.2%) |
| Hispanic or Latino | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 34 | 148.4/148.4 = 100.0% (100.0%, 100.0%) | 148.4/148.4 = 100.0% (100.0%, 100.0%) | 148.4/148.4 = 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) | 34 | 148.4/148.4 = 100.0% (100.0%, 100.0%) | 148.4/148.4 = 100.0% (100.0%, 100.0%) | 148.4/148.4 = 100.0% (100.0%, 100.0%) |
| Not Hispanic or Latino | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 623 | 6012.3/9866.2 = 60.9% (56.0%, 65.7%) | 8722.6/9866.2 = 88.4% (84.6%, 91.4%) | 7809.2/9866.2 = 79.2% (74.6%, 83.0%) |
| Not Hispanic or Latino | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 623 | 9693/9866.2 = 98.2% (96.2%, 99.2%) | 9866.2/9866.2 = 100.0% (100.0%, 100.0%) | 9855.2/9866.2 = 99.9% (99.2%, 100.0%) |
| Not Hispanic or Latino | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 623 | 9778/9866.2 = 99.1% (97.4%, 99.7%) | 9866.2/9866.2 = 100.0% (100.0%, 100.0%) | 9866.2/9866.2 = 100.0% (100.0%, 100.0%) |
| Not Hispanic or Latino | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 194 | 864.6/1101.6 = 78.5% (70.3%, 84.9%) | 1046.8/1101.6 = 95.0% (88.8%, 97.9%) | 955.8/1101.6 = 86.8% (78.9%, 92.0%) |
| Not Hispanic or Latino | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 194 | 1101.6/1101.6 = 100.0% (100.0%, 100.0%) | 1101.6/1101.6 = 100.0% (100.0%, 100.0%) | 1101.6/1101.6 = 100.0% (100.0%, 100.0%) |
| Not Hispanic or Latino | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 194 | 1093/1101.6 = 99.2% (94.6%, 99.9%) | 1101.6/1101.6 = 100.0% (100.0%, 100.0%) | 1101.6/1101.6 = 100.0% (100.0%, 100.0%) |
| Not Hispanic or Latino | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 113 | 0/9818.5 = 0.0% (0.0%, 0.0%) | 0/9818.5 = 0.0% (0.0%, 0.0%) | 0/9818.5 = 0.0% (0.0%, 0.0%) |
| Not Hispanic or Latino | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 113 | 0/9818.5 = 0.0% (0.0%, 0.0%) | 0/9818.5 = 0.0% (0.0%, 0.0%) | 0/9818.5 = 0.0% (0.0%, 0.0%) |
| Not Hispanic or Latino | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 113 | 0/9818.5 = 0.0% (0.0%, 0.0%) | 0/9818.5 = 0.0% (0.0%, 0.0%) | 0/9818.5 = 0.0% (0.0%, 0.0%) |
| Not Hispanic or Latino | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 201 | 526.9/949.1 = 55.5% (46.8%, 63.9%) | 749.3/949.1 = 79.0% (70.3%, 85.6%) | 700.5/949.1 = 73.8% (65.1%, 81.0%) |
| Not Hispanic or Latino | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 201 | 888.1/949.1 = 93.6% (86.3%, 97.1%) | 949.1/949.1 = 100.0% (100.0%, 100.0%) | 932.7/949.1 = 98.3% (92.6%, 99.6%) |

(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) | 201 | 922.5/949.1 = 97.2% (91.5%, 99.1%) | 949.1/949.1 = 100.0% (100.0%, 100.0%) | 949.1/949.1 = 100.0% (100.0%, 100.0%) |
| Not Hispanic or Latino | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 623 | 8023.8/9866.2 = 81.3% (77.0%, 85.0%) | 9328.8/9866.2 = 94.6% (91.6%, 96.5%) | 8951.7/9866.2 = 90.7% (87.3%, 93.3%) |
| Not Hispanic or Latino | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 623 | 9846.4/9866.2 = 99.8% (98.6%, 100.0%) | 9866.2/9866.2 = 100.0% (100.0%, 100.0%) | 9866.2/9866.2 = 100.0% (100.0%, 100.0%) |
| Not Hispanic or Latino | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 623 | 9866.2/9866.2 = 100.0% (100.0%, 100.0%) | 9866.2/9866.2 = 100.0% (100.0%, 100.0%) | 9866.2/9866.2 = 100.0% (100.0%, 100.0%) |
| Not Hispanic or Latino | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 194 | 1059.9/1101.6 = 96.2% (89.9%, 98.6%) | 1088.3/1101.6 = 98.8% (91.8%, 99.8%) | 1068.5/1101.6 = 97.0% (90.6%, 99.1%) |
| Not Hispanic or Latino | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 194 | 1101.6/1101.6 = 100.0% (100.0%, 100.0%) | 1101.6/1101.6 = 100.0% (100.0%, 100.0%) | 1101.6/1101.6 = 100.0% (100.0%, 100.0%) |
| Not Hispanic or Latino | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 194 | 1101.6/1101.6 = 100.0% (100.0%, 100.0%) | 1101.6/1101.6 = 100.0% (100.0%, 100.0%) | 1101.6/1101.6 = 100.0% (100.0%, 100.0%) |
| Not Hispanic or Latino | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 113 | 0/9818.5 = 0.0% (0.0%, 0.0%) | 0/9818.5 = 0.0% (0.0%, 0.0%) | 0/9818.5 = 0.0% (0.0%, 0.0%) |
| Not Hispanic or Latino | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 113 | 0/9818.5 = 0.0% (0.0%, 0.0%) | 0/9818.5 = 0.0% (0.0%, 0.0%) | 0/9818.5 = 0.0% (0.0%, 0.0%) |
| Not Hispanic or Latino | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 113 | 0/9818.5 = 0.0% (0.0%, 0.0%) | 0/9818.5 = 0.0% (0.0%, 0.0%) | 0/9818.5 = 0.0% (0.0%, 0.0%) |
| Not Hispanic or Latino | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 201 | 722.4/949.1 = 76.1% (67.4%, 83.1%) | 867.6/949.1 = 91.4% (84.0%, 95.6%) | 814.1/949.1 = 85.8% (77.8%, 91.2%) |
| Not Hispanic or Latino | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 201 | 949.1/949.1 = 100.0% (100.0%, 100.0%) | 949.1/949.1 = 100.0% (100.0%, 100.0%) | 949.1/949.1 = 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) | 201 | 949.1/949.1 = 100.0% (100.0%, 100.0%) | 949.1/949.1 = 100.0% (100.0%, 100.0%) | 949.1/949.1 = 100.0% (100.0%, 100.0%) |
| Not reported and unknown | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 25 | 171.5/251.7 = 68.1% (38.0%, 88.2%) | 240.7/251.7 = 95.7% (72.0%, 99.5%) | 208.5/251.7 = 82.9% (50.2%, 95.9%) |
| Not reported and unknown | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 25 | 251.7/251.7 = 100.0% (100.0%, 100.0%) | 251.7/251.7 = 100.0% (100.0%, 100.0%) | 251.7/251.7 = 100.0% (100.0%, 100.0%) |
| Not reported and unknown | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 25 | 251.7/251.7 = 100.0% (100.0%, 100.0%) | 251.7/251.7 = 100.0% (100.0%, 100.0%) | 251.7/251.7 = 100.0% (100.0%, 100.0%) |
| Not reported and unknown | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 9 | 18.7/27.3 = 68.4% (12.9%, 97.0%) | 27.3/27.3 = 100.0% (100.0%, 100.0%) | 27.3/27.3 = 100.0% (100.0%, 100.0%) |
| Not reported and unknown | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 9 | 27.3/27.3 = 100.0% (100.0%, 100.0%) | 27.3/27.3 = 100.0% (100.0%, 100.0%) | 27.3/27.3 = 100.0% (100.0%, 100.0%) |
| Not reported and unknown | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 9 | 27.3/27.3 = 100.0% (100.0%, 100.0%) | 27.3/27.3 = 100.0% (100.0%, 100.0%) | 27.3/27.3 = 100.0% (100.0%, 100.0%) |
| Not reported and unknown | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 5 | 0/292.8 = 0.0% (0.0%, 0.0%) | 0/292.8 = 0.0% (0.0%, 0.0%) | 0/292.8 = 0.0% (0.0%, 0.0%) |
| Not reported and unknown | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 5 | 0/292.8 = 0.0% (0.0%, 0.0%) | 0/292.8 = 0.0% (0.0%, 0.0%) | 0/292.8 = 0.0% (0.0%, 0.0%) |
| Not reported and unknown | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 5 | 0/292.8 = 0.0% (0.0%, 0.0%) | 0/292.8 = 0.0% (0.0%, 0.0%) | 0/292.8 = 0.0% (0.0%, 0.0%) |
| Not reported and unknown | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 6 | 11.1/27.5 = 40.3% (3.1%, 93.3%) | 19.8/27.5 = 72.0% (6.5%, 99.0%) | 11.1/27.5 = 40.3% (3.1%, 93.3%) |
| Not reported and unknown | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 6 | 27.5/27.5 = 100.0% (100.0%, 100.0%) | 27.5/27.5 = 100.0% (100.0%, 100.0%) | 27.5/27.5 = 100.0% (100.0%, 100.0%) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | Responder | % 2-Fold Rise | % 4-Fold Rise |
|--------------------------|--------|---------|---------------------|------------------------|----|---------------------------------------|---------------------------------------|---------------------------------------|
| Not reported and unknown | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 6 | 27.5/27.5 = 100.0% (100.0%, 100.0%) | 27.5/27.5 = 100.0% (100.0%, 100.0%) | 27.5/27.5 = 100.0% (100.0%, 100.0%) |
| Not reported and unknown | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 25 | 208.5/251.7 = 82.9% (50.2%, 95.9%) | 251.7/251.7 = 100.0% (100.0%, 100.0%) | 251.7/251.7 = 100.0% (100.0%, 100.0%) |
| Not reported and unknown | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 25 | 251.7/251.7 = 100.0% (100.0%, 100.0%) | 251.7/251.7 = 100.0% (100.0%, 100.0%) | 251.7/251.7 = 100.0% (100.0%, 100.0%) |
| Not reported and unknown | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 25 | 251.7/251.7 = 100.0% (100.0%, 100.0%) | 251.7/251.7 = 100.0% (100.0%, 100.0%) | 251.7/251.7 = 100.0% (100.0%, 100.0%) |
| Not reported and unknown | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 9 | 27.3/27.3 = 100.0% (100.0%, 100.0%) | 27.3/27.3 = 100.0% (100.0%, 100.0%) | 27.3/27.3 = 100.0% (100.0%, 100.0%) |
| Not reported and unknown | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 9 | 27.3/27.3 = 100.0% (100.0%, 100.0%) | 27.3/27.3 = 100.0% (100.0%, 100.0%) | 27.3/27.3 = 100.0% (100.0%, 100.0%) |
| Not reported and unknown | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 9 | 27.3/27.3 = 100.0% (100.0%, 100.0%) | 27.3/27.3 = 100.0% (100.0%, 100.0%) | 27.3/27.3 = 100.0% (100.0%, 100.0%) |
| Not reported and unknown | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 5 | 0/292.8 = 0.0% (0.0%, 0.0%) | 0/292.8 = 0.0% (0.0%, 0.0%) | 0/292.8 = 0.0% (0.0%, 0.0%) |
| Not reported and unknown | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 5 | 0/292.8 = 0.0% (0.0%, 0.0%) | 0/292.8 = 0.0% (0.0%, 0.0%) | 0/292.8 = 0.0% (0.0%, 0.0%) |
| Not reported and unknown | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 5 | 0/292.8 = 0.0% (0.0%, 0.0%) | 0/292.8 = 0.0% (0.0%, 0.0%) | 0/292.8 = 0.0% (0.0%, 0.0%) |
| Not reported and unknown | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 6 | 19.8/27.5 = 72.0% (6.5%, 99.0%) | 19.8/27.5 = 72.0% (6.5%, 99.0%) | 19.8/27.5 = 72.0% (6.5%, 99.0%) |
| Not reported and unknown | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 6 | 27.5/27.5 = 100.0% (100.0%, 100.0%) | 27.5/27.5 = 100.0% (100.0%, 100.0%) | 27.5/27.5 = 100.0% (100.0%, 100.0%) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | Responder | % 2-Fold Rise | % 4-Fold Rise |
|--------------------------|--------|---------|---------------------|------------------------|---|--|--|--|
| Not reported and unknown | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 6 | 27.5/27.5 = 100.0% (100.0%, 100.0%) | 27.5/27.5 = 100.0% (100.0%, 100.0%) | 27.5/27.5 = 100.0% (100.0%, 100.0%) |

Binding Antibody Responders are defined as participants with concentration above the specified positivity cut-off, with a separate cut-off for each antigen Spike, RBD, N (10.8424, 14.0858, and 23.4711 respectively, in IU/ml).

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



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) | 370 | 3671.4/6391.7 = 57.4% (51.0%, 63.6%) | 5426.8/6391.7 = 84.9% (79.4%, 89.2%) | 4873/6391.7 = 76.2% (70.1%, 81.4%) |
| White Non-Hispanic | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 370 | 6276.7/6391.7 = 98.2% (95.1%, 99.4%) | 6391.7/6391.7 = 100.0% (100.0%, 100.0%) | 6391.7/6391.7 = 100.0% (100.0%, 100.0%) |
| White Non-Hispanic | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 370 | 6314.5/6391.7 = 98.8% (96.1%, 99.6%) | 6391.7/6391.7 = 100.0% (100.0%, 100.0%) | 6391.7/6391.7 = 100.0% (100.0%, 100.0%) |
| White Non-Hispanic | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 118 | 569.8/723.7 = 78.7% (67.6%, 86.8%) | 684/723.7 = 94.5% (85.4%, 98.1%) | 619.4/723.7 = 85.6% (74.6%, 92.3%) |
| White Non-Hispanic | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 118 | 723.7/723.7 = 100.0% (100.0%, 100.0%) | 723.7/723.7 = 100.0% (100.0%, 100.0%) | 723.7/723.7 = 100.0% (100.0%, 100.0%) |
| White Non-Hispanic | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 118 | 723.7/723.7 = 100.0% (100.0%, 100.0%) | 723.7/723.7 = 100.0% (100.0%, 100.0%) | 723.7/723.7 = 100.0% (100.0%, 100.0%) |
| White Non-Hispanic | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 63 | 0/6564.1 = 0.0% (0.0%, 0.0%) | 0/6564.1 = 0.0% (0.0%, 0.0%) | 0/6564.1 = 0.0% (0.0%, 0.0%) |
| White Non-Hispanic | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 63 | 0/6564.1 = 0.0% (0.0%, 0.0%) | 0/6564.1 = 0.0% (0.0%, 0.0%) | 0/6564.1 = 0.0% (0.0%, 0.0%) |
| White Non-Hispanic | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 63 | 0/6564.1 = 0.0% (0.0%, 0.0%) | 0/6564.1 = 0.0% (0.0%, 0.0%) | 0/6564.1 = 0.0% (0.0%, 0.0%) |
| White Non-Hispanic | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 121 | 339/609.5 = 55.6% (44.3%, 66.4%) | 467.7/609.5 = 76.7% (65.0%, 85.4%) | 432.7/609.5 = 71.0% (59.3%, 80.4%) |
| White Non-Hispanic | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 121 | 553.7/609.5 = 90.8% (80.0%, 96.1%) | 609.5/609.5 = 100.0% (100.0%, 100.0%) | 598.3/609.5 = 98.2% (87.8%, 99.8%) |

(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) | 121 | 598.3/609.5 = 98.2% (87.8%, 99.8%) | 609.5/609.5 = 100.0% (100.0%, 100.0%) | 609.5/609.5 = 100.0% (100.0%, 100.0%) |
| White Non-Hispanic | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 370 | 5052.5/6391.7 = 79.0% (73.1%, 84.0%) | 5955.6/6391.7 = 93.2% (88.9%, 95.9%) | 5723/6391.7 = 89.5% (84.7%, 93.0%) |
| White Non-Hispanic | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 370 | 6372/6391.7 = 99.7% (97.8%, 100.0%) | 6391.7/6391.7 = 100.0% (100.0%, 100.0%) | 6391.7/6391.7 = 100.0% (100.0%, 100.0%) |
| White Non-Hispanic | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 370 | 6391.7/6391.7 = 100.0% (100.0%, 100.0%) | 6391.7/6391.7 = 100.0% (100.0%, 100.0%) | 6391.7/6391.7 = 100.0% (100.0%, 100.0%) |
| White Non-Hispanic | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 118 | 690.6/723.7 = 95.4% (86.0%, 98.6%) | 710.4/723.7 = 98.2% (87.7%, 99.8%) | 690.6/723.7 = 95.4% (86.0%, 98.6%) |
| White Non-Hispanic | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 118 | 723.7/723.7 = 100.0% (100.0%, 100.0%) | 723.7/723.7 = 100.0% (100.0%, 100.0%) | 723.7/723.7 = 100.0% (100.0%, 100.0%) |
| White Non-Hispanic | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 118 | 723.7/723.7 = 100.0% (100.0%, 100.0%) | 723.7/723.7 = 100.0% (100.0%, 100.0%) | 723.7/723.7 = 100.0% (100.0%, 100.0%) |
| White Non-Hispanic | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 63 | 0/6564.1 = 0.0% (0.0%, 0.0%) | 0/6564.1 = 0.0% (0.0%, 0.0%) | 0/6564.1 = 0.0% (0.0%, 0.0%) |
| White Non-Hispanic | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 63 | 0/6564.1 = 0.0% (0.0%, 0.0%) | 0/6564.1 = 0.0% (0.0%, 0.0%) | 0/6564.1 = 0.0% (0.0%, 0.0%) |
| White Non-Hispanic | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 63 | 0/6564.1 = 0.0% (0.0%, 0.0%) | 0/6564.1 = 0.0% (0.0%, 0.0%) | 0/6564.1 = 0.0% (0.0%, 0.0%) |
| White Non-Hispanic | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 121 | 455.4/609.5 = 74.7% (63.2%, 83.6%) | 555.5/609.5 = 91.2% (81.0%, 96.1%) | 518.7/609.5 = 85.1% (74.3%, 91.9%) |
| White Non-Hispanic | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 121 | 609.5/609.5 = 100.0% (100.0%, 100.0%) | 609.5/609.5 = 100.0% (100.0%, 100.0%) | 609.5/609.5 = 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) | 121 | 609.5/609.5 = 100.0% (100.0%, 100.0%) | 609.5/609.5 = 100.0% (100.0%, 100.0%) | 609.5/609.5 = 100.0% (100.0%, 100.0%) |
| Black or African American | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 184 | 1460.2/2208.2 = 66.1% (56.8%, 74.3%) | 2127.5/2208.2 = 96.3% (91.5%, 98.5%) | 1873.4/2208.2 = 84.8% (76.9%, 90.4%) |
| Black or African American | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 184 | 2169.9/2208.2 = 98.3% (92.4%, 99.6%) | 2208.2/2208.2 = 100.0% (100.0%, 100.0%) | 2197.3/2208.2 = 99.5% (96.5%, 99.9%) |
| Black or African American | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 184 | 2197.3/2208.2 = 99.5% (96.5%, 99.9%) | 2208.2/2208.2 = 100.0% (100.0%, 100.0%) | 2208.2/2208.2 = 100.0% (100.0%, 100.0%) |
| Black or African American | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 58 | 189.8/246.7 = 76.9% (59.3%, 88.4%) | 238.1/246.7 = 96.5% (77.9%, 99.5%) | 220.3/246.7 = 89.3% (73.1%, 96.2%) |
| Black or African American | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 58 | 246.7/246.7 = 100.0% (100.0%, 100.0%) | 246.7/246.7 = 100.0% (100.0%, 100.0%) | 246.7/246.7 = 100.0% (100.0%, 100.0%) |
| Black or African American | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 58 | 246.7/246.7 = 100.0% (100.0%, 100.0%) | 246.7/246.7 = 100.0% (100.0%, 100.0%) | 246.7/246.7 = 100.0% (100.0%, 100.0%) |
| Black or African American | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 40 | 0/2287.9 = 0.0% (0.0%, 0.0%) | 0/2287.9 = 0.0% (0.0%, 0.0%) | 0/2287.9 = 0.0% (0.0%, 0.0%) |
| Black or African American | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 40 | 0/2287.9 = 0.0% (0.0%, 0.0%) | 0/2287.9 = 0.0% (0.0%, 0.0%) | 0/2287.9 = 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) | 40 | 0/2287.9 = 0.0% (0.0%, 0.0%) | 0/2287.9 = 0.0% (0.0%, 0.0%) | 0/2287.9 = 0.0% (0.0%, 0.0%) |
| Black or African American | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 45 | 106.3/163.1 = 65.2% (46.0%, 80.5%) | 132.2/163.1 = 81.1% (60.8%, 92.2%) | 121.8/163.1 = 74.7% (55.0%, 87.7%) |
| Black or African American | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 45 | 163.1/163.1 = 100.0% (100.0%, 100.0%) | 163.1/163.1 = 100.0% (100.0%, 100.0%) | 163.1/163.1 = 100.0% (100.0%, 100.0%) |
| Black or African American | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 45 | 147.7/163.1 = 90.6% (68.6%, 97.7%) | 163.1/163.1 = 100.0% (100.0%, 100.0%) | 163.1/163.1 = 100.0% (100.0%, 100.0%) |
| Black or African American | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 184 | 1896/2208.2 = 85.9% (78.2%, 91.1%) | 2126.7/2208.2 = 96.3% (90.2%, 98.7%) | 2029.5/2208.2 = 91.9% (84.9%, 95.8%) |
| Black or African American | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 184 | 2208.2/2208.2 = 100.0% (100.0%, 100.0%) | 2208.2/2208.2 = 100.0% (100.0%, 100.0%) | 2208.2/2208.2 = 100.0% (100.0%, 100.0%) |
| Black or African American | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 184 | 2208.2/2208.2 = 100.0% (100.0%, 100.0%) | 2208.2/2208.2 = 100.0% (100.0%, 100.0%) | 2208.2/2208.2 = 100.0% (100.0%, 100.0%) |
| Black or African American | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 58 | 238.1/246.7 = 96.5% (77.9%, 99.5%) | 246.7/246.7 = 100.0% (100.0%, 100.0%) | 246.7/246.7 = 100.0% (100.0%, 100.0%) |
| Black or African American | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 58 | 246.7/246.7 = 100.0% (100.0%, 100.0%) | 246.7/246.7 = 100.0% (100.0%, 100.0%) | 246.7/246.7 = 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) | 58 | 246.7/246.7 = 100.0% (100.0%, 100.0%) | 246.7/246.7 = 100.0% (100.0%, 100.0%) | 246.7/246.7 = 100.0% (100.0%, 100.0%) |
| Black or African American | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 40 | 0/2287.9 = 0.0% (0.0%, 0.0%) | 0/2287.9 = 0.0% (0.0%, 0.0%) | 0/2287.9 = 0.0% (0.0%, 0.0%) |
| Black or African American | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 40 | 0/2287.9 = 0.0% (0.0%, 0.0%) | 0/2287.9 = 0.0% (0.0%, 0.0%) | 0/2287.9 = 0.0% (0.0%, 0.0%) |
| Black or African American | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 40 | 0/2287.9 = 0.0% (0.0%, 0.0%) | 0/2287.9 = 0.0% (0.0%, 0.0%) | 0/2287.9 = 0.0% (0.0%, 0.0%) |
| Black or African American | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 45 | 126.2/163.1 = 77.4% (56.8%, 89.9%) | 155.4/163.1 = 95.3% (71.7%, 99.4%) | 146/163.1 = 89.5% (68.7%, 97.1%) |
| Black or African American | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 45 | 163.1/163.1 = 100.0% (100.0%, 100.0%) | 163.1/163.1 = 100.0% (100.0%, 100.0%) | 163.1/163.1 = 100.0% (100.0%, 100.0%) |
| Black or African American | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 45 | 163.1/163.1 = 100.0% (100.0%, 100.0%) | 163.1/163.1 = 100.0% (100.0%, 100.0%) | 163.1/163.1 = 100.0% (100.0%, 100.0%) |
| Asian | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 56 | 675.8/943.6 = 71.6% (54.7%, 84.1%) | 844.9/943.6 = 89.5% (73.8%, 96.3%) | 838.1/943.6 = 88.8% (73.5%, 95.8%) |
| Asian | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 56 | 923.8/943.6 = 97.9% (85.9%, 99.7%) | 943.6/943.6 = 100.0% (100.0%, 100.0%) | 943.6/943.6 = 100.0% (100.0%, 100.0%) |
| Asian | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 56 | 943.6/943.6 = 100.0% (100.0%, 100.0%) | 943.6/943.6 = 100.0% (100.0%, 100.0%) | 943.6/943.6 = 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) | 19 | 89.3/122.1 = 73.1% (46.3%, 89.6%) | 115.6/122.1 = 94.6% (65.5%, 99.4%) | 102.4/122.1 = 83.9% (56.8%, 95.4%) |
| Asian | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 19 | 122.1/122.1 = 100.0% (100.0%, 100.0%) | 122.1/122.1 = 100.0% (100.0%, 100.0%) | 122.1/122.1 = 100.0% (100.0%, 100.0%) |
| Asian | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 19 | 122.1/122.1 = 100.0% (100.0%, 100.0%) | 122.1/122.1 = 100.0% (100.0%, 100.0%) | 122.1/122.1 = 100.0% (100.0%, 100.0%) |
| Asian | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 10 | 0/921.8 = 0.0% (0.0%, 0.0%) | 0/921.8 = 0.0% (0.0%, 0.0%) | 0/921.8 = 0.0% (0.0%, 0.0%) |
| Asian | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 10 | 0/921.8 = 0.0% (0.0%, 0.0%) | 0/921.8 = 0.0% (0.0%, 0.0%) | 0/921.8 = 0.0% (0.0%, 0.0%) |
| Asian | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 10 | 0/921.8 = 0.0% (0.0%, 0.0%) | 0/921.8 = 0.0% (0.0%, 0.0%) | 0/921.8 = 0.0% (0.0%, 0.0%) |
| Asian | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 27 | 60.4/140.4 = 43.0% (22.4%, 66.3%) | 107.7/140.4 = 76.7% (48.9%, 91.9%) | 97.2/140.4 = 69.2% (43.3%, 86.9%) |
| Asian | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 27 | 135.2/140.4 = 96.3% (75.3%, 99.5%) | 140.4/140.4 = 100.0% (100.0%, 100.0%) | 135.2/140.4 = 96.3% (75.3%, 99.5%) |
| Asian | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 27 | 140.4/140.4 = 100.0% (100.0%, 100.0%) | 140.4/140.4 = 100.0% (100.0%, 100.0%) | 140.4/140.4 = 100.0% (100.0%, 100.0%) |
| Asian | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 56 | 832/943.6 = 88.2% (72.3%, 95.5%) | 943.6/943.6 = 100.0% (100.0%, 100.0%) | 916.1/943.6 = 97.1% (81.4%, 99.6%) |
| Asian | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 56 | 943.6/943.6 = 100.0% (100.0%, 100.0%) | 943.6/943.6 = 100.0% (100.0%, 100.0%) | 943.6/943.6 = 100.0% (100.0%, 100.0%) |
| Asian | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 56 | 943.6/943.6 = 100.0% (100.0%, 100.0%) | 943.6/943.6 = 100.0% (100.0%, 100.0%) | 943.6/943.6 = 100.0% (100.0%, 100.0%) |
| Asian | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 19 | 122.1/122.1 = 100.0% (100.0%, 100.0%) | 122.1/122.1 = 100.0% (100.0%, 100.0%) | 122.1/122.1 = 100.0% (100.0%, 100.0%) |
| Asian | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 19 | 122.1/122.1 = 100.0% (100.0%, 100.0%) | 122.1/122.1 = 100.0% (100.0%, 100.0%) | 122.1/122.1 = 100.0% (100.0%, 100.0%) |
| Asian | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 19 | 122.1/122.1 = 100.0% (100.0%, 100.0%) | 122.1/122.1 = 100.0% (100.0%, 100.0%) | 122.1/122.1 = 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) | 10 | 0/921.8 = 0.0% (0.0%, 0.0%) | 0/921.8 = 0.0% (0.0%, 0.0%) | 0/921.8 = 0.0% (0.0%, 0.0%) |
| Asian | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 10 | 0/921.8 = 0.0% (0.0%, 0.0%) | 0/921.8 = 0.0% (0.0%, 0.0%) | 0/921.8 = 0.0% (0.0%, 0.0%) |
| Asian | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 10 | 0/921.8 = 0.0% (0.0%, 0.0%) | 0/921.8 = 0.0% (0.0%, 0.0%) | 0/921.8 = 0.0% (0.0%, 0.0%) |
| Asian | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 27 | 100.4/140.4 = 71.5% (45.2%, 88.4%) | 112.9/140.4 = 80.4% (51.2%, 94.1%) | 105.6/140.4 = 75.2% (48.1%, 90.9%) |
| Asian | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 27 | 140.4/140.4 = 100.0% (100.0%, 100.0%) | 140.4/140.4 = 100.0% (100.0%, 100.0%) | 140.4/140.4 = 100.0% (100.0%, 100.0%) |
| Asian | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 27 | 140.4/140.4 = 100.0% (100.0%, 100.0%) | 140.4/140.4 = 100.0% (100.0%, 100.0%) | 140.4/140.4 = 100.0% (100.0%, 100.0%) |
| American Indian or Alaska Native | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 16 | 87.8/185.7 = 47.2% (18.5%, 77.9%) | 185.7/185.7 = 100.0% (100.0%, 100.0%) | 120/185.7 = 64.6% (27.9%, 89.6%) |
| American Indian or Alaska Native | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 16 | 185.7/185.7 = 100.0% (100.0%, 100.0%) | 185.7/185.7 = 100.0% (100.0%, 100.0%) | 185.7/185.7 = 100.0% (100.0%, 100.0%) |
| American Indian or Alaska Native | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 16 | 185.7/185.7 = 100.0% (100.0%, 100.0%) | 185.7/185.7 = 100.0% (100.0%, 100.0%) | 185.7/185.7 = 100.0% (100.0%, 100.0%) |
| American Indian or Alaska Native | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 10 | 32.2/42.3 = 76.2% (23.7%, 97.1%) | 42.3/42.3 = 100.0% (100.0%, 100.0%) | 42.3/42.3 = 100.0% (100.0%, 100.0%) |
| American Indian or Alaska Native | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 10 | 42.3/42.3 = 100.0% (100.0%, 100.0%) | 42.3/42.3 = 100.0% (100.0%, 100.0%) | 42.3/42.3 = 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) | 10 | 33.7/42.3 = 79.6% (22.4%, 98.1%) | 42.3/42.3 = 100.0% (100.0%, 100.0%) | 42.3/42.3 = 100.0% (100.0%, 100.0%) |
| American Indian or Alaska Native | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 2 | 0/130 = 0.0% | 0/130 = 0.0% | 0/130 = 0.0% |
| American Indian or Alaska Native | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 2 | 0/130 = 0.0% | 0/130 = 0.0% | 0/130 = 0.0% |
| American Indian or Alaska Native | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 2 | 0/130 = 0.0% | 0/130 = 0.0% | 0/130 = 0.0% |
| American Indian or Alaska Native | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 7 | 13.8/31.9 = 43.2% (6.3%, 89.5%) | 31.9/31.9 = 100.0% (100.0%, 100.0%) | 30.2/31.9 = 94.7% (46.4%, 99.7%) |
| American Indian or Alaska Native | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 7 | 31.9/31.9 = 100.0% (100.0%, 100.0%) | 31.9/31.9 = 100.0% (100.0%, 100.0%) | 31.9/31.9 = 100.0% (100.0%, 100.0%) |
| American Indian or Alaska Native | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 7 | 31.9/31.9 = 100.0% (100.0%, 100.0%) | 31.9/31.9 = 100.0% (100.0%, 100.0%) | 31.9/31.9 = 100.0% (100.0%, 100.0%) |
| American Indian or Alaska Native | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 16 | 120/185.7 = 64.6% (27.9%, 89.6%) | 185.7/185.7 = 100.0% (100.0%, 100.0%) | 158.3/185.7 = 85.2% (36.9%, 98.3%) |
| American Indian or Alaska Native | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 16 | 185.7/185.7 = 100.0% (100.0%, 100.0%) | 185.7/185.7 = 100.0% (100.0%, 100.0%) | 185.7/185.7 = 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) | 16 | 185.7/185.7 = 100.0% (100.0%, 100.0%) | 185.7/185.7 = 100.0% (100.0%, 100.0%) | 185.7/185.7 = 100.0% (100.0%, 100.0%) |
| American Indian or Alaska Native | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 10 | 42.3/42.3 = 100.0% (100.0%, 100.0%) | 42.3/42.3 = 100.0% (100.0%, 100.0%) | 42.3/42.3 = 100.0% (100.0%, 100.0%) |
| American Indian or Alaska Native | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 10 | 42.3/42.3 = 100.0% (100.0%, 100.0%) | 42.3/42.3 = 100.0% (100.0%, 100.0%) | 42.3/42.3 = 100.0% (100.0%, 100.0%) |
| American Indian or Alaska Native | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 10 | 42.3/42.3 = 100.0% (100.0%, 100.0%) | 42.3/42.3 = 100.0% (100.0%, 100.0%) | 42.3/42.3 = 100.0% (100.0%, 100.0%) |
| American Indian or Alaska Native | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 2 | 0/130 = 0.0% | 0/130 = 0.0% | 0/130 = 0.0% |
| American Indian or Alaska Native | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 2 | 0/130 = 0.0% | 0/130 = 0.0% | 0/130 = 0.0% |
| American Indian or Alaska Native | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 2 | 0/130 = 0.0% | 0/130 = 0.0% | 0/130 = 0.0% |
| American Indian or Alaska Native | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 7 | 31.9/31.9 = 100.0% (100.0%, 100.0%) | 31.9/31.9 = 100.0% (100.0%, 100.0%) | 31.9/31.9 = 100.0% (100.0%, 100.0%) |
| American Indian or Alaska Native | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 7 | 31.9/31.9 = 100.0% (100.0%, 100.0%) | 31.9/31.9 = 100.0% (100.0%, 100.0%) | 31.9/31.9 = 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 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 7 | 31.9/31.9 = 100.0% (100.0%, 100.0%) | 31.9/31.9 = 100.0% (100.0%, 100.0%) | 31.9/31.9 = 100.0% (100.0%, 100.0%) |
| Native Hawaiian or Other Pacific Islander | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 17 | 105.6/186.3 = 56.7% (26.3%, 82.8%) | 164.4/186.3 = 88.3% (58.7%, 97.6%) | 132.2/186.3 = 71.0% (35.8%, 91.5%) |
| Native Hawaiian or Other Pacific Islander | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 17 | 186.3/186.3 = 100.0% (100.0%, 100.0%) | 186.3/186.3 = 100.0% (100.0%, 100.0%) | 186.3/186.3 = 100.0% (100.0%, 100.0%) |
| Native Hawaiian or Other Pacific Islander | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 17 | 186.3/186.3 = 100.0% (100.0%, 100.0%) | 186.3/186.3 = 100.0% (100.0%, 100.0%) | 186.3/186.3 = 100.0% (100.0%, 100.0%) |
| Native Hawaiian or Other Pacific Islander | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 4 | 12.9/12.9 = 100.0% (100.0%, 100.0%) | 12.9/12.9 = 100.0% (100.0%, 100.0%) | 12.9/12.9 = 100.0% (100.0%, 100.0%) |
| Native Hawaiian or Other Pacific Islander | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 4 | 12.9/12.9 = 100.0% (100.0%, 100.0%) | 12.9/12.9 = 100.0% (100.0%, 100.0%) | 12.9/12.9 = 100.0% (100.0%, 100.0%) |
| Native Hawaiian or Other Pacific Islander | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 4 | 12.9/12.9 = 100.0% (100.0%, 100.0%) | 12.9/12.9 = 100.0% (100.0%, 100.0%) | 12.9/12.9 = 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 29 | Placebo | Negative | Anti N IgG (IU/ml) | 2 | 0/194.3 = 0.0% | 0/194.3 = 0.0% | 0/194.3 = 0.0% |
| Native Hawaiian or Other Pacific Islander | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 2 | 0/194.3 = 0.0% | 0/194.3 = 0.0% | 0/194.3 = 0.0% |
| Native Hawaiian or Other Pacific Islander | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 2 | 0/194.3 = 0.0% | 0/194.3 = 0.0% | 0/194.3 = 0.0% |
| Native Hawaiian or Other Pacific Islander | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 2 | 9.4/9.4 = 100.0% | 9.4/9.4 = 100.0% | 9.4/9.4 = 100.0% |
| Native Hawaiian or Other Pacific Islander | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 2 | 9.4/9.4 = 100.0% | 9.4/9.4 = 100.0% | 9.4/9.4 = 100.0% |
| Native Hawaiian or Other Pacific Islander | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 2 | 9.4/9.4 = 100.0% | 9.4/9.4 = 100.0% | 9.4/9.4 = 100.0% |
| Native Hawaiian or Other Pacific Islander | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 17 | 186.3/186.3 = 100.0% (100.0%, 100.0%) | 186.3/186.3 = 100.0% (100.0%, 100.0%) | 186.3/186.3 = 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) | 17 | 186.3/186.3 = 100.0% (100.0%, 100.0%) | 186.3/186.3 = 100.0% (100.0%, 100.0%) | 186.3/186.3 = 100.0% (100.0%, 100.0%) |
| Native Hawaiian or Other Pacific Islander | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 17 | 186.3/186.3 = 100.0% (100.0%, 100.0%) | 186.3/186.3 = 100.0% (100.0%, 100.0%) | 186.3/186.3 = 100.0% (100.0%, 100.0%) |
| Native Hawaiian or Other Pacific Islander | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 4 | 12.9/12.9 = 100.0% (100.0%, 100.0%) | 12.9/12.9 = 100.0% (100.0%, 100.0%) | 12.9/12.9 = 100.0% (100.0%, 100.0%) |
| Native Hawaiian or Other Pacific Islander | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 4 | 12.9/12.9 = 100.0% (100.0%, 100.0%) | 12.9/12.9 = 100.0% (100.0%, 100.0%) | 12.9/12.9 = 100.0% (100.0%, 100.0%) |
| Native Hawaiian or Other Pacific Islander | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 4 | 12.9/12.9 = 100.0% (100.0%, 100.0%) | 12.9/12.9 = 100.0% (100.0%, 100.0%) | 12.9/12.9 = 100.0% (100.0%, 100.0%) |
| Native Hawaiian or Other Pacific Islander | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 2 | 0/194.3 = 0.0% | 0/194.3 = 0.0% | 0/194.3 = 0.0% |
| Native Hawaiian or Other Pacific Islander | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 2 | 0/194.3 = 0.0% | 0/194.3 = 0.0% | 0/194.3 = 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) | 2 | 0/194.3 = 0.0% | 0/194.3 = 0.0% | 0/194.3 = 0.0% |
| Native Hawaiian or Other Pacific Islander | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 2 | 9.4/9.4 = 100.0% | 9.4/9.4 = 100.0% | 9.4/9.4 = 100.0% |
| Native Hawaiian or Other Pacific Islander | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 2 | 9.4/9.4 = 100.0% | 9.4/9.4 = 100.0% | 9.4/9.4 = 100.0% |
| Native Hawaiian or Other Pacific Islander | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 2 | 9.4/9.4 = 100.0% | 9.4/9.4 = 100.0% | 9.4/9.4 = 100.0% |
| Multiracial | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 57 | 608.5/725.5 = 83.9% (70.5%, 91.9%) | 658.5/725.5 = 90.8% (76.9%, 96.7%) | 658.5/725.5 = 90.8% (76.9%, 96.7%) |
| Multiracial | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 57 | 725.5/725.5 = 100.0% (100.0%, 100.0%) | 725.5/725.5 = 100.0% (100.0%, 100.0%) | 725.5/725.5 = 100.0% (100.0%, 100.0%) |
| Multiracial | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 57 | 725.5/725.5 = 100.0% (100.0%, 100.0%) | 725.5/725.5 = 100.0% (100.0%, 100.0%) | 725.5/725.5 = 100.0% (100.0%, 100.0%) |
| Multiracial | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 10 | 20.7/40.5 = 51.1% (13.8%, 87.2%) | 40.5/40.5 = 100.0% (100.0%, 100.0%) | 40.5/40.5 = 100.0% (100.0%, 100.0%) |
| Multiracial | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 10 | 40.5/40.5 = 100.0% (100.0%, 100.0%) | 40.5/40.5 = 100.0% (100.0%, 100.0%) | 40.5/40.5 = 100.0% (100.0%, 100.0%) |
| Multiracial | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 10 | 40.5/40.5 = 100.0% (100.0%, 100.0%) | 40.5/40.5 = 100.0% (100.0%, 100.0%) | 40.5/40.5 = 100.0% (100.0%, 100.0%) |
| Multiracial | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 8 | 0/387.8 = 0.0% (0.0%, 0.0%) | 0/387.8 = 0.0% (0.0%, 0.0%) | 0/387.8 = 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) | 8 | 0/387.8 = 0.0% (0.0%, 0.0%) | 0/387.8 = 0.0% (0.0%, 0.0%) | 0/387.8 = 0.0% (0.0%, 0.0%) |
| Multiracial | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 8 | 0/387.8 = 0.0% (0.0%, 0.0%) | 0/387.8 = 0.0% (0.0%, 0.0%) | 0/387.8 = 0.0% (0.0%, 0.0%) |
| Multiracial | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 16 | 20.3/48.2 = 42.2% (17.5%, 71.5%) | 41.8/48.2 = 86.7% (51.9%, 97.5%) | 35.7/48.2 = 74.1% (41.3%, 92.1%) |
| Multiracial | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 16 | 48.2/48.2 = 100.0% (100.0%, 100.0%) | 48.2/48.2 = 100.0% (100.0%, 100.0%) | 48.2/48.2 = 100.0% (100.0%, 100.0%) |
| Multiracial | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 16 | 48.2/48.2 = 100.0% (100.0%, 100.0%) | 48.2/48.2 = 100.0% (100.0%, 100.0%) | 48.2/48.2 = 100.0% (100.0%, 100.0%) |
| Multiracial | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 57 | 601/725.5 = 82.8% (64.9%, 92.6%) | 705.8/725.5 = 97.3% (82.3%, 99.6%) | 683.9/725.5 = 94.3% (82.4%, 98.3%) |
| Multiracial | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 57 | 725.5/725.5 = 100.0% (100.0%, 100.0%) | 725.5/725.5 = 100.0% (100.0%, 100.0%) | 725.5/725.5 = 100.0% (100.0%, 100.0%) |
| Multiracial | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 57 | 725.5/725.5 = 100.0% (100.0%, 100.0%) | 725.5/725.5 = 100.0% (100.0%, 100.0%) | 725.5/725.5 = 100.0% (100.0%, 100.0%) |
| Multiracial | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 10 | 31.9/40.5 = 78.7% (19.4%, 98.3%) | 40.5/40.5 = 100.0% (100.0%, 100.0%) | 31.9/40.5 = 78.7% (19.4%, 98.3%) |
| Multiracial | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 10 | 40.5/40.5 = 100.0% (100.0%, 100.0%) | 40.5/40.5 = 100.0% (100.0%, 100.0%) | 40.5/40.5 = 100.0% (100.0%, 100.0%) |
| Multiracial | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 10 | 40.5/40.5 = 100.0% (100.0%, 100.0%) | 40.5/40.5 = 100.0% (100.0%, 100.0%) | 40.5/40.5 = 100.0% (100.0%, 100.0%) |
| Multiracial | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 8 | 0/387.8 = 0.0% (0.0%, 0.0%) | 0/387.8 = 0.0% (0.0%, 0.0%) | 0/387.8 = 0.0% (0.0%, 0.0%) |
| Multiracial | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 8 | 0/387.8 = 0.0% (0.0%, 0.0%) | 0/387.8 = 0.0% (0.0%, 0.0%) | 0/387.8 = 0.0% (0.0%, 0.0%) |
| Multiracial | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 8 | 0/387.8 = 0.0% (0.0%, 0.0%) | 0/387.8 = 0.0% (0.0%, 0.0%) | 0/387.8 = 0.0% (0.0%, 0.0%) |
| Multiracial | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 16 | 43.8/48.2 = 90.9% (50.2%, 99.0%) | 43.8/48.2 = 90.9% (50.2%, 99.0%) | 43.8/48.2 = 90.9% (50.2%, 99.0%) |

(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) | 16 | 48.2/48.2 = 100.0% (100.0%, 100.0%) | 48.2/48.2 = 100.0% (100.0%, 100.0%) | 48.2/48.2 = 100.0% (100.0%, 100.0%) |
| Multiracial | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 16 | 48.2/48.2 = 100.0% (100.0%, 100.0%) | 48.2/48.2 = 100.0% (100.0%, 100.0%) | 48.2/48.2 = 100.0% (100.0%, 100.0%) |
| Other | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 16 | 141.2/203.6 = 69.4% (28.5%, 92.8%) | 183.8/203.6 = 90.3% (47.3%, 99.0%) | 146/203.6 = 71.7% (29.0%, 94.0%) |
| Other | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 16 | 203.6/203.6 = 100.0% (100.0%, 100.0%) | 203.6/203.6 = 100.0% (100.0%, 100.0%) | 203.6/203.6 = 100.0% (100.0%, 100.0%) |
| Other | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 16 | 203.6/203.6 = 100.0% (100.0%, 100.0%) | 203.6/203.6 = 100.0% (100.0%, 100.0%) | 203.6/203.6 = 100.0% (100.0%, 100.0%) |
| Other | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 7 | 20.1/24.7 = 81.3% (10.5%, 99.4%) | 24.7/24.7 = 100.0% (100.0%, 100.0%) | 24.7/24.7 = 100.0% (100.0%, 100.0%) |
| Other | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 7 | 24.7/24.7 = 100.0% (100.0%, 100.0%) | 24.7/24.7 = 100.0% (100.0%, 100.0%) | 24.7/24.7 = 100.0% (100.0%, 100.0%) |
| Other | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 7 | 24.7/24.7 = 100.0% (100.0%, 100.0%) | 24.7/24.7 = 100.0% (100.0%, 100.0%) | 24.7/24.7 = 100.0% (100.0%, 100.0%) |
| Other | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 1 | 0/47.7 = 0.0% | 0/47.7 = 0.0% | 0/47.7 = 0.0% |
| Other | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 1 | 0/47.7 = 0.0% | 0/47.7 = 0.0% | 0/47.7 = 0.0% |
| Other | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 1 | 0/47.7 = 0.0% | 0/47.7 = 0.0% | 0/47.7 = 0.0% |
| Other | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 13 | 42/72.9 = 57.6% (22.1%, 86.7%) | 65.2/72.9 = 89.4% (40.7%, 99.1%) | 65.2/72.9 = 89.4% (40.7%, 99.1%) |
| Other | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 13 | 72.9/72.9 = 100.0% (100.0%, 100.0%) | 72.9/72.9 = 100.0% (100.0%, 100.0%) | 72.9/72.9 = 100.0% (100.0%, 100.0%) |
| Other | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 13 | 72.9/72.9 = 100.0% (100.0%, 100.0%) | 72.9/72.9 = 100.0% (100.0%, 100.0%) | 72.9/72.9 = 100.0% (100.0%, 100.0%) |
| Other | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 16 | 183.8/203.6 = 90.3% (47.3%, 99.0%) | 203.6/203.6 = 100.0% (100.0%, 100.0%) | 183.8/203.6 = 90.3% (47.3%, 99.0%) |
| Other | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 16 | 203.6/203.6 = 100.0% (100.0%, 100.0%) | 203.6/203.6 = 100.0% (100.0%, 100.0%) | 203.6/203.6 = 100.0% (100.0%, 100.0%) |
| Other | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 16 | 203.6/203.6 = 100.0% (100.0%, 100.0%) | 203.6/203.6 = 100.0% (100.0%, 100.0%) | 203.6/203.6 = 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 | Anti N IgG (IU/ml) | 7 | 24.7/24.7 = 100.0% (100.0%, 100.0%) | 24.7/24.7 = 100.0% (100.0%, 100.0%) | 24.7/24.7 = 100.0% (100.0%, 100.0%) |
| Other | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 7 | 24.7/24.7 = 100.0% (100.0%, 100.0%) | 24.7/24.7 = 100.0% (100.0%, 100.0%) | 24.7/24.7 = 100.0% (100.0%, 100.0%) |
| Other | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 7 | 24.7/24.7 = 100.0% (100.0%, 100.0%) | 24.7/24.7 = 100.0% (100.0%, 100.0%) | 24.7/24.7 = 100.0% (100.0%, 100.0%) |
| Other | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 1 | 0/47.7 = 0.0% | 0/47.7 = 0.0% | 0/47.7 = 0.0% |
| Other | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 1 | 0/47.7 = 0.0% | 0/47.7 = 0.0% | 0/47.7 = 0.0% |
| Other | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 1 | 0/47.7 = 0.0% | 0/47.7 = 0.0% | 0/47.7 = 0.0% |
| Other | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 13 | 54.1/72.9 = 74.1% (29.8%, 95.1%) | 65.2/72.9 = 89.4% (40.7%, 99.1%) | 65.2/72.9 = 89.4% (40.7%, 99.1%) |
| Other | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 13 | 72.9/72.9 = 100.0% (100.0%, 100.0%) | 72.9/72.9 = 100.0% (100.0%, 100.0%) | 72.9/72.9 = 100.0% (100.0%, 100.0%) |
| Other | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 13 | 72.9/72.9 = 100.0% (100.0%, 100.0%) | 72.9/72.9 = 100.0% (100.0%, 100.0%) | 72.9/72.9 = 100.0% (100.0%, 100.0%) |
| Not reported and unknown | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 4 | 14.4/25.4 = 56.9% (0.9%, 99.5%) | 14.4/25.4 = 56.9% (0.9%, 99.5%) | 14.4/25.4 = 56.9% (0.9%, 99.5%) |
| Not reported and unknown | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 4 | 25.4/25.4 = 100.0% (100.0%, 100.0%) | 25.4/25.4 = 100.0% (100.0%, 100.0%) | 25.4/25.4 = 100.0% (100.0%, 100.0%) |
| Not reported and unknown | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 4 | 25.4/25.4 = 100.0% (100.0%, 100.0%) | 25.4/25.4 = 100.0% (100.0%, 100.0%) | 25.4/25.4 = 100.0% (100.0%, 100.0%) |
| Not reported and unknown | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 1 | 0/48.4 = 0.0% | 0/48.4 = 0.0% | 0/48.4 = 0.0% |
| Not reported and unknown | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 1 | 0/48.4 = 0.0% | 0/48.4 = 0.0% | 0/48.4 = 0.0% |
| Not reported and unknown | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 1 | 0/48.4 = 0.0% | 0/48.4 = 0.0% | 0/48.4 = 0.0% |
| Not reported and unknown | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 2 | 0/15.4 = 0.0% | 15.4/15.4 = 100.0% | 7.7/15.4 = 50.0% |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | Responder | % 2-Fold Rise | % 4-Fold Rise |
|--------------------------|--------|---------|---------------------|------------------------|---|--|--|--|
| Not reported and unknown | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 2 | 15.4/15.4 = 100.0% | 15.4/15.4 = 100.0% | 15.4/15.4 = 100.0% |
| Not reported and unknown | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 2 | 15.4/15.4 = 100.0% | 15.4/15.4 = 100.0% | 15.4/15.4 = 100.0% |
| Not reported and unknown | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 4 | 25.4/25.4 = 100.0% (100.0%, 100.0%) | 25.4/25.4 = 100.0% (100.0%, 100.0%) | 25.4/25.4 = 100.0% (100.0%, 100.0%) |
| Not reported and unknown | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 4 | 25.4/25.4 = 100.0% (100.0%, 100.0%) | 25.4/25.4 = 100.0% (100.0%, 100.0%) | 25.4/25.4 = 100.0% (100.0%, 100.0%) |
| Not reported and unknown | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 4 | 25.4/25.4 = 100.0% (100.0%, 100.0%) | 25.4/25.4 = 100.0% (100.0%, 100.0%) | 25.4/25.4 = 100.0% (100.0%, 100.0%) |
| Not reported and unknown | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 1 | 0/48.4 = 0.0% | 0/48.4 = 0.0% | 0/48.4 = 0.0% |
| Not reported and unknown | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 1 | 0/48.4 = 0.0% | 0/48.4 = 0.0% | 0/48.4 = 0.0% |
| Not reported and unknown | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 1 | 0/48.4 = 0.0% | 0/48.4 = 0.0% | 0/48.4 = 0.0% |
| Not reported and unknown | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 2 | 7.7/15.4 = 50.0% | 15.4/15.4 = 100.0% | 15.4/15.4 = 100.0% |
| Not reported and unknown | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 2 | 15.4/15.4 = 100.0% | 15.4/15.4 = 100.0% | 15.4/15.4 = 100.0% |
| Not reported and unknown | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 2 | 15.4/15.4 = 100.0% | 15.4/15.4 = 100.0% | 15.4/15.4 = 100.0% |

Binding Antibody Responders are defined as participants with concentration above the specified positivity cut-off, with a separate cut-off for each antigen Spike, RBD, N (10.8424, 14.0858, and 23.4711 respectively, in IU/ml).

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

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) | 377 | 3227.9/4735.3 = 68.2% (61.8%, 73.9%) | 4398/4735.3 = 92.9% (88.8%, 95.5%) | 3990.3/4735.3 = 84.3% (78.8%, 88.5%) |
| Communities of Color | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 377 | 4677.2/4735.3 = 98.8% (96.0%, 99.6%) | 4735.3/4735.3 = 100.0% (100.0%, 100.0%) | 4724.3/4735.3 = 99.8% (98.4%, 100.0%) |
| Communities of Color | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 377 | 4724.3/4735.3 = 99.8% (98.4%, 100.0%) | 4735.3/4735.3 = 100.0% (100.0%, 100.0%) | 4735.3/4735.3 = 100.0% (100.0%, 100.0%) |
| Communities of Color | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 116 | 370.8/510.3 = 72.7% (61.4%, 81.6%) | 485.9/510.3 = 95.2% (87.3%, 98.3%) | 453.5/510.3 = 88.9% (79.6%, 94.2%) |
| Communities of Color | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 116 | 505.7/510.3 = 99.1% (93.7%, 99.9%) | 510.3/510.3 = 100.0% (100.0%, 100.0%) | 510.3/510.3 = 100.0% (100.0%, 100.0%) |
| Communities of Color | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 116 | 501.7/510.3 = 98.3% (88.6%, 99.8%) | 510.3/510.3 = 100.0% (100.0%, 100.0%) | 510.3/510.3 = 100.0% (100.0%, 100.0%) |
| Communities of Color | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 75 | 0/4538.9 = 0.0% (0.0%, 0.0%) | 0/4538.9 = 0.0% (0.0%, 0.0%) | 0/4538.9 = 0.0% (0.0%, 0.0%) |
| Communities of Color | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 75 | 0/4538.9 = 0.0% (0.0%, 0.0%) | 0/4538.9 = 0.0% (0.0%, 0.0%) | 0/4538.9 = 0.0% (0.0%, 0.0%) |
| Communities of Color | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 75 | 0/4538.9 = 0.0% (0.0%, 0.0%) | 0/4538.9 = 0.0% (0.0%, 0.0%) | 0/4538.9 = 0.0% (0.0%, 0.0%) |
| Communities of Color | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 120 | 263.3/515.5 = 51.1% (40.2%, 61.9%) | 430.1/515.5 = 83.4% (72.6%, 90.5%) | 392.1/515.5 = 76.1% (65.1%, 84.4%) |
| Communities of Color | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 120 | 510.3/515.5 = 99.0% (93.0%, 99.9%) | 515.5/515.5 = 100.0% (100.0%, 100.0%) | 510.3/515.5 = 99.0% (93.0%, 99.9%) |

(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) | 120 | 492.5/515.5 = 95.5% (87.1%, 98.5%) | 515.5/515.5 = 100.0% (100.0%, 100.0%) | 515.5/515.5 = 100.0% (100.0%, 100.0%) |
| Communities of Color | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 377 | 3999.4/4735.3 = 84.5% (79.0%, 88.7%) | 4595.7/4735.3 = 97.1% (93.7%, 98.6%) | 4392.4/4735.3 = 92.8% (88.6%, 95.5%) |
| Communities of Color | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 377 | 4735.3/4735.3 = 100.0% (100.0%, 100.0%) | 4735.3/4735.3 = 100.0% (100.0%, 100.0%) | 4735.3/4735.3 = 100.0% (100.0%, 100.0%) |
| Communities of Color | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 377 | 4735.3/4735.3 = 100.0% (100.0%, 100.0%) | 4735.3/4735.3 = 100.0% (100.0%, 100.0%) | 4735.3/4735.3 = 100.0% (100.0%, 100.0%) |
| Communities of Color | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 116 | 488.5/510.3 = 95.7% (86.9%, 98.7%) | 505.7/510.3 = 99.1% (93.7%, 99.9%) | 497.1/510.3 = 97.4% (89.3%, 99.4%) |
| Communities of Color | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 116 | 510.3/510.3 = 100.0% (100.0%, 100.0%) | 510.3/510.3 = 100.0% (100.0%, 100.0%) | 510.3/510.3 = 100.0% (100.0%, 100.0%) |
| Communities of Color | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 116 | 510.3/510.3 = 100.0% (100.0%, 100.0%) | 510.3/510.3 = 100.0% (100.0%, 100.0%) | 510.3/510.3 = 100.0% (100.0%, 100.0%) |
| Communities of Color | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 75 | 0/4538.9 = 0.0% (0.0%, 0.0%) | 0/4538.9 = 0.0% (0.0%, 0.0%) | 0/4538.9 = 0.0% (0.0%, 0.0%) |
| Communities of Color | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 75 | 0/4538.9 = 0.0% (0.0%, 0.0%) | 0/4538.9 = 0.0% (0.0%, 0.0%) | 0/4538.9 = 0.0% (0.0%, 0.0%) |
| Communities of Color | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 75 | 0/4538.9 = 0.0% (0.0%, 0.0%) | 0/4538.9 = 0.0% (0.0%, 0.0%) | 0/4538.9 = 0.0% (0.0%, 0.0%) |
| Communities of Color | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 120 | 407.7/515.5 = 79.1% (67.7%, 87.2%) | 468.2/515.5 = 90.8% (80.3%, 96.0%) | 451.6/515.5 = 87.6% (77.1%, 93.7%) |
| Communities of Color | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 120 | 515.5/515.5 = 100.0% (100.0%, 100.0%) | 515.5/515.5 = 100.0% (100.0%, 100.0%) | 515.5/515.5 = 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) | 120 | 515.5/515.5 = 100.0% (100.0%, 100.0%) | 515.5/515.5 = 100.0% (100.0%, 100.0%) | 515.5/515.5 = 100.0% (100.0%, 100.0%) |
| White Non-Hispanic | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 370 | 3671.4/6391.7 = 57.4% (51.0%, 63.6%) | 5426.8/6391.7 = 84.9% (79.4%, 89.2%) | 4873/6391.7 = 76.2% (70.1%, 81.4%) |
| White Non-Hispanic | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 370 | 6276.7/6391.7 = 98.2% (95.1%, 99.4%) | 6391.7/6391.7 = 100.0% (100.0%, 100.0%) | 6391.7/6391.7 = 100.0% (100.0%, 100.0%) |
| White Non-Hispanic | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 370 | 6314.5/6391.7 = 98.8% (96.1%, 99.6%) | 6391.7/6391.7 = 100.0% (100.0%, 100.0%) | 6391.7/6391.7 = 100.0% (100.0%, 100.0%) |
| White Non-Hispanic | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 118 | 569.8/723.7 = 78.7% (67.6%, 86.8%) | 684/723.7 = 94.5% (85.4%, 98.1%) | 619.4/723.7 = 85.6% (74.6%, 92.3%) |
| White Non-Hispanic | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 118 | 723.7/723.7 = 100.0% (100.0%, 100.0%) | 723.7/723.7 = 100.0% (100.0%, 100.0%) | 723.7/723.7 = 100.0% (100.0%, 100.0%) |
| White Non-Hispanic | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 118 | 723.7/723.7 = 100.0% (100.0%, 100.0%) | 723.7/723.7 = 100.0% (100.0%, 100.0%) | 723.7/723.7 = 100.0% (100.0%, 100.0%) |
| White Non-Hispanic | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 63 | 0/6564.1 = 0.0% (0.0%, 0.0%) | 0/6564.1 = 0.0% (0.0%, 0.0%) | 0/6564.1 = 0.0% (0.0%, 0.0%) |
| White Non-Hispanic | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 63 | 0/6564.1 = 0.0% (0.0%, 0.0%) | 0/6564.1 = 0.0% (0.0%, 0.0%) | 0/6564.1 = 0.0% (0.0%, 0.0%) |
| White Non-Hispanic | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 63 | 0/6564.1 = 0.0% (0.0%, 0.0%) | 0/6564.1 = 0.0% (0.0%, 0.0%) | 0/6564.1 = 0.0% (0.0%, 0.0%) |
| White Non-Hispanic | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 121 | 339/609.5 = 55.6% (44.3%, 66.4%) | 467.7/609.5 = 76.7% (65.0%, 85.4%) | 432.7/609.5 = 71.0% (59.3%, 80.4%) |
| White Non-Hispanic | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 121 | 553.7/609.5 = 90.8% (80.0%, 96.1%) | 609.5/609.5 = 100.0% (100.0%, 100.0%) | 598.3/609.5 = 98.2% (87.8%, 99.8%) |

(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) | 121 | 598.3/609.5 = 98.2% (87.8%, 99.8%) | 609.5/609.5 = 100.0% (100.0%, 100.0%) | 609.5/609.5 = 100.0% (100.0%, 100.0%) |
| White Non-Hispanic | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 370 | 5052.5/6391.7 = 79.0% (73.1%, 84.0%) | 5955.6/6391.7 = 93.2% (88.9%, 95.9%) | 5723/6391.7 = 89.5% (84.7%, 93.0%) |
| White Non-Hispanic | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 370 | 6372/6391.7 = 99.7% (97.8%, 100.0%) | 6391.7/6391.7 = 100.0% (100.0%, 100.0%) | 6391.7/6391.7 = 100.0% (100.0%, 100.0%) |
| White Non-Hispanic | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 370 | 6391.7/6391.7 = 100.0% (100.0%, 100.0%) | 6391.7/6391.7 = 100.0% (100.0%, 100.0%) | 6391.7/6391.7 = 100.0% (100.0%, 100.0%) |
| White Non-Hispanic | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 118 | 690.6/723.7 = 95.4% (86.0%, 98.6%) | 710.4/723.7 = 98.2% (87.7%, 99.8%) | 690.6/723.7 = 95.4% (86.0%, 98.6%) |
| White Non-Hispanic | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 118 | 723.7/723.7 = 100.0% (100.0%, 100.0%) | 723.7/723.7 = 100.0% (100.0%, 100.0%) | 723.7/723.7 = 100.0% (100.0%, 100.0%) |
| White Non-Hispanic | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 118 | 723.7/723.7 = 100.0% (100.0%, 100.0%) | 723.7/723.7 = 100.0% (100.0%, 100.0%) | 723.7/723.7 = 100.0% (100.0%, 100.0%) |
| White Non-Hispanic | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 63 | 0/6564.1 = 0.0% (0.0%, 0.0%) | 0/6564.1 = 0.0% (0.0%, 0.0%) | 0/6564.1 = 0.0% (0.0%, 0.0%) |
| White Non-Hispanic | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 63 | 0/6564.1 = 0.0% (0.0%, 0.0%) | 0/6564.1 = 0.0% (0.0%, 0.0%) | 0/6564.1 = 0.0% (0.0%, 0.0%) |
| White Non-Hispanic | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 63 | 0/6564.1 = 0.0% (0.0%, 0.0%) | 0/6564.1 = 0.0% (0.0%, 0.0%) | 0/6564.1 = 0.0% (0.0%, 0.0%) |
| White Non-Hispanic | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 121 | 455.4/609.5 = 74.7% (63.2%, 83.6%) | 555.5/609.5 = 91.2% (81.0%, 96.1%) | 518.7/609.5 = 85.1% (74.3%, 91.9%) |
| White Non-Hispanic | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 121 | 609.5/609.5 = 100.0% (100.0%, 100.0%) | 609.5/609.5 = 100.0% (100.0%, 100.0%) | 609.5/609.5 = 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) | 121 | 609.5/609.5 = 100.0% (100.0%, 100.0%) | 609.5/609.5 = 100.0% (100.0%, 100.0%) | 609.5/609.5 = 100.0% (100.0%, 100.0%) |

Binding Antibody Responders are defined as participants with concentration above the specified positivity cut-off, with a separate cut-off for each antigen Spike, RBD, N (10.8424, 14.0858, and 23.4711 respectively, in IU/ml).

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



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) | 181 | 2421.6/3706.5 = 65.3% (57.4%, 72.5%) | 3399.4/3706.5 = 91.7% (86.5%, 95.0%) | 3027.5/3706.5 = 81.7% (74.8%, 87.0%) |
| Age < 65 Communities of Color | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 181 | 3648.4/3706.5 = 98.4% (94.9%, 99.5%) | 3706.5/3706.5 = 100.0% | 3695.6/3706.5 = 99.7% (97.9%, 100.0%) |
| Age < 65 Communities of Color | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 181 | 3695.6/3706.5 = 99.7% (97.9%, 100.0%) | 3706.5/3706.5 = 100.0% | 3706.5/3706.5 = 100.0% (100.0%, 100.0%) |
| Age < 65 Communities of Color | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 60 | 284.5/421.1 = 67.6% (54.1%, 78.6%) | 396.7/421.1 = 94.2% (84.5%, 98.0%) | 365.7/421.1 = 86.8% (75.7%, 93.3%) |
| Age < 65 Communities of Color | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 60 | 416.5/421.1 = 98.9% (92.2%, 99.9%) | 421.1/421.1 = 100.0% (100.0%, 100.0%) | 421.1/421.1 = 100.0% (100.0%, 100.0%) |
| Age < 65 Communities of Color | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 60 | 412.5/421.1 = 98.0% (86.1%, 99.7%) | 421.1/421.1 = 100.0% (100.0%, 100.0%) | 421.1/421.1 = 100.0% (100.0%, 100.0%) |
| Age < 65 Communities of Color | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 40 | 0/3256.8 = 0.0% (0.0%, 0.0%) | 0/3256.8 = 0.0% (0.0%, 0.0%) | 0/3256.8 = 0.0% (0.0%, 0.0%) |
| Age < 65 Communities of Color | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 40 | 0/3256.8 = 0.0% (0.0%, 0.0%) | 0/3256.8 = 0.0% (0.0%, 0.0%) | 0/3256.8 = 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 Communities of Color | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 40 | 0/3256.8 = 0.0% (0.0%, 0.0%) | 0/3256.8 = 0.0% (0.0%, 0.0%) | 0/3256.8 = 0.0% (0.0%, 0.0%) |
| Age < 65 Communities of Color | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 62 | 181.1/412 = 44.0% (31.2%, 57.5%) | 332/412 = 80.6% (67.2%, 89.4%) | 300.7/412 = 73.0% (59.5%, 83.3%) |
| Age < 65 Communities of Color | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 62 | 406.7/412 = 98.7% (91.2%, 99.8%) | 412/412 = 100.0% (100.0%, 100.0%) | 406.7/412 = 98.7% (91.2%, 99.8%) |
| Age < 65 Communities of Color | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 62 | 388.9/412 = 94.4% (83.8%, 98.2%) | 412/412 = 100.0% (100.0%, 100.0%) | 412/412 = 100.0% (100.0%, 100.0%) |
| Age < 65 Communities of Color | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 181 | 3037.2/3706.5 = 81.9% (75.1%, 87.2%) | 3571.7/3706.5 = 96.4% (92.1%, 98.4%) | 3387.7/3706.5 = 91.4% (86.0%, 94.8%) |
| Age < 65 Communities of Color | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 181 | 3706.5/3706.5 = 100.0% (100.0%, 100.0%) | 3706.5/3706.5 = 100.0% (100.0%, 100.0%) | 3706.5/3706.5 = 100.0% (100.0%, 100.0%) |
| Age < 65 Communities of Color | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 181 | 3706.5/3706.5 = 100.0% (100.0%, 100.0%) | 3706.5/3706.5 = 100.0% (100.0%, 100.0%) | 3706.5/3706.5 = 100.0% (100.0%, 100.0%) |
| Age < 65 Communities of Color | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 60 | 399.2/421.1 = 94.8% (84.1%, 98.4%) | 416.5/421.1 = 98.9% (92.2%, 99.9%) | 407.9/421.1 = 96.9% (87.0%, 99.3%) |
| Age < 65 Communities of Color | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 60 | 421.1/421.1 = 100.0% (100.0%, 100.0%) | 421.1/421.1 = 100.0% (100.0%, 100.0%) | 421.1/421.1 = 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) | 60 | 421.1/421.1 = 100.0% (100.0%, 100.0%) | 421.1/421.1 = 100.0% (100.0%, 100.0%) | 421.1/421.1 = 100.0% (100.0%, 100.0%) |
| Age < 65 Communities of Color | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 40 | 0/3256.8 = 0.0% (0.0%, 0.0%) | 0/3256.8 = 0.0% (0.0%, 0.0%) | 0/3256.8 = 0.0% (0.0%, 0.0%) |
| Age < 65 Communities of Color | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 40 | 0/3256.8 = 0.0% (0.0%, 0.0%) | 0/3256.8 = 0.0% (0.0%, 0.0%) | 0/3256.8 = 0.0% (0.0%, 0.0%) |
| Age < 65 Communities of Color | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 40 | 0/3256.8 = 0.0% (0.0%, 0.0%) | 0/3256.8 = 0.0% (0.0%, 0.0%) | 0/3256.8 = 0.0% (0.0%, 0.0%) |
| Age < 65 Communities of Color | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 62 | 307.9/412 = 74.7% (60.9%, 84.9%) | 364.7/412 = 88.5% (75.6%, 95.0%) | 351.7/412 = 85.4% (72.3%, 92.9%) |
| Age < 65 Communities of Color | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 62 | 412/412 = 100.0% (100.0%, 100.0%) | 412/412 = 100.0% (100.0%, 100.0%) | 412/412 = 100.0% (100.0%, 100.0%) |
| Age < 65 Communities of Color | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 62 | 412/412 = 100.0% (100.0%, 100.0%) | 412/412 = 100.0% (100.0%, 100.0%) | 412/412 = 100.0% (100.0%, 100.0%) |
| Age < 65 White Non-Hispanic | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 176 | 2588.8/5062.5 = 51.1% (43.3%, 58.9%) | 4145.5/5062.5 = 81.9% (74.9%, 87.2%) | 3626/5062.5 = 71.6% (64.0%, 78.2%) |
| Age < 65 White Non-Hispanic | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 176 | 4947.5/5062.5 = 97.7% (93.8%, 99.2%) | 5062.5/5062.5 = 100.0% (100.0%, 100.0%) | 5062.5/5062.5 = 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) | 176 | 4985.2/5062.5 = 98.5% (95.0%, 99.5%) | 5062.5/5062.5 = 100.0% (100.0%, 100.0%) | 5062.5/5062.5 = 100.0% (100.0%, 100.0%) |
| Age < 65 White Non-Hispanic | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 54 | 423.2/561.9 = 75.3% (61.1%, 85.6%) | 522.3/561.9 = 92.9% (81.2%, 97.6%) | 462.7/561.9 = 82.3% (68.3%, 91.0%) |
| Age < 65 White Non-Hispanic | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 54 | 561.9/561.9 = 100.0% (100.0%, 100.0%) | 561.9/561.9 = 100.0% (100.0%, 100.0%) | 561.9/561.9 = 100.0% (100.0%, 100.0%) |
| Age < 65 White Non-Hispanic | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 54 | 561.9/561.9 = 100.0% (100.0%, 100.0%) | 561.9/561.9 = 100.0% (100.0%, 100.0%) | 561.9/561.9 = 100.0% (100.0%, 100.0%) |
| Age < 65 White Non-Hispanic | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 32 | 0/5086.2 = 0.0% (0.0%, 0.0%) | 0/5086.2 = 0.0% (0.0%, 0.0%) | 0/5086.2 = 0.0% (0.0%, 0.0%) |
| Age < 65 White Non-Hispanic | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 32 | 0/5086.2 = 0.0% (0.0%, 0.0%) | 0/5086.2 = 0.0% (0.0%, 0.0%) | 0/5086.2 = 0.0% (0.0%, 0.0%) |
| Age < 65 White Non-Hispanic | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 32 | 0/5086.2 = 0.0% (0.0%, 0.0%) | 0/5086.2 = 0.0% (0.0%, 0.0%) | 0/5086.2 = 0.0% (0.0%, 0.0%) |
| Age < 65 White Non-Hispanic | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 58 | 239.1/481 = 49.7% (36.1%, 63.4%) | 343.3/481 = 71.4% (56.9%, 82.5%) | 316.5/481 = 65.8% (51.4%, 77.8%) |
| Age < 65 White Non-Hispanic | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 58 | 425.2/481 = 88.4% (74.8%, 95.1%) | 481/481 = 100.0% (100.0%, 100.0%) | 469.9/481 = 97.7% (84.5%, 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 | Placebo | Positive | Anti Spike IgG (IU/ml) | 58 | 469.9/481 = 97.7% (84.5%, 99.7%) | 481/481 = 100.0% (100.0%, 100.0%) | 481/481 = 100.0% (100.0%, 100.0%) |
| Age < 65 White Non-Hispanic | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 176 | 3798.6/5062.5 = 75.0% (67.6%, 81.2%) | 4640.1/5062.5 = 91.7% (86.2%, 95.1%) | 4428/5062.5 = 87.5% (81.4%, 91.7%) |
| Age < 65 White Non-Hispanic | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 176 | 5042.8/5062.5 = 99.6% (97.2%, 99.9%) | 5062.5/5062.5 = 100.0% (100.0%, 100.0%) | 5062.5/5062.5 = 100.0% (100.0%, 100.0%) |
| Age < 65 White Non-Hispanic | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 176 | 5062.5/5062.5 = 100.0% (100.0%, 100.0%) | 5062.5/5062.5 = 100.0% (100.0%, 100.0%) | 5062.5/5062.5 = 100.0% (100.0%, 100.0%) |
| Age < 65 White Non-Hispanic | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 54 | 528.8/561.9 = 94.1% (82.0%, 98.3%) | 548.7/561.9 = 97.6% (84.2%, 99.7%) | 528.8/561.9 = 94.1% (82.0%, 98.3%) |
| Age < 65 White Non-Hispanic | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 54 | 561.9/561.9 = 100.0% (100.0%, 100.0%) | 561.9/561.9 = 100.0% (100.0%, 100.0%) | 561.9/561.9 = 100.0% (100.0%, 100.0%) |
| Age < 65 White Non-Hispanic | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 54 | 561.9/561.9 = 100.0% (100.0%, 100.0%) | 561.9/561.9 = 100.0% (100.0%, 100.0%) | 561.9/561.9 = 100.0% (100.0%, 100.0%) |
| Age < 65 White Non-Hispanic | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 32 | 0/5086.2 = 0.0% (0.0%, 0.0%) | 0/5086.2 = 0.0% (0.0%, 0.0%) | 0/5086.2 = 0.0% (0.0%, 0.0%) |
| Age < 65 White Non-Hispanic | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 32 | 0/5086.2 = 0.0% (0.0%, 0.0%) | 0/5086.2 = 0.0% (0.0%, 0.0%) | 0/5086.2 = 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 White Non-Hispanic | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 32 | 0/5086.2 = 0.0% (0.0%, 0.0%) | 0/5086.2 = 0.0% (0.0%, 0.0%) | 0/5086.2 = 0.0% (0.0%, 0.0%) |
| Age < 65 White Non-Hispanic | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 58 | 343.3/481 = 71.4% (56.9%, 82.5%) | 431.2/481 = 89.6% (76.6%, 95.8%) | 398.4/481 = 82.8% (69.1%, 91.2%) |
| Age < 65 White Non-Hispanic | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 58 | 481/481 = 100.0% (100.0%, 100.0%) | 481/481 = 100.0% (100.0%, 100.0%) | 481/481 = 100.0% (100.0%, 100.0%) |
| Age < 65 White Non-Hispanic | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 58 | 481/481 = 100.0% (100.0%, 100.0%) | 481/481 = 100.0% (100.0%, 100.0%) | 481/481 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Communities of Color | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 196 | 806.3/1028.8 = 78.4% (71.9%, 83.7%) | 998.6/1028.8 = 97.1% (93.1%, 98.8%) | 962.9/1028.8 = 93.6% (88.9%, 96.4%) |
| Age ≥ 65 Communities of Color | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 196 | 1028.8/1028.8 = 100.0% (100.0%, 100.0%) | 1028.8/1028.8 = 100.0% (100.0%, 100.0%) | 1028.8/1028.8 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Communities of Color | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 196 | 1028.8/1028.8 = 100.0% (100.0%, 100.0%) | 1028.8/1028.8 = 100.0% (100.0%, 100.0%) | 1028.8/1028.8 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Communities of Color | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 56 | 86.3/89.2 = 96.8% (87.6%, 99.2%) | 89.2/89.2 = 100.0% (100.0%, 100.0%) | 87.8/89.2 = 98.4% (88.9%, 99.8%) |
| Age ≥ 65 Communities of Color | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 56 | 89.2/89.2 = 100.0% (100.0%, 100.0%) | 89.2/89.2 = 100.0% (100.0%, 100.0%) | 89.2/89.2 = 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) | 56 | 89.2/89.2 = 100.0% (100.0%, 100.0%) | 89.2/89.2 = 100.0% (100.0%, 100.0%) | 89.2/89.2 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Communities of Color | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 35 | 0/1282.1 = 0.0% (0.0%, 0.0%) | 0/1282.1 = 0.0% (0.0%, 0.0%) | 0/1282.1 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 Communities of Color | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 35 | 0/1282.1 = 0.0% (0.0%, 0.0%) | 0/1282.1 = 0.0% (0.0%, 0.0%) | 0/1282.1 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 Communities of Color | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 35 | 0/1282.1 = 0.0% (0.0%, 0.0%) | 0/1282.1 = 0.0% (0.0%, 0.0%) | 0/1282.1 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 Communities of Color | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 58 | 82.2/103.6 = 79.3% (66.6%, 88.1%) | 98.1/103.6 = 94.8% (84.5%, 98.4%) | 91.4/103.6 = 88.2% (76.8%, 94.4%) |
| Age ≥ 65 Communities of Color | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 58 | 103.6/103.6 = 100.0% (100.0%, 100.0%) | 103.6/103.6 = 100.0% (100.0%, 100.0%) | 103.6/103.6 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Communities of Color | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 58 | 103.6/103.6 = 100.0% (100.0%, 100.0%) | 103.6/103.6 = 100.0% (100.0%, 100.0%) | 103.6/103.6 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Communities of Color | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 196 | 962.1/1028.8 = 93.5% (89.1%, 96.2%) | 1024/1028.8 = 99.5% (96.7%, 99.9%) | 1004.7/1028.8 = 97.7% (94.5%, 99.0%) |
| Age ≥ 65 Communities of Color | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 196 | 1028.8/1028.8 = 100.0% (100.0%, 100.0%) | 1028.8/1028.8 = 100.0% (100.0%, 100.0%) | 1028.8/1028.8 = 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 Communities of Color | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 196 | 1028.8/1028.8 = 100.0% (100.0%, 100.0%) | 1028.8/1028.8 = 100.0% (100.0%, 100.0%) | 1028.8/1028.8 = 100.0% (100.0%, 100.0%) |
| Age \geq 65 Communities of Color | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 56 | 89.2/89.2 = 100.0% (100.0%, 100.0%) | 89.2/89.2 = 100.0% (100.0%, 100.0%) | 89.2/89.2 = 100.0% (100.0%, 100.0%) |
| Age \geq 65 Communities of Color | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 56 | 89.2/89.2 = 100.0% (100.0%, 100.0%) | 89.2/89.2 = 100.0% (100.0%, 100.0%) | 89.2/89.2 = 100.0% (100.0%, 100.0%) |
| Age \geq 65 Communities of Color | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 56 | 89.2/89.2 = 100.0% (100.0%, 100.0%) | 89.2/89.2 = 100.0% (100.0%, 100.0%) | 89.2/89.2 = 100.0% (100.0%, 100.0%) |
| Age \geq 65 Communities of Color | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 35 | 0/1282.1 = 0.0% (0.0%, 0.0%) | 0/1282.1 = 0.0% (0.0%, 0.0%) | 0/1282.1 = 0.0% (0.0%, 0.0%) |
| Age \geq 65 Communities of Color | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 35 | 0/1282.1 = 0.0% (0.0%, 0.0%) | 0/1282.1 = 0.0% (0.0%, 0.0%) | 0/1282.1 = 0.0% (0.0%, 0.0%) |
| Age \geq 65 Communities of Color | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 35 | 0/1282.1 = 0.0% (0.0%, 0.0%) | 0/1282.1 = 0.0% (0.0%, 0.0%) | 0/1282.1 = 0.0% (0.0%, 0.0%) |
| Age \geq 65 Communities of Color | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 58 | 99.8/103.6 = 96.4% (86.2%, 99.1%) | 103.6/103.6 = 100.0% (100.0%, 100.0%) | 99.8/103.6 = 96.4% (86.2%, 99.1%) |
| Age \geq 65 Communities of Color | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 58 | 103.6/103.6 = 100.0% (100.0%, 100.0%) | 103.6/103.6 = 100.0% (100.0%, 100.0%) | 103.6/103.6 = 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 Communities of Color | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 58 | 103.6/103.6 = 100.0% (100.0%, 100.0%) | 103.6/103.6 = 100.0% (100.0%, 100.0%) | 103.6/103.6 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 White Non-Hispanic | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 194 | 1082.6/1329.2 = 81.4% (75.3%, 86.3%) | 1281.3/1329.2 = 96.4% (92.6%, 98.3%) | 1247/1329.2 = 93.8% (89.4%, 96.5%) |
| Age ≥ 65 White Non-Hispanic | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 194 | 1329.2/1329.2 = 100.0% (100.0%, 100.0%) | 1329.2/1329.2 = 100.0% (100.0%, 100.0%) | 1329.2/1329.2 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 White Non-Hispanic | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 194 | 1329.2/1329.2 = 100.0% (100.0%, 100.0%) | 1329.2/1329.2 = 100.0% (100.0%, 100.0%) | 1329.2/1329.2 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 White Non-Hispanic | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 64 | 146.6/161.8 = 90.6% (80.3%, 95.8%) | 161.8/161.8 = 100.0% (100.0%, 100.0%) | 156.7/161.8 = 96.9% (88.0%, 99.2%) |
| Age ≥ 65 White Non-Hispanic | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 64 | 161.8/161.8 = 100.0% (100.0%, 100.0%) | 161.8/161.8 = 100.0% (100.0%, 100.0%) | 161.8/161.8 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 White Non-Hispanic | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 64 | 161.8/161.8 = 100.0% (100.0%, 100.0%) | 161.8/161.8 = 100.0% (100.0%, 100.0%) | 161.8/161.8 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 White Non-Hispanic | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 31 | 0/1477.9 = 0.0% (0.0%, 0.0%) | 0/1477.9 = 0.0% (0.0%, 0.0%) | 0/1477.9 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 White Non-Hispanic | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 31 | 0/1477.9 = 0.0% (0.0%, 0.0%) | 0/1477.9 = 0.0% (0.0%, 0.0%) | 0/1477.9 = 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) | 31 | 0/1477.9 = 0.0% (0.0%, 0.0%) | 0/1477.9 = 0.0% (0.0%, 0.0%) | 0/1477.9 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 White Non-Hispanic | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 63 | 99.9/128.4 = 77.8% (65.6%, 86.5%) | 124.3/128.4 = 96.8% (87.8%, 99.2%) | 116.2/128.4 = 90.5% (80.1%, 95.7%) |
| Age ≥ 65 White Non-Hispanic | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 63 | 128.4/128.4 = 100.0% (100.0%, 100.0%) | 128.4/128.4 = 100.0% (100.0%, 100.0%) | 128.4/128.4 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 White Non-Hispanic | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 63 | 128.4/128.4 = 100.0% (100.0%, 100.0%) | 128.4/128.4 = 100.0% (100.0%, 100.0%) | 128.4/128.4 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 White Non-Hispanic | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 194 | 1253.9/1329.2 = 94.3% (90.0%, 96.8%) | 1315.5/1329.2 = 99.0% (95.9%, 99.7%) | 1295/1329.2 = 97.4% (93.9%, 98.9%) |
| Age ≥ 65 White Non-Hispanic | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 194 | 1329.2/1329.2 = 100.0% (100.0%, 100.0%) | 1329.2/1329.2 = 100.0% (100.0%, 100.0%) | 1329.2/1329.2 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 White Non-Hispanic | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 194 | 1329.2/1329.2 = 100.0% (100.0%, 100.0%) | 1329.2/1329.2 = 100.0% (100.0%, 100.0%) | 1329.2/1329.2 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 White Non-Hispanic | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 64 | 161.8/161.8 = 100.0% (100.0%, 100.0%) | 161.8/161.8 = 100.0% (100.0%, 100.0%) | 161.8/161.8 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 White Non-Hispanic | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 64 | 161.8/161.8 = 100.0% (100.0%, 100.0%) | 161.8/161.8 = 100.0% (100.0%, 100.0%) | 161.8/161.8 = 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 | 161.8/161.8 = 100.0% (100.0%, 100.0%) | 161.8/161.8 = 100.0% (100.0%, 100.0%) | 161.8/161.8 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 White Non-Hispanic | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 31 | 0/1477.9 = 0.0% (0.0%, 0.0%) | 0/1477.9 = 0.0% (0.0%, 0.0%) | 0/1477.9 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 White Non-Hispanic | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 31 | 0/1477.9 = 0.0% (0.0%, 0.0%) | 0/1477.9 = 0.0% (0.0%, 0.0%) | 0/1477.9 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 White Non-Hispanic | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 31 | 0/1477.9 = 0.0% (0.0%, 0.0%) | 0/1477.9 = 0.0% (0.0%, 0.0%) | 0/1477.9 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 White Non-Hispanic | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 63 | 112.1/128.4 = 87.3% (76.3%, 93.6%) | 124.3/128.4 = 96.8% (87.8%, 99.2%) | 120.3/128.4 = 93.7% (84.0%, 97.7%) |
| Age ≥ 65 White Non-Hispanic | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 63 | 128.4/128.4 = 100.0% (100.0%, 100.0%) | 128.4/128.4 = 100.0% (100.0%, 100.0%) | 128.4/128.4 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 White Non-Hispanic | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 63 | 128.4/128.4 = 100.0% (100.0%, 100.0%) | 128.4/128.4 = 100.0% (100.0%, 100.0%) | 128.4/128.4 = 100.0% (100.0%, 100.0%) |

Binding Antibody Responders are defined as participants with concentration above the specified positivity cut-off, with a separate cut-off for each antigen Spike, RBD, N (10.8424, 14.0858, and 23.4711 respectively, in IU/ml).

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

2.6 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 | 747 | 9987.8/11127 = 89.8% (86.3%, 92.5%) | 9987.8/11127 = 89.8% (86.3%, 92.5%) | 8580.4/11127 = 77.1% (72.9%, 80.9%) |
| | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 234 | 1174.4/1234 = 95.2% (89.1%, 97.9%) | 1216.1/1234 = 98.6% (93.4%, 99.7%) | 1050.2/1234 = 85.1% (77.6%, 90.4%) |
| | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 138 | 0/11103 = 0.0% (0.0%, 0.0%) | 0/11103 = 0.0% (0.0%, 0.0%) | 0/11103 = 0.0% (0.0%, 0.0%) |
| | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 241 | 887.2/1125 = 78.9% (71.2%, 84.9%) | 888.9/1125 = 79.0% (71.4%, 85.0%) | 649.5/1125 = 57.7% (49.8%, 65.3%) |
| | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 747 | 11127/11127 = 100.0% (100.0%, 100.0%) | 11127/11127 = 100.0% (100.0%, 100.0%) | 11127/11127 = 100.0% (100.0%, 100.0%) |
| | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 234 | 1234/1234 = 100.0% (100.0%, 100.0%) | 1234/1234 = 100.0% (100.0%, 100.0%) | 1234/1234 = 100.0% (100.0%, 100.0%) |
| | Day 57 | Placebo | Negative | Pseudovirus-nAb ID50 | 138 | 47.7/11103 = 0.4% (0.1%, 3.0%) | 47.7/11103 = 0.4% (0.1%, 3.0%) | 0/11103 = 0.0% (0.0%, 0.0%) |
| | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 241 | 1125/1125 = 100.0% (100.0%, 100.0%) | 1125/1125 = 100.0% (100.0%, 100.0%) | 1125/1125 = 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 = 4.48, 21.48 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 | 357 | 7651.1/8769 = 87.3% (82.8%, 90.7%) | 7651.1/8769 = 87.3% (82.8%, 90.7%) | 6442.5/8769 = 73.5% (68.2%, 78.2%) |
| Age < 65 | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 114 | 923.4/983 = 93.9% (86.4%, 97.4%) | 965.1/983 = 98.2% (91.7%, 99.6%) | 801.7/983 = 81.6% (72.2%, 88.3%) |
| Age < 65 | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 72 | 0/8343 = 0.0% (0.0%, 0.0%) | 0/8343 = 0.0% (0.0%, 0.0%) | 0/8343 = 0.0% (0.0%, 0.0%) |
| Age < 65 | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 120 | 668.1/893 = 74.8% (65.3%, 82.4%) | 668.1/893 = 74.8% (65.3%, 82.4%) | 457.2/893 = 51.2% (41.6%, 60.7%) |
| Age < 65 | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 357 | 8769/8769 = 100.0% (100.0%, 100.0%) | 8769/8769 = 100.0% (100.0%, 100.0%) | 8769/8769 = 100.0% (100.0%, 100.0%) |
| Age < 65 | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 114 | 983/983 = 100.0% (100.0%, 100.0%) | 983/983 = 100.0% (100.0%, 100.0%) | 983/983 = 100.0% (100.0%, 100.0%) |
| Age < 65 | Day 57 | Placebo | Negative | Pseudovirus-nAb ID50 | 72 | 0/8343 = 0.0% (0.0%, 0.0%) | 0/8343 = 0.0% (0.0%, 0.0%) | 0/8343 = 0.0% (0.0%, 0.0%) |
| Age < 65 | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 120 | 893/893 = 100.0% (100.0%, 100.0%) | 893/893 = 100.0% (100.0%, 100.0%) | 893/893 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID50 | 390 | 2336.7/2358 = 99.1% (97.6%, 99.7%) | 2336.7/2358 = 99.1% (97.6%, 99.7%) | 2137.9/2358 = 90.7% (87.3%, 93.2%) |
| Age ≥ 65 | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 120 | 251/251 = 100.0% (100.0%, 100.0%) | 251/251 = 100.0% (100.0%, 100.0%) | 248.5/251 = 99.0% (93.0%, 99.9%) |
| Age ≥ 65 | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 66 | 0/2760 = 0.0% (0.0%, 0.0%) | 0/2760 = 0.0% (0.0%, 0.0%) | 0/2760 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 121 | 219.1/232 = 94.4% (88.7%, 97.4%) | 220.8/232 = 95.2% (89.5%, 97.8%) | 192.3/232 = 82.9% (75.0%, 88.6%) |
| Age ≥ 65 | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 390 | 2358/2358 = 100.0% (100.0%, 100.0%) | 2358/2358 = 100.0% (100.0%, 100.0%) | 2358/2358 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 120 | 251/251 = 100.0% (100.0%, 100.0%) | 251/251 = 100.0% (100.0%, 100.0%) | 251/251 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 | Day 57 | Placebo | Negative | Pseudovirus-nAb ID50 | 66 | 47.7/2760 = 1.7% (0.2%, 11.8%) | 47.7/2760 = 1.7% (0.2%, 11.8%) | 0/2760 = 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 | 121 | 232/232 = 100.0% (100.0%, 100.0%) | 232/232 = 100.0% (100.0%, 100.0%) | 232/232 = 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 = 4.48, 21.48 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 | 381 | 3885.1/4152.9 = 93.6% (89.7%, 96.0%) | 3885.1/4152.9 = 93.6% (89.7%, 96.0%) | 3258.7/4152.9 = 78.5% (73.2%, 83.0%) |
| At-risk | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 111 | 429.2/440.4 = 97.5% (89.9%, 99.4%) | 435.8/440.4 = 98.9% (92.7%, 99.9%) | 393.1/440.4 = 89.3% (80.1%, 94.5%) |
| At-risk | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 71 | 0/4237.6 = 0.0% (0.0%, 0.0%) | 0/4237.6 = 0.0% (0.0%, 0.0%) | 0/4237.6 = 0.0% (0.0%, 0.0%) |
| At-risk | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 117 | 335/404.4 = 82.8% (73.4%, 89.4%) | 336.7/404.4 = 83.3% (73.8%, 89.8%) | 273.1/404.4 = 67.5% (57.2%, 76.4%) |
| At-risk | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 381 | 4152.9/4152.9 = 100.0% (100.0%, 100.0%) | 4152.9/4152.9 = 100.0% (100.0%, 100.0%) | 4152.9/4152.9 = 100.0% (100.0%, 100.0%) |
| At-risk | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 111 | 440.4/440.4 = 100.0% (100.0%, 100.0%) | 440.4/440.4 = 100.0% (100.0%, 100.0%) | 440.4/440.4 = 100.0% (100.0%, 100.0%) |
| At-risk | Day 57 | Placebo | Negative | Pseudovirus-nAb ID50 | 71 | 47.7/4237.6 = 1.1% (0.2%, 7.8%) | 47.7/4237.6 = 1.1% (0.2%, 7.8%) | 0/4237.6 = 0.0% (0.0%, 0.0%) |
| At-risk | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 117 | 404.4/404.4 = 100.0% (100.0%, 100.0%) | 404.4/404.4 = 100.0% (100.0%, 100.0%) | 404.4/404.4 = 100.0% (100.0%, 100.0%) |
| Not at-risk | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID50 | 366 | 6102.7/6974.1 = 87.5% (82.2%, 91.4%) | 6102.7/6974.1 = 87.5% (82.2%, 91.4%) | 5321.7/6974.1 = 76.3% (70.2%, 81.5%) |
| Not at-risk | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 123 | 745.2/793.6 = 93.9% (84.5%, 97.8%) | 780.3/793.6 = 98.3% (88.7%, 99.8%) | 657.1/793.6 = 82.8% (71.6%, 90.2%) |
| Not at-risk | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 67 | 0/6865.4 = 0.0% (0.0%, 0.0%) | 0/6865.4 = 0.0% (0.0%, 0.0%) | 0/6865.4 = 0.0% (0.0%, 0.0%) |
| Not at-risk | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 124 | 552.2/720.6 = 76.6% (65.6%, 85.0%) | 552.2/720.6 = 76.6% (65.6%, 85.0%) | 376.4/720.6 = 52.2% (41.4%, 62.9%) |
| Not at-risk | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 366 | 6974.1/6974.1 = 100.0% (100.0%, 100.0%) | 6974.1/6974.1 = 100.0% (100.0%, 100.0%) | 6974.1/6974.1 = 100.0% (100.0%, 100.0%) |
| Not at-risk | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 123 | 793.6/793.6 = 100.0% (100.0%, 100.0%) | 793.6/793.6 = 100.0% (100.0%, 100.0%) | 793.6/793.6 = 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 | 67 | 0/6865.4 = 0.0% (0.0%, 0.0%) | 0/6865.4 = 0.0% (0.0%, 0.0%) | 0/6865.4 = 0.0% (0.0%, 0.0%) |
| Not at-risk | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 124 | 720.6/720.6 = 100.0% (100.0%, 100.0%) | 720.6/720.6 = 100.0% (100.0%, 100.0%) | 720.6/720.6 = 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 = 4.48, 21.48 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 | 185 | 2702/2965 = 91.1% (85.7%, 94.6%) | 2702/2965 = 91.1% (85.7%, 94.6%) | 2193.6/2965 = 74.0% (66.8%, 80.1%) |
| Age < 65 At-risk | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 56 | 309.8/321 = 96.5% (86.2%, 99.2%) | 316.4/321 = 98.6% (90.0%, 99.8%) | 276.2/321 = 86.1% (73.7%, 93.1%) |
| Age < 65 At-risk | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 36 | 0/2792 = 0.0% (0.0%, 0.0%) | 0/2792 = 0.0% (0.0%, 0.0%) | 0/2792 = 0.0% (0.0%, 0.0%) |
| Age < 65 At-risk | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 59 | 228.4/292 = 78.2% (65.5%, 87.2%) | 228.4/292 = 78.2% (65.5%, 87.2%) | 178.7/292 = 61.2% (47.8%, 73.1%) |
| Age < 65 At-risk | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 185 | 2965/2965 = 100.0% (100.0%, 100.0%) | 2965/2965 = 100.0% (100.0%, 100.0%) | 2965/2965 = 100.0% (100.0%, 100.0%) |
| Age < 65 At-risk | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 56 | 321/321 = 100.0% (100.0%, 100.0%) | 321/321 = 100.0% (100.0%, 100.0%) | 321/321 = 100.0% (100.0%, 100.0%) |
| Age < 65 At-risk | Day 57 | Placebo | Negative | Pseudovirus-nAb ID50 | 36 | 0/2792 = 0.0% (0.0%, 0.0%) | 0/2792 = 0.0% (0.0%, 0.0%) | 0/2792 = 0.0% (0.0%, 0.0%) |
| Age < 65 At-risk | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 59 | 292/292 = 100.0% (100.0%, 100.0%) | 292/292 = 100.0% (100.0%, 100.0%) | 292/292 = 100.0% (100.0%, 100.0%) |
| Age < 65 Not at-risk | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID50 | 172 | 4949.1/5804 = 85.3% (78.9%, 90.0%) | 4949.1/5804 = 85.3% (78.9%, 90.0%) | 4248.9/5804 = 73.2% (65.9%, 79.4%) |
| Age < 65 Not at-risk | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 58 | 613.6/662 = 92.7% (81.4%, 97.4%) | 648.7/662 = 98.0% (86.4%, 99.7%) | 525.5/662 = 79.4% (66.1%, 88.4%) |
| Age < 65 Not at-risk | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 36 | 0/5551 = 0.0% (0.0%, 0.0%) | 0/5551 = 0.0% (0.0%, 0.0%) | 0/5551 = 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 | 61 | 439.8/601 = 73.2% (60.0%, 83.2%) | 439.8/601 = 73.2% (60.0%, 83.2%) | 278.6/601 = 46.4% (33.8%, 59.3%) |
| Age < 65 Not at-risk | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 172 | 5804/5804 = 100.0% (100.0%, 100.0%) | 5804/5804 = 100.0% (100.0%, 100.0%) | 5804/5804 = 100.0% (100.0%, 100.0%) |
| Age < 65 Not at-risk | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 58 | 662/662 = 100.0% (100.0%, 100.0%) | 662/662 = 100.0% (100.0%, 100.0%) | 662/662 = 100.0% (100.0%, 100.0%) |
| Age < 65 Not at-risk | Day 57 | Placebo | Negative | Pseudovirus-nAb ID50 | 36 | 0/5551 = 0.0% (0.0%, 0.0%) | 0/5551 = 0.0% (0.0%, 0.0%) | 0/5551 = 0.0% (0.0%, 0.0%) |
| Age < 65 Not at-risk | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 61 | 601/601 = 100.0% (100.0%, 100.0%) | 601/601 = 100.0% (100.0%, 100.0%) | 601/601 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 At-risk | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID50 | 196 | 1183.1/1187.9 = 99.6% (97.1%, 99.9%) | 1183.1/1187.9 = 99.6% (97.1%, 99.9%) | 1065.1/1187.9 = 89.7% (84.4%, 93.3%) |
| Age ≥ 65 At-risk | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 55 | 119.4/119.4 = 100.0% (100.0%, 100.0%) | 119.4/119.4 = 100.0% (100.0%, 100.0%) | 116.9/119.4 = 97.9% (85.8%, 99.7%) |
| Age ≥ 65 At-risk | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 35 | 0/1445.6 = 0.0% (0.0%, 0.0%) | 0/1445.6 = 0.0% (0.0%, 0.0%) | 0/1445.6 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 At-risk | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 58 | 106.7/112.4 = 94.9% (84.8%, 98.4%) | 108.4/112.4 = 96.4% (86.2%, 99.1%) | 94.4/112.4 = 84.0% (71.7%, 91.6%) |
| Age ≥ 65 At-risk | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 196 | 1187.9/1187.9 = 100.0% (100.0%, 100.0%) | 1187.9/1187.9 = 100.0% (100.0%, 100.0%) | 1187.9/1187.9 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 At-risk | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 55 | 119.4/119.4 = 100.0% (100.0%, 100.0%) | 119.4/119.4 = 100.0% (100.0%, 100.0%) | 119.4/119.4 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 At-risk | Day 57 | Placebo | Negative | Pseudovirus-nAb ID50 | 35 | 47.7/1445.6 = 3.3% (0.4%, 21.5%) | 47.7/1445.6 = 3.3% (0.4%, 21.5%) | 0/1445.6 = 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 At-risk | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 58 | 112.4/112.4 = 100.0% (100.0%, 100.0%) | 112.4/112.4 = 100.0% (100.0%, 100.0%) | 112.4/112.4 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Not at-risk | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID50 | 194 | 1153.6/1170.1 = 98.6% (95.6%, 99.6%) | 1153.6/1170.1 = 98.6% (95.6%, 99.6%) | 1072.7/1170.1 = 91.7% (86.7%, 94.9%) |
| Age ≥ 65 Not at-risk | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 65 | 131.6/131.6 = 100.0% (100.0%, 100.0%) | 131.6/131.6 = 100.0% (100.0%, 100.0%) | 131.6/131.6 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Not at-risk | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 31 | 0/1314.4 = 0.0% (0.0%, 0.0%) | 0/1314.4 = 0.0% (0.0%, 0.0%) | 0/1314.4 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 Not at-risk | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 63 | 112.4/119.6 = 94.0% (84.8%, 97.8%) | 112.4/119.6 = 94.0% (84.8%, 97.8%) | 97.8/119.6 = 81.8% (70.3%, 89.5%) |
| Age ≥ 65 Not at-risk | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 194 | 1170.1/1170.1 = 100.0% (100.0%, 100.0%) | 1170.1/1170.1 = 100.0% (100.0%, 100.0%) | 1170.1/1170.1 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Not at-risk | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 65 | 131.6/131.6 = 100.0% (100.0%, 100.0%) | 131.6/131.6 = 100.0% (100.0%, 100.0%) | 131.6/131.6 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Not at-risk | Day 57 | Placebo | Negative | Pseudovirus-nAb ID50 | 31 | 0/1314.4 = 0.0% (0.0%, 0.0%) | 0/1314.4 = 0.0% (0.0%, 0.0%) | 0/1314.4 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 Not at-risk | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 63 | 119.6/119.6 = 100.0% (100.0%, 100.0%) | 119.6/119.6 = 100.0% (100.0%, 100.0%) | 119.6/119.6 = 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 = 4.48, 21.48 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 | 320 | 4228.5/4733.6 = 89.3% (83.6%, 93.2%) | 4228.5/4733.6 = 89.3% (83.6%, 93.2%) | 3678/4733.6 = 77.7% (71.0%, 83.2%) |
| Male | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 95 | 488.3/510.2 = 95.7% (83.6%, 99.0%) | 510.2/510.2 = 100.0% (100.0%, 100.0%) | 413.1/510.2 = 81.0% (67.6%, 89.6%) |
| Male | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 63 | 0/5325.1 = 0.0% (0.0%, 0.0%) | 0/5325.1 = 0.0% (0.0%, 0.0%) | 0/5325.1 = 0.0% (0.0%, 0.0%) |
| Male | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 108 | 390.3/501.1 = 77.9% (65.6%, 86.7%) | 390.3/501.1 = 77.9% (65.6%, 86.7%) | 275.2/501.1 = 54.9% (42.8%, 66.5%) |
| Male | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 320 | 4733.6/4733.6 = 100.0% (100.0%, 100.0%) | 4733.6/4733.6 = 100.0% (100.0%, 100.0%) | 4733.6/4733.6 = 100.0% (100.0%, 100.0%) |
| Male | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 95 | 510.2/510.2 = 100.0% (100.0%, 100.0%) | 510.2/510.2 = 100.0% (100.0%, 100.0%) | 510.2/510.2 = 100.0% (100.0%, 100.0%) |
| Male | Day 57 | Placebo | Negative | Pseudovirus-nAb ID50 | 63 | 0/5325.1 = 0.0% (0.0%, 0.0%) | 0/5325.1 = 0.0% (0.0%, 0.0%) | 0/5325.1 = 0.0% (0.0%, 0.0%) |
| Male | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 108 | 501.1/501.1 = 100.0% (100.0%, 100.0%) | 501.1/501.1 = 100.0% (100.0%, 100.0%) | 501.1/501.1 = 100.0% (100.0%, 100.0%) |
| Female | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID50 | 427 | 5759.3/6393.4 = 90.1% (85.2%, 93.5%) | 5759.3/6393.4 = 90.1% (85.2%, 93.5%) | 4902.4/6393.4 = 76.7% (70.9%, 81.6%) |
| Female | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 139 | 686.1/723.8 = 94.8% (85.8%, 98.2%) | 705.9/723.8 = 97.5% (89.0%, 99.5%) | 637.1/723.8 = 88.0% (77.8%, 93.9%) |
| Female | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 75 | 0/5777.9 = 0.0% (0.0%, 0.0%) | 0/5777.9 = 0.0% (0.0%, 0.0%) | 0/5777.9 = 0.0% (0.0%, 0.0%) |
| Female | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 133 | 496.9/623.9 = 79.6% (69.1%, 87.2%) | 498.6/623.9 = 79.9% (69.4%, 87.5%) | 374.3/623.9 = 60.0% (49.3%, 69.8%) |
| Female | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 427 | 6393.4/6393.4 = 100.0% (100.0%, 100.0%) | 6393.4/6393.4 = 100.0% (100.0%, 100.0%) | 6393.4/6393.4 = 100.0% (100.0%, 100.0%) |
| Female | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 139 | 723.8/723.8 = 100.0% (100.0%, 100.0%) | 723.8/723.8 = 100.0% (100.0%, 100.0%) | 723.8/723.8 = 100.0% (100.0%, 100.0%) |
| Female | Day 57 | Placebo | Negative | Pseudovirus-nAb ID50 | 75 | 47.7/5777.9 = 0.8% (0.1%, 5.9%) | 47.7/5777.9 = 0.8% (0.1%, 5.9%) | 0/5777.9 = 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 | 133 | 623.9/623.9 = 100.0% (100.0%, 100.0%) | 623.9/623.9 = 100.0% (100.0%, 100.0%) | 623.9/623.9 = 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 = 4.48, 21.48 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 | 201 | 4401.3/5028.5 = 87.5% (81.3%, 91.9%) | 4401.3/5028.5 = 87.5% (81.3%, 91.9%) | 3678/5028.5 = 73.1% (66.0%, 79.3%) |
| Age < 65 Female | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 66 | 535.4/573.1 = 93.4% (82.2%, 97.8%) | 555.2/573.1 = 96.9% (86.2%, 99.4%) | 486.4/573.1 = 84.9% (72.1%, 92.4%) |
| Age < 65 Female | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 38 | 0/4192.3 = 0.0% (0.0%, 0.0%) | 0/4192.3 = 0.0% (0.0%, 0.0%) | 0/4192.3 = 0.0% (0.0%, 0.0%) |
| Age < 65 Female | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 70 | 381.1/502.7 = 75.8% (63.0%, 85.2%) | 381.1/502.7 = 75.8% (63.0%, 85.2%) | 271.7/502.7 = 54.1% (41.4%, 66.2%) |
| Age < 65 Female | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 201 | 5028.5/5028.5 = 100.0% (100.0%, 100.0%) | 5028.5/5028.5 = 100.0% (100.0%, 100.0%) | 5028.5/5028.5 = 100.0% (100.0%, 100.0%) |
| Age < 65 Female | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 66 | 573.1/573.1 = 100.0% (100.0%, 100.0%) | 573.1/573.1 = 100.0% (100.0%, 100.0%) | 573.1/573.1 = 100.0% (100.0%, 100.0%) |
| Age < 65 Female | Day 57 | Placebo | Negative | Pseudovirus-nAb ID50 | 38 | 0/4192.3 = 0.0% (0.0%, 0.0%) | 0/4192.3 = 0.0% (0.0%, 0.0%) | 0/4192.3 = 0.0% (0.0%, 0.0%) |
| Age < 65 Female | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 70 | 502.7/502.7 = 100.0% (100.0%, 100.0%) | 502.7/502.7 = 100.0% (100.0%, 100.0%) | 502.7/502.7 = 100.0% (100.0%, 100.0%) |
| Age < 65 Male | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID50 | 156 | 3249.8/3740.5 = 86.9% (79.6%, 91.8%) | 3249.8/3740.5 = 86.9% (79.6%, 91.8%) | 2764.5/3740.5 = 73.9% (65.6%, 80.8%) |
| Age < 65 Male | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 48 | 388.1/409.9 = 94.7% (79.7%, 98.8%) | 409.9/409.9 = 100.0% (100.0%, 100.0%) | 315.4/409.9 = 76.9% (60.7%, 87.8%) |
| Age < 65 Male | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 34 | 0/4150.7 = 0.0% (0.0%, 0.0%) | 0/4150.7 = 0.0% (0.0%, 0.0%) | 0/4150.7 = 0.0% (0.0%, 0.0%) |
| Age < 65 Male | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 50 | 287.1/390.3 = 73.5% (58.1%, 84.8%) | 287.1/390.3 = 73.5% (58.1%, 84.8%) | 185.5/390.3 = 47.5% (32.9%, 62.5%) |

(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 | 3740.5/3740.5 = 100.0% (100.0%, 100.0%) | 3740.5/3740.5 = 100.0% (100.0%, 100.0%) | 3740.5/3740.5 = 100.0% (100.0%, 100.0%) |
| Age < 65 Male | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 48 | 409.9/409.9 = 100.0% (100.0%, 100.0%) | 409.9/409.9 = 100.0% (100.0%, 100.0%) | 409.9/409.9 = 100.0% (100.0%, 100.0%) |
| Age < 65 Male | Day 57 | Placebo | Negative | Pseudovirus-nAb ID50 | 34 | 0/4150.7 = 0.0% (0.0%, 0.0%) | 0/4150.7 = 0.0% (0.0%, 0.0%) | 0/4150.7 = 0.0% (0.0%, 0.0%) |
| Age < 65 Male | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 50 | 390.3/390.3 = 100.0% (100.0%, 100.0%) | 390.3/390.3 = 100.0% (100.0%, 100.0%) | 390.3/390.3 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Male | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID50 | 164 | 978.7/993.1 = 98.5% (95.6%, 99.5%) | 978.7/993.1 = 98.5% (95.6%, 99.5%) | 913.5/993.1 = 92.0% (86.8%, 95.3%) |
| Age ≥ 65 Male | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 47 | 100.3/100.3 = 100.0% (100.0%, 100.0%) | 100.3/100.3 = 100.0% (100.0%, 100.0%) | 97.7/100.3 = 97.5% (83.3%, 99.7%) |
| Age ≥ 65 Male | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 29 | 0/1174.4 = 0.0% (0.0%, 0.0%) | 0/1174.4 = 0.0% (0.0%, 0.0%) | 0/1174.4 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 Male | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 58 | 103.3/110.7 = 93.3% (82.9%, 97.5%) | 103.3/110.7 = 93.3% (82.9%, 97.5%) | 89.7/110.7 = 81.0% (68.4%, 89.3%) |
| Age ≥ 65 Male | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 164 | 993.1/993.1 = 100.0% (100.0%, 100.0%) | 993.1/993.1 = 100.0% (100.0%, 100.0%) | 993.1/993.1 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Male | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 47 | 100.3/100.3 = 100.0% (100.0%, 100.0%) | 100.3/100.3 = 100.0% (100.0%, 100.0%) | 100.3/100.3 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Male | Day 57 | Placebo | Negative | Pseudovirus-nAb ID50 | 29 | 0/1174.4 = 0.0% (0.0%, 0.0%) | 0/1174.4 = 0.0% (0.0%, 0.0%) | 0/1174.4 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 Male | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 58 | 110.7/110.7 = 100.0% (100.0%, 100.0%) | 110.7/110.7 = 100.0% (100.0%, 100.0%) | 110.7/110.7 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Female | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID50 | 226 | 1358/1364.9 = 99.5% (96.5%, 99.9%) | 1358/1364.9 = 99.5% (96.5%, 99.9%) | 1224.3/1364.9 = 89.7% (84.8%, 93.2%) |
| Age ≥ 65 Female | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 73 | 150.7/150.7 = 100.0% (100.0%, 100.0%) | 150.7/150.7 = 100.0% (100.0%, 100.0%) | 150.7/150.7 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Female | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 37 | 0/1585.6 = 0.0% (0.0%, 0.0%) | 0/1585.6 = 0.0% (0.0%, 0.0%) | 0/1585.6 = 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 Female | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 63 | 115.8/121.3 = 95.5% (86.6%, 98.6%) | 117.5/121.3 = 96.9% (88.1%, 99.3%) | 102.6/121.3 = 84.6% (73.3%, 91.7%) |
| Age ≥ 65 Female | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 226 | 1364.9/1364.9 = 100.0% (100.0%, 100.0%) | 1364.9/1364.9 = 100.0% (100.0%, 100.0%) | 1364.9/1364.9 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Female | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 73 | 150.7/150.7 = 100.0% (100.0%, 100.0%) | 150.7/150.7 = 100.0% (100.0%, 100.0%) | 150.7/150.7 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Female | Day 57 | Placebo | Negative | Pseudovirus-nAb ID50 | 37 | 47.7/1585.6 = 3.0% (0.4%, 19.9%) | 47.7/1585.6 = 3.0% (0.4%, 19.9%) | 0/1585.6 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 Female | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 63 | 121.3/121.3 = 100.0% (100.0%, 100.0%) | 121.3/121.3 = 100.0% (100.0%, 100.0%) | 121.3/121.3 = 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 = 4.48, 21.48 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 | 99 | 927.7/1009.2 = 91.9% (79.8%, 97.0%) | 927.7/1009.2 = 91.9% (79.8%, 97.0%) | 794.2/1009.2 = 78.7% (65.8%, 87.6%) |
| Hispanic or Latino | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 31 | 100.5/105.1 = 95.6% (72.3%, 99.5%) | 100.5/105.1 = 95.6% (72.3%, 99.5%) | 86.6/105.1 = 82.4% (60.4%, 93.5%) |
| Hispanic or Latino | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 20 | 0/991.8 = 0.0% (0.0%, 0.0%) | 0/991.8 = 0.0% (0.0%, 0.0%) | 0/991.8 = 0.0% (0.0%, 0.0%) |
| Hispanic or Latino | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 34 | 116.6/148.4 = 78.6% (55.9%, 91.4%) | 116.6/148.4 = 78.6% (55.9%, 91.4%) | 78/148.4 = 52.6% (32.5%, 71.8%) |
| Hispanic or Latino | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 99 | 1009.2/1009.2 = 100.0% (100.0%, 100.0%) | 1009.2/1009.2 = 100.0% (100.0%, 100.0%) | 1009.2/1009.2 = 100.0% (100.0%, 100.0%) |
| Hispanic or Latino | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 31 | 105.1/105.1 = 100.0% (100.0%, 100.0%) | 105.1/105.1 = 100.0% (100.0%, 100.0%) | 105.1/105.1 = 100.0% (100.0%, 100.0%) |
| Hispanic or Latino | Day 57 | Placebo | Negative | Pseudovirus-nAb ID50 | 20 | 0/991.8 = 0.0% (0.0%, 0.0%) | 0/991.8 = 0.0% (0.0%, 0.0%) | 0/991.8 = 0.0% (0.0%, 0.0%) |
| Hispanic or Latino | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 34 | 148.4/148.4 = 100.0% (100.0%, 100.0%) | 148.4/148.4 = 100.0% (100.0%, 100.0%) | 148.4/148.4 = 100.0% (100.0%, 100.0%) |
| Not Hispanic or Latino | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID50 | 623 | 8819.4/9866.2 = 89.4% (85.5%, 92.3%) | 8819.4/9866.2 = 89.4% (85.5%, 92.3%) | 7582.5/9866.2 = 76.9% (72.2%, 80.9%) |
| Not Hispanic or Latino | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 194 | 1046.7/1101.6 = 95.0% (88.2%, 98.0%) | 1088.3/1101.6 = 98.8% (91.8%, 99.8%) | 936.3/1101.6 = 85.0% (76.6%, 90.7%) |
| Not Hispanic or Latino | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 113 | 0/9818.5 = 0.0% (0.0%, 0.0%) | 0/9818.5 = 0.0% (0.0%, 0.0%) | 0/9818.5 = 0.0% (0.0%, 0.0%) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | Responder | % 2-Fold Rise | % 4-Fold Rise |
|--------------------------|--------|---------|---------------------|----------------------|-----|--|--|--|
| Not Hispanic or Latino | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 201 | 755.2/949.1 = 79.6% (71.1%, 86.1%) | 756.9/949.1 = 79.8% (71.3%, 86.2%) | 560.4/949.1 = 59.0% (50.4%, 67.2%) |
| Not Hispanic or Latino | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 623 | 9866.2/9866.2 = 100.0% (100.0%, 100.0%) | 9866.2/9866.2 = 100.0% (100.0%, 100.0%) | 9866.2/9866.2 = 100.0% (100.0%, 100.0%) |
| Not Hispanic or Latino | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 194 | 1101.6/1101.6 = 100.0% (100.0%, 100.0%) | 1101.6/1101.6 = 100.0% (100.0%, 100.0%) | 1101.6/1101.6 = 100.0% (100.0%, 100.0%) |
| Not Hispanic or Latino | Day 57 | Placebo | Negative | Pseudovirus-nAb ID50 | 113 | 47.7/9818.5 = 0.5% (0.1%, 3.5%) | 47.7/9818.5 = 0.5% (0.1%, 3.5%) | 0/9818.5 = 0.0% (0.0%, 0.0%) |
| Not Hispanic or Latino | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 201 | 949.1/949.1 = 100.0% (100.0%, 100.0%) | 949.1/949.1 = 100.0% (100.0%, 100.0%) | 949.1/949.1 = 100.0% (100.0%, 100.0%) |
| Not reported and unknown | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID50 | 25 | 240.7/251.7 = 95.7% (72.0%, 99.5%) | 240.7/251.7 = 95.7% (72.0%, 99.5%) | 203.7/251.7 = 80.9% (49.8%, 94.8%) |
| Not reported and unknown | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 9 | 27.3/27.3 = 100.0% (100.0%, 100.0%) | 27.3/27.3 = 100.0% (100.0%, 100.0%) | 27.3/27.3 = 100.0% (100.0%, 100.0%) |
| Not reported and unknown | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 5 | 0/292.8 = 0.0% (0.0%, 0.0%) | 0/292.8 = 0.0% (0.0%, 0.0%) | 0/292.8 = 0.0% (0.0%, 0.0%) |
| Not reported and unknown | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 6 | 15.5/27.5 = 56.2% (5.7%, 96.5%) | 15.5/27.5 = 56.2% (5.7%, 96.5%) | 11.1/27.5 = 40.3% (3.1%, 93.3%) |
| Not reported and unknown | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 25 | 251.7/251.7 = 100.0% (100.0%, 100.0%) | 251.7/251.7 = 100.0% (100.0%, 100.0%) | 251.7/251.7 = 100.0% (100.0%, 100.0%) |
| Not reported and unknown | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 9 | 27.3/27.3 = 100.0% (100.0%, 100.0%) | 27.3/27.3 = 100.0% (100.0%, 100.0%) | 27.3/27.3 = 100.0% (100.0%, 100.0%) |
| Not reported and unknown | Day 57 | Placebo | Negative | Pseudovirus-nAb ID50 | 5 | 0/292.8 = 0.0% (0.0%, 0.0%) | 0/292.8 = 0.0% (0.0%, 0.0%) | 0/292.8 = 0.0% (0.0%, 0.0%) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | Responder | % 2-Fold Rise | % 4-Fold Rise |
|--------------------------|--------|---------|---------------------|----------------------|---|--|--|--|
| Not reported and unknown | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 6 | 27.5/27.5 = 100.0% (100.0%, 100.0%) | 27.5/27.5 = 100.0% (100.0%, 100.0%) | 27.5/27.5 = 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 = 4.48, 21.48 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 | 370 | 5527.1/6391.7 = 86.5% (81.0%, 90.6%) | 5527.1/6391.7 = 86.5% (81.0%, 90.6%) | 4717.7/6391.7 = 73.8% (67.6%, 79.2%) |
| White Non-Hispanic | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 118 | 677.4/723.7 = 93.6% (83.6%, 97.7%) | 710.4/723.7 = 98.2% (87.7%, 99.8%) | 595.4/723.7 = 82.3% (70.8%, 89.9%) |
| White Non-Hispanic | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 63 | 0/6564.1 = 0.0% (0.0%, 0.0%) | 0/6564.1 = 0.0% (0.0%, 0.0%) | 0/6564.1 = 0.0% (0.0%, 0.0%) |
| White Non-Hispanic | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 121 | 490/609.5 = 80.4% (69.0%, 88.3%) | 490/609.5 = 80.4% (69.0%, 88.3%) | 336/609.5 = 55.1% (43.9%, 65.8%) |
| White Non-Hispanic | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 370 | 6391.7/6391.7 = 100.0% (100.0%, 100.0%) | 6391.7/6391.7 = 100.0% (100.0%, 100.0%) | 6391.7/6391.7 = 100.0% (100.0%, 100.0%) |
| White Non-Hispanic | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 118 | 723.7/723.7 = 100.0% (100.0%, 100.0%) | 723.7/723.7 = 100.0% (100.0%, 100.0%) | 723.7/723.7 = 100.0% (100.0%, 100.0%) |
| White Non-Hispanic | Day 57 | Placebo | Negative | Pseudovirus-nAb ID50 | 63 | 47.7/6564.1 = 0.7% (0.1%, 5.2%) | 47.7/6564.1 = 0.7% (0.1%, 5.2%) | 0/6564.1 = 0.0% (0.0%, 0.0%) |
| White Non-Hispanic | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 121 | 609.5/609.5 = 100.0% (100.0%, 100.0%) | 609.5/609.5 = 100.0% (100.0%, 100.0%) | 609.5/609.5 = 100.0% (100.0%, 100.0%) |
| Black or African American | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID50 | 184 | 2083.6/2208.2 = 94.4% (87.8%, 97.5%) | 2083.6/2208.2 = 94.4% (87.8%, 97.5%) | 1841.1/2208.2 = 83.4% (75.1%, 89.3%) |
| Black or African American | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 58 | 238.1/246.7 = 96.5% (77.9%, 99.5%) | 246.7/246.7 = 100.0% (100.0%, 100.0%) | 224.9/246.7 = 91.1% (74.5%, 97.3%) |

(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 | 40 | 0/2287.9 = 0.0% (0.0%, 0.0%) | 0/2287.9 = 0.0% (0.0%, 0.0%) | 0/2287.9 = 0.0% (0.0%, 0.0%) |
| Black or African American | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 45 | 131.2/163.1 = 80.4% (61.3%, 91.5%) | 132.9/163.1 = 81.5% (62.0%, 92.2%) | 114/163.1 = 69.9% (50.8%, 84.0%) |
| Black or African American | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 184 | 2208.2/2208.2 = 100.0% (100.0%, 100.0%) | 2208.2/2208.2 = 100.0% (100.0%, 100.0%) | 2208.2/2208.2 = 100.0% (100.0%, 100.0%) |
| Black or African American | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 58 | 246.7/246.7 = 100.0% (100.0%, 100.0%) | 246.7/246.7 = 100.0% (100.0%, 100.0%) | 246.7/246.7 = 100.0% (100.0%, 100.0%) |
| Black or African American | Day 57 | Placebo | Negative | Pseudovirus-nAb ID50 | 40 | 0/2287.9 = 0.0% (0.0%, 0.0%) | 0/2287.9 = 0.0% (0.0%, 0.0%) | 0/2287.9 = 0.0% (0.0%, 0.0%) |
| Black or African American | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 45 | 163.1/163.1 = 100.0% (100.0%, 100.0%) | 163.1/163.1 = 100.0% (100.0%, 100.0%) | 163.1/163.1 = 100.0% (100.0%, 100.0%) |
| Asian | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID50 | 56 | 905.8/943.6 = 96.0% (75.7%, 99.5%) | 905.8/943.6 = 96.0% (75.7%, 99.5%) | 741.9/943.6 = 78.6% (61.4%, 89.5%) |
| Asian | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 19 | 122.1/122.1 = 100.0% (100.0%, 100.0%) | 122.1/122.1 = 100.0% (100.0%, 100.0%) | 102.3/122.1 = 83.8% (47.9%, 96.7%) |
| Asian | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 10 | 0/921.8 = 0.0% (0.0%, 0.0%) | 0/921.8 = 0.0% (0.0%, 0.0%) | 0/921.8 = 0.0% (0.0%, 0.0%) |
| Asian | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 27 | 102.4/140.4 = 72.9% (46.2%, 89.4%) | 102.4/140.4 = 72.9% (46.2%, 89.4%) | 78.8/140.4 = 56.1% (32.3%, 77.4%) |
| Asian | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 56 | 943.6/943.6 = 100.0% (100.0%, 100.0%) | 943.6/943.6 = 100.0% (100.0%, 100.0%) | 943.6/943.6 = 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 | 19 | 122.1/122.1 = 100.0% (100.0%, 100.0%) | 122.1/122.1 = 100.0% (100.0%, 100.0%) | 122.1/122.1 = 100.0% (100.0%, 100.0%) |
| Asian | Day 57 | Placebo | Negative | Pseudovirus-nAb ID50 | 10 | 0/921.8 = 0.0% (0.0%, 0.0%) | 0/921.8 = 0.0% (0.0%, 0.0%) | 0/921.8 = 0.0% (0.0%, 0.0%) |
| Asian | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 27 | 140.4/140.4 = 100.0% (100.0%, 100.0%) | 140.4/140.4 = 100.0% (100.0%, 100.0%) | 140.4/140.4 = 100.0% (100.0%, 100.0%) |
| American Indian or Alaska Native | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID50 | 16 | 185.7/185.7 = 100.0% (100.0%, 100.0%) | 185.7/185.7 = 100.0% (100.0%, 100.0%) | 158.3/185.7 = 85.2% (36.9%, 98.3%) |
| American Indian or Alaska Native | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 10 | 42.3/42.3 = 100.0% (100.0%, 100.0%) | 42.3/42.3 = 100.0% (100.0%, 100.0%) | 42.3/42.3 = 100.0% (100.0%, 100.0%) |
| American Indian or Alaska Native | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 2 | 0/130 = 0.0% | 0/130 = 0.0% | 0/130 = 0.0% |
| American Indian or Alaska Native | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 7 | 28.5/31.9 = 89.4% (45.1%, 98.8%) | 28.5/31.9 = 89.4% (45.1%, 98.8%) | 24.1/31.9 = 75.7% (23.7%, 96.9%) |
| American Indian or Alaska Native | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 16 | 185.7/185.7 = 100.0% (100.0%, 100.0%) | 185.7/185.7 = 100.0% (100.0%, 100.0%) | 185.7/185.7 = 100.0% (100.0%, 100.0%) |
| American Indian or Alaska Native | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 10 | 42.3/42.3 = 100.0% (100.0%, 100.0%) | 42.3/42.3 = 100.0% (100.0%, 100.0%) | 42.3/42.3 = 100.0% (100.0%, 100.0%) |
| American Indian or Alaska Native | Day 57 | Placebo | Negative | Pseudovirus-nAb ID50 | 2 | 0/130 = 0.0% | 0/130 = 0.0% | 0/130 = 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 | 7 | 31.9/31.9 = 100.0% (100.0%, 100.0%) | 31.9/31.9 = 100.0% (100.0%, 100.0%) | 31.9/31.9 = 100.0% (100.0%, 100.0%) |
| Native Hawaiian or Other Pacific Islander | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID50 | 17 | 175.4/186.3 = 94.1% (62.8%, 99.3%) | 175.4/186.3 = 94.1% (62.8%, 99.3%) | 115.2/186.3 = 61.8% (29.8%, 86.1%) |
| Native Hawaiian or Other Pacific Islander | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 4 | 12.9/12.9 = 100.0% (100.0%, 100.0%) | 12.9/12.9 = 100.0% (100.0%, 100.0%) | 12.9/12.9 = 100.0% (100.0%, 100.0%) |
| Native Hawaiian or Other Pacific Islander | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 2 | 0/194.3 = 0.0% | 0/194.3 = 0.0% | 0/194.3 = 0.0% |
| Native Hawaiian or Other Pacific Islander | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 2 | 9.4/9.4 = 100.0% | 9.4/9.4 = 100.0% | 9.4/9.4 = 100.0% |
| Native Hawaiian or Other Pacific Islander | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 17 | 186.3/186.3 = 100.0% (100.0%, 100.0%) | 186.3/186.3 = 100.0% (100.0%, 100.0%) | 186.3/186.3 = 100.0% (100.0%, 100.0%) |
| Native Hawaiian or Other Pacific Islander | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 4 | 12.9/12.9 = 100.0% (100.0%, 100.0%) | 12.9/12.9 = 100.0% (100.0%, 100.0%) | 12.9/12.9 = 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 | Placebo | Negative | Pseudovirus-nAb ID50 | 2 | 0/194.3 = 0.0% | 0/194.3 = 0.0% | 0/194.3 = 0.0% |
| Native Hawaiian or Other Pacific Islander | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 2 | 9.4/9.4 = 100.0% | 9.4/9.4 = 100.0% | 9.4/9.4 = 100.0% |
| Multiracial | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID50 | 57 | 682.4/725.5 = 94.1% (78.9%, 98.5%) | 682.4/725.5 = 94.1% (78.9%, 98.5%) | 637.2/725.5 = 87.8% |
| Multiracial | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 10 | 40.5/40.5 = 100.0% (100.0%, 100.0%) | 40.5/40.5 = 100.0% (100.0%, 100.0%) | 35.9/40.5 = 88.6% |
| Multiracial | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 8 | 0/387.8 = 0.0% (0.0%, 0.0%) | 0/387.8 = 0.0% (0.0%, 0.0%) | 0/387.8 = 0.0% |
| Multiracial | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 16 | 37.4/48.2 = 77.6% (43.6%, 94.0%) | 37.4/48.2 = 77.6% (43.6%, 94.0%) | 28/48.2 = 58.2% |
| Multiracial | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 57 | 725.5/725.5 = 100.0% (100.0%, 100.0%) | 725.5/725.5 = 100.0% (100.0%, 100.0%) | 725.5/725.5 = 100.0% |
| Multiracial | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 10 | 40.5/40.5 = 100.0% (100.0%, 100.0%) | 40.5/40.5 = 100.0% (100.0%, 100.0%) | 40.5/40.5 = 100.0% |
| Multiracial | Day 57 | Placebo | Negative | Pseudovirus-nAb ID50 | 8 | 0/387.8 = 0.0% (0.0%, 0.0%) | 0/387.8 = 0.0% (0.0%, 0.0%) | 0/387.8 = 0.0% |
| Multiracial | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 16 | 48.2/48.2 = 100.0% (100.0%, 100.0%) | 48.2/48.2 = 100.0% (100.0%, 100.0%) | 48.2/48.2 = 100.0% |
| Other | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID50 | 16 | 183.8/203.6 = 90.3% (47.3%, 99.0%) | 183.8/203.6 = 90.3% (47.3%, 99.0%) | 183.8/203.6 = 90.3% |
| Other | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 7 | 24.7/24.7 = 100.0% (100.0%, 100.0%) | 24.7/24.7 = 100.0% (100.0%, 100.0%) | 24.7/24.7 = 100.0% |
| Other | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 1 | 0/47.7 = 0.0% | 0/47.7 = 0.0% | 0/47.7 = 0.0% |
| Other | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 13 | 54.1/72.9 = 74.1% (29.8%, 95.1%) | 54.1/72.9 = 74.1% (29.8%, 95.1%) | 54.1/72.9 = 74.1% |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | Responder | % 2-Fold Rise | % 4-Fold Rise |
|--------------------------|--------|---------|---------------------|----------------------|----|--|--|--|
| Other | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 16 | 203.6/203.6 = 100.0% (100.0%, 100.0%) | 203.6/203.6 = 100.0% (100.0%, 100.0%) | 203.6/203.6 = 100.0% (100.0%, 100.0%) |
| Other | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 7 | 24.7/24.7 = 100.0% (100.0%, 100.0%) | 24.7/24.7 = 100.0% (100.0%, 100.0%) | 24.7/24.7 = 100.0% (100.0%, 100.0%) |
| Other | Day 57 | Placebo | Negative | Pseudovirus-nAb ID50 | 1 | 0/47.7 = 0.0% | 0/47.7 = 0.0% | 0/47.7 = 0.0% |
| Other | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 13 | 72.9/72.9 = 100.0% (100.0%, 100.0%) | 72.9/72.9 = 100.0% (100.0%, 100.0%) | 72.9/72.9 = 100.0% (100.0%, 100.0%) |
| Not reported and unknown | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID50 | 4 | 14.4/25.4 = 56.9% (0.9%, 99.5%) | 14.4/25.4 = 56.9% (0.9%, 99.5%) | 14.4/25.4 = 56.9% (0.9%, 99.5%) |
| Not reported and unknown | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 1 | 0/48.4 = 0.0% | 0/48.4 = 0.0% | 0/48.4 = 0.0% |
| Not reported and unknown | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 2 | 7.7/15.4 = 50.0% | 7.7/15.4 = 50.0% | 0/15.4 = 0.0% |
| Not reported and unknown | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 4 | 25.4/25.4 = 100.0% (100.0%, 100.0%) | 25.4/25.4 = 100.0% (100.0%, 100.0%) | 25.4/25.4 = 100.0% (100.0%, 100.0%) |
| Not reported and unknown | Day 57 | Placebo | Negative | Pseudovirus-nAb ID50 | 1 | 0/48.4 = 0.0% | 0/48.4 = 0.0% | 0/48.4 = 0.0% |
| Not reported and unknown | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 2 | 15.4/15.4 = 100.0% | 15.4/15.4 = 100.0% | 15.4/15.4 = 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 = 4.48, 21.48 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 | 377 | 4460.7/4735.3 = 94.2% (90.0%, 96.7%) | 4460.7/4735.3 = 94.2% (90.0%, 96.7%) | 3862.7/4735.3 = 81.6% (75.9%, 86.1%) |
| Communities of Color | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 116 | 497.1/510.3 = 97.4% (89.3%, 99.4%) | 505.7/510.3 = 99.1% (93.7%, 99.9%) | 454.8/510.3 = 89.1% (78.5%, 94.8%) |
| Communities of Color | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 75 | 0/4538.9 = 0.0% (0.0%, 0.0%) | 0/4538.9 = 0.0% (0.0%, 0.0%) | 0/4538.9 = 0.0% (0.0%, 0.0%) |
| Communities of Color | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 120 | 397.2/515.5 = 77.1% (65.9%, 85.4%) | 398.9/515.5 = 77.4% (66.2%, 85.7%) | 313.5/515.5 = 60.8% (49.4%, 71.1%) |
| Communities of Color | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 377 | 4735.3/4735.3 = 100.0% (100.0%, 100.0%) | 4735.3/4735.3 = 100.0% (100.0%, 100.0%) | 4735.3/4735.3 = 100.0% (100.0%, 100.0%) |
| Communities of Color | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 116 | 510.3/510.3 = 100.0% (100.0%, 100.0%) | 510.3/510.3 = 100.0% (100.0%, 100.0%) | 510.3/510.3 = 100.0% (100.0%, 100.0%) |
| Communities of Color | Day 57 | Placebo | Negative | Pseudovirus-nAb ID50 | 75 | 0/4538.9 = 0.0% (0.0%, 0.0%) | 0/4538.9 = 0.0% (0.0%, 0.0%) | 0/4538.9 = 0.0% (0.0%, 0.0%) |
| Communities of Color | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 120 | 515.5/515.5 = 100.0% (100.0%, 100.0%) | 515.5/515.5 = 100.0% (100.0%, 100.0%) | 515.5/515.5 = 100.0% (100.0%, 100.0%) |
| White Non-Hispanic | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID50 | 370 | 5527.1/6391.7 = 86.5% (81.0%, 90.6%) | 5527.1/6391.7 = 86.5% (81.0%, 90.6%) | 4717.7/6391.7 = 73.8% (67.6%, 79.2%) |
| White Non-Hispanic | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 118 | 677.4/723.7 = 93.6% (83.6%, 97.7%) | 710.4/723.7 = 98.2% (87.7%, 99.8%) | 595.4/723.7 = 82.3% (70.8%, 89.9%) |
| White Non-Hispanic | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 63 | 0/6564.1 = 0.0% (0.0%, 0.0%) | 0/6564.1 = 0.0% (0.0%, 0.0%) | 0/6564.1 = 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 | 121 | 490/609.5 = 80.4% (69.0%, 88.3%) | 490/609.5 = 80.4% (69.0%, 88.3%) | 336/609.5 = 55.1% (43.9%, 65.8%) |
| White Non-Hispanic | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 370 | 6391.7/6391.7 = 100.0% (100.0%, 100.0%) | 6391.7/6391.7 = 100.0% (100.0%, 100.0%) | 6391.7/6391.7 = 100.0% (100.0%, 100.0%) |
| White Non-Hispanic | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 118 | 723.7/723.7 = 100.0% (100.0%, 100.0%) | 723.7/723.7 = 100.0% (100.0%, 100.0%) | 723.7/723.7 = 100.0% (100.0%, 100.0%) |
| White Non-Hispanic | Day 57 | Placebo | Negative | Pseudovirus-nAb ID50 | 63 | 47.7/6564.1 = 0.7% (0.1%, 5.2%) | 47.7/6564.1 = 0.7% (0.1%, 5.2%) | 0/6564.1 = 0.0% (0.0%, 0.0%) |
| White Non-Hispanic | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 121 | 609.5/609.5 = 100.0% (100.0%, 100.0%) | 609.5/609.5 = 100.0% (100.0%, 100.0%) | 609.5/609.5 = 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 = 4.48, 21.48 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 | 181 | 3446.3/3706.5 = 93.0% (87.6%, 96.1%) | 3446.3/3706.5 = 93.0% (87.6%, 96.1%) | 2951.3/3706.5 = 79.6% (72.4%, 85.3%) |
| Age < 65 Communities of Color | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 60 | 407.9/421.1 = 96.9% (87.0%, 99.3%) | 416.5/421.1 = 98.9% (92.2%, 99.9%) | 365.6/421.1 = 86.8% (74.2%, 93.8%) |
| Age < 65 Communities of Color | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 40 | 0/3256.8 = 0.0% (0.0%, 0.0%) | 0/3256.8 = 0.0% (0.0%, 0.0%) | 0/3256.8 = 0.0% (0.0%, 0.0%) |
| Age < 65 Communities of Color | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 62 | 302.5/412 = 73.4% (59.7%, 83.7%) | 302.5/412 = 73.4% (59.7%, 83.7%) | 229.3/412 = 55.7% (42.0%, 68.5%) |
| Age < 65 Communities of Color | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 181 | 3706.5/3706.5 = 100.0% (100.0%, 100.0%) | 3706.5/3706.5 = 100.0% (100.0%, 100.0%) | 3706.5/3706.5 = 100.0% (100.0%, 100.0%) |
| Age < 65 Communities of Color | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 60 | 421.1/421.1 = 100.0% (100.0%, 100.0%) | 421.1/421.1 = 100.0% (100.0%, 100.0%) | 421.1/421.1 = 100.0% (100.0%, 100.0%) |
| Age < 65 Communities of Color | Day 57 | Placebo | Negative | Pseudovirus-nAb ID50 | 40 | 0/3256.8 = 0.0% (0.0%, 0.0%) | 0/3256.8 = 0.0% (0.0%, 0.0%) | 0/3256.8 = 0.0% (0.0%, 0.0%) |
| Age < 65 Communities of Color | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 62 | 412/412 = 100.0% (100.0%, 100.0%) | 412/412 = 100.0% (100.0%, 100.0%) | 412/412 = 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 | Pseudovirus-nAb ID50 | 176 | 4204.7/5062.5 = 83.1% (76.2%, 88.3%) | 4204.7/5062.5 = 83.1% (76.2%, 88.3%) | 3491.2/5062.5 = 69.0% (61.3%, 75.7%) |
| Age < 65 White Non-Hispanic | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 54 | 515.6/561.9 = 91.8% (78.9%, 97.1%) | 548.7/561.9 = 97.6% (84.2%, 99.7%) | 436.2/561.9 = 77.6% (63.0%, 87.6%) |
| Age < 65 White Non-Hispanic | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 32 | 0/5086.2 = 0.0% (0.0%, 0.0%) | 0/5086.2 = 0.0% (0.0%, 0.0%) | 0/5086.2 = 0.0% (0.0%, 0.0%) |
| Age < 65 White Non-Hispanic | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 58 | 365.6/481 = 76.0% (61.8%, 86.1%) | 365.6/481 = 76.0% (61.8%, 86.1%) | 227.9/481 = 47.4% (34.0%, 61.1%) |
| Age < 65 White Non-Hispanic | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 176 | 5062.5/5062.5 = 100.0% (100.0%, 100.0%) | 5062.5/5062.5 = 100.0% (100.0%, 100.0%) | 5062.5/5062.5 = 100.0% (100.0%, 100.0%) |
| Age < 65 White Non-Hispanic | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 54 | 561.9/561.9 = 100.0% (100.0%, 100.0%) | 561.9/561.9 = 100.0% (100.0%, 100.0%) | 561.9/561.9 = 100.0% (100.0%, 100.0%) |
| Age < 65 White Non-Hispanic | Day 57 | Placebo | Negative | Pseudovirus-nAb ID50 | 32 | 0/5086.2 = 0.0% (0.0%, 0.0%) | 0/5086.2 = 0.0% (0.0%, 0.0%) | 0/5086.2 = 0.0% (0.0%, 0.0%) |
| Age < 65 White Non-Hispanic | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 58 | 481/481 = 100.0% (100.0%, 100.0%) | 481/481 = 100.0% (100.0%, 100.0%) | 481/481 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Communities of Color | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID50 | 196 | 1014.3/1028.8 = 98.6% (95.7%, 99.6%) | 1014.3/1028.8 = 98.6% (95.7%, 99.6%) | 911.4/1028.8 = 88.6% (83.0%, 92.5%) |

(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 | 56 | 89.2/89.2 = 100.0% (100.0%, 100.0%) | 89.2/89.2 = 100.0% (100.0%, 100.0%) | 89.2/89.2 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Communities of Color | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 35 | 0/1282.1 = 0.0% (0.0%, 0.0%) | 0/1282.1 = 0.0% (0.0%, 0.0%) | 0/1282.1 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 Communities of Color | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 58 | 94.7/103.6 = 91.5% (80.7%, 96.5%) | 96.4/103.6 = 93.1% (82.6%, 97.5%) | 84.2/103.6 = 81.3% (68.9%, 89.5%) |
| Age ≥ 65 Communities of Color | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 196 | 1028.8/1028.8 = 100.0% (100.0%, 100.0%) | 1028.8/1028.8 = 100.0% (100.0%, 100.0%) | 1028.8/1028.8 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Communities of Color | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 56 | 89.2/89.2 = 100.0% (100.0%, 100.0%) | 89.2/89.2 = 100.0% (100.0%, 100.0%) | 89.2/89.2 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 Communities of Color | Day 57 | Placebo | Negative | Pseudovirus-nAb ID50 | 35 | 0/1282.1 = 0.0% (0.0%, 0.0%) | 0/1282.1 = 0.0% (0.0%, 0.0%) | 0/1282.1 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 Communities of Color | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 58 | 103.6/103.6 = 100.0% (100.0%, 100.0%) | 103.6/103.6 = 100.0% (100.0%, 100.0%) | 103.6/103.6 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 White Non-Hispanic | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID50 | 194 | 1322.4/1329.2 = 99.5% (96.4%, 99.9%) | 1322.4/1329.2 = 99.5% (96.4%, 99.9%) | 1226.5/1329.2 = 92.3% (87.5%, 95.3%) |
| Age ≥ 65 White Non-Hispanic | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 64 | 161.8/161.8 = 100.0% (100.0%, 100.0%) | 161.8/161.8 = 100.0% (100.0%, 100.0%) | 159.2/161.8 = 98.4% (89.3%, 99.8%) |

(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 | 31 | 0/1477.9 = 0.0% (0.0%, 0.0%) | 0/1477.9 = 0.0% (0.0%, 0.0%) | 0/1477.9 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 White Non-Hispanic | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 63 | 124.3/128.4 = 96.8% (87.8%, 99.2%) | 124.3/128.4 = 96.8% (87.8%, 99.2%) | 108/128.4 = 84.1% (72.6%, 91.4%) |
| Age ≥ 65 White Non-Hispanic | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 194 | 1329.2/1329.2 = 100.0% (100.0%, 100.0%) | 1329.2/1329.2 = 100.0% (100.0%, 100.0%) | 1329.2/1329.2 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 White Non-Hispanic | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 64 | 161.8/161.8 = 100.0% (100.0%, 100.0%) | 161.8/161.8 = 100.0% (100.0%, 100.0%) | 161.8/161.8 = 100.0% (100.0%, 100.0%) |
| Age ≥ 65 White Non-Hispanic | Day 57 | Placebo | Negative | Pseudovirus-nAb ID50 | 31 | 47.7/1477.9 = 3.2% (0.4%, 21.4%) | 47.7/1477.9 = 3.2% (0.4%, 21.4%) | 0/1477.9 = 0.0% (0.0%, 0.0%) |
| Age ≥ 65 White Non-Hispanic | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 63 | 128.4/128.4 = 100.0% (100.0%, 100.0%) | 128.4/128.4 = 100.0% (100.0%, 100.0%) | 128.4/128.4 = 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 = 4.48, 21.48 for pseudovirus-nAb ID50, ID80, respectively.

2.7 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) | 747 | 0.05 (0.05, 0.05) |
| | Day 1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 747 | 0.80 (0.80, 0.80) |
| | Day 1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 747 | 0.15 (0.15, 0.15) |
| | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 747 | 1.21 (1.21, 1.21) |
| | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 747 | 7.51 (7.51, 7.51) |
| | Day 1 | Vaccine | Positive | Anti N IgG (IU/ml) | 234 | 0.05 (0.05, 0.05) |
| | Day 1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 234 | 0.81 (0.79, 0.84) |
| | Day 1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 234 | 0.16 (0.15, 0.16) |
| | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 234 | 1.67 (1.51, 1.84) |
| | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 234 | 9.87 (9.00, 10.83) |
| | Day 1 | Placebo | Negative | Anti N IgG (IU/ml) | 138 | 0.05 (0.05, 0.05) |
| | Day 1 | Placebo | Negative | Anti RBD IgG (IU/ml) | 138 | 0.80 (0.80, 0.80) |
| | Day 1 | Placebo | Negative | Anti Spike IgG (IU/ml) | 138 | 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 | 138 | 1.21 (1.21, 1.22) |
| | Day 1 | Placebo | Negative | Pseudovirus-nAb ID80 | 138 | 7.72 (7.51, 7.95) |
| | Day 1 | Placebo | Positive | Anti N IgG (IU/ml) | 241 | 0.05 (0.05, 0.05) |
| | Day 1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 241 | 0.80 (0.80, 0.80) |
| | Day 1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 241 | 0.15 (0.15, 0.16) |
| | Day 1 | Placebo | Positive | Pseudovirus-nAb ID50 | 241 | 1.64 (1.49, 1.80) |
| | Day 1 | Placebo | Positive | Pseudovirus-nAb ID80 | 241 | 9.87 (9.08, 10.74) |
| | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 747 | 39.38 (33.04, 46.94) |
| | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 747 | 476.21 (415.28, 546.08) |
| | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 747 | 266.96 (239.24, 297.88) |
| | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID50 | 747 | 17.38 (15.88, 19.02) |
| | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID80 | 747 | 26.00 (24.01, 28.15) |
| | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 234 | 81.71 (61.73, 108.16) |
| | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 234 | 842.22 (650.71, 1090.08) |
| | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 234 | 473.58 (396.77, 565.26) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|-------|--------|---------|---------------------|------------------------|-----|-------------------------------|
| | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 234 | 32.67 (28.06, 38.03) |
| | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID80 | 234 | 51.20 (44.63, 58.75) |
| | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 138 | 0.05 (0.05, 0.05) |
| | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 138 | 0.80 (0.80, 0.80) |
| | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 138 | 0.15 (0.15, 0.15) |
| | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 138 | 1.22 (1.20, 1.23) |
| | Day 29 | Placebo | Negative | Pseudovirus-nAb ID80 | 138 | 7.51 (7.51, 7.51) |
| | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 241 | 27.27 (20.41, 36.44) |
| | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 241 | 303.87 (230.21, 401.11) |
| | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 241 | 169.66 (136.33, 211.14) |
| | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 241 | 11.38 (9.63, 13.45) |
| | Day 29 | Placebo | Positive | Pseudovirus-nAb ID80 | 241 | 20.22 (17.73, 23.07) |
| | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 747 | 169.29 (138.13, 207.49) |
| | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 747 | 4768.44 (4097.10, 5549.78) |
| | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 747 | 3384.52 (2945.38, 3889.12) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|-------|--------|---------|---------------------|------------------------|-----|----------------------------------|
| | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 747 | 427.80 (384.20, 476.35) |
| | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID80 | 747 | 565.58 (512.62, 624.02) |
| | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 234 | 648.88 (451.21, 933.14) |
| | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 234 | 16689.18 (12811.64, 21740.29) |
| | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 234 | 10741.38 (8558.81, 13480.53) |
| | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 234 | 1256.68 (1017.71, 1551.75) |
| | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID80 | 234 | 1561.17 (1336.08, 1824.18) |
| | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 138 | 0.05 (0.05, 0.05) |
| | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 138 | 0.80 (0.80, 0.80) |
| | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 138 | 0.15 (0.15, 0.15) |
| | Day 57 | Placebo | Negative | Pseudovirus-nAb ID50 | 138 | 1.25 (1.21, 1.28) |
| | Day 57 | Placebo | Negative | Pseudovirus-nAb ID80 | 138 | 7.54 (7.49, 7.58) |
| | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 241 | 133.24 (92.21, 192.52) |
| | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 241 | 3052.94 (2308.16, 4038.04) |
| | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 241 | 2310.36 (1764.78, 3024.62) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|-------|--------|---------|------------------------|----------------------|-----|----------------------------|
| | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 241 | 309.33 (255.18, 374.97) |
| | Day 57 | Placebo | Positive | Pseudovirus-nAb ID80 | 241 | 456.31 (389.81, 534.14) |

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) | 357 | 0.05 (0.05, 0.05) |
| Age < 65 | Day 1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 357 | 0.80 (0.80, 0.80) |
| Age < 65 | Day 1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 357 | 0.15 (0.15, 0.15) |
| Age < 65 | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 357 | 1.21 (1.21, 1.21) |
| Age < 65 | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 357 | 7.51 (7.51, 7.51) |
| Age < 65 | Day 1 | Vaccine | Positive | Anti N IgG (IU/ml) | 114 | 0.05 (0.05, 0.05) |
| Age < 65 | Day 1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 114 | 0.82 (0.79, 0.85) |
| Age < 65 | Day 1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 114 | 0.16 (0.15, 0.16) |
| Age < 65 | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 114 | 1.71 (1.52, 1.93) |
| Age < 65 | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 114 | 10.04 (8.96, 11.26) |
| Age < 65 | Day 1 | Placebo | Negative | Anti N IgG (IU/ml) | 72 | 0.05 (0.05, 0.05) |
| Age < 65 | Day 1 | Placebo | Negative | Anti RBD IgG (IU/ml) | 72 | 0.80 (0.80, 0.80) |
| Age < 65 | Day 1 | Placebo | Negative | Anti Spike IgG (IU/ml) | 72 | 0.15 (0.15, 0.15) |
| Age < 65 | Day 1 | Placebo | Negative | Pseudovirus-nAb ID50 | 72 | 1.21 (1.21, 1.22) |
| Age < 65 | Day 1 | Placebo | Negative | Pseudovirus-nAb ID80 | 72 | 7.78 (7.49, 8.08) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|----------|--------|---------|---------------------|------------------------|-----|----------------------------|
| Age < 65 | Day 1 | Placebo | Positive | Anti N IgG (IU/ml) | 120 | 0.05 (0.05, 0.05) |
| Age < 65 | Day 1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 120 | 0.80 (0.80, 0.80) |
| Age < 65 | Day 1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 120 | 0.15 (0.15, 0.16) |
| Age < 65 | Day 1 | Placebo | Positive | Pseudovirus-nAb ID50 | 120 | 1.63 (1.45, 1.84) |
| Age < 65 | Day 1 | Placebo | Positive | Pseudovirus-nAb ID80 | 120 | 10.06 (9.08, 11.15) |
| Age < 65 | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 357 | 30.25 (24.33, 37.60) |
| Age < 65 | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 357 | 356.86 (301.49, 422.39) |
| Age < 65 | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 357 | 198.79 (173.81, 227.36) |
| Age < 65 | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID50 | 357 | 15.24 (13.63, 17.04) |
| Age < 65 | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID80 | 357 | 23.51 (21.31, 25.93) |
| Age < 65 | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 114 | 64.27 (45.66, 90.47) |
| Age < 65 | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 114 | 617.21 (450.57, 845.49) |
| Age < 65 | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 114 | 353.46 (285.77, 437.17) |
| Age < 65 | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 114 | 28.61 (23.76, 34.45) |
| Age < 65 | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID80 | 114 | 48.64 (41.15, 57.48) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|----------|--------|---------|---------------------|------------------------|-----|-------------------------------|
| Age < 65 | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 72 | 0.05 (0.05, 0.05) |
| Age < 65 | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 72 | 0.80 (0.80, 0.80) |
| Age < 65 | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 72 | 0.15 (0.15, 0.15) |
| Age < 65 | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 72 | 1.21 (1.21, 1.21) |
| Age < 65 | Day 29 | Placebo | Negative | Pseudovirus-nAb ID80 | 72 | 7.51 (7.51, 7.51) |
| Age < 65 | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 120 | 20.88 (14.63, 29.80) |
| Age < 65 | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 120 | 224.00 (159.42, 314.74) |
| Age < 65 | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 120 | 126.14 (96.53, 164.83) |
| Age < 65 | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 120 | 9.92 (8.08, 12.19) |
| Age < 65 | Day 29 | Placebo | Positive | Pseudovirus-nAb ID80 | 120 | 18.92 (16.11, 22.22) |
| Age < 65 | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 357 | 123.20 (95.80, 158.44) |
| Age < 65 | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 357 | 3345.62 (2777.00, 4030.66) |
| Age < 65 | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 357 | 2364.92 (1992.88, 2806.42) |
| Age < 65 | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 357 | 357.11 (312.83, 407.65) |
| Age < 65 | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID80 | 357 | 512.86 (454.13, 579.18) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|----------|--------|---------|---------------------|------------------------|-----|---------------------------------|
| Age < 65 | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 114 | 485.45 (311.29, 757.03) |
| Age < 65 | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 114 | 12175.02 (8842.14, 16764.17) |
| Age < 65 | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 114 | 8050.61 (6114.49, 10599.79) |
| Age < 65 | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 114 | 1070.02 (826.48, 1385.33) |
| Age < 65 | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID80 | 114 | 1439.55 (1191.48, 1739.25) |
| Age < 65 | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 72 | 0.05 (0.05, 0.05) |
| Age < 65 | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 72 | 0.80 (0.80, 0.80) |
| Age < 65 | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 72 | 0.15 (0.15, 0.15) |
| Age < 65 | Day 57 | Placebo | Negative | Pseudovirus-nAb ID50 | 72 | 1.24 (1.20, 1.28) |
| Age < 65 | Day 57 | Placebo | Negative | Pseudovirus-nAb ID80 | 72 | 7.51 (7.51, 7.51) |
| Age < 65 | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 120 | 102.01 (64.98, 160.15) |
| Age < 65 | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 120 | 2044.73 (1455.28, 2872.94) |
| Age < 65 | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 120 | 1588.46 (1142.67, 2208.16) |
| Age < 65 | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 120 | 257.10 (203.12, 325.43) |
| Age < 65 | Day 57 | Placebo | Positive | Pseudovirus-nAb ID80 | 120 | 416.45 (343.36, 505.10) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|---------------|-------|---------|---------------------|------------------------|-----|-----------------------|
| Age \geq 65 | Day 1 | Vaccine | Negative | Anti N IgG (IU/ml) | 390 | 0.05 (0.05, 0.05) |
| Age \geq 65 | Day 1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 390 | 0.80 (0.80, 0.80) |
| Age \geq 65 | Day 1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 390 | 0.15 (0.15, 0.15) |
| Age \geq 65 | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 390 | 1.21 (1.21, 1.21) |
| Age \geq 65 | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 390 | 7.51 (7.51, 7.51) |
| Age \geq 65 | Day 1 | Vaccine | Positive | Anti N IgG (IU/ml) | 120 | 0.05 (0.05, 0.05) |
| Age \geq 65 | Day 1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 120 | 0.80 (0.80, 0.80) |
| Age \geq 65 | Day 1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 120 | 0.15 (0.15, 0.15) |
| Age \geq 65 | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 120 | 1.52 (1.37, 1.68) |
| Age \geq 65 | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 120 | 9.24 (8.52, 10.03) |
| Age \geq 65 | Day 1 | Placebo | Negative | Anti N IgG (IU/ml) | 66 | 0.05 (0.05, 0.05) |
| Age \geq 65 | Day 1 | Placebo | Negative | Anti RBD IgG (IU/ml) | 66 | 0.80 (0.80, 0.80) |
| Age \geq 65 | Day 1 | Placebo | Negative | Anti Spike IgG (IU/ml) | 66 | 0.15 (0.15, 0.15) |
| Age \geq 65 | Day 1 | Placebo | Negative | Pseudovirus-nAb ID50 | 66 | 1.21 (1.21, 1.21) |
| Age \geq 65 | Day 1 | Placebo | Negative | Pseudovirus-nAb ID80 | 66 | 7.57 (7.45, 7.70) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|---------------|--------|---------|---------------------|------------------------|-----|-------------------------------|
| Age \geq 65 | Day 1 | Placebo | Positive | Anti N IgG (IU/ml) | 121 | 0.05 (0.05, 0.05) |
| Age \geq 65 | Day 1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 121 | 0.81 (0.79, 0.84) |
| Age \geq 65 | Day 1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 121 | 0.15 (0.15, 0.15) |
| Age \geq 65 | Day 1 | Placebo | Positive | Pseudovirus-nAb ID50 | 121 | 1.66 (1.50, 1.84) |
| Age \geq 65 | Day 1 | Placebo | Positive | Pseudovirus-nAb ID80 | 121 | 9.19 (8.36, 10.11) |
| Age \geq 65 | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 390 | 105.10 (88.47, 124.86) |
| Age \geq 65 | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 390 | 1392.43 (1200.78, 1614.67) |
| Age \geq 65 | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 390 | 799.13 (705.06, 905.76) |
| Age \geq 65 | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID50 | 390 | 28.34 (25.89, 31.02) |
| Age \geq 65 | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID80 | 390 | 37.82 (34.56, 41.37) |
| Age \geq 65 | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 120 | 209.19 (154.61, 283.03) |
| Age \geq 65 | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 120 | 2844.99 (2222.07, 3642.53) |
| Age \geq 65 | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 120 | 1489.36 (1223.39, 1813.16) |
| Age \geq 65 | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 120 | 54.90 (46.83, 64.36) |
| Age \geq 65 | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID80 | 120 | 62.63 (53.04, 73.97) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|----------|--------|---------|---------------------|------------------------|-----|----------------------------------|
| Age ≥ 65 | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 66 | 0.05 (0.05, 0.05) |
| Age ≥ 65 | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 66 | 0.80 (0.80, 0.80) |
| Age ≥ 65 | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 66 | 0.15 (0.15, 0.15) |
| Age ≥ 65 | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 66 | 1.23 (1.19, 1.28) |
| Age ≥ 65 | Day 29 | Placebo | Negative | Pseudovirus-nAb ID80 | 66 | 7.51 (7.51, 7.51) |
| Age ≥ 65 | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 121 | 76.19 (57.27, 101.36) |
| Age ≥ 65 | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 121 | 982.84 (754.71, 1279.93) |
| Age ≥ 65 | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 121 | 530.97 (437.49, 644.42) |
| Age ≥ 65 | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 121 | 19.27 (16.61, 22.35) |
| Age ≥ 65 | Day 29 | Placebo | Positive | Pseudovirus-nAb ID80 | 121 | 26.17 (22.51, 30.42) |
| Age ≥ 65 | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 390 | 552.00 (447.81, 680.43) |
| Age ≥ 65 | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 390 | 17811.61 (15012.46, 21132.68) |
| Age ≥ 65 | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 390 | 12836.45 (11096.62, 14849.05) |
| Age ≥ 65 | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 390 | 837.45 (743.98, 942.66) |
| Age ≥ 65 | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID80 | 390 | 813.85 (734.70, 901.52) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|----------|--------|---------|---------------------|------------------------|-----|----------------------------------|
| Age ≥ 65 | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 120 | 2021.65 (1395.66, 2928.42) |
| Age ≥ 65 | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 120 | 57390.09 (42425.39, 77633.31) |
| Age ≥ 65 | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 120 | 33228.31 (25909.63, 42614.29) |
| Age ≥ 65 | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 120 | 2358.86 (1909.82, 2913.48) |
| Age ≥ 65 | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID80 | 120 | 2144.88 (1777.29, 2588.48) |
| Age ≥ 65 | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 66 | 0.05 (0.05, 0.05) |
| Age ≥ 65 | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 66 | 0.80 (0.80, 0.80) |
| Age ≥ 65 | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 66 | 0.15 (0.15, 0.15) |
| Age ≥ 65 | Day 57 | Placebo | Negative | Pseudovirus-nAb ID50 | 66 | 1.26 (1.20, 1.33) |
| Age ≥ 65 | Day 57 | Placebo | Negative | Pseudovirus-nAb ID80 | 66 | 7.61 (7.41, 7.81) |
| Age ≥ 65 | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 121 | 372.41 (252.92, 548.36) |
| Age ≥ 65 | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 121 | 14281.73 (10842.90, 18811.19) |
| Age ≥ 65 | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 121 | 9771.25 (7721.56, 12365.03) |
| Age ≥ 65 | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 121 | 630.33 (519.76, 764.44) |
| Age ≥ 65 | Day 57 | Placebo | Positive | Pseudovirus-nAb ID80 | 121 | 648.67 (547.29, 768.82) |

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) | 381 | 0.05 (0.05, 0.05) |
| At-risk | Day 1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 381 | 0.80 (0.80, 0.80) |
| At-risk | Day 1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 381 | 0.15 (0.15, 0.15) |
| At-risk | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 381 | 1.21 (1.21, 1.21) |
| At-risk | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 381 | 7.51 (7.51, 7.51) |
| At-risk | Day 1 | Vaccine | Positive | Anti N IgG (IU/ml) | 111 | 0.05 (0.05, 0.05) |
| At-risk | Day 1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 111 | 0.82 (0.77, 0.88) |
| At-risk | Day 1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 111 | 0.15 (0.15, 0.15) |
| At-risk | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 111 | 1.57 (1.40, 1.76) |
| At-risk | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 111 | 9.36 (8.35, 10.48) |
| At-risk | Day 1 | Placebo | Negative | Anti N IgG (IU/ml) | 71 | 0.05 (0.05, 0.05) |
| At-risk | Day 1 | Placebo | Negative | Anti RBD IgG (IU/ml) | 71 | 0.80 (0.80, 0.80) |
| At-risk | Day 1 | Placebo | Negative | Anti Spike IgG (IU/ml) | 71 | 0.15 (0.15, 0.15) |
| At-risk | Day 1 | Placebo | Negative | Pseudovirus-nAb ID50 | 71 | 1.22 (1.20, 1.24) |
| At-risk | Day 1 | Placebo | Negative | Pseudovirus-nAb ID80 | 71 | 7.51 (7.51, 7.51) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|---------|--------|---------|---------------------|------------------------|-----|-----------------------------|
| At-risk | Day 1 | Placebo | Positive | Anti N IgG (IU/ml) | 117 | 0.05 (0.05, 0.05) |
| At-risk | Day 1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 117 | 0.80 (0.79, 0.81) |
| At-risk | Day 1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 117 | 0.16 (0.15, 0.16) |
| At-risk | Day 1 | Placebo | Positive | Pseudovirus-nAb ID50 | 117 | 1.53 (1.38, 1.69) |
| At-risk | Day 1 | Placebo | Positive | Pseudovirus-nAb ID80 | 117 | 10.00 (8.97, 11.14) |
| At-risk | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 381 | 40.32 (33.02, 49.23) |
| At-risk | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 381 | 516.91 (434.48, 614.97) |
| At-risk | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 381 | 294.81 (255.35, 340.37) |
| At-risk | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID50 | 381 | 18.02 (16.26, 19.98) |
| At-risk | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID80 | 381 | 27.52 (24.95, 30.36) |
| At-risk | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 111 | 72.75 (49.40, 107.15) |
| At-risk | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 111 | 875.73 (634.67, 1208.35) |
| At-risk | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 111 | 577.86 (452.58, 737.83) |
| At-risk | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 111 | 32.53 (26.65, 39.71) |
| At-risk | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID80 | 111 | 49.96 (40.47, 61.68) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|---------|--------|---------|---------------------|------------------------|-----|-------------------------------|
| At-risk | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 71 | 0.05 (0.05, 0.05) |
| At-risk | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 71 | 0.80 (0.80, 0.80) |
| At-risk | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 71 | 0.15 (0.15, 0.15) |
| At-risk | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 71 | 1.22 (1.20, 1.25) |
| At-risk | Day 29 | Placebo | Negative | Pseudovirus-nAb ID80 | 71 | 7.51 (7.51, 7.51) |
| At-risk | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 117 | 39.07 (27.06, 56.40) |
| At-risk | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 117 | 399.73 (291.24, 548.63) |
| At-risk | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 117 | 230.58 (178.83, 297.31) |
| At-risk | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 117 | 13.89 (11.24, 17.17) |
| At-risk | Day 29 | Placebo | Positive | Pseudovirus-nAb ID80 | 117 | 21.72 (18.34, 25.72) |
| At-risk | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 381 | 175.84 (138.12, 223.86) |
| At-risk | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 381 | 5606.18 (4585.35, 6854.28) |
| At-risk | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 381 | 3919.84 (3269.77, 4699.17) |
| At-risk | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 381 | 468.02 (411.38, 532.45) |
| At-risk | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID80 | 381 | 614.23 (547.72, 688.82) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|---------|--------|---------|---------------------|------------------------|-----|----------------------------------|
| At-risk | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 111 | 681.83 (436.93, 1064.01) |
| At-risk | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 111 | 15742.11 (11096.03, 22333.56) |
| At-risk | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 111 | 12327.67 (9020.42, 16847.51) |
| At-risk | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 111 | 1375.89 (1057.21, 1790.64) |
| At-risk | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID80 | 111 | 1593.34 (1280.14, 1983.16) |
| At-risk | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 71 | 0.05 (0.05, 0.05) |
| At-risk | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 71 | 0.80 (0.80, 0.80) |
| At-risk | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 71 | 0.15 (0.15, 0.15) |
| At-risk | Day 57 | Placebo | Negative | Pseudovirus-nAb ID50 | 71 | 1.26 (1.19, 1.35) |
| At-risk | Day 57 | Placebo | Negative | Pseudovirus-nAb ID80 | 71 | 7.51 (7.51, 7.51) |
| At-risk | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 117 | 191.20 (125.62, 291.02) |
| At-risk | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 117 | 4423.09 (3257.84, 6005.14) |
| At-risk | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 117 | 3158.86 (2281.20, 4374.18) |
| At-risk | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 117 | 351.46 (273.50, 451.64) |
| At-risk | Day 57 | Placebo | Positive | Pseudovirus-nAb ID80 | 117 | 399.37 (320.90, 497.03) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|-------------|-------|---------|---------------------|------------------------|-----|------------------------|
| Not at-risk | Day 1 | Vaccine | Negative | Anti N IgG (IU/ml) | 366 | 0.05 (0.05, 0.05) |
| Not at-risk | Day 1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 366 | 0.80 (0.80, 0.80) |
| Not at-risk | Day 1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 366 | 0.15 (0.15, 0.15) |
| Not at-risk | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 366 | 1.21 (1.21, 1.21) |
| Not at-risk | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 366 | 7.51 (7.51, 7.51) |
| Not at-risk | Day 1 | Vaccine | Positive | Anti N IgG (IU/ml) | 123 | 0.05 (0.05, 0.05) |
| Not at-risk | Day 1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 123 | 0.81 (0.79, 0.83) |
| Not at-risk | Day 1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 123 | 0.16 (0.15, 0.16) |
| Not at-risk | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 123 | 1.73 (1.50, 1.98) |
| Not at-risk | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 123 | 10.17 (8.94, 11.58) |
| Not at-risk | Day 1 | Placebo | Negative | Anti N IgG (IU/ml) | 67 | 0.05 (0.05, 0.05) |
| Not at-risk | Day 1 | Placebo | Negative | Anti RBD IgG (IU/ml) | 67 | 0.80 (0.80, 0.80) |
| Not at-risk | Day 1 | Placebo | Negative | Anti Spike IgG (IU/ml) | 67 | 0.15 (0.15, 0.15) |
| Not at-risk | Day 1 | Placebo | Negative | Pseudovirus-nAb ID50 | 67 | 1.21 (1.21, 1.21) |
| Not at-risk | Day 1 | Placebo | Negative | Pseudovirus-nAb ID80 | 67 | 7.86 (7.50, 8.23) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|-------------|--------|---------|---------------------|------------------------|-----|-----------------------------|
| Not at-risk | Day 1 | Placebo | Positive | Anti N IgG (IU/ml) | 124 | 0.05 (0.05, 0.05) |
| Not at-risk | Day 1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 124 | 0.80 (0.79, 0.81) |
| Not at-risk | Day 1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 124 | 0.15 (0.15, 0.15) |
| Not at-risk | Day 1 | Placebo | Positive | Pseudovirus-nAb ID50 | 124 | 1.70 (1.48, 1.96) |
| Not at-risk | Day 1 | Placebo | Positive | Pseudovirus-nAb ID80 | 124 | 9.81 (8.74, 11.01) |
| Not at-risk | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 366 | 38.84 (30.11, 50.10) |
| Not at-risk | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 366 | 453.52 (373.62, 550.49) |
| Not at-risk | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 366 | 251.64 (215.64, 293.64) |
| Not at-risk | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID50 | 366 | 17.01 (14.92, 19.38) |
| Not at-risk | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID80 | 366 | 25.13 (22.44, 28.14) |
| Not at-risk | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 123 | 87.15 (59.57, 127.48) |
| Not at-risk | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 123 | 824.18 (574.54, 1182.28) |
| Not at-risk | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 123 | 424.06 (333.14, 539.80) |
| Not at-risk | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 123 | 32.75 (26.56, 40.38) |
| Not at-risk | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID80 | 123 | 51.91 (43.40, 62.08) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|-------------|--------|---------|---------------------|------------------------|-----|-------------------------------|
| Not at-risk | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 67 | 0.05 (0.05, 0.05) |
| Not at-risk | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 67 | 0.80 (0.80, 0.80) |
| Not at-risk | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 67 | 0.15 (0.15, 0.15) |
| Not at-risk | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 67 | 1.21 (1.21, 1.21) |
| Not at-risk | Day 29 | Placebo | Negative | Pseudovirus-nAb ID80 | 67 | 7.51 (7.51, 7.51) |
| Not at-risk | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 124 | 22.29 (14.89, 33.35) |
| Not at-risk | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 124 | 260.53 (175.30, 387.19) |
| Not at-risk | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 124 | 142.82 (104.63, 194.96) |
| Not at-risk | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 124 | 10.17 (8.07, 12.83) |
| Not at-risk | Day 29 | Placebo | Positive | Pseudovirus-nAb ID80 | 124 | 19.43 (16.19, 23.32) |
| Not at-risk | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 366 | 165.51 (123.58, 221.68) |
| Not at-risk | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 366 | 4330.32 (3501.86, 5354.77) |
| Not at-risk | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 366 | 3101.15 (2549.75, 3771.78) |
| Not at-risk | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 366 | 405.51 (347.62, 473.04) |
| Not at-risk | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID80 | 366 | 538.46 (467.44, 620.28) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|-------------|--------|---------|---------------------|------------------------|-----|----------------------------------|
| Not at-risk | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 123 | 631.28 (379.42, 1050.35) |
| Not at-risk | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 123 | 17239.12 (11977.96, 24811.18) |
| Not at-risk | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 123 | 9950.91 (7303.49, 13557.98) |
| Not at-risk | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 123 | 1195.03 (890.64, 1603.47) |
| Not at-risk | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID80 | 123 | 1543.60 (1251.74, 1903.51) |
| Not at-risk | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 67 | 0.05 (0.05, 0.05) |
| Not at-risk | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 67 | 0.80 (0.80, 0.80) |
| Not at-risk | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 67 | 0.15 (0.15, 0.15) |
| Not at-risk | Day 57 | Placebo | Negative | Pseudovirus-nAb ID50 | 67 | 1.23 (1.20, 1.27) |
| Not at-risk | Day 57 | Placebo | Negative | Pseudovirus-nAb ID80 | 67 | 7.55 (7.47, 7.63) |
| Not at-risk | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 124 | 108.79 (64.41, 183.76) |
| Not at-risk | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 124 | 2479.40 (1657.15, 3709.64) |
| Not at-risk | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 124 | 1938.34 (1324.99, 2835.62) |
| Not at-risk | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 124 | 287.94 (220.69, 375.68) |
| Not at-risk | Day 57 | Placebo | Positive | Pseudovirus-nAb ID80 | 124 | 491.75 (397.36, 608.56) |

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) | 185 | 0.05 (0.05, 0.05) |
| Age < 65 At-risk | Day 1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 185 | 0.80 (0.80, 0.80) |
| Age < 65 At-risk | Day 1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 185 | 0.15 (0.15, 0.15) |
| Age < 65 At-risk | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 185 | 1.21 (1.21, 1.21) |
| Age < 65 At-risk | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 185 | 7.51 (7.51, 7.51) |
| Age < 65 At-risk | Day 1 | Vaccine | Positive | Anti N IgG (IU/ml) | 56 | 0.05 (0.05, 0.05) |
| Age < 65 At-risk | Day 1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 56 | 0.83 (0.76, 0.91) |
| Age < 65 At-risk | Day 1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 56 | 0.15 (0.15, 0.15) |
| Age < 65 At-risk | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 56 | 1.59 (1.38, 1.84) |
| Age < 65 At-risk | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 56 | 9.39 (8.08, 10.90) |
| Age < 65 At-risk | Day 1 | Placebo | Negative | Anti N IgG (IU/ml) | 36 | 0.05 (0.05, 0.05) |
| Age < 65 At-risk | Day 1 | Placebo | Negative | Anti RBD IgG (IU/ml) | 36 | 0.80 (0.80, 0.80) |
| Age < 65 At-risk | Day 1 | Placebo | Negative | Anti Spike IgG (IU/ml) | 36 | 0.15 (0.15, 0.15) |
| Age < 65 At-risk | Day 1 | Placebo | Negative | Pseudovirus-nAb ID50 | 36 | 1.22 (1.20, 1.25) |
| Age < 65 At-risk | Day 1 | Placebo | Negative | Pseudovirus-nAb ID80 | 36 | 7.51 (7.51, 7.51) |

(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) | 59 | 0.05 (0.05, 0.05) |
| Age < 65 At-risk | Day 1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 59 | 0.80 (0.80, 0.80) |
| Age < 65 At-risk | Day 1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 59 | 0.16 (0.15, 0.16) |
| Age < 65 At-risk | Day 1 | Placebo | Positive | Pseudovirus-nAb ID50 | 59 | 1.48 (1.30, 1.69) |
| Age < 65 At-risk | Day 1 | Placebo | Positive | Pseudovirus-nAb ID80 | 59 | 10.31 (8.97, 11.86) |
| Age < 65 At-risk | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 185 | 27.71 (21.41, 35.84) |
| Age < 65 At-risk | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 185 | 349.87 (279.45, 438.03) |
| Age < 65 At-risk | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 185 | 199.73 (166.21, 240.01) |
| Age < 65 At-risk | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID50 | 185 | 15.18 (13.27, 17.35) |
| Age < 65 At-risk | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID80 | 185 | 24.27 (21.38, 27.56) |
| Age < 65 At-risk | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 56 | 48.62 (29.53, 80.04) |
| Age < 65 At-risk | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 56 | 555.52 (371.70, 830.23) |
| Age < 65 At-risk | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 56 | 381.68 (284.39, 512.26) |
| Age < 65 At-risk | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 56 | 26.59 (20.62, 34.29) |
| Age < 65 At-risk | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID80 | 56 | 43.84 (33.39, 57.55) |

(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) | 36 | 0.05 (0.05, 0.05) |
| Age < 65 At-risk | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 36 | 0.80 (0.80, 0.80) |
| Age < 65 At-risk | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 36 | 0.15 (0.15, 0.15) |
| Age < 65 At-risk | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 36 | 1.21 (1.21, 1.21) |
| Age < 65 At-risk | Day 29 | Placebo | Negative | Pseudovirus-nAb ID80 | 36 | 7.51 (7.51, 7.51) |
| Age < 65 At-risk | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 59 | 30.34 (18.77, 49.04) |
| Age < 65 At-risk | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 59 | 290.24 (193.43, 435.51) |
| Age < 65 At-risk | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 59 | 163.09 (117.48, 226.43) |
| Age < 65 At-risk | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 59 | 12.23 (9.23, 16.21) |
| Age < 65 At-risk | Day 29 | Placebo | Positive | Pseudovirus-nAb ID80 | 59 | 21.07 (16.95, 26.19) |
| Age < 65 At-risk | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 185 | 114.61 (83.79, 156.78) |
| Age < 65 At-risk | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 185 | 3684.93 (2839.16, 4782.66) |
| Age < 65 At-risk | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 185 | 2411.71 (1908.81, 3047.12) |
| Age < 65 At-risk | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 185 | 368.01 (311.75, 434.43) |
| Age < 65 At-risk | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID80 | 185 | 555.98 (479.07, 645.23) |

(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) | 56 | 411.63 (236.09, 717.69) |
| Age < 65 At-risk | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 56 | 9098.59 (5981.40, 13840.28) |
| Age < 65 At-risk | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 56 | 8014.18 (5452.45, 11779.48) |
| Age < 65 At-risk | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 56 | 1047.93 (752.94, 1458.49) |
| Age < 65 At-risk | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID80 | 56 | 1411.41 (1070.84, 1860.31) |
| Age < 65 At-risk | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 36 | 0.05 (0.05, 0.05) |
| Age < 65 At-risk | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 36 | 0.80 (0.80, 0.80) |
| Age < 65 At-risk | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 36 | 0.15 (0.15, 0.15) |
| Age < 65 At-risk | Day 57 | Placebo | Negative | Pseudovirus-nAb ID50 | 36 | 1.26 (1.16, 1.37) |
| Age < 65 At-risk | Day 57 | Placebo | Negative | Pseudovirus-nAb ID80 | 36 | 7.51 (7.51, 7.51) |
| Age < 65 At-risk | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 59 | 160.93 (92.55, 279.82) |
| Age < 65 At-risk | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 59 | 2810.16 (1910.33, 4133.85) |
| Age < 65 At-risk | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 59 | 2081.83 (1367.84, 3168.51) |
| Age < 65 At-risk | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 59 | 289.96 (209.02, 402.23) |
| Age < 65 At-risk | Day 57 | Placebo | Positive | Pseudovirus-nAb ID80 | 59 | 335.47 (251.88, 446.80) |

(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) | 172 | 0.05 (0.05, 0.05) |
| Age < 65 Not at-risk | Day 1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 172 | 0.80 (0.80, 0.80) |
| Age < 65 Not at-risk | Day 1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 172 | 0.15 (0.15, 0.15) |
| Age < 65 Not at-risk | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 172 | 1.21 (1.21, 1.21) |
| Age < 65 Not at-risk | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 172 | 7.51 (7.51, 7.51) |
| Age < 65 Not at-risk | Day 1 | Vaccine | Positive | Anti N IgG (IU/ml) | 58 | 0.05 (0.05, 0.05) |
| Age < 65 Not at-risk | Day 1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 58 | 0.81 (0.78, 0.84) |
| Age < 65 Not at-risk | Day 1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 58 | 0.16 (0.15, 0.16) |
| Age < 65 Not at-risk | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 58 | 1.77 (1.50, 2.09) |
| Age < 65 Not at-risk | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 58 | 10.38 (8.90, 12.09) |
| Age < 65 Not at-risk | Day 1 | Placebo | Negative | Anti N IgG (IU/ml) | 36 | 0.05 (0.05, 0.05) |
| Age < 65 Not at-risk | Day 1 | Placebo | Negative | Anti RBD IgG (IU/ml) | 36 | 0.80 (0.80, 0.80) |
| Age < 65 Not at-risk | Day 1 | Placebo | Negative | Anti Spike IgG (IU/ml) | 36 | 0.15 (0.15, 0.15) |
| Age < 65 Not at-risk | Day 1 | Placebo | Negative | Pseudovirus-nAb ID50 | 36 | 1.21 (1.21, 1.21) |
| Age < 65 Not at-risk | Day 1 | Placebo | Negative | Pseudovirus-nAb ID80 | 36 | 7.91 (7.47, 8.38) |

(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) | 61 | 0.05 (0.05, 0.05) |
| Age < 65 Not at-risk | Day 1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 61 | 0.80 (0.80, 0.80) |
| Age < 65 Not at-risk | Day 1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 61 | 0.15 (0.15, 0.15) |
| Age < 65 Not at-risk | Day 1 | Placebo | Positive | Pseudovirus-nAb ID50 | 61 | 1.71 (1.45, 2.02) |
| Age < 65 Not at-risk | Day 1 | Placebo | Positive | Pseudovirus-nAb ID80 | 61 | 9.94 (8.67, 11.39) |
| Age < 65 Not at-risk | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 172 | 31.64 (23.41, 42.76) |
| Age < 65 Not at-risk | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 172 | 360.49 (287.17, 452.52) |
| Age < 65 Not at-risk | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 172 | 198.32 (165.67, 237.39) |
| Age < 65 Not at-risk | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID50 | 172 | 15.27 (13.08, 17.82) |
| Age < 65 Not at-risk | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID80 | 172 | 23.12 (20.24, 26.42) |
| Age < 65 Not at-risk | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 58 | 73.59 (47.11, 114.95) |
| Age < 65 Not at-risk | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 58 | 649.55 (424.79, 993.24) |
| Age < 65 Not at-risk | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 58 | 340.53 (256.98, 451.24) |
| Age < 65 Not at-risk | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 58 | 29.65 (23.17, 37.94) |
| Age < 65 Not at-risk | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID80 | 58 | 51.15 (41.46, 63.11) |

(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) | 36 | 0.05 (0.05, 0.05) |
| Age < 65 Not at-risk | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 36 | 0.80 (0.80, 0.80) |
| Age < 65 Not at-risk | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 36 | 0.15 (0.15, 0.15) |
| Age < 65 Not at-risk | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 36 | 1.21 (1.21, 1.21) |
| Age < 65 Not at-risk | Day 29 | Placebo | Negative | Pseudovirus-nAb ID80 | 36 | 7.51 (7.51, 7.51) |
| Age < 65 Not at-risk | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 61 | 17.42 (10.85, 27.95) |
| Age < 65 Not at-risk | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 61 | 197.51 (124.06, 314.42) |
| Age < 65 Not at-risk | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 61 | 111.34 (77.39, 160.17) |
| Age < 65 Not at-risk | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 61 | 8.97 (6.83, 11.78) |
| Age < 65 Not at-risk | Day 29 | Placebo | Positive | Pseudovirus-nAb ID80 | 61 | 17.95 (14.49, 22.24) |
| Age < 65 Not at-risk | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 172 | 127.83 (90.56, 180.44) |
| Age < 65 Not at-risk | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 172 | 3184.52 (2485.29, 4080.48) |
| Age < 65 Not at-risk | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 172 | 2341.37 (1861.50, 2944.94) |
| Age < 65 Not at-risk | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 172 | 351.66 (293.40, 421.50) |
| Age < 65 Not at-risk | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID80 | 172 | 492.14 (416.35, 581.73) |

(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) | 58 | 525.87 (287.99, 960.23) |
| Age < 65 Not at-risk | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 58 | 14021.90 (9132.45, 21529.13) |
| Age < 65 Not at-risk | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 58 | 8068.33 (5610.64, 11602.60) |
| Age < 65 Not at-risk | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 58 | 1080.90 (762.94, 1531.39) |
| Age < 65 Not at-risk | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID80 | 58 | 1453.39 (1135.47, 1860.32) |
| Age < 65 Not at-risk | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 36 | 0.05 (0.05, 0.05) |
| Age < 65 Not at-risk | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 36 | 0.80 (0.80, 0.80) |
| Age < 65 Not at-risk | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 36 | 0.15 (0.15, 0.15) |
| Age < 65 Not at-risk | Day 57 | Placebo | Negative | Pseudovirus-nAb ID50 | 36 | 1.23 (1.19, 1.26) |
| Age < 65 Not at-risk | Day 57 | Placebo | Negative | Pseudovirus-nAb ID80 | 36 | 7.51 (7.51, 7.51) |
| Age < 65 Not at-risk | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 61 | 81.75 (44.28, 150.91) |
| Age < 65 Not at-risk | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 61 | 1752.03 (1096.43, 2799.64) |
| Age < 65 Not at-risk | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 61 | 1392.85 (893.03, 2172.39) |
| Age < 65 Not at-risk | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 61 | 242.51 (177.54, 331.27) |
| Age < 65 Not at-risk | Day 57 | Placebo | Positive | Pseudovirus-nAb ID80 | 61 | 462.59 (360.18, 594.12) |

(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) | 196 | 0.05 (0.05, 0.05) |
| Age \geq 65 At-risk | Day 1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 196 | 0.80 (0.80, 0.80) |
| Age \geq 65 At-risk | Day 1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 196 | 0.15 (0.15, 0.15) |
| Age \geq 65 At-risk | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 196 | 1.21 (1.21, 1.21) |
| Age \geq 65 At-risk | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 196 | 7.51 (7.51, 7.51) |
| Age \geq 65 At-risk | Day 1 | Vaccine | Positive | Anti N IgG (IU/ml) | 55 | 0.05 (0.05, 0.06) |
| Age \geq 65 At-risk | Day 1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 55 | 0.80 (0.80, 0.80) |
| Age \geq 65 At-risk | Day 1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 55 | 0.15 (0.15, 0.15) |
| Age \geq 65 At-risk | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 55 | 1.52 (1.31, 1.76) |
| Age \geq 65 At-risk | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 55 | 9.28 (8.27, 10.42) |
| 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 | 1.21 (1.21, 1.21) |
| Age \geq 65 At-risk | Day 1 | Placebo | Negative | Pseudovirus-nAb ID80 | 35 | 7.51 (7.51, 7.51) |

(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) | 58 | 0.05 (0.05, 0.05) |
| Age \geq 65 At-risk | Day 1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 58 | 0.81 (0.78, 0.84) |
| Age \geq 65 At-risk | Day 1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 58 | 0.15 (0.15, 0.15) |
| Age \geq 65 At-risk | Day 1 | Placebo | Positive | Pseudovirus-nAb ID50 | 58 | 1.66 (1.45, 1.91) |
| Age \geq 65 At-risk | Day 1 | Placebo | Positive | Pseudovirus-nAb ID80 | 58 | 9.22 (8.01, 10.60) |
| Age \geq 65 At-risk | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 196 | 102.84 (80.14, 131.98) |
| Age \geq 65 At-risk | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 196 | 1369.34 (1115.31, 1681.23) |
| Age \geq 65 At-risk | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 196 | 779.20 (655.36, 926.44) |
| Age \geq 65 At-risk | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID50 | 196 | 27.69 (24.44, 31.37) |
| Age \geq 65 At-risk | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID80 | 196 | 37.65 (33.10, 42.82) |
| Age \geq 65 At-risk | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 55 | 215.03 (142.79, 323.81) |
| Age \geq 65 At-risk | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 55 | 2977.08 (2034.61, 4356.13) |
| Age \geq 65 At-risk | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 55 | 1762.27 (1275.34, 2435.10) |
| Age \geq 65 At-risk | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 55 | 55.95 (44.23, 70.77) |
| Age \geq 65 At-risk | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID80 | 55 | 71.03 (55.54, 90.85) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|-----------------------|--------|---------|---------------------|------------------------|-----|----------------------------------|
| Age \geq 65 At-risk | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 35 | 0.05 (0.05, 0.05) |
| Age \geq 65 At-risk | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 35 | 0.80 (0.80, 0.80) |
| Age \geq 65 At-risk | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 35 | 0.15 (0.15, 0.15) |
| Age \geq 65 At-risk | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 35 | 1.25 (1.17, 1.34) |
| Age \geq 65 At-risk | Day 29 | Placebo | Negative | Pseudovirus-nAb ID80 | 35 | 7.51 (7.51, 7.51) |
| Age \geq 65 At-risk | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 58 | 75.35 (50.45, 112.55) |
| Age \geq 65 At-risk | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 58 | 917.85 (629.03, 1339.28) |
| Age \geq 65 At-risk | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 58 | 566.74 (445.20, 721.46) |
| Age \geq 65 At-risk | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 58 | 19.34 (15.80, 23.67) |
| Age \geq 65 At-risk | Day 29 | Placebo | Positive | Pseudovirus-nAb ID80 | 58 | 23.52 (18.82, 29.40) |
| Age \geq 65 At-risk | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 196 | 511.75 (381.45, 686.55) |
| Age \geq 65 At-risk | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 196 | 15978.46 (12608.12, 20249.74) |
| Age \geq 65 At-risk | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 196 | 13176.09 (10726.24, 16185.49) |
| Age \geq 65 At-risk | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 196 | 852.81 (723.19, 1005.66) |
| Age \geq 65 At-risk | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID80 | 196 | 787.68 (679.83, 912.64) |

(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) | 55 | 2647.77 (1480.53, 4735.25) |
| Age \geq 65 At-risk | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 55 | 68728.43 (41689.06, 113305.43) |
| Age \geq 65 At-risk | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 55 | 39234.47 (25954.09, 59310.24) |
| Age \geq 65 At-risk | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 55 | 2860.83 (2021.86, 4047.93) |
| Age \geq 65 At-risk | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID80 | 55 | 2207.30 (1624.62, 2998.97) |
| 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 | 1.27 (1.16, 1.38) |
| Age \geq 65 At-risk | Day 57 | Placebo | Negative | Pseudovirus-nAb ID80 | 35 | 7.51 (7.51, 7.51) |
| Age \geq 65 At-risk | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 58 | 299.14 (189.84, 471.35) |
| Age \geq 65 At-risk | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 58 | 14365.55 (10202.75, 20226.80) |
| Age \geq 65 At-risk | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 58 | 9328.48 (6731.41, 12927.52) |
| Age \geq 65 At-risk | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 58 | 579.22 (440.09, 762.33) |
| Age \geq 65 At-risk | Day 57 | Placebo | Positive | Pseudovirus-nAb ID80 | 58 | 628.10 (499.76, 789.42) |

(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) | 194 | 0.05 (0.05, 0.05) |
| Age \geq 65 Not at-risk | Day 1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 194 | 0.80 (0.80, 0.80) |
| Age \geq 65 Not at-risk | Day 1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 194 | 0.15 (0.15, 0.15) |
| Age \geq 65 Not at-risk | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 194 | 1.21 (1.21, 1.21) |
| Age \geq 65 Not at-risk | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 194 | 7.51 (7.51, 7.51) |
| Age \geq 65 Not at-risk | Day 1 | Vaccine | Positive | Anti N IgG (IU/ml) | 65 | 0.05 (0.05, 0.05) |
| Age \geq 65 Not at-risk | Day 1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 65 | 0.80 (0.80, 0.80) |
| Age \geq 65 Not at-risk | Day 1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 65 | 0.15 (0.15, 0.15) |
| Age \geq 65 Not at-risk | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 65 | 1.52 (1.33, 1.74) |
| Age \geq 65 Not at-risk | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 65 | 9.20 (8.20, 10.32) |
| Age \geq 65 Not at-risk | Day 1 | Placebo | Negative | Anti N IgG (IU/ml) | 31 | 0.05 (0.05, 0.05) |
| Age \geq 65 Not at-risk | Day 1 | Placebo | Negative | Anti RBD IgG (IU/ml) | 31 | 0.80 (0.80, 0.80) |
| Age \geq 65 Not at-risk | Day 1 | Placebo | Negative | Anti Spike IgG (IU/ml) | 31 | 0.15 (0.15, 0.15) |
| Age \geq 65 Not at-risk | Day 1 | Placebo | Negative | Pseudovirus-nAb ID50 | 31 | 1.21 (1.21, 1.21) |
| Age \geq 65 Not at-risk | Day 1 | Placebo | Negative | Pseudovirus-nAb ID80 | 31 | 7.64 (7.39, 7.91) |

(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) | 63 | 0.05 (0.05, 0.06) |
| Age \geq 65 Not at-risk | Day 1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 63 | 0.82 (0.78, 0.85) |
| Age \geq 65 Not at-risk | Day 1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 63 | 0.15 (0.15, 0.15) |
| Age \geq 65 Not at-risk | Day 1 | Placebo | Positive | Pseudovirus-nAb ID50 | 63 | 1.66 (1.43, 1.93) |
| Age \geq 65 Not at-risk | Day 1 | Placebo | Positive | Pseudovirus-nAb ID80 | 63 | 9.17 (8.05, 10.44) |
| Age \geq 65 Not at-risk | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 194 | 107.45 (84.75, 136.23) |
| Age \geq 65 Not at-risk | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 194 | 1416.27 (1143.81, 1753.62) |
| Age \geq 65 Not at-risk | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 194 | 819.89 (684.18, 982.51) |
| Age \geq 65 Not at-risk | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID50 | 194 | 29.02 (25.46, 33.07) |
| Age \geq 65 Not at-risk | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID80 | 194 | 37.98 (33.51, 43.06) |
| Age \geq 65 Not at-risk | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 65 | 204.03 (131.17, 317.36) |
| Age \geq 65 Not at-risk | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 65 | 2730.22 (1984.51, 3756.13) |
| Age \geq 65 Not at-risk | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 65 | 1278.50 (1021.04, 1600.88) |
| Age \geq 65 Not at-risk | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 65 | 53.97 (43.52, 66.93) |
| Age \geq 65 Not at-risk | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID80 | 65 | 55.87 (44.81, 69.67) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|---------------------------|--------|---------|---------------------|------------------------|-----|----------------------------------|
| Age \geq 65 Not at-risk | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 31 | 0.05 (0.05, 0.05) |
| Age \geq 65 Not at-risk | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 31 | 0.80 (0.80, 0.80) |
| Age \geq 65 Not at-risk | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 31 | 0.15 (0.15, 0.15) |
| Age \geq 65 Not at-risk | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 31 | 1.21 (1.21, 1.21) |
| Age \geq 65 Not at-risk | Day 29 | Placebo | Negative | Pseudovirus-nAb ID80 | 31 | 7.51 (7.51, 7.51) |
| Age \geq 65 Not at-risk | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 63 | 76.98 (51.40, 115.29) |
| Age \geq 65 Not at-risk | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 63 | 1048.16 (725.71, 1513.87) |
| Age \geq 65 Not at-risk | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 63 | 499.40 (370.25, 673.59) |
| Age \geq 65 Not at-risk | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 63 | 19.21 (15.49, 23.82) |
| Age \geq 65 Not at-risk | Day 29 | Placebo | Positive | Pseudovirus-nAb ID80 | 63 | 28.92 (23.76, 35.22) |
| Age \geq 65 Not at-risk | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 194 | 596.10 (442.78, 802.51) |
| Age \geq 65 Not at-risk | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 194 | 19887.87 (15555.85, 25426.29) |
| Age \geq 65 Not at-risk | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 194 | 12500.59 (10172.50, 15361.49) |
| Age \geq 65 Not at-risk | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 194 | 822.13 (693.64, 974.43) |
| Age \geq 65 Not at-risk | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID80 | 194 | 841.31 (730.05, 969.52) |

(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) | 65 | 1582.67 (1000.64, 2503.23) |
| Age \geq 65 Not at-risk | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 65 | 48729.63 (34487.01, 68854.24) |
| Age \geq 65 Not at-risk | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 65 | 28578.23 (21460.52, 38056.65) |
| Age \geq 65 Not at-risk | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 65 | 1980.05 (1553.05, 2524.44) |
| Age \geq 65 Not at-risk | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID80 | 65 | 2089.76 (1666.22, 2620.97) |
| Age \geq 65 Not at-risk | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 31 | 0.05 (0.05, 0.05) |
| Age \geq 65 Not at-risk | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 31 | 0.80 (0.80, 0.80) |
| Age \geq 65 Not at-risk | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 31 | 0.15 (0.15, 0.15) |
| Age \geq 65 Not at-risk | Day 57 | Placebo | Negative | Pseudovirus-nAb ID50 | 31 | 1.26 (1.19, 1.33) |
| Age \geq 65 Not at-risk | Day 57 | Placebo | Negative | Pseudovirus-nAb ID80 | 31 | 7.72 (7.31, 8.16) |
| Age \geq 65 Not at-risk | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 63 | 457.63 (248.51, 842.70) |
| Age \geq 65 Not at-risk | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 63 | 14203.36 (9280.26, 21738.13) |
| Age \geq 65 Not at-risk | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 63 | 10206.80 (7288.69, 14293.21) |
| Age \geq 65 Not at-risk | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 63 | 682.51 (521.47, 893.29) |
| Age \geq 65 Not at-risk | Day 57 | Placebo | Positive | Pseudovirus-nAb ID80 | 63 | 668.62 (520.90, 858.23) |

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) | 320 | 0.05 (0.05, 0.05) |
| Male | Day 1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 320 | 0.80 (0.80, 0.80) |
| Male | Day 1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 320 | 0.15 (0.15, 0.15) |
| Male | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 320 | 1.21 (1.21, 1.21) |
| Male | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 320 | 7.51 (7.51, 7.51) |
| Male | Day 1 | Vaccine | Positive | Anti N IgG (IU/ml) | 95 | 0.05 (0.05, 0.05) |
| Male | Day 1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 95 | 0.80 (0.80, 0.80) |
| Male | Day 1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 95 | 0.16 (0.15, 0.16) |
| Male | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 95 | 1.67 (1.45, 1.92) |
| Male | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 95 | 9.61 (8.30, 11.12) |
| Male | Day 1 | Placebo | Negative | Anti N IgG (IU/ml) | 63 | 0.05 (0.05, 0.05) |
| Male | Day 1 | Placebo | Negative | Anti RBD IgG (IU/ml) | 63 | 0.80 (0.80, 0.80) |
| Male | Day 1 | Placebo | Negative | Anti Spike IgG (IU/ml) | 63 | 0.15 (0.15, 0.15) |
| Male | Day 1 | Placebo | Negative | Pseudovirus-nAb ID50 | 63 | 1.21 (1.21, 1.21) |
| Male | Day 1 | Placebo | Negative | Pseudovirus-nAb ID80 | 63 | 7.78 (7.40, 8.18) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|-------|--------|---------|---------------------|------------------------|-----|-----------------------------|
| Male | Day 1 | Placebo | Positive | Anti N IgG (IU/ml) | 108 | 0.05 (0.05, 0.05) |
| Male | Day 1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 108 | 0.80 (0.79, 0.81) |
| Male | Day 1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 108 | 0.15 (0.15, 0.15) |
| Male | Day 1 | Placebo | Positive | Pseudovirus-nAb ID50 | 108 | 1.44 (1.30, 1.59) |
| Male | Day 1 | Placebo | Positive | Pseudovirus-nAb ID80 | 108 | 10.11 (9.02, 11.34) |
| Male | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 320 | 38.15 (28.53, 51.02) |
| Male | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 320 | 457.64 (371.12, 564.33) |
| Male | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 320 | 252.49 (212.53, 299.95) |
| Male | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID50 | 320 | 17.10 (14.87, 19.67) |
| Male | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID80 | 320 | 25.48 (22.40, 29.00) |
| Male | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 95 | 78.94 (50.06, 124.47) |
| Male | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 95 | 664.48 (437.18, 1009.94) |
| Male | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 95 | 438.29 (330.76, 580.78) |
| Male | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 95 | 29.52 (22.97, 37.93) |
| Male | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID80 | 95 | 46.32 (37.37, 57.41) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|-------|--------|---------|---------------------|------------------------|-----|-------------------------------|
| Male | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 63 | 0.05 (0.05, 0.05) |
| Male | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 63 | 0.80 (0.80, 0.80) |
| Male | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 63 | 0.15 (0.15, 0.15) |
| Male | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 63 | 1.21 (1.21, 1.21) |
| Male | Day 29 | Placebo | Negative | Pseudovirus-nAb ID80 | 63 | 7.51 (7.51, 7.51) |
| Male | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 108 | 23.92 (14.87, 38.48) |
| Male | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 108 | 298.61 (197.76, 450.90) |
| Male | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 108 | 173.03 (122.78, 243.83) |
| Male | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 108 | 10.66 (8.22, 13.83) |
| Male | Day 29 | Placebo | Positive | Pseudovirus-nAb ID80 | 108 | 19.86 (16.26, 24.24) |
| Male | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 320 | 178.15 (128.55, 246.88) |
| Male | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 320 | 4244.31 (3392.29, 5310.33) |
| Male | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 320 | 3437.26 (2774.16, 4258.86) |
| Male | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 320 | 441.92 (376.96, 518.07) |
| Male | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID80 | 320 | 544.29 (469.26, 631.32) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|-------|--------|---------|---------------------|------------------------|-----|----------------------------------|
| Male | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 95 | 556.97 (327.90, 946.06) |
| Male | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 95 | 15154.35 (10160.04, 22603.69) |
| Male | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 95 | 10123.18 (7262.75, 14110.20) |
| Male | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 95 | 1249.39 (877.99, 1777.91) |
| Male | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID80 | 95 | 1549.68 (1188.99, 2019.79) |
| Male | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 63 | 0.05 (0.05, 0.05) |
| Male | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 63 | 0.80 (0.80, 0.80) |
| Male | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 63 | 0.15 (0.15, 0.15) |
| Male | Day 57 | Placebo | Negative | Pseudovirus-nAb ID50 | 63 | 1.23 (1.19, 1.27) |
| Male | Day 57 | Placebo | Negative | Pseudovirus-nAb ID80 | 63 | 7.51 (7.51, 7.51) |
| Male | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 108 | 107.97 (60.07, 194.08) |
| Male | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 108 | 2584.72 (1697.12, 3936.53) |
| Male | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 108 | 2423.64 (1588.60, 3697.60) |
| Male | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 108 | 270.04 (197.13, 369.92) |
| Male | Day 57 | Placebo | Positive | Pseudovirus-nAb ID80 | 108 | 428.33 (338.81, 541.51) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|--------|-------|---------|---------------------|------------------------|-----|------------------------|
| Female | Day 1 | Vaccine | Negative | Anti N IgG (IU/ml) | 427 | 0.05 (0.05, 0.05) |
| Female | Day 1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 427 | 0.80 (0.80, 0.80) |
| Female | Day 1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 427 | 0.15 (0.15, 0.15) |
| Female | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 427 | 1.21 (1.21, 1.21) |
| Female | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 427 | 7.51 (7.51, 7.51) |
| Female | Day 1 | Vaccine | Positive | Anti N IgG (IU/ml) | 139 | 0.05 (0.05, 0.05) |
| Female | Day 1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 139 | 0.83 (0.79, 0.87) |
| Female | Day 1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 139 | 0.16 (0.15, 0.16) |
| Female | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 139 | 1.67 (1.46, 1.91) |
| Female | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 139 | 10.07 (8.92, 11.36) |
| 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 | 1.22 (1.20, 1.23) |
| Female | Day 1 | Placebo | Negative | Pseudovirus-nAb ID80 | 75 | 7.67 (7.41, 7.94) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|--------|--------|---------|---------------------|------------------------|-----|-----------------------------|
| Female | Day 1 | Placebo | Positive | Anti N IgG (IU/ml) | 133 | 0.05 (0.05, 0.05) |
| Female | Day 1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 133 | 0.80 (0.79, 0.81) |
| Female | Day 1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 133 | 0.15 (0.15, 0.16) |
| Female | Day 1 | Placebo | Positive | Pseudovirus-nAb ID50 | 133 | 1.82 (1.57, 2.10) |
| Female | Day 1 | Placebo | Positive | Pseudovirus-nAb ID80 | 133 | 9.69 (8.59, 10.92) |
| Female | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 427 | 40.32 (32.34, 50.27) |
| Female | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 427 | 490.45 (407.20, 590.72) |
| Female | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 427 | 278.21 (240.00, 322.50) |
| Female | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID50 | 427 | 17.59 (15.59, 19.83) |
| Female | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID80 | 427 | 26.38 (23.82, 29.22) |
| Female | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 139 | 83.72 (58.61, 119.58) |
| Female | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 139 | 995.38 (720.00, 1376.06) |
| Female | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 139 | 500.15 (395.47, 632.53) |
| Female | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 139 | 35.09 (29.05, 42.38) |
| Female | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID80 | 139 | 54.95 (46.08, 65.54) |

(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 | 1.22 (1.20, 1.24) |
| Female | Day 29 | Placebo | Negative | Pseudovirus-nAb ID80 | 75 | 7.51 (7.51, 7.51) |
| Female | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 133 | 30.29 (21.02, 43.65) |
| Female | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 133 | 308.16 (209.13, 454.08) |
| Female | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 133 | 167.01 (124.57, 223.90) |
| Female | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 133 | 11.99 (9.61, 14.96) |
| Female | Day 29 | Placebo | Positive | Pseudovirus-nAb ID80 | 133 | 20.53 (17.22, 24.47) |
| Female | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 427 | 163.03 (125.40, 211.94) |
| Female | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 427 | 5197.76 (4204.66, 6425.43) |
| Female | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 427 | 3345.99 (2766.97, 4046.17) |
| Female | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 427 | 417.64 (359.94, 484.59) |
| Female | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID80 | 427 | 581.88 (509.61, 664.40) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|--------|--------|---------|---------------------|------------------------|-----|----------------------------------|
| Female | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 139 | 722.64 (442.21, 1180.89) |
| Female | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 139 | 17863.54 (12513.50, 25500.93) |
| Female | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 139 | 11199.68 (8160.35, 15371.03) |
| Female | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 139 | 1261.83 (970.99, 1639.79) |
| Female | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID80 | 139 | 1569.32 (1298.20, 1897.06) |
| 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 | 1.26 (1.20, 1.32) |
| Female | Day 57 | Placebo | Negative | Pseudovirus-nAb ID80 | 75 | 7.56 (7.46, 7.65) |
| Female | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 133 | 157.75 (98.56, 252.50) |
| Female | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 133 | 3489.69 (2373.53, 5130.73) |
| Female | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 133 | 2223.24 (1551.15, 3186.52) |
| Female | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 133 | 344.99 (271.92, 437.69) |
| Female | Day 57 | Placebo | Positive | Pseudovirus-nAb ID80 | 133 | 480.09 (387.71, 594.47) |

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) | 201 | 0.05 (0.05, 0.05) |
| Age < 65 Female | Day 1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 201 | 0.80 (0.80, 0.80) |
| Age < 65 Female | Day 1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 201 | 0.15 (0.15, 0.15) |
| Age < 65 Female | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 201 | 1.21 (1.21, 1.21) |
| Age < 65 Female | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 201 | 7.51 (7.51, 7.51) |
| Age < 65 Female | Day 1 | Vaccine | Positive | Anti N IgG (IU/ml) | 66 | 0.05 (0.05, 0.05) |
| Age < 65 Female | Day 1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 66 | 0.83 (0.78, 0.89) |
| Age < 65 Female | Day 1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 66 | 0.16 (0.15, 0.16) |
| Age < 65 Female | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 66 | 1.74 (1.47, 2.05) |
| Age < 65 Female | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 66 | 10.17 (8.75, 11.82) |
| Age < 65 Female | Day 1 | Placebo | Negative | Anti N IgG (IU/ml) | 38 | 0.05 (0.05, 0.05) |
| Age < 65 Female | Day 1 | Placebo | Negative | Anti RBD IgG (IU/ml) | 38 | 0.80 (0.80, 0.80) |
| Age < 65 Female | Day 1 | Placebo | Negative | Anti Spike IgG (IU/ml) | 38 | 0.15 (0.15, 0.15) |
| Age < 65 Female | Day 1 | Placebo | Negative | Pseudovirus-nAb ID50 | 38 | 1.22 (1.20, 1.24) |
| Age < 65 Female | Day 1 | Placebo | Negative | Pseudovirus-nAb ID80 | 38 | 7.69 (7.34, 8.05) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|-----------------|--------|---------|---------------------|------------------------|-----|-----------------------------|
| Age < 65 Female | Day 1 | Placebo | Positive | Anti N IgG (IU/ml) | 70 | 0.05 (0.05, 0.05) |
| Age < 65 Female | Day 1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 70 | 0.80 (0.80, 0.80) |
| Age < 65 Female | Day 1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 70 | 0.16 (0.15, 0.16) |
| Age < 65 Female | Day 1 | Placebo | Positive | Pseudovirus-nAb ID50 | 70 | 1.83 (1.53, 2.19) |
| Age < 65 Female | Day 1 | Placebo | Positive | Pseudovirus-nAb ID80 | 70 | 9.83 (8.50, 11.37) |
| Age < 65 Female | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 201 | 30.87 (23.53, 40.49) |
| Age < 65 Female | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 201 | 370.15 (294.84, 464.71) |
| Age < 65 Female | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 201 | 207.80 (174.00, 248.17) |
| Age < 65 Female | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID50 | 201 | 15.29 (13.18, 17.74) |
| Age < 65 Female | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID80 | 201 | 23.80 (21.00, 26.98) |
| Age < 65 Female | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 66 | 68.33 (44.04, 106.00) |
| Age < 65 Female | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 66 | 779.97 (523.98, 1161.03) |
| Age < 65 Female | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 66 | 372.63 (282.08, 492.26) |
| Age < 65 Female | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 66 | 31.92 (25.29, 40.27) |
| Age < 65 Female | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID80 | 66 | 52.30 (42.19, 64.83) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|-----------------|--------|---------|---------------------|------------------------|-----|-------------------------------|
| Age < 65 Female | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 38 | 0.05 (0.05, 0.05) |
| Age < 65 Female | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 38 | 0.80 (0.80, 0.80) |
| Age < 65 Female | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 38 | 0.15 (0.15, 0.15) |
| Age < 65 Female | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 38 | 1.21 (1.21, 1.21) |
| Age < 65 Female | Day 29 | Placebo | Negative | Pseudovirus-nAb ID80 | 38 | 7.51 (7.51, 7.51) |
| Age < 65 Female | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 70 | 24.29 (15.68, 37.64) |
| Age < 65 Female | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 70 | 235.96 (148.54, 374.83) |
| Age < 65 Female | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 70 | 125.69 (88.81, 177.88) |
| Age < 65 Female | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 70 | 10.61 (8.12, 13.85) |
| Age < 65 Female | Day 29 | Placebo | Positive | Pseudovirus-nAb ID80 | 70 | 19.31 (15.62, 23.87) |
| Age < 65 Female | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 201 | 114.73 (83.20, 158.20) |
| Age < 65 Female | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 201 | 3714.56 (2870.02, 4807.62) |
| Age < 65 Female | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 201 | 2331.29 (1851.47, 2935.44) |
| Age < 65 Female | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 201 | 344.75 (287.42, 413.53) |
| Age < 65 Female | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID80 | 201 | 522.37 (443.42, 615.38) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|-----------------|--------|---------|---------------------|------------------------|----|---------------------------------|
| Age < 65 Female | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 66 | 573.17 (312.85, 1050.10) |
| Age < 65 Female | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 66 | 13231.73 (8582.30, 20399.99) |
| Age < 65 Female | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 66 | 8410.23 (5726.22, 12352.28) |
| Age < 65 Female | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 66 | 1072.88 (778.33, 1478.90) |
| Age < 65 Female | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID80 | 66 | 1433.60 (1138.13, 1805.77) |
| Age < 65 Female | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 38 | 0.05 (0.05, 0.05) |
| Age < 65 Female | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 38 | 0.80 (0.80, 0.80) |
| Age < 65 Female | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 38 | 0.15 (0.15, 0.15) |
| Age < 65 Female | Day 57 | Placebo | Negative | Pseudovirus-nAb ID50 | 38 | 1.25 (1.18, 1.32) |
| Age < 65 Female | Day 57 | Placebo | Negative | Pseudovirus-nAb ID80 | 38 | 7.51 (7.51, 7.51) |
| Age < 65 Female | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 70 | 125.93 (71.58, 221.53) |
| Age < 65 Female | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 70 | 2496.01 (1579.81, 3943.57) |
| Age < 65 Female | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 70 | 1564.76 (1020.53, 2399.22) |
| Age < 65 Female | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 70 | 294.59 (221.56, 391.68) |
| Age < 65 Female | Day 57 | Placebo | Positive | Pseudovirus-nAb ID80 | 70 | 441.33 (340.60, 571.85) |

(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 | 1.21 (1.21, 1.21) |
| Age < 65 Male | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 156 | 7.51 (7.51, 7.51) |
| Age < 65 Male | Day 1 | Vaccine | Positive | Anti N IgG (IU/ml) | 48 | 0.05 (0.05, 0.05) |
| Age < 65 Male | Day 1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 48 | 0.80 (0.80, 0.80) |
| Age < 65 Male | Day 1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 48 | 0.16 (0.15, 0.16) |
| Age < 65 Male | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 48 | 1.68 (1.42, 1.98) |
| Age < 65 Male | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 48 | 9.87 (8.25, 11.81) |
| Age < 65 Male | Day 1 | Placebo | Negative | Anti N IgG (IU/ml) | 34 | 0.05 (0.05, 0.05) |
| Age < 65 Male | Day 1 | Placebo | Negative | Anti RBD IgG (IU/ml) | 34 | 0.80 (0.80, 0.80) |
| Age < 65 Male | Day 1 | Placebo | Negative | Anti Spike IgG (IU/ml) | 34 | 0.15 (0.15, 0.15) |
| Age < 65 Male | Day 1 | Placebo | Negative | Pseudovirus-nAb ID50 | 34 | 1.21 (1.21, 1.21) |
| Age < 65 Male | Day 1 | Placebo | Negative | Pseudovirus-nAb ID80 | 34 | 7.86 (7.37, 8.38) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|---------------|--------|---------|---------------------|------------------------|-----|----------------------------|
| Age < 65 Male | Day 1 | Placebo | Positive | Anti N IgG (IU/ml) | 50 | 0.05 (0.05, 0.05) |
| Age < 65 Male | Day 1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 50 | 0.80 (0.80, 0.80) |
| Age < 65 Male | Day 1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 50 | 0.15 (0.15, 0.15) |
| Age < 65 Male | Day 1 | Placebo | Positive | Pseudovirus-nAb ID50 | 50 | 1.41 (1.24, 1.60) |
| Age < 65 Male | Day 1 | Placebo | Positive | Pseudovirus-nAb ID80 | 50 | 10.36 (9.00, 11.93) |
| Age < 65 Male | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 156 | 29.43 (20.59, 42.07) |
| Age < 65 Male | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 156 | 339.74 (264.28, 436.75) |
| Age < 65 Male | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 156 | 187.30 (152.65, 229.82) |
| Age < 65 Male | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID50 | 156 | 15.17 (12.78, 18.00) |
| Age < 65 Male | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID80 | 156 | 23.11 (19.75, 27.04) |
| Age < 65 Male | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 48 | 59.00 (34.31, 101.47) |
| Age < 65 Male | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 48 | 444.98 (273.94, 722.80) |
| Age < 65 Male | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 48 | 328.29 (237.15, 454.44) |
| Age < 65 Male | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 48 | 24.56 (18.23, 33.09) |
| Age < 65 Male | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID80 | 48 | 43.94 (33.90, 56.95) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|---------------|--------|---------|---------------------|------------------------|-----|-------------------------------|
| Age < 65 Male | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 34 | 0.05 (0.05, 0.05) |
| Age < 65 Male | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 34 | 0.80 (0.80, 0.80) |
| Age < 65 Male | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 34 | 0.15 (0.15, 0.15) |
| Age < 65 Male | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 34 | 1.21 (1.21, 1.21) |
| Age < 65 Male | Day 29 | Placebo | Negative | Pseudovirus-nAb ID80 | 34 | 7.51 (7.51, 7.51) |
| Age < 65 Male | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 50 | 17.18 (9.56, 30.90) |
| Age < 65 Male | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 50 | 209.48 (126.34, 347.35) |
| Age < 65 Male | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 50 | 126.72 (83.31, 192.75) |
| Age < 65 Male | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 50 | 9.11 (6.59, 12.58) |
| Age < 65 Male | Day 29 | Placebo | Positive | Pseudovirus-nAb ID80 | 50 | 18.42 (14.40, 23.56) |
| Age < 65 Male | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 156 | 135.59 (90.77, 202.55) |
| Age < 65 Male | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 156 | 2906.70 (2231.61, 3786.02) |
| Age < 65 Male | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 156 | 2410.90 (1867.20, 3112.93) |
| Age < 65 Male | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 156 | 374.41 (308.74, 454.06) |
| Age < 65 Male | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID80 | 156 | 500.34 (417.13, 600.16) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|---------------|--------|---------|---------------------|------------------------|----|---------------------------------|
| Age < 65 Male | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 48 | 384.85 (204.57, 724.01) |
| Age < 65 Male | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 48 | 10837.65 (6781.54, 17319.77) |
| Age < 65 Male | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 48 | 7573.48 (5159.23, 11117.48) |
| Age < 65 Male | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 48 | 1066.04 (695.25, 1634.57) |
| Age < 65 Male | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID80 | 48 | 1447.90 (1051.53, 1993.70) |
| Age < 65 Male | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 34 | 0.05 (0.05, 0.05) |
| Age < 65 Male | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 34 | 0.80 (0.80, 0.80) |
| Age < 65 Male | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 34 | 0.15 (0.15, 0.15) |
| Age < 65 Male | Day 57 | Placebo | Negative | Pseudovirus-nAb ID50 | 34 | 1.23 (1.19, 1.28) |
| Age < 65 Male | Day 57 | Placebo | Negative | Pseudovirus-nAb ID80 | 34 | 7.51 (7.51, 7.51) |
| Age < 65 Male | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 50 | 77.78 (37.60, 160.89) |
| Age < 65 Male | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 50 | 1581.64 (956.49, 2615.38) |
| Age < 65 Male | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 50 | 1619.50 (968.96, 2706.81) |
| Age < 65 Male | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 50 | 215.77 (146.34, 318.14) |
| Age < 65 Male | Day 57 | Placebo | Positive | Pseudovirus-nAb ID80 | 50 | 386.48 (288.77, 517.25) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|---------------|-------|---------|---------------------|------------------------|-----|----------------------|
| Age ≥ 65 Male | Day 1 | Vaccine | Negative | Anti N IgG (IU/ml) | 164 | 0.05 (0.05, 0.05) |
| Age ≥ 65 Male | Day 1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 164 | 0.80 (0.80, 0.80) |
| Age ≥ 65 Male | Day 1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 164 | 0.15 (0.15, 0.15) |
| Age ≥ 65 Male | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 164 | 1.21 (1.21, 1.21) |
| Age ≥ 65 Male | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 164 | 7.51 (7.51, 7.51) |
| Age ≥ 65 Male | Day 1 | Vaccine | Positive | Anti N IgG (IU/ml) | 47 | 0.05 (0.04, 0.05) |
| Age ≥ 65 Male | Day 1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 47 | 0.80 (0.80, 0.80) |
| Age ≥ 65 Male | Day 1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 47 | 0.15 (0.15, 0.15) |
| Age ≥ 65 Male | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 47 | 1.66 (1.37, 2.00) |
| Age ≥ 65 Male | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 47 | 8.60 (7.70, 9.62) |
| Age ≥ 65 Male | Day 1 | Placebo | Negative | Anti N IgG (IU/ml) | 29 | 0.05 (0.05, 0.05) |
| Age ≥ 65 Male | Day 1 | Placebo | Negative | Anti RBD IgG (IU/ml) | 29 | 0.80 (0.80, 0.80) |
| Age ≥ 65 Male | Day 1 | Placebo | Negative | Anti Spike IgG (IU/ml) | 29 | 0.15 (0.15, 0.15) |
| Age ≥ 65 Male | Day 1 | Placebo | Negative | Pseudovirus-nAb ID50 | 29 | 1.21 (1.21, 1.21) |
| Age ≥ 65 Male | Day 1 | Placebo | Negative | Pseudovirus-nAb ID80 | 29 | 7.51 (7.51, 7.51) |

(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) | 58 | 0.05 (0.05, 0.05) |
| Age \geq 65 Male | Day 1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 58 | 0.81 (0.78, 0.84) |
| Age \geq 65 Male | Day 1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 58 | 0.15 (0.15, 0.15) |
| Age \geq 65 Male | Day 1 | Placebo | Positive | Pseudovirus-nAb ID50 | 58 | 1.55 (1.37, 1.76) |
| Age \geq 65 Male | Day 1 | Placebo | Positive | Pseudovirus-nAb ID80 | 58 | 9.29 (8.10, 10.65) |
| Age \geq 65 Male | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 164 | 101.43 (77.47, 132.81) |
| Age \geq 65 Male | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 164 | 1405.41 (1112.39, 1775.62) |
| Age \geq 65 Male | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 164 | 777.59 (649.48, 930.96) |
| Age \geq 65 Male | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID50 | 164 | 26.89 (23.31, 31.02) |
| Age \geq 65 Male | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID80 | 164 | 36.83 (31.81, 42.63) |
| Age \geq 65 Male | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 47 | 259.42 (147.00, 457.81) |
| Age \geq 65 Male | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 47 | 3422.86 (2178.46, 5378.10) |
| Age \geq 65 Male | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 47 | 1428.51 (1027.92, 1985.21) |
| Age \geq 65 Male | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 47 | 62.61 (46.81, 83.75) |
| Age \geq 65 Male | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID80 | 47 | 57.47 (44.46, 74.29) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|---------------|--------|---------|---------------------|------------------------|-----|----------------------------------|
| Age ≥ 65 Male | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 29 | 0.05 (0.05, 0.05) |
| Age ≥ 65 Male | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 29 | 0.80 (0.80, 0.80) |
| Age ≥ 65 Male | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 29 | 0.15 (0.15, 0.15) |
| Age ≥ 65 Male | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 29 | 1.21 (1.21, 1.21) |
| Age ≥ 65 Male | Day 29 | Placebo | Negative | Pseudovirus-nAb ID80 | 29 | 7.51 (7.51, 7.51) |
| Age ≥ 65 Male | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 58 | 76.80 (50.51, 116.79) |
| Age ≥ 65 Male | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 58 | 1041.94 (729.11, 1488.98) |
| Age ≥ 65 Male | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 58 | 518.70 (393.95, 682.95) |
| Age ≥ 65 Male | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 58 | 18.59 (14.96, 23.11) |
| Age ≥ 65 Male | Day 29 | Placebo | Positive | Pseudovirus-nAb ID80 | 58 | 25.87 (20.55, 32.57) |
| Age ≥ 65 Male | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 164 | 498.06 (364.76, 680.08) |
| Age ≥ 65 Male | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 164 | 17661.59 (13716.78, 22740.88) |
| Age ≥ 65 Male | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 164 | 13072.56 (10513.04, 16255.22) |
| Age ≥ 65 Male | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 164 | 825.07 (691.94, 983.81) |
| Age ≥ 65 Male | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID80 | 164 | 747.39 (639.52, 873.46) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|---------------|--------|---------|---------------------|------------------------|----|----------------------------------|
| Age ≥ 65 Male | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 47 | 2524.36 (1375.71, 4632.06) |
| Age ≥ 65 Male | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 47 | 59673.02 (36223.25, 98303.40) |
| Age ≥ 65 Male | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 47 | 33151.92 (21828.30, 50349.78) |
| Age ≥ 65 Male | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 47 | 2390.44 (1693.45, 3374.29) |
| Age ≥ 65 Male | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID80 | 47 | 2045.76 (1495.80, 2797.92) |
| Age ≥ 65 Male | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 29 | 0.05 (0.05, 0.05) |
| Age ≥ 65 Male | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 29 | 0.80 (0.80, 0.80) |
| Age ≥ 65 Male | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 29 | 0.15 (0.15, 0.15) |
| Age ≥ 65 Male | Day 57 | Placebo | Negative | Pseudovirus-nAb ID50 | 29 | 1.21 (1.21, 1.21) |
| Age ≥ 65 Male | Day 57 | Placebo | Negative | Pseudovirus-nAb ID80 | 29 | 7.51 (7.51, 7.51) |
| Age ≥ 65 Male | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 58 | 343.06 (197.27, 596.59) |
| Age ≥ 65 Male | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 58 | 14599.56 (10069.02, 21168.62) |
| Age ≥ 65 Male | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 58 | 10038.45 (7048.36, 14297.03) |
| Age ≥ 65 Male | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 58 | 595.51 (450.41, 787.35) |
| Age ≥ 65 Male | Day 57 | Placebo | Positive | Pseudovirus-nAb ID80 | 58 | 615.46 (481.20, 787.17) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|-----------------|-------|---------|---------------------|------------------------|-----|-----------------------|
| Age ≥ 65 Female | Day 1 | Vaccine | Negative | Anti N IgG (IU/ml) | 226 | 0.05 (0.05, 0.05) |
| Age ≥ 65 Female | Day 1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 226 | 0.80 (0.80, 0.80) |
| Age ≥ 65 Female | Day 1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 226 | 0.15 (0.15, 0.15) |
| Age ≥ 65 Female | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 226 | 1.21 (1.21, 1.21) |
| Age ≥ 65 Female | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 226 | 7.51 (7.51, 7.51) |
| Age ≥ 65 Female | Day 1 | Vaccine | Positive | Anti N IgG (IU/ml) | 73 | 0.05 (0.05, 0.05) |
| Age ≥ 65 Female | Day 1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 73 | 0.80 (0.80, 0.80) |
| Age ≥ 65 Female | Day 1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 73 | 0.15 (0.15, 0.15) |
| Age ≥ 65 Female | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 73 | 1.43 (1.29, 1.59) |
| Age ≥ 65 Female | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 73 | 9.69 (8.66, 10.85) |
| Age ≥ 65 Female | Day 1 | Placebo | Negative | Anti N IgG (IU/ml) | 37 | 0.05 (0.05, 0.05) |
| Age ≥ 65 Female | Day 1 | Placebo | Negative | Anti RBD IgG (IU/ml) | 37 | 0.80 (0.80, 0.80) |
| Age ≥ 65 Female | Day 1 | Placebo | Negative | Anti Spike IgG (IU/ml) | 37 | 0.15 (0.15, 0.15) |
| Age ≥ 65 Female | Day 1 | Placebo | Negative | Pseudovirus-nAb ID50 | 37 | 1.21 (1.21, 1.21) |
| Age ≥ 65 Female | Day 1 | Placebo | Negative | Pseudovirus-nAb ID80 | 37 | 7.62 (7.41, 7.84) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|----------------------|--------|---------|---------------------|------------------------|-----|-------------------------------|
| Age \geq 65 Female | Day 1 | Placebo | Positive | Anti N IgG (IU/ml) | 63 | 0.05 (0.05, 0.06) |
| Age \geq 65 Female | Day 1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 63 | 0.81 (0.78, 0.85) |
| Age \geq 65 Female | Day 1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 63 | 0.15 (0.15, 0.15) |
| Age \geq 65 Female | Day 1 | Placebo | Positive | Pseudovirus-nAb ID50 | 63 | 1.77 (1.51, 2.07) |
| Age \geq 65 Female | Day 1 | Placebo | Positive | Pseudovirus-nAb ID80 | 63 | 9.10 (7.97, 10.39) |
| Age \geq 65 Female | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 226 | 107.86 (86.26, 134.86) |
| Age \geq 65 Female | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 226 | 1383.06 (1142.45, 1674.34) |
| Age \geq 65 Female | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 226 | 815.18 (686.33, 968.24) |
| Age \geq 65 Female | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID50 | 226 | 29.44 (26.22, 33.07) |
| Age \geq 65 Female | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID80 | 226 | 38.55 (34.44, 43.16) |
| Age \geq 65 Female | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 73 | 181.28 (130.29, 252.23) |
| Age \geq 65 Female | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 73 | 2515.69 (1904.03, 3323.83) |
| Age \geq 65 Female | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 73 | 1531.27 (1200.95, 1952.46) |
| Age \geq 65 Female | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 73 | 50.31 (42.13, 60.07) |
| Age \geq 65 Female | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID80 | 73 | 66.32 (53.42, 82.34) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|-----------------|--------|---------|---------------------|------------------------|-----|----------------------------------|
| Age ≥ 65 Female | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 37 | 0.05 (0.05, 0.05) |
| Age ≥ 65 Female | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 37 | 0.80 (0.80, 0.80) |
| Age ≥ 65 Female | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 37 | 0.15 (0.15, 0.15) |
| Age ≥ 65 Female | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 37 | 1.25 (1.17, 1.33) |
| Age ≥ 65 Female | Day 29 | Placebo | Negative | Pseudovirus-nAb ID80 | 37 | 7.51 (7.51, 7.51) |
| Age ≥ 65 Female | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 63 | 75.63 (51.24, 111.63) |
| Age ≥ 65 Female | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 63 | 931.81 (633.65, 1370.27) |
| Age ≥ 65 Female | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 63 | 542.43 (412.65, 713.03) |
| Age ≥ 65 Female | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 63 | 19.91 (16.26, 24.38) |
| Age ≥ 65 Female | Day 29 | Placebo | Positive | Pseudovirus-nAb ID80 | 63 | 26.44 (21.70, 32.20) |
| Age ≥ 65 Female | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 226 | 594.88 (449.10, 787.98) |
| Age ≥ 65 Female | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 226 | 17921.58 (14230.07, 22570.72) |
| Age ≥ 65 Female | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 226 | 12667.33 (10427.44, 15388.36) |
| Age ≥ 65 Female | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 226 | 846.57 (721.74, 993.00) |
| Age ≥ 65 Female | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID80 | 226 | 865.89 (756.54, 991.05) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|-----------------|--------|---------|---------------------|------------------------|----|----------------------------------|
| Age ≥ 65 Female | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 73 | 1744.00 (1096.73, 2773.29) |
| Age ≥ 65 Female | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 73 | 55919.99 (38298.44, 81649.43) |
| Age ≥ 65 Female | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 73 | 33279.22 (24477.15, 45246.55) |
| Age ≥ 65 Female | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 73 | 2338.08 (1790.89, 3052.46) |
| Age ≥ 65 Female | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID80 | 73 | 2213.46 (1752.04, 2796.39) |
| Age ≥ 65 Female | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 37 | 0.05 (0.05, 0.05) |
| Age ≥ 65 Female | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 37 | 0.80 (0.80, 0.80) |
| Age ≥ 65 Female | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 37 | 0.15 (0.15, 0.15) |
| Age ≥ 65 Female | Day 57 | Placebo | Negative | Pseudovirus-nAb ID50 | 37 | 1.30 (1.19, 1.43) |
| Age ≥ 65 Female | Day 57 | Placebo | Negative | Pseudovirus-nAb ID80 | 37 | 7.69 (7.35, 8.05) |
| Age ≥ 65 Female | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 63 | 401.40 (233.83, 689.05) |
| Age ≥ 65 Female | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 63 | 13997.56 (9354.70, 20944.71) |
| Age ≥ 65 Female | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 63 | 9533.48 (6959.53, 13059.39) |
| Age ≥ 65 Female | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 63 | 663.91 (508.79, 866.33) |
| Age ≥ 65 Female | Day 57 | Placebo | Positive | Pseudovirus-nAb ID80 | 63 | 680.56 (538.86, 859.51) |

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) | 99 | 0.05 (0.05, 0.05) |
| Hispanic or Latino | Day 1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 99 | 0.80 (0.80, 0.80) |
| Hispanic or Latino | Day 1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 99 | 0.15 (0.15, 0.15) |
| Hispanic or Latino | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 99 | 1.21 (1.21, 1.21) |
| Hispanic or Latino | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 99 | 7.51 (7.51, 7.51) |
| Hispanic or Latino | Day 1 | Vaccine | Positive | Anti N IgG (IU/ml) | 31 | 0.05 (0.05, 0.05) |
| Hispanic or Latino | Day 1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 31 | 0.80 (0.80, 0.80) |
| Hispanic or Latino | Day 1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 31 | 0.15 (0.15, 0.15) |
| Hispanic or Latino | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 31 | 1.30 (1.20, 1.41) |
| Hispanic or Latino | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 31 | 8.94 (7.17, 11.14) |
| Hispanic or Latino | Day 1 | Placebo | Negative | Anti N IgG (IU/ml) | 20 | 0.05 (0.05, 0.05) |
| Hispanic or Latino | Day 1 | Placebo | Negative | Anti RBD IgG (IU/ml) | 20 | 0.80 (0.80, 0.80) |
| Hispanic or Latino | Day 1 | Placebo | Negative | Anti Spike IgG (IU/ml) | 20 | 0.15 (0.15, 0.15) |
| Hispanic or Latino | Day 1 | Placebo | Negative | Pseudovirus-nAb ID50 | 20 | 1.21 (1.21, 1.21) |
| Hispanic or Latino | Day 1 | Placebo | Negative | Pseudovirus-nAb ID80 | 20 | 8.68 (6.92, 10.87) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|--------------------|--------|---------|---------------------|------------------------|----|------------------------------|
| Hispanic or Latino | Day 1 | Placebo | Positive | Anti N IgG (IU/ml) | 34 | 0.05 (0.05, 0.05) |
| Hispanic or Latino | Day 1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 34 | 0.81 (0.79, 0.83) |
| Hispanic or Latino | Day 1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 34 | 0.15 (0.15, 0.15) |
| Hispanic or Latino | Day 1 | Placebo | Positive | Pseudovirus-nAb ID50 | 34 | 1.56 (1.22, 2.01) |
| Hispanic or Latino | Day 1 | Placebo | Positive | Pseudovirus-nAb ID80 | 34 | 11.37 (8.64, 14.96) |
| Hispanic or Latino | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 99 | 46.32 (28.82, 74.43) |
| Hispanic or Latino | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 99 | 502.10 (352.24, 715.72) |
| Hispanic or Latino | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 99 | 338.02 (242.86, 470.47) |
| Hispanic or Latino | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID50 | 99 | 18.49 (14.43, 23.71) |
| Hispanic or Latino | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID80 | 99 | 30.05 (24.15, 37.41) |
| Hispanic or Latino | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 31 | 43.00 (20.21, 91.49) |
| Hispanic or Latino | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 31 | 1004.65 (484.57, 2082.93) |
| Hispanic or Latino | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 31 | 442.54 (245.55, 797.58) |
| Hispanic or Latino | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 31 | 22.57 (15.32, 33.26) |
| Hispanic or Latino | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID80 | 31 | 38.37 (24.64, 59.75) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|--------------------|--------|---------|---------------------|------------------------|----|-------------------------------|
| Hispanic or Latino | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 20 | 0.05 (0.05, 0.05) |
| Hispanic or Latino | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 20 | 0.80 (0.80, 0.80) |
| Hispanic or Latino | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 20 | 0.15 (0.15, 0.15) |
| Hispanic or Latino | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 20 | 1.21 (1.21, 1.21) |
| Hispanic or Latino | Day 29 | Placebo | Negative | Pseudovirus-nAb ID80 | 20 | 7.51 (7.51, 7.51) |
| Hispanic or Latino | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 34 | 25.54 (13.70, 47.59) |
| Hispanic or Latino | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 34 | 338.50 (176.86, 647.86) |
| Hispanic or Latino | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 34 | 173.67 (111.05, 271.61) |
| Hispanic or Latino | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 34 | 10.06 (6.98, 14.48) |
| Hispanic or Latino | Day 29 | Placebo | Positive | Pseudovirus-nAb ID80 | 34 | 21.37 (15.55, 29.37) |
| Hispanic or Latino | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 99 | 162.78 (90.74, 292.01) |
| Hispanic or Latino | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 99 | 6188.84 (4091.31, 9361.73) |
| Hispanic or Latino | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 99 | 4186.98 (2879.54, 6088.08) |
| Hispanic or Latino | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 99 | 567.55 (425.73, 756.63) |
| Hispanic or Latino | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID80 | 99 | 690.79 (533.04, 895.23) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|--------------------|--------|---------|---------------------|------------------------|----|---------------------------------|
| Hispanic or Latino | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 31 | 483.42 (160.82, 1453.11) |
| Hispanic or Latino | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 31 | 10296.90 (5080.81, 20867.99) |
| Hispanic or Latino | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 31 | 7610.09 (3673.58, 15764.86) |
| Hispanic or Latino | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 31 | 888.60 (580.47, 1360.29) |
| Hispanic or Latino | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID80 | 31 | 1748.56 (1094.71, 2792.95) |
| Hispanic or Latino | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 20 | 0.05 (0.05, 0.05) |
| Hispanic or Latino | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 20 | 0.80 (0.80, 0.80) |
| Hispanic or Latino | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 20 | 0.15 (0.15, 0.15) |
| Hispanic or Latino | Day 57 | Placebo | Negative | Pseudovirus-nAb ID50 | 20 | 1.35 (1.15, 1.59) |
| Hispanic or Latino | Day 57 | Placebo | Negative | Pseudovirus-nAb ID80 | 20 | 7.80 (7.24, 8.39) |
| Hispanic or Latino | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 34 | 128.60 (56.95, 290.39) |
| Hispanic or Latino | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 34 | 3323.85 (1770.49, 6240.10) |
| Hispanic or Latino | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 34 | 2202.73 (1326.45, 3657.89) |
| Hispanic or Latino | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 34 | 349.80 (194.63, 628.69) |
| Hispanic or Latino | Day 57 | Placebo | Positive | Pseudovirus-nAb ID80 | 34 | 487.73 (302.81, 785.59) |

(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) | 623 | 0.05 (0.05, 0.05) |
| Not Hispanic or Latino | Day 1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 623 | 0.80 (0.80, 0.80) |
| Not Hispanic or Latino | Day 1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 623 | 0.15 (0.15, 0.15) |
| Not Hispanic or Latino | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 623 | 1.21 (1.21, 1.21) |
| Not Hispanic or Latino | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 623 | 7.51 (7.51, 7.51) |
| Not Hispanic or Latino | Day 1 | Vaccine | Positive | Anti N IgG (IU/ml) | 194 | 0.05 (0.05, 0.05) |
| Not Hispanic or Latino | Day 1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 194 | 0.82 (0.79, 0.84) |
| Not Hispanic or Latino | Day 1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 194 | 0.16 (0.15, 0.16) |
| Not Hispanic or Latino | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 194 | 1.70 (1.53, 1.90) |
| Not Hispanic or Latino | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 194 | 9.92 (8.97, 10.97) |
| Not Hispanic or Latino | Day 1 | Placebo | Negative | Anti N IgG (IU/ml) | 113 | 0.05 (0.05, 0.05) |
| Not Hispanic or Latino | Day 1 | Placebo | Negative | Anti RBD IgG (IU/ml) | 113 | 0.80 (0.80, 0.80) |
| Not Hispanic or Latino | Day 1 | Placebo | Negative | Anti Spike IgG (IU/ml) | 113 | 0.15 (0.15, 0.15) |
| Not Hispanic or Latino | Day 1 | Placebo | Negative | Pseudovirus-nAb ID50 | 113 | 1.21 (1.21, 1.22) |
| Not Hispanic or Latino | Day 1 | Placebo | Negative | Pseudovirus-nAb ID80 | 113 | 7.56 (7.46, 7.67) |

(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) | 201 | 0.05 (0.05, 0.05) |
| Not Hispanic or Latino | Day 1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 201 | 0.80 (0.79, 0.80) |
| Not Hispanic or Latino | Day 1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 201 | 0.15 (0.15, 0.16) |
| Not Hispanic or Latino | Day 1 | Placebo | Positive | Pseudovirus-nAb ID50 | 201 | 1.66 (1.49, 1.85) |
| Not Hispanic or Latino | Day 1 | Placebo | Positive | Pseudovirus-nAb ID80 | 201 | 9.51 (8.74, 10.34) |
| Not Hispanic or Latino | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 623 | 38.39 (31.70, 46.50) |
| Not Hispanic or Latino | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 623 | 466.22 (401.27, 541.69) |
| Not Hispanic or Latino | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 623 | 258.55 (229.78, 290.93) |
| Not Hispanic or Latino | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID50 | 623 | 17.21 (15.60, 18.99) |
| Not Hispanic or Latino | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID80 | 623 | 25.58 (23.47, 27.88) |
| Not Hispanic or Latino | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 194 | 85.41 (63.37, 115.13) |
| Not Hispanic or Latino | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 194 | 805.15 (610.19, 1062.40) |
| Not Hispanic or Latino | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 194 | 462.89 (383.82, 558.25) |
| Not Hispanic or Latino | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 194 | 33.52 (28.49, 39.45) |
| Not Hispanic or Latino | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID80 | 194 | 51.70 (44.84, 59.62) |

(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) | 113 | 0.05 (0.05, 0.05) |
| Not Hispanic or Latino | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 113 | 0.80 (0.80, 0.80) |
| Not Hispanic or Latino | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 113 | 0.15 (0.15, 0.15) |
| Not Hispanic or Latino | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 113 | 1.22 (1.20, 1.23) |
| Not Hispanic or Latino | Day 29 | Placebo | Negative | Pseudovirus-nAb ID80 | 113 | 7.51 (7.51, 7.51) |
| Not Hispanic or Latino | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 201 | 27.97 (20.22, 38.70) |
| Not Hispanic or Latino | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 201 | 303.85 (222.61, 414.76) |
| Not Hispanic or Latino | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 201 | 171.82 (134.06, 220.21) |
| Not Hispanic or Latino | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 201 | 11.72 (9.73, 14.12) |
| Not Hispanic or Latino | Day 29 | Placebo | Positive | Pseudovirus-nAb ID80 | 201 | 20.30 (17.53, 23.50) |
| Not Hispanic or Latino | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 623 | 169.83 (136.22, 211.74) |
| Not Hispanic or Latino | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 623 | 4600.05 (3897.55, 5429.17) |
| Not Hispanic or Latino | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 623 | 3277.33 (2816.17, 3814.02) |
| Not Hispanic or Latino | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 623 | 412.28 (366.72, 463.51) |
| Not Hispanic or Latino | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID80 | 623 | 551.24 (495.10, 613.75) |

(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) | 194 | 637.57 (432.60, 939.64) |
| Not Hispanic or Latino | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 194 | 16777.78 (12636.54, 22276.19) |
| Not Hispanic or Latino | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 194 | 10681.93 (8474.58, 13464.24) |
| Not Hispanic or Latino | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 194 | 1278.57 (1013.95, 1612.25) |
| Not Hispanic or Latino | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID80 | 194 | 1545.15 (1306.41, 1827.53) |
| Not Hispanic or Latino | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 113 | 0.05 (0.05, 0.05) |
| Not Hispanic or Latino | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 113 | 0.80 (0.80, 0.80) |
| Not Hispanic or Latino | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 113 | 0.15 (0.15, 0.15) |
| Not Hispanic or Latino | Day 57 | Placebo | Negative | Pseudovirus-nAb ID50 | 113 | 1.24 (1.20, 1.27) |
| Not Hispanic or Latino | Day 57 | Placebo | Negative | Pseudovirus-nAb ID80 | 113 | 7.51 (7.51, 7.51) |
| Not Hispanic or Latino | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 201 | 140.31 (93.26, 211.10) |
| Not Hispanic or Latino | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 201 | 2986.56 (2181.24, 4089.20) |
| Not Hispanic or Latino | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 201 | 2446.19 (1807.34, 3310.86) |
| Not Hispanic or Latino | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 201 | 304.11 (247.38, 373.85) |
| Not Hispanic or Latino | Day 57 | Placebo | Positive | Pseudovirus-nAb ID80 | 201 | 451.25 (381.67, 533.51) |

(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) | 25 | 0.05 (0.05, 0.05) |
| Not reported and unknown | Day 1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 25 | 0.80 (0.80, 0.80) |
| Not reported and unknown | Day 1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 25 | 0.15 (0.15, 0.15) |
| Not reported and unknown | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 25 | 1.21 (1.21, 1.21) |
| Not reported and unknown | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 25 | 7.51 (7.51, 7.51) |
| Not reported and unknown | Day 1 | Vaccine | Positive | Anti N IgG (IU/ml) | 9 | 0.05 (0.04, 0.05) |
| Not reported and unknown | Day 1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 9 | 0.80 (0.80, 0.80) |
| Not reported and unknown | Day 1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 9 | 0.15 (0.15, 0.15) |
| Not reported and unknown | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 9 | 1.96 (1.01, 3.81) |
| Not reported and unknown | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 9 | 12.12 (7.72, 19.04) |
| Not reported and unknown | Day 1 | Placebo | Negative | Anti N IgG (IU/ml) | 5 | 0.05 (0.05, 0.05) |
| Not reported and unknown | Day 1 | Placebo | Negative | Anti RBD IgG (IU/ml) | 5 | 0.80 (0.80, 0.80) |
| Not reported and unknown | Day 1 | Placebo | Negative | Anti Spike IgG (IU/ml) | 5 | 0.15 (0.15, 0.15) |
| Not reported and unknown | Day 1 | Placebo | Negative | Pseudovirus-nAb ID50 | 5 | 1.21 (1.21, 1.21) |
| Not reported and unknown | Day 1 | Placebo | Negative | Pseudovirus-nAb ID80 | 5 | 10.55 (6.25, 17.81) |

(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) | 6 | 0.05 (0.05, 0.05) |
| Not reported and unknown | Day 1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 6 | 0.80 (0.80, 0.80) |
| Not reported and unknown | Day 1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 6 | 0.15 (0.15, 0.15) |
| Not reported and unknown | Day 1 | Placebo | Positive | Pseudovirus-nAb ID50 | 6 | 1.21 (1.21, 1.21) |
| Not reported and unknown | Day 1 | Placebo | Positive | Pseudovirus-nAb ID80 | 6 | 17.05 (8.42, 34.53) |
| Not reported and unknown | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 25 | 55.82 (28.97, 107.55) |
| Not reported and unknown | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 25 | 884.05 (622.13, 1256.23) |
| Not reported and unknown | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 25 | 363.19 (173.61, 759.79) |
| Not reported and unknown | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID50 | 25 | 19.70 (13.53, 28.69) |
| Not reported and unknown | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID80 | 25 | 27.32 (16.34, 45.68) |
| Not reported and unknown | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 9 | 161.82 (17.77, 1473.20) |
| Not reported and unknown | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 9 | 2628.59 (831.44, 8310.29) |
| Not reported and unknown | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 9 | 1546.38 (962.33, 2484.89) |
| Not reported and unknown | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 9 | 48.00 (17.20, 133.97) |
| Not reported and unknown | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID80 | 9 | 105.37 (26.78, 414.58) |

(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) | 5 | 0.05 (0.05, 0.05) |
| Not reported and unknown | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 5 | 0.80 (0.80, 0.80) |
| Not reported and unknown | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 5 | 0.15 (0.15, 0.15) |
| Not reported and unknown | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 5 | 1.21 (1.21, 1.21) |
| Not reported and unknown | Day 29 | Placebo | Negative | Pseudovirus-nAb ID80 | 5 | 7.51 (7.51, 7.51) |
| Not reported and unknown | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 6 | 16.17 (2.67, 97.74) |
| Not reported and unknown | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 6 | 170.13 (66.82, 433.17) |
| Not reported and unknown | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 6 | 96.72 (31.92, 293.01) |
| Not reported and unknown | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 6 | 7.98 (3.59, 17.74) |
| Not reported and unknown | Day 29 | Placebo | Positive | Pseudovirus-nAb ID80 | 6 | 13.28 (7.98, 22.11) |
| Not reported and unknown | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 25 | 174.92 (72.92, 419.62) |
| Not reported and unknown | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 25 | 6861.47 (3804.55, 12374.59) |
| Not reported and unknown | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 25 | 5091.79 (2619.11, 9898.91) |
| Not reported and unknown | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 25 | 586.32 (417.72, 822.95) |
| Not reported and unknown | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID80 | 25 | 694.34 (509.90, 945.49) |

(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) | 9 | 4104.21 (792.29, 21260.50) |
| Not reported and unknown | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 9 | 86647.47 (19862.74, 377983.34) |
| Not reported and unknown | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 9 | 50715.42 (3247.12, 792103.36) |
| Not reported and unknown | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 9 | 2378.74 (1267.08, 4465.69) |
| Not reported and unknown | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID80 | 9 | 1529.62 (981.77, 2383.18) |
| Not reported and unknown | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 5 | 0.05 (0.05, 0.05) |
| Not reported and unknown | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 5 | 0.80 (0.80, 0.80) |
| Not reported and unknown | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 5 | 0.15 (0.15, 0.15) |
| Not reported and unknown | Day 57 | Placebo | Negative | Pseudovirus-nAb ID50 | 5 | 1.21 (1.21, 1.21) |
| Not reported and unknown | Day 57 | Placebo | Negative | Pseudovirus-nAb ID80 | 5 | 7.51 (7.51, 7.51) |
| Not reported and unknown | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 6 | 27.10 (2.29, 321.28) |
| Not reported and unknown | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 6 | 4119.35 (942.68, 18000.89) |
| Not reported and unknown | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 6 | 416.74 (91.60, 1895.90) |
| Not reported and unknown | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 6 | 286.72 (91.74, 896.14) |
| Not reported and unknown | Day 57 | Placebo | Positive | Pseudovirus-nAb ID80 | 6 | 467.99 (138.35, 1583.06) |

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) | 370 | 0.05 (0.05, 0.05) |
| White Non-Hispanic | Day 1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 370 | 0.80 (0.80, 0.80) |
| White Non-Hispanic | Day 1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 370 | 0.15 (0.15, 0.15) |
| White Non-Hispanic | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 370 | 1.21 (1.21, 1.21) |
| White Non-Hispanic | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 370 | 7.51 (7.51, 7.51) |
| White Non-Hispanic | Day 1 | Vaccine | Positive | Anti N IgG (IU/ml) | 118 | 0.05 (0.05, 0.05) |
| White Non-Hispanic | Day 1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 118 | 0.83 (0.79, 0.87) |
| White Non-Hispanic | Day 1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 118 | 0.15 (0.15, 0.15) |
| White Non-Hispanic | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 118 | 1.71 (1.48, 1.97) |
| White Non-Hispanic | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 118 | 10.90 (9.44, 12.59) |
| White Non-Hispanic | Day 1 | Placebo | Negative | Anti N IgG (IU/ml) | 63 | 0.05 (0.05, 0.05) |
| White Non-Hispanic | Day 1 | Placebo | Negative | Anti RBD IgG (IU/ml) | 63 | 0.80 (0.80, 0.80) |
| White Non-Hispanic | Day 1 | Placebo | Negative | Anti Spike IgG (IU/ml) | 63 | 0.15 (0.15, 0.15) |
| White Non-Hispanic | Day 1 | Placebo | Negative | Pseudovirus-nAb ID50 | 63 | 1.21 (1.21, 1.21) |
| White Non-Hispanic | Day 1 | Placebo | Negative | Pseudovirus-nAb ID80 | 63 | 7.51 (7.51, 7.51) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|--------------------|--------|---------|---------------------|------------------------|-----|-----------------------------|
| White Non-Hispanic | Day 1 | Placebo | Positive | Anti N IgG (IU/ml) | 121 | 0.05 (0.05, 0.05) |
| White Non-Hispanic | Day 1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 121 | 0.80 (0.80, 0.80) |
| White Non-Hispanic | Day 1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 121 | 0.15 (0.15, 0.15) |
| White Non-Hispanic | Day 1 | Placebo | Positive | Pseudovirus-nAb ID50 | 121 | 1.60 (1.40, 1.82) |
| White Non-Hispanic | Day 1 | Placebo | Positive | Pseudovirus-nAb ID80 | 121 | 9.27 (8.31, 10.33) |
| White Non-Hispanic | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 370 | 34.08 (26.39, 44.01) |
| White Non-Hispanic | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 370 | 400.44 (330.41, 485.31) |
| White Non-Hispanic | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 370 | 237.37 (204.22, 275.89) |
| White Non-Hispanic | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID50 | 370 | 15.55 (13.64, 17.71) |
| White Non-Hispanic | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID80 | 370 | 24.07 (21.54, 26.91) |
| White Non-Hispanic | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 118 | 82.41 (56.70, 119.78) |
| White Non-Hispanic | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 118 | 752.05 (520.11, 1087.41) |
| White Non-Hispanic | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 118 | 513.05 (403.64, 652.12) |
| White Non-Hispanic | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 118 | 33.13 (26.98, 40.67) |
| White Non-Hispanic | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID80 | 118 | 52.80 (43.78, 63.69) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|--------------------|--------|---------|---------------------|------------------------|-----|-------------------------------|
| White Non-Hispanic | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 63 | 0.05 (0.05, 0.05) |
| White Non-Hispanic | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 63 | 0.80 (0.80, 0.80) |
| White Non-Hispanic | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 63 | 0.15 (0.15, 0.15) |
| White Non-Hispanic | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 63 | 1.22 (1.20, 1.24) |
| White Non-Hispanic | Day 29 | Placebo | Negative | Pseudovirus-nAb ID80 | 63 | 7.51 (7.51, 7.51) |
| White Non-Hispanic | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 121 | 26.72 (17.39, 41.07) |
| White Non-Hispanic | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 121 | 267.93 (174.53, 411.31) |
| White Non-Hispanic | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 121 | 182.62 (133.68, 249.48) |
| White Non-Hispanic | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 121 | 11.37 (8.85, 14.60) |
| White Non-Hispanic | Day 29 | Placebo | Positive | Pseudovirus-nAb ID80 | 121 | 20.09 (16.51, 24.45) |
| White Non-Hispanic | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 370 | 136.02 (102.81, 179.97) |
| White Non-Hispanic | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 370 | 3965.19 (3190.18, 4928.49) |
| White Non-Hispanic | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 370 | 2905.77 (2384.91, 3540.40) |
| White Non-Hispanic | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 370 | 355.22 (305.63, 412.85) |
| White Non-Hispanic | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID80 | 370 | 506.55 (440.71, 582.22) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|--------------------|--------|---------|---------------------|------------------------|-----|----------------------------------|
| White Non-Hispanic | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 118 | 735.04 (440.86, 1225.53) |
| White Non-Hispanic | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 118 | 17684.90 (12263.74, 25502.49) |
| White Non-Hispanic | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 118 | 10349.34 (7588.49, 14114.66) |
| White Non-Hispanic | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 118 | 1312.29 (957.88, 1797.84) |
| White Non-Hispanic | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID80 | 118 | 1677.99 (1373.02, 2050.70) |
| White Non-Hispanic | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 63 | 0.05 (0.05, 0.05) |
| White Non-Hispanic | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 63 | 0.80 (0.80, 0.80) |
| White Non-Hispanic | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 63 | 0.15 (0.15, 0.15) |
| White Non-Hispanic | Day 57 | Placebo | Negative | Pseudovirus-nAb ID50 | 63 | 1.22 (1.20, 1.25) |
| White Non-Hispanic | Day 57 | Placebo | Negative | Pseudovirus-nAb ID80 | 63 | 7.51 (7.51, 7.51) |
| White Non-Hispanic | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 121 | 138.49 (81.68, 234.80) |
| White Non-Hispanic | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 121 | 2844.53 (1856.90, 4357.44) |
| White Non-Hispanic | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 121 | 2385.84 (1614.03, 3526.73) |
| White Non-Hispanic | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 121 | 307.89 (235.98, 401.71) |
| White Non-Hispanic | Day 57 | Placebo | Positive | Pseudovirus-nAb ID80 | 121 | 448.64 (360.71, 558.00) |

(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) | 184 | 0.05 (0.05, 0.05) |
| Black or African American | Day 1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 184 | 0.80 (0.80, 0.80) |
| Black or African American | Day 1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 184 | 0.15 (0.15, 0.15) |
| Black or African American | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 184 | 1.21 (1.21, 1.21) |
| Black or African American | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 184 | 7.51 (7.51, 7.51) |
| Black or African American | Day 1 | Vaccine | Positive | Anti N IgG (IU/ml) | 58 | 0.05 (0.05, 0.05) |
| Black or African American | Day 1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 58 | 0.80 (0.80, 0.80) |
| Black or African American | Day 1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 58 | 0.16 (0.15, 0.17) |
| Black or African American | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 58 | 1.68 (1.40, 2.01) |
| Black or African American | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 58 | 8.49 (7.63, 9.45) |
| Black or African American | Day 1 | Placebo | Negative | Anti N IgG (IU/ml) | 40 | 0.05 (0.05, 0.05) |
| Black or African American | Day 1 | Placebo | Negative | Anti RBD IgG (IU/ml) | 40 | 0.80 (0.80, 0.80) |
| Black or African American | Day 1 | Placebo | Negative | Anti Spike IgG (IU/ml) | 40 | 0.15 (0.15, 0.15) |
| Black or African American | Day 1 | Placebo | Negative | Pseudovirus-nAb ID50 | 40 | 1.23 (1.19, 1.26) |
| Black or African American | Day 1 | Placebo | Negative | Pseudovirus-nAb ID80 | 40 | 8.16 (7.28, 9.15) |

(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) | 45 | 0.05 (0.04, 0.06) |
| Black or African American | Day 1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 45 | 0.80 (0.80, 0.80) |
| Black or African American | Day 1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 45 | 0.16 (0.15, 0.17) |
| Black or African American | Day 1 | Placebo | Positive | Pseudovirus-nAb ID50 | 45 | 1.89 (1.45, 2.47) |
| Black or African American | Day 1 | Placebo | Positive | Pseudovirus-nAb ID80 | 45 | 10.14 (8.39, 12.26) |
| Black or African American | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 184 | 48.36 (35.37, 66.13) |
| Black or African American | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 184 | 618.89 (477.97, 801.36) |
| Black or African American | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 184 | 277.76 (220.22, 350.33) |
| Black or African American | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID50 | 184 | 20.43 (17.33, 24.10) |
| Black or African American | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID80 | 184 | 29.05 (24.98, 33.77) |
| Black or African American | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 58 | 91.09 (50.53, 164.20) |
| Black or African American | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 58 | 1224.75 (802.19, 1869.89) |
| Black or African American | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 58 | 483.24 (358.12, 652.08) |
| Black or African American | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 58 | 33.46 (25.52, 43.87) |
| Black or African American | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID80 | 58 | 49.22 (38.99, 62.14) |

(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) | 40 | 0.05 (0.05, 0.05) |
| Black or African American | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 40 | 0.80 (0.80, 0.80) |
| Black or African American | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 40 | 0.15 (0.15, 0.15) |
| Black or African American | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 40 | 1.21 (1.21, 1.21) |
| Black or African American | Day 29 | Placebo | Negative | Pseudovirus-nAb ID80 | 40 | 7.51 (7.51, 7.51) |
| Black or African American | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 45 | 44.00 (20.44, 94.70) |
| Black or African American | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 45 | 495.71 (275.52, 891.88) |
| Black or African American | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 45 | 158.14 (87.58, 285.56) |
| Black or African American | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 45 | 15.82 (10.87, 23.04) |
| Black or African American | Day 29 | Placebo | Positive | Pseudovirus-nAb ID80 | 45 | 20.73 (15.40, 27.92) |
| Black or African American | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 184 | 204.32 (141.34, 295.38) |
| Black or African American | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 184 | 6550.93 (4947.81, 8673.48) |
| Black or African American | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 184 | 4332.80 (3331.81, 5634.52) |
| Black or African American | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 184 | 466.63 (385.59, 564.71) |
| Black or African American | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID80 | 184 | 602.26 (505.22, 717.93) |

(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) | 58 | 510.41 (276.01, 943.86) |
| Black or African American | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 58 | 16791.27 (11442.61, 24640.08) |
| Black or African American | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 58 | 11834.30 (8032.47, 17435.57) |
| Black or African American | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 58 | 1190.86 (863.21, 1642.88) |
| Black or African American | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID80 | 58 | 1295.98 (930.59, 1804.83) |
| Black or African American | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 40 | 0.05 (0.05, 0.05) |
| Black or African American | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 40 | 0.80 (0.80, 0.80) |
| Black or African American | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 40 | 0.15 (0.15, 0.15) |
| Black or African American | Day 57 | Placebo | Negative | Pseudovirus-nAb ID50 | 40 | 1.21 (1.21, 1.21) |
| Black or African American | Day 57 | Placebo | Negative | Pseudovirus-nAb ID80 | 40 | 7.51 (7.51, 7.51) |
| Black or African American | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 45 | 139.02 (56.11, 344.45) |
| Black or African American | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 45 | 3611.11 (2108.60, 6184.23) |
| Black or African American | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 45 | 2485.87 (1256.81, 4916.86) |
| Black or African American | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 45 | 367.94 (254.22, 532.53) |
| Black or African American | Day 57 | Placebo | Positive | Pseudovirus-nAb ID80 | 45 | 379.30 (263.98, 545.00) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|-------|-------|---------|---------------------|------------------------|----|----------------------|
| Asian | Day 1 | Vaccine | Negative | Anti N IgG (IU/ml) | 56 | 0.05 (0.05, 0.05) |
| Asian | Day 1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 56 | 0.80 (0.80, 0.80) |
| Asian | Day 1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 56 | 0.15 (0.15, 0.15) |
| Asian | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 56 | 1.21 (1.21, 1.21) |
| Asian | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 56 | 7.51 (7.51, 7.51) |
| Asian | Day 1 | Vaccine | Positive | Anti N IgG (IU/ml) | 19 | 0.05 (0.05, 0.05) |
| Asian | Day 1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 19 | 0.80 (0.80, 0.80) |
| Asian | Day 1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 19 | 0.15 (0.15, 0.15) |
| Asian | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 19 | 1.70 (1.26, 2.28) |
| Asian | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 19 | 7.79 (7.25, 8.36) |
| Asian | Day 1 | Placebo | Negative | Anti N IgG (IU/ml) | 10 | 0.05 (0.05, 0.05) |
| Asian | Day 1 | Placebo | Negative | Anti RBD IgG (IU/ml) | 10 | 0.80 (0.80, 0.80) |
| Asian | Day 1 | Placebo | Negative | Anti Spike IgG (IU/ml) | 10 | 0.15 (0.15, 0.15) |
| Asian | Day 1 | Placebo | Negative | Pseudovirus-nAb ID50 | 10 | 1.21 (1.21, 1.21) |
| Asian | Day 1 | Placebo | Negative | Pseudovirus-nAb ID80 | 10 | 7.51 (7.51, 7.51) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|-------|--------|---------|---------------------|------------------------|----|-----------------------------|
| Asian | Day 1 | Placebo | Positive | Anti N IgG (IU/ml) | 27 | 0.05 (0.04, 0.06) |
| Asian | Day 1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 27 | 0.81 (0.78, 0.84) |
| Asian | Day 1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 27 | 0.15 (0.15, 0.15) |
| Asian | Day 1 | Placebo | Positive | Pseudovirus-nAb ID50 | 27 | 1.74 (1.28, 2.38) |
| Asian | Day 1 | Placebo | Positive | Pseudovirus-nAb ID80 | 27 | 10.98 (8.68, 13.89) |
| Asian | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 56 | 51.94 (30.47, 88.55) |
| Asian | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 56 | 566.83 (333.88, 962.32) |
| Asian | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 56 | 346.14 (242.73, 493.61) |
| Asian | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID50 | 56 | 21.15 (16.36, 27.33) |
| Asian | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID80 | 56 | 27.00 (20.02, 36.41) |
| Asian | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 19 | 67.33 (25.71, 176.36) |
| Asian | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 19 | 699.97 (328.96, 1489.42) |
| Asian | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 19 | 336.86 (211.65, 536.15) |
| Asian | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 19 | 30.29 (16.75, 54.77) |
| Asian | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID80 | 19 | 44.36 (28.60, 68.80) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|-------|--------|---------|---------------------|------------------------|----|--------------------------------|
| Asian | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 10 | 0.05 (0.05, 0.05) |
| Asian | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 10 | 0.80 (0.80, 0.80) |
| Asian | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 10 | 0.15 (0.15, 0.15) |
| Asian | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 10 | 1.21 (1.21, 1.21) |
| Asian | Day 29 | Placebo | Negative | Pseudovirus-nAb ID80 | 10 | 7.51 (7.51, 7.51) |
| Asian | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 27 | 16.51 (8.01, 34.05) |
| Asian | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 27 | 249.55 (119.56, 520.87) |
| Asian | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 27 | 133.39 (65.36, 272.24) |
| Asian | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 27 | 9.06 (5.87, 13.97) |
| Asian | Day 29 | Placebo | Positive | Pseudovirus-nAb ID80 | 27 | 22.24 (16.20, 30.52) |
| Asian | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 56 | 411.66 (201.84, 839.58) |
| Asian | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 56 | 6371.68 (3790.87, 10709.49) |
| Asian | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 56 | 4086.36 (2466.61, 6769.76) |
| Asian | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 56 | 663.53 (502.33, 876.46) |
| Asian | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID80 | 56 | 607.99 (457.15, 808.59) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|-------|--------|---------|---------------------|------------------------|----|---------------------------------|
| Asian | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 19 | 590.76 (180.19, 1936.83) |
| Asian | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 19 | 13898.62 (4771.63, 40483.40) |
| Asian | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 19 | 8349.05 (4992.03, 13963.57) |
| Asian | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 19 | 1495.86 (986.88, 2267.36) |
| Asian | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID80 | 19 | 1308.98 (747.39, 2292.57) |
| Asian | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 10 | 0.05 (0.05, 0.05) |
| Asian | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 10 | 0.80 (0.80, 0.80) |
| Asian | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 10 | 0.15 (0.15, 0.15) |
| Asian | Day 57 | Placebo | Negative | Pseudovirus-nAb ID50 | 10 | 1.38 (1.08, 1.76) |
| Asian | Day 57 | Placebo | Negative | Pseudovirus-nAb ID80 | 10 | 7.51 (7.51, 7.51) |
| Asian | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 27 | 101.48 (29.62, 347.66) |
| Asian | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 27 | 2953.93 (1396.61, 6247.76) |
| Asian | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 27 | 1905.73 (805.16, 4510.69) |
| Asian | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 27 | 179.78 (107.24, 301.40) |
| Asian | Day 57 | Placebo | Positive | Pseudovirus-nAb ID80 | 27 | 516.66 (344.79, 774.19) |

(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) | 16 | 0.05 (0.05, 0.05) |
| American Indian or Alaska Native | Day 1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 16 | 0.80 (0.80, 0.80) |
| American Indian or Alaska Native | Day 1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 16 | 0.15 (0.15, 0.15) |
| American Indian or Alaska Native | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 16 | 1.21 (1.21, 1.21) |
| American Indian or Alaska Native | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 16 | 7.51 (7.51, 7.51) |
| American Indian or Alaska Native | Day 1 | Vaccine | Positive | Anti N IgG (IU/ml) | 10 | 0.05 (0.05, 0.05) |
| American Indian or Alaska Native | Day 1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 10 | 0.80 (0.80, 0.80) |
| American Indian or Alaska Native | Day 1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 10 | 0.15 (0.15, 0.15) |
| American Indian or Alaska Native | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 10 | 1.75 (1.07, 2.85) |
| American Indian or Alaska Native | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 10 | 9.50 (6.80, 13.26) |
| 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 | 1.21 (1.21, 1.21) |
| American Indian or Alaska Native | Day 1 | Placebo | Negative | Pseudovirus-nAb ID80 | 2 | 7.51 (7.51, 7.51) |

(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) | 7 | 0.05 (0.04, 0.07) |
| American Indian or Alaska Native | Day 1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 7 | 0.80 (0.80, 0.80) |
| American Indian or Alaska Native | Day 1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 7 | 0.15 (0.15, 0.15) |
| American Indian or Alaska Native | Day 1 | Placebo | Positive | Pseudovirus-nAb ID50 | 7 | 1.39 (1.05, 1.83) |
| American Indian or Alaska Native | Day 1 | Placebo | Positive | Pseudovirus-nAb ID80 | 7 | 13.04 (6.28, 27.07) |
| American Indian or Alaska Native | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 16 | 25.22 (11.33, 56.17) |
| American Indian or Alaska Native | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 16 | 455.88 (234.59, 885.93) |
| American Indian or Alaska Native | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 16 | 207.27 (109.14, 393.62) |
| American Indian or Alaska Native | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID50 | 16 | 18.96 (13.23, 27.17) |
| American Indian or Alaska Native | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID80 | 16 | 20.17 (13.85, 29.35) |
| American Indian or Alaska Native | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 10 | 232.47 (53.43, 1011.46) |
| American Indian or Alaska Native | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 10 | 1312.99 (224.38, 7683.24) |
| American Indian or Alaska Native | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 10 | 416.16 (65.22, 2655.65) |
| American Indian or Alaska Native | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 10 | 57.28 (24.69, 132.87) |
| American Indian or Alaska Native | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID80 | 10 | 107.89 (46.22, 251.85) |

(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 | 1.21 (1.21, 1.21) |
| American Indian or Alaska Native | Day 29 | Placebo | Negative | Pseudovirus-nAb ID80 | 2 | 7.51 (7.51, 7.51) |
| American Indian or Alaska Native | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 7 | 33.82 (14.88, 76.90) |
| American Indian or Alaska Native | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 7 | 262.68 (163.15, 422.93) |
| American Indian or Alaska Native | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 7 | 135.50 (83.53, 219.82) |
| American Indian or Alaska Native | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 7 | 13.57 (9.48, 19.44) |
| American Indian or Alaska Native | Day 29 | Placebo | Positive | Pseudovirus-nAb ID80 | 7 | 19.42 (14.26, 26.44) |
| American Indian or Alaska Native | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 16 | 66.41 (21.00, 210.06) |
| American Indian or Alaska Native | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 16 | 3570.73 (1847.87, 6899.89) |
| American Indian or Alaska Native | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 16 | 2054.65 (1024.62, 4120.16) |
| American Indian or Alaska Native | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 16 | 306.21 (168.96, 554.95) |
| American Indian or Alaska Native | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID80 | 16 | 494.65 (261.44, 935.89) |

(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) | 10 | 1458.89 (207.87, 10238.70) |
| American Indian or Alaska Native | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 10 | 23740.75 (5249.95, 107357.95) |
| American Indian or Alaska Native | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 10 | 37087.45 (6047.70, 227438.46) |
| American Indian or Alaska Native | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 10 | 1086.35 (243.01, 4856.54) |
| American Indian or Alaska Native | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID80 | 10 | 2009.48 (634.11, 6367.97) |
| 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 | 1.44 (1.00, 2.09) |
| American Indian or Alaska Native | Day 57 | Placebo | Negative | Pseudovirus-nAb ID80 | 2 | 7.51 (7.51, 7.51) |
| American Indian or Alaska Native | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 7 | 174.33 (66.36, 457.98) |
| American Indian or Alaska Native | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 7 | 4351.57 (1137.99, 16639.96) |
| American Indian or Alaska Native | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 7 | 1731.09 (1091.13, 2746.41) |
| American Indian or Alaska Native | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 7 | 360.80 (161.38, 806.62) |
| American Indian or Alaska Native | Day 57 | Placebo | Positive | Pseudovirus-nAb ID80 | 7 | 545.79 (275.33, 1081.96) |

(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) | 17 | 0.05 (0.05, 0.05) |
| Native Hawaiian or Other Pacific Islander | Day 1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 17 | 0.80 (0.80, 0.80) |
| Native Hawaiian or Other Pacific Islander | Day 1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 17 | 0.15 (0.15, 0.15) |
| Native Hawaiian or Other Pacific Islander | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 17 | 1.21 (1.21, 1.21) |
| Native Hawaiian or Other Pacific Islander | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 17 | 7.51 (7.51, 7.51) |
| 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 | 1.52 (1.03, 2.23) |
| Native Hawaiian or Other Pacific Islander | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 4 | 10.96 (5.71, 21.05) |
| Native Hawaiian or Other Pacific Islander | Day 1 | Placebo | Negative | Anti N IgG (IU/ml) | 2 | 0.05 (0.05, 0.05) |
| Native Hawaiian or Other Pacific Islander | Day 1 | Placebo | Negative | Anti RBD IgG (IU/ml) | 2 | 0.80 (0.80, 0.80) |
| Native Hawaiian or Other Pacific Islander | Day 1 | Placebo | Negative | Anti Spike IgG (IU/ml) | 2 | 0.15 (0.15, 0.15) |
| Native Hawaiian or Other Pacific Islander | Day 1 | Placebo | Negative | Pseudovirus-nAb ID50 | 2 | 1.21 (1.21, 1.21) |
| Native Hawaiian or Other Pacific Islander | Day 1 | Placebo | Negative | Pseudovirus-nAb ID80 | 2 | 12.53 (6.04, 26.02) |

(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) | 2 | 0.05 (0.05, 0.05) |
| Native Hawaiian or Other Pacific Islander | Day 1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 2 | 0.80 (0.80, 0.80) |
| Native Hawaiian or Other Pacific Islander | Day 1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 2 | 0.15 (0.15, 0.15) |
| Native Hawaiian or Other Pacific Islander | Day 1 | Placebo | Positive | Pseudovirus-nAb ID50 | 2 | 1.21 (1.21, 1.21) |
| Native Hawaiian or Other Pacific Islander | Day 1 | Placebo | Positive | Pseudovirus-nAb ID80 | 2 | 7.51 (7.51, 7.51) |
| Native Hawaiian or Other Pacific Islander | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 17 | 41.57 (10.45, 165.37) |
| Native Hawaiian or Other Pacific Islander | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 17 | 831.43 (392.72, 1760.20) |
| Native Hawaiian or Other Pacific Islander | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 17 | 281.31 (161.65, 489.57) |
| Native Hawaiian or Other Pacific Islander | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID50 | 17 | 14.63 (8.47, 25.25) |
| Native Hawaiian or Other Pacific Islander | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID80 | 17 | 34.71 (21.21, 56.78) |
| Native Hawaiian or Other Pacific Islander | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 4 | 315.89 (136.25, 732.40) |
| Native Hawaiian or Other Pacific Islander | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 4 | 2517.21 (1854.59, 3416.57) |
| Native Hawaiian or Other Pacific Islander | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 4 | 1094.52 (540.97, 2214.51) |
| Native Hawaiian or Other Pacific Islander | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 4 | 68.87 (50.08, 94.70) |
| Native Hawaiian or Other Pacific Islander | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID80 | 4 | 87.89 (73.45, 105.16) |

(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) | 2 | 0.05 (0.05, 0.05) |
| Native Hawaiian or Other Pacific Islander | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 2 | 0.80 (0.80, 0.80) |
| Native Hawaiian or Other Pacific Islander | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 2 | 0.15 (0.15, 0.15) |
| Native Hawaiian or Other Pacific Islander | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 2 | 1.21 (1.21, 1.21) |
| Native Hawaiian or Other Pacific Islander | Day 29 | Placebo | Negative | Pseudovirus-nAb ID80 | 2 | 7.51 (7.51, 7.51) |
| Native Hawaiian or Other Pacific Islander | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 2 | 249.46 (103.20, 603.03) |
| Native Hawaiian or Other Pacific Islander | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 2 | 2643.54 (1298.34, 5382.52) |
| Native Hawaiian or Other Pacific Islander | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 2 | 96.24 (94.64, 97.87) |
| Native Hawaiian or Other Pacific Islander | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 2 | 33.19 (19.82, 55.58) |
| Native Hawaiian or Other Pacific Islander | Day 29 | Placebo | Positive | Pseudovirus-nAb ID80 | 2 | 15.55 (10.80, 22.39) |
| Native Hawaiian or Other Pacific Islander | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 17 | 345.70 (100.57, 1188.36) |
| Native Hawaiian or Other Pacific Islander | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 17 | 5000.82 (2764.75, 9045.36) |
| Native Hawaiian or Other Pacific Islander | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 17 | 3526.24 (1694.94, 7336.17) |
| Native Hawaiian or Other Pacific Islander | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 17 | 711.04 (339.62, 1488.66) |
| Native Hawaiian or Other Pacific Islander | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID80 | 17 | 1038.11 (632.04, 1705.07) |

(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 | 795.44 (596.70, 1060.38) |
| Native Hawaiian or Other Pacific Islander | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 4 | 117506.98 (74615.70, 185053.42) |
| Native Hawaiian or Other Pacific Islander | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 4 | 102048.52 (60099.71, 173277.04) |
| Native Hawaiian or Other Pacific Islander | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 4 | 2330.62 (1137.68, 4774.45) |
| Native Hawaiian or Other Pacific Islander | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID80 | 4 | 5679.32 (4474.10, 7209.18) |
| Native Hawaiian or Other Pacific Islander | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 2 | 0.05 (0.05, 0.05) |
| Native Hawaiian or Other Pacific Islander | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 2 | 0.80 (0.80, 0.80) |
| Native Hawaiian or Other Pacific Islander | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 2 | 0.15 (0.15, 0.15) |
| Native Hawaiian or Other Pacific Islander | Day 57 | Placebo | Negative | Pseudovirus-nAb ID50 | 2 | 1.21 (1.21, 1.21) |
| Native Hawaiian or Other Pacific Islander | Day 57 | Placebo | Negative | Pseudovirus-nAb ID80 | 2 | 7.51 (7.51, 7.51) |
| Native Hawaiian or Other Pacific Islander | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 2 | 112.85 (101.38, 125.62) |
| Native Hawaiian or Other Pacific Islander | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 2 | 1281.73 (1129.81, 1454.08) |
| Native Hawaiian or Other Pacific Islander | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 2 | 5853.33 (5254.52, 6520.38) |
| Native Hawaiian or Other Pacific Islander | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 2 | 865.00 (376.47, 1987.51) |
| Native Hawaiian or Other Pacific Islander | Day 57 | Placebo | Positive | Pseudovirus-nAb ID80 | 2 | 273.59 (192.26, 389.32) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|-------------|-------|---------|---------------------|------------------------|----|------------------------|
| Multiracial | Day 1 | Vaccine | Negative | Anti N IgG (IU/ml) | 57 | 0.05 (0.05, 0.05) |
| Multiracial | Day 1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 57 | 0.80 (0.80, 0.80) |
| Multiracial | Day 1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 57 | 0.15 (0.15, 0.15) |
| Multiracial | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 57 | 1.21 (1.21, 1.21) |
| Multiracial | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 57 | 7.51 (7.51, 7.51) |
| Multiracial | Day 1 | Vaccine | Positive | Anti N IgG (IU/ml) | 10 | 0.05 (0.05, 0.05) |
| Multiracial | Day 1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 10 | 0.80 (0.80, 0.80) |
| Multiracial | Day 1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 10 | 0.15 (0.15, 0.15) |
| Multiracial | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 10 | 1.21 (1.21, 1.21) |
| Multiracial | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 10 | 10.28 (6.07, 17.40) |
| Multiracial | Day 1 | Placebo | Negative | Anti N IgG (IU/ml) | 8 | 0.05 (0.05, 0.05) |
| Multiracial | Day 1 | Placebo | Negative | Anti RBD IgG (IU/ml) | 8 | 0.80 (0.80, 0.80) |
| Multiracial | Day 1 | Placebo | Negative | Anti Spike IgG (IU/ml) | 8 | 0.15 (0.15, 0.15) |
| Multiracial | Day 1 | Placebo | Negative | Pseudovirus-nAb ID50 | 8 | 1.21 (1.21, 1.21) |
| Multiracial | Day 1 | Placebo | Negative | Pseudovirus-nAb ID80 | 8 | 7.51 (7.51, 7.51) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|-------------|--------|---------|---------------------|------------------------|----|-----------------------------|
| Multiracial | Day 1 | Placebo | Positive | Anti N IgG (IU/ml) | 16 | 0.05 (0.05, 0.05) |
| Multiracial | Day 1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 16 | 0.83 (0.77, 0.89) |
| Multiracial | Day 1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 16 | 0.15 (0.15, 0.15) |
| Multiracial | Day 1 | Placebo | Positive | Pseudovirus-nAb ID50 | 16 | 1.60 (1.18, 2.16) |
| Multiracial | Day 1 | Placebo | Positive | Pseudovirus-nAb ID80 | 16 | 17.15 (10.75, 27.38) |
| Multiracial | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 57 | 63.72 (39.06, 103.95) |
| Multiracial | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 57 | 680.89 (439.41, 1055.08) |
| Multiracial | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 57 | 468.79 (300.62, 731.03) |
| Multiracial | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID50 | 57 | 24.25 (18.56, 31.68) |
| Multiracial | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID80 | 57 | 36.61 (28.88, 46.41) |
| Multiracial | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 10 | 35.81 (17.22, 74.45) |
| Multiracial | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 10 | 585.30 (248.65, 1377.72) |
| Multiracial | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 10 | 307.16 (121.84, 774.38) |
| Multiracial | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 10 | 20.16 (13.18, 30.82) |
| Multiracial | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID80 | 10 | 33.38 (15.78, 70.60) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|-------------|--------|---------|---------------------|------------------------|----|--------------------------------|
| Multiracial | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 8 | 0.05 (0.05, 0.05) |
| Multiracial | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 8 | 0.80 (0.80, 0.80) |
| Multiracial | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 8 | 0.15 (0.15, 0.15) |
| Multiracial | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 8 | 1.21 (1.21, 1.21) |
| Multiracial | Day 29 | Placebo | Negative | Pseudovirus-nAb ID80 | 8 | 7.51 (7.51, 7.51) |
| Multiracial | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 16 | 29.89 (13.84, 64.54) |
| Multiracial | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 16 | 924.61 (523.85, 1631.96) |
| Multiracial | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 16 | 352.91 (218.34, 570.41) |
| Multiracial | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 16 | 9.72 (5.69, 16.62) |
| Multiracial | Day 29 | Placebo | Positive | Pseudovirus-nAb ID80 | 16 | 25.75 (16.52, 40.13) |
| Multiracial | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 57 | 255.11 (118.56, 548.94) |
| Multiracial | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 57 | 8215.71 (4964.67, 13595.66) |
| Multiracial | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 57 | 5617.50 (3951.81, 7985.29) |
| Multiracial | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 57 | 707.51 (496.25, 1008.71) |
| Multiracial | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID80 | 57 | 929.00 (667.01, 1293.91) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|-------------|--------|---------|---------------------|------------------------|----|--------------------------------|
| Multiracial | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 10 | 406.85 (56.32, 2939.29) |
| Multiracial | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 10 | 7480.16 (2394.58, 23366.38) |
| Multiracial | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 10 | 5537.31 (1571.82, 19507.16) |
| Multiracial | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 10 | 855.78 (402.27, 1820.57) |
| Multiracial | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID80 | 10 | 1670.65 (1084.79, 2572.89) |
| Multiracial | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 8 | 0.05 (0.05, 0.05) |
| Multiracial | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 8 | 0.80 (0.80, 0.80) |
| Multiracial | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 8 | 0.15 (0.15, 0.15) |
| Multiracial | Day 57 | Placebo | Negative | Pseudovirus-nAb ID50 | 8 | 1.21 (1.21, 1.21) |
| Multiracial | Day 57 | Placebo | Negative | Pseudovirus-nAb ID80 | 8 | 7.51 (7.51, 7.51) |
| Multiracial | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 16 | 365.33 (82.27, 1622.24) |
| Multiracial | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 16 | 6641.75 (2467.22, 17879.61) |
| Multiracial | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 16 | 2918.31 (1507.00, 5651.30) |
| Multiracial | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 16 | 471.29 (253.46, 876.30) |
| Multiracial | Day 57 | Placebo | Positive | Pseudovirus-nAb ID80 | 16 | 819.72 (368.54, 1823.25) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|-------|-------|---------|---------------------|------------------------|----|-----------------------|
| Other | Day 1 | Vaccine | Negative | Anti N IgG (IU/ml) | 16 | 0.05 (0.05, 0.05) |
| Other | Day 1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 16 | 0.80 (0.80, 0.80) |
| Other | Day 1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 16 | 0.15 (0.15, 0.15) |
| Other | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 16 | 1.21 (1.21, 1.21) |
| Other | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 16 | 7.51 (7.51, 7.51) |
| Other | Day 1 | Vaccine | Positive | Anti N IgG (IU/ml) | 7 | 0.05 (0.04, 0.07) |
| Other | Day 1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 7 | 0.80 (0.80, 0.80) |
| Other | Day 1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 7 | 0.15 (0.15, 0.15) |
| Other | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 7 | 1.47 (1.06, 2.04) |
| Other | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 7 | 9.41 (6.79, 13.05) |
| Other | Day 1 | Placebo | Negative | Anti N IgG (IU/ml) | 1 | 0.05 (0.05, 0.05) |
| Other | Day 1 | Placebo | Negative | Anti RBD IgG (IU/ml) | 1 | 0.80 (0.80, 0.80) |
| Other | Day 1 | Placebo | Negative | Anti Spike IgG (IU/ml) | 1 | 0.15 (0.15, 0.15) |
| Other | Day 1 | Placebo | Negative | Pseudovirus-nAb ID50 | 1 | 1.21 (1.21, 1.21) |
| Other | Day 1 | Placebo | Negative | Pseudovirus-nAb ID80 | 1 | 7.51 (7.51, 7.51) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|-------|--------|---------|---------------------|------------------------|----|-------------------------------|
| Other | Day 1 | Placebo | Positive | Anti N IgG (IU/ml) | 13 | 0.05 (0.05, 0.05) |
| Other | Day 1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 13 | 0.80 (0.80, 0.80) |
| Other | Day 1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 13 | 0.15 (0.15, 0.15) |
| Other | Day 1 | Placebo | Positive | Pseudovirus-nAb ID50 | 13 | 1.43 (1.11, 1.85) |
| Other | Day 1 | Placebo | Positive | Pseudovirus-nAb ID80 | 13 | 8.37 (6.78, 10.34) |
| Other | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 16 | 45.59 (14.02, 148.20) |
| Other | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 16 | 954.67 (452.96, 2012.08) |
| Other | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 16 | 362.47 (196.46, 668.78) |
| Other | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID50 | 16 | 22.42 (13.44, 37.40) |
| Other | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID80 | 16 | 26.66 (14.34, 49.57) |
| Other | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 7 | 91.30 (29.66, 281.03) |
| Other | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 7 | 1683.69 (1105.78, 2563.63) |
| Other | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 7 | 577.79 (232.90, 1433.42) |
| Other | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 7 | 33.43 (19.66, 56.84) |
| Other | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID80 | 7 | 56.36 (37.43, 84.87) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|-------|--------|---------|---------------------|------------------------|----|--------------------------------|
| Other | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 1 | 0.05 (0.05, 0.05) |
| Other | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 1 | 0.80 (0.80, 0.80) |
| Other | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 1 | 0.15 (0.15, 0.15) |
| Other | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 1 | 1.21 (1.21, 1.21) |
| Other | Day 29 | Placebo | Negative | Pseudovirus-nAb ID80 | 1 | 7.51 (7.51, 7.51) |
| Other | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 13 | 30.54 (11.57, 80.62) |
| Other | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 13 | 233.75 (99.57, 548.73) |
| Other | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 13 | 153.92 (75.16, 315.23) |
| Other | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 13 | 9.72 (5.02, 18.80) |
| Other | Day 29 | Placebo | Positive | Pseudovirus-nAb ID80 | 13 | 18.09 (10.25, 31.92) |
| Other | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 16 | 179.09 (80.22, 399.84) |
| Other | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 16 | 5123.38 (1923.26, 13648.21) |
| Other | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 16 | 6094.59 (2760.52, 13455.48) |
| Other | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 16 | 838.28 (321.29, 2187.15) |
| Other | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID80 | 16 | 537.41 (216.29, 1335.28) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|-------|--------|---------|---------------------|------------------------|----|---------------------------------|
| Other | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 7 | 469.54 (166.46, 1324.43) |
| Other | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 7 | 9884.65 (2588.20, 37750.60) |
| Other | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 7 | 15218.24 (5421.81, 42715.39) |
| Other | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 7 | 1132.03 (353.43, 3625.94) |
| Other | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID80 | 7 | 1571.30 (512.63, 4816.26) |
| Other | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 1 | 0.05 (0.05, 0.05) |
| Other | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 1 | 0.80 (0.80, 0.80) |
| Other | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 1 | 0.15 (0.15, 0.15) |
| Other | Day 57 | Placebo | Negative | Pseudovirus-nAb ID50 | 1 | 1.21 (1.21, 1.21) |
| Other | Day 57 | Placebo | Negative | Pseudovirus-nAb ID80 | 1 | 7.51 (7.51, 7.51) |
| Other | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 13 | 98.02 (28.64, 335.45) |
| Other | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 13 | 2580.02 (811.17, 8206.11) |
| Other | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 13 | 1905.90 (604.75, 6006.49) |
| Other | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 13 | 406.27 (141.59, 1165.71) |
| Other | Day 57 | Placebo | Positive | Pseudovirus-nAb ID80 | 13 | 486.57 (223.05, 1061.44) |

(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) | 4 | 0.05 (0.05, 0.05) |
| Not reported and unknown | Day 1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 4 | 0.80 (0.80, 0.80) |
| Not reported and unknown | Day 1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 4 | 0.15 (0.15, 0.15) |
| Not reported and unknown | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 4 | 1.21 (1.21, 1.21) |
| Not reported and unknown | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 4 | 7.51 (7.51, 7.51) |
| 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 | 1.21 (1.21, 1.21) |
| Not reported and unknown | Day 1 | Placebo | Negative | Pseudovirus-nAb ID80 | 1 | 7.51 (7.51, 7.51) |
| Not reported and unknown | Day 1 | Placebo | Positive | Anti N IgG (IU/ml) | 2 | 0.05 (0.05, 0.05) |
| Not reported and unknown | Day 1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 2 | 0.80 (0.80, 0.80) |
| Not reported and unknown | Day 1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 2 | 0.15 (0.15, 0.15) |
| Not reported and unknown | Day 1 | Placebo | Positive | Pseudovirus-nAb ID50 | 2 | 3.37 (0.79, 14.35) |
| Not reported and unknown | Day 1 | Placebo | Positive | Pseudovirus-nAb ID80 | 2 | 7.51 (7.51, 7.51) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|--------------------------|--------|---------|---------------------|------------------------|---|-----------------------------|
| Not reported and unknown | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 4 | 22.70 (0.94, 547.12) |
| Not reported and unknown | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 4 | 425.33 (131.39, 1376.88) |
| Not reported and unknown | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 4 | 214.96 (30.19, 1530.49) |
| Not reported and unknown | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID50 | 4 | 17.17 (3.38, 87.16) |
| Not reported and unknown | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID80 | 4 | 18.80 (5.55, 63.69) |
| 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 | 1.21 (1.21, 1.21) |
| Not reported and unknown | Day 29 | Placebo | Negative | Pseudovirus-nAb ID80 | 1 | 7.51 (7.51, 7.51) |
| Not reported and unknown | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 2 | 11.18 (5.91, 21.17) |
| Not reported and unknown | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 2 | 355.07 (154.05, 818.42) |
| Not reported and unknown | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 2 | 115.90 (46.80, 287.06) |
| Not reported and unknown | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 2 | 9.94 (5.30, 18.65) |
| Not reported and unknown | Day 29 | Placebo | Positive | Pseudovirus-nAb ID80 | 2 | 20.03 (5.01, 80.10) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|--------------------------|--------|---------|---------------------|------------------------|---|-------------------------------|
| Not reported and unknown | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 4 | 239.33 (43.05, 1330.56) |
| Not reported and unknown | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 4 | 1359.83 (35.46, 52152.50) |
| Not reported and unknown | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 4 | 1869.74 (295.22, 11841.84) |
| Not reported and unknown | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 4 | 214.93 (97.85, 472.11) |
| Not reported and unknown | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID80 | 4 | 527.73 (211.45, 1317.11) |
| 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 | 1.21 (1.21, 1.21) |
| Not reported and unknown | Day 57 | Placebo | Negative | Pseudovirus-nAb ID80 | 1 | 7.51 (7.51, 7.51) |
| Not reported and unknown | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 2 | 59.40 (5.40, 653.72) |
| Not reported and unknown | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 2 | 1036.14 (428.68, 2504.42) |
| Not reported and unknown | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 2 | 2699.56 (369.10, 19744.27) |
| Not reported and unknown | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 2 | 111.24 (25.15, 491.99) |
| Not reported and unknown | Day 57 | Placebo | Positive | Pseudovirus-nAb ID80 | 2 | 374.13 (373.95, 374.31) |

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) | 377 | 0.05 (0.05, 0.05) |
| Communities of Color | Day 1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 377 | 0.80 (0.80, 0.80) |
| Communities of Color | Day 1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 377 | 0.15 (0.15, 0.15) |
| Communities of Color | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 377 | 1.21 (1.21, 1.21) |
| Communities of Color | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 377 | 7.51 (7.51, 7.51) |
| Communities of Color | Day 1 | Vaccine | Positive | Anti N IgG (IU/ml) | 116 | 0.05 (0.05, 0.05) |
| Communities of Color | Day 1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 116 | 0.80 (0.80, 0.80) |
| Communities of Color | Day 1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 116 | 0.16 (0.15, 0.16) |
| Communities of Color | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 116 | 1.62 (1.43, 1.83) |
| Communities of Color | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 116 | 8.58 (7.93, 9.28) |
| Communities of Color | Day 1 | Placebo | Negative | Anti N IgG (IU/ml) | 75 | 0.05 (0.05, 0.05) |
| Communities of Color | Day 1 | Placebo | Negative | Anti RBD IgG (IU/ml) | 75 | 0.80 (0.80, 0.80) |
| Communities of Color | Day 1 | Placebo | Negative | Anti Spike IgG (IU/ml) | 75 | 0.15 (0.15, 0.15) |
| Communities of Color | Day 1 | Placebo | Negative | Pseudovirus-nAb ID50 | 75 | 1.22 (1.20, 1.24) |
| Communities of Color | Day 1 | Placebo | Negative | Pseudovirus-nAb ID80 | 75 | 8.05 (7.49, 8.64) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|----------------------|--------|---------|---------------------|------------------------|-----|-----------------------------|
| Communities of Color | Day 1 | Placebo | Positive | Anti N IgG (IU/ml) | 120 | 0.05 (0.05, 0.06) |
| Communities of Color | Day 1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 120 | 0.80 (0.79, 0.81) |
| Communities of Color | Day 1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 120 | 0.16 (0.15, 0.16) |
| Communities of Color | Day 1 | Placebo | Positive | Pseudovirus-nAb ID50 | 120 | 1.69 (1.46, 1.95) |
| Communities of Color | Day 1 | Placebo | Positive | Pseudovirus-nAb ID80 | 120 | 10.64 (9.36, 12.10) |
| Communities of Color | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 377 | 47.88 (38.41, 59.67) |
| Communities of Color | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 377 | 601.72 (499.59, 724.73) |
| Communities of Color | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 377 | 312.83 (267.85, 365.36) |
| Communities of Color | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID50 | 377 | 20.20 (18.04, 22.63) |
| Communities of Color | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID80 | 377 | 28.84 (25.80, 32.24) |
| Communities of Color | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 116 | 80.72 (53.07, 122.80) |
| Communities of Color | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 116 | 988.93 (705.93, 1385.38) |
| Communities of Color | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 116 | 422.75 (324.82, 550.21) |
| Communities of Color | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 116 | 32.03 (25.63, 40.04) |
| Communities of Color | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID80 | 116 | 49.02 (40.19, 59.78) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|----------------------|--------|---------|---------------------|------------------------|-----|-------------------------------|
| Communities of Color | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 75 | 0.05 (0.05, 0.05) |
| Communities of Color | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 75 | 0.80 (0.80, 0.80) |
| Communities of Color | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 75 | 0.15 (0.15, 0.15) |
| Communities of Color | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 75 | 1.21 (1.21, 1.21) |
| Communities of Color | Day 29 | Placebo | Negative | Pseudovirus-nAb ID80 | 75 | 7.51 (7.51, 7.51) |
| Communities of Color | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 120 | 27.93 (18.97, 41.13) |
| Communities of Color | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 120 | 352.63 (249.40, 498.60) |
| Communities of Color | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 120 | 155.52 (114.15, 211.87) |
| Communities of Color | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 120 | 11.40 (9.17, 14.17) |
| Communities of Color | Day 29 | Placebo | Positive | Pseudovirus-nAb ID80 | 120 | 20.39 (17.22, 24.13) |
| Communities of Color | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 377 | 227.46 (171.83, 301.11) |
| Communities of Color | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 377 | 6116.64 (5002.83, 7478.42) |
| Communities of Color | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 377 | 4158.17 (3454.12, 5005.74) |
| Communities of Color | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 377 | 549.84 (479.76, 630.15) |
| Communities of Color | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID80 | 377 | 656.33 (575.68, 748.27) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|----------------------|--------|---------|---------------------|------------------------|-----|----------------------------------|
| Communities of Color | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 116 | 543.72 (333.11, 887.50) |
| Communities of Color | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 116 | 15372.49 (10572.42, 22351.88) |
| Communities of Color | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 116 | 11322.94 (8105.96, 15816.62) |
| Communities of Color | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 116 | 1181.83 (923.19, 1512.91) |
| Communities of Color | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID80 | 116 | 1409.31 (1101.23, 1803.57) |
| Communities of Color | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 75 | 0.05 (0.05, 0.05) |
| Communities of Color | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 75 | 0.80 (0.80, 0.80) |
| Communities of Color | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 75 | 0.15 (0.15, 0.15) |
| Communities of Color | Day 57 | Placebo | Negative | Pseudovirus-nAb ID50 | 75 | 1.28 (1.20, 1.36) |
| Communities of Color | Day 57 | Placebo | Negative | Pseudovirus-nAb ID80 | 75 | 7.57 (7.45, 7.69) |
| Communities of Color | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 120 | 127.29 (76.15, 212.77) |
| Communities of Color | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 120 | 3319.09 (2360.16, 4667.65) |
| Communities of Color | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 120 | 2224.20 (1531.96, 3229.24) |
| Communities of Color | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 120 | 311.04 (233.55, 414.23) |
| Communities of Color | Day 57 | Placebo | Positive | Pseudovirus-nAb ID80 | 120 | 465.54 (369.92, 585.87) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|--------------------|-------|---------|---------------------|------------------------|-----|------------------------|
| White Non-Hispanic | Day 1 | Vaccine | Negative | Anti N IgG (IU/ml) | 370 | 0.05 (0.05, 0.05) |
| White Non-Hispanic | Day 1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 370 | 0.80 (0.80, 0.80) |
| White Non-Hispanic | Day 1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 370 | 0.15 (0.15, 0.15) |
| White Non-Hispanic | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 370 | 1.21 (1.21, 1.21) |
| White Non-Hispanic | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 370 | 7.51 (7.51, 7.51) |
| White Non-Hispanic | Day 1 | Vaccine | Positive | Anti N IgG (IU/ml) | 118 | 0.05 (0.05, 0.05) |
| White Non-Hispanic | Day 1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 118 | 0.83 (0.79, 0.87) |
| White Non-Hispanic | Day 1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 118 | 0.15 (0.15, 0.15) |
| White Non-Hispanic | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 118 | 1.71 (1.48, 1.97) |
| White Non-Hispanic | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 118 | 10.90 (9.44, 12.59) |
| White Non-Hispanic | Day 1 | Placebo | Negative | Anti N IgG (IU/ml) | 63 | 0.05 (0.05, 0.05) |
| White Non-Hispanic | Day 1 | Placebo | Negative | Anti RBD IgG (IU/ml) | 63 | 0.80 (0.80, 0.80) |
| White Non-Hispanic | Day 1 | Placebo | Negative | Anti Spike IgG (IU/ml) | 63 | 0.15 (0.15, 0.15) |
| White Non-Hispanic | Day 1 | Placebo | Negative | Pseudovirus-nAb ID50 | 63 | 1.21 (1.21, 1.21) |
| White Non-Hispanic | Day 1 | Placebo | Negative | Pseudovirus-nAb ID80 | 63 | 7.51 (7.51, 7.51) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|--------------------|--------|---------|---------------------|------------------------|-----|-----------------------------|
| White Non-Hispanic | Day 1 | Placebo | Positive | Anti N IgG (IU/ml) | 121 | 0.05 (0.05, 0.05) |
| White Non-Hispanic | Day 1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 121 | 0.80 (0.80, 0.80) |
| White Non-Hispanic | Day 1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 121 | 0.15 (0.15, 0.15) |
| White Non-Hispanic | Day 1 | Placebo | Positive | Pseudovirus-nAb ID50 | 121 | 1.60 (1.40, 1.82) |
| White Non-Hispanic | Day 1 | Placebo | Positive | Pseudovirus-nAb ID80 | 121 | 9.27 (8.31, 10.33) |
| White Non-Hispanic | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 370 | 34.08 (26.39, 44.01) |
| White Non-Hispanic | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 370 | 400.44 (330.41, 485.31) |
| White Non-Hispanic | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 370 | 237.37 (204.22, 275.89) |
| White Non-Hispanic | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID50 | 370 | 15.55 (13.64, 17.71) |
| White Non-Hispanic | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID80 | 370 | 24.07 (21.54, 26.91) |
| White Non-Hispanic | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 118 | 82.41 (56.70, 119.78) |
| White Non-Hispanic | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 118 | 752.05 (520.11, 1087.41) |
| White Non-Hispanic | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 118 | 513.05 (403.64, 652.12) |
| White Non-Hispanic | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 118 | 33.13 (26.98, 40.67) |
| White Non-Hispanic | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID80 | 118 | 52.80 (43.78, 63.69) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|--------------------|--------|---------|---------------------|------------------------|-----|-------------------------------|
| White Non-Hispanic | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 63 | 0.05 (0.05, 0.05) |
| White Non-Hispanic | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 63 | 0.80 (0.80, 0.80) |
| White Non-Hispanic | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 63 | 0.15 (0.15, 0.15) |
| White Non-Hispanic | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 63 | 1.22 (1.20, 1.24) |
| White Non-Hispanic | Day 29 | Placebo | Negative | Pseudovirus-nAb ID80 | 63 | 7.51 (7.51, 7.51) |
| White Non-Hispanic | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 121 | 26.72 (17.39, 41.07) |
| White Non-Hispanic | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 121 | 267.93 (174.53, 411.31) |
| White Non-Hispanic | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 121 | 182.62 (133.68, 249.48) |
| White Non-Hispanic | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 121 | 11.37 (8.85, 14.60) |
| White Non-Hispanic | Day 29 | Placebo | Positive | Pseudovirus-nAb ID80 | 121 | 20.09 (16.51, 24.45) |
| White Non-Hispanic | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 370 | 136.02 (102.81, 179.97) |
| White Non-Hispanic | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 370 | 3965.19 (3190.18, 4928.49) |
| White Non-Hispanic | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 370 | 2905.77 (2384.91, 3540.40) |
| White Non-Hispanic | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 370 | 355.22 (305.63, 412.85) |
| White Non-Hispanic | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID80 | 370 | 506.55 (440.71, 582.22) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|--------------------|--------|---------|---------------------|------------------------|-----|----------------------------------|
| White Non-Hispanic | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 118 | 735.04 (440.86, 1225.53) |
| White Non-Hispanic | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 118 | 17684.90 (12263.74, 25502.49) |
| White Non-Hispanic | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 118 | 10349.34 (7588.49, 14114.66) |
| White Non-Hispanic | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 118 | 1312.29 (957.88, 1797.84) |
| White Non-Hispanic | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID80 | 118 | 1677.99 (1373.02, 2050.70) |
| White Non-Hispanic | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 63 | 0.05 (0.05, 0.05) |
| White Non-Hispanic | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 63 | 0.80 (0.80, 0.80) |
| White Non-Hispanic | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 63 | 0.15 (0.15, 0.15) |
| White Non-Hispanic | Day 57 | Placebo | Negative | Pseudovirus-nAb ID50 | 63 | 1.22 (1.20, 1.25) |
| White Non-Hispanic | Day 57 | Placebo | Negative | Pseudovirus-nAb ID80 | 63 | 7.51 (7.51, 7.51) |
| White Non-Hispanic | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 121 | 138.49 (81.68, 234.80) |
| White Non-Hispanic | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 121 | 2844.53 (1856.90, 4357.44) |
| White Non-Hispanic | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 121 | 2385.84 (1614.03, 3526.73) |
| White Non-Hispanic | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 121 | 307.89 (235.98, 401.71) |
| White Non-Hispanic | Day 57 | Placebo | Positive | Pseudovirus-nAb ID80 | 121 | 448.64 (360.71, 558.00) |

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) | 181 | 0.05 (0.05, 0.05) |
| Age < 65 Communities of Color | Day 1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 181 | 0.80 (0.80, 0.80) |
| Age < 65 Communities of Color | Day 1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 181 | 0.15 (0.15, 0.15) |
| Age < 65 Communities of Color | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 181 | 1.21 (1.21, 1.21) |
| Age < 65 Communities of Color | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 181 | 7.51 (7.51, 7.51) |
| Age < 65 Communities of Color | Day 1 | Vaccine | Positive | Anti N IgG (IU/ml) | 60 | 0.05 (0.05, 0.05) |
| Age < 65 Communities of Color | Day 1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 60 | 0.80 (0.80, 0.80) |
| Age < 65 Communities of Color | Day 1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 60 | 0.16 (0.15, 0.17) |
| Age < 65 Communities of Color | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 60 | 1.62 (1.40, 1.87) |
| Age < 65 Communities of Color | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 60 | 8.33 (7.62, 9.11) |
| Age < 65 Communities of Color | Day 1 | Placebo | Negative | Anti N IgG (IU/ml) | 40 | 0.05 (0.05, 0.05) |
| Age < 65 Communities of Color | Day 1 | Placebo | Negative | Anti RBD IgG (IU/ml) | 40 | 0.80 (0.80, 0.80) |
| Age < 65 Communities of Color | Day 1 | Placebo | Negative | Anti Spike IgG (IU/ml) | 40 | 0.15 (0.15, 0.15) |
| Age < 65 Communities of Color | Day 1 | Placebo | Negative | Pseudovirus-nAb ID50 | 40 | 1.22 (1.20, 1.25) |
| Age < 65 Communities of Color | Day 1 | Placebo | Negative | Pseudovirus-nAb ID80 | 40 | 8.21 (7.44, 9.06) |

(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) | 62 | 0.05 (0.05, 0.06) |
| Age < 65 Communities of Color | Day 1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 62 | 0.80 (0.80, 0.80) |
| Age < 65 Communities of Color | Day 1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 62 | 0.16 (0.15, 0.16) |
| Age < 65 Communities of Color | Day 1 | Placebo | Positive | Pseudovirus-nAb ID50 | 62 | 1.68 (1.41, 2.00) |
| Age < 65 Communities of Color | Day 1 | Placebo | Positive | Pseudovirus-nAb ID80 | 62 | 10.95 (9.36, 12.81) |
| Age < 65 Communities of Color | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 181 | 40.76 (30.95, 53.67) |
| Age < 65 Communities of Color | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 181 | 479.15 (380.27, 603.74) |
| Age < 65 Communities of Color | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 181 | 248.38 (204.73, 301.33) |
| Age < 65 Communities of Color | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID50 | 181 | 18.82 (16.35, 21.67) |
| Age < 65 Communities of Color | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID80 | 181 | 27.06 (23.59, 31.03) |
| Age < 65 Communities of Color | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 60 | 64.06 (38.89, 105.52) |
| Age < 65 Communities of Color | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 60 | 786.45 (529.58, 1167.93) |
| Age < 65 Communities of Color | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 60 | 330.33 (243.57, 448.00) |
| Age < 65 Communities of Color | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 60 | 28.32 (21.73, 36.90) |
| Age < 65 Communities of Color | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID80 | 60 | 47.37 (37.42, 59.96) |

(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) | 40 | 0.05 (0.05, 0.05) |
| Age < 65 Communities of Color | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 40 | 0.80 (0.80, 0.80) |
| Age < 65 Communities of Color | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 40 | 0.15 (0.15, 0.15) |
| Age < 65 Communities of Color | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 40 | 1.21 (1.21, 1.21) |
| Age < 65 Communities of Color | Day 29 | Placebo | Negative | Pseudovirus-nAb ID80 | 40 | 7.51 (7.51, 7.51) |
| Age < 65 Communities of Color | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 62 | 21.81 (13.71, 34.71) |
| Age < 65 Communities of Color | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 62 | 266.59 (176.70, 402.20) |
| Age < 65 Communities of Color | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 62 | 118.20 (81.43, 171.57) |
| Age < 65 Communities of Color | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 62 | 10.05 (7.73, 13.05) |
| Age < 65 Communities of Color | Day 29 | Placebo | Positive | Pseudovirus-nAb ID80 | 62 | 19.73 (16.09, 24.19) |
| Age < 65 Communities of Color | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 181 | 181.82 (128.01, 258.25) |
| Age < 65 Communities of Color | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 181 | 4576.25 (3579.40, 5850.72) |
| Age < 65 Communities of Color | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 181 | 3156.05 (2506.81, 3973.43) |
| Age < 65 Communities of Color | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 181 | 501.87 (424.02, 594.01) |
| Age < 65 Communities of Color | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID80 | 181 | 622.52 (528.99, 732.60) |

(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) | 60 | 439.21 (244.36, 789.44) |
| Age < 65 Communities of Color | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 60 | 11515.00 (7382.14, 17961.63) |
| Age < 65 Communities of Color | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 60 | 8880.91 (6021.62, 13097.90) |
| Age < 65 Communities of Color | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 60 | 1032.23 (769.96, 1383.86) |
| Age < 65 Communities of Color | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID80 | 60 | 1290.56 (962.67, 1730.13) |
| Age < 65 Communities of Color | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 40 | 0.05 (0.05, 0.05) |
| Age < 65 Communities of Color | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 40 | 0.80 (0.80, 0.80) |
| Age < 65 Communities of Color | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 40 | 0.15 (0.15, 0.15) |
| Age < 65 Communities of Color | Day 57 | Placebo | Negative | Pseudovirus-nAb ID50 | 40 | 1.29 (1.18, 1.40) |
| Age < 65 Communities of Color | Day 57 | Placebo | Negative | Pseudovirus-nAb ID80 | 40 | 7.51 (7.51, 7.51) |
| Age < 65 Communities of Color | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 62 | 99.31 (53.20, 185.39) |
| Age < 65 Communities of Color | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 62 | 2290.78 (1529.69, 3430.54) |
| Age < 65 Communities of Color | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 62 | 1577.94 (1007.97, 2470.22) |
| Age < 65 Communities of Color | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 62 | 264.11 (187.12, 372.78) |
| Age < 65 Communities of Color | Day 57 | Placebo | Positive | Pseudovirus-nAb ID80 | 62 | 422.79 (318.67, 560.93) |

(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) | 176 | 0.05 (0.05, 0.05) |
| Age < 65 White Non-Hispanic | Day 1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 176 | 0.80 (0.80, 0.80) |
| Age < 65 White Non-Hispanic | Day 1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 176 | 0.15 (0.15, 0.15) |
| Age < 65 White Non-Hispanic | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 176 | 1.21 (1.21, 1.21) |
| Age < 65 White Non-Hispanic | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 176 | 7.51 (7.51, 7.51) |
| Age < 65 White Non-Hispanic | Day 1 | Vaccine | Positive | Anti N IgG (IU/ml) | 54 | 0.05 (0.05, 0.05) |
| Age < 65 White Non-Hispanic | Day 1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 54 | 0.83 (0.78, 0.89) |
| Age < 65 White Non-Hispanic | Day 1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 54 | 0.15 (0.15, 0.15) |
| Age < 65 White Non-Hispanic | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 54 | 1.78 (1.49, 2.13) |
| Age < 65 White Non-Hispanic | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 54 | 11.55 (9.62, 13.87) |
| 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 | 1.21 (1.21, 1.21) |
| Age < 65 White Non-Hispanic | Day 1 | Placebo | Negative | Pseudovirus-nAb ID80 | 32 | 7.51 (7.51, 7.51) |

(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) | 58 | 0.05 (0.05, 0.05) |
| Age < 65 White Non-Hispanic | Day 1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 58 | 0.80 (0.80, 0.80) |
| Age < 65 White Non-Hispanic | Day 1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 58 | 0.15 (0.15, 0.15) |
| Age < 65 White Non-Hispanic | Day 1 | Placebo | Positive | Pseudovirus-nAb ID50 | 58 | 1.59 (1.35, 1.87) |
| Age < 65 White Non-Hispanic | Day 1 | Placebo | Positive | Pseudovirus-nAb ID80 | 58 | 9.36 (8.19, 10.69) |
| Age < 65 White Non-Hispanic | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 176 | 24.32 (17.76, 33.29) |
| Age < 65 White Non-Hispanic | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 176 | 287.61 (227.68, 363.32) |
| Age < 65 White Non-Hispanic | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 176 | 168.88 (140.99, 202.30) |
| Age < 65 White Non-Hispanic | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID50 | 176 | 13.05 (11.12, 15.32) |
| Age < 65 White Non-Hispanic | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID80 | 176 | 21.20 (18.50, 24.30) |
| Age < 65 White Non-Hispanic | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 54 | 64.43 (40.45, 102.62) |
| Age < 65 White Non-Hispanic | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 54 | 514.72 (325.06, 815.04) |
| Age < 65 White Non-Hispanic | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 54 | 371.84 (277.65, 497.98) |
| Age < 65 White Non-Hispanic | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 54 | 28.84 (22.32, 37.25) |
| Age < 65 White Non-Hispanic | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID80 | 54 | 49.61 (39.32, 62.60) |

(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 | 1.21 (1.21, 1.21) |
| Age < 65 White Non-Hispanic | Day 29 | Placebo | Negative | Pseudovirus-nAb ID80 | 32 | 7.51 (7.51, 7.51) |
| Age < 65 White Non-Hispanic | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 58 | 20.11 (11.86, 34.13) |
| Age < 65 White Non-Hispanic | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 58 | 192.98 (113.92, 326.90) |
| Age < 65 White Non-Hispanic | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 58 | 133.37 (91.19, 195.06) |
| Age < 65 White Non-Hispanic | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 58 | 9.82 (7.20, 13.40) |
| Age < 65 White Non-Hispanic | Day 29 | Placebo | Positive | Pseudovirus-nAb ID80 | 58 | 18.24 (14.33, 23.23) |
| Age < 65 White Non-Hispanic | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 176 | 92.65 (65.76, 130.55) |
| Age < 65 White Non-Hispanic | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 176 | 2660.00 (2042.25, 3464.59) |
| Age < 65 White Non-Hispanic | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 176 | 1914.52 (1506.58, 2432.91) |
| Age < 65 White Non-Hispanic | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 176 | 278.35 (231.74, 334.33) |
| Age < 65 White Non-Hispanic | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID80 | 176 | 445.02 (375.02, 528.09) |

(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) | 54 | 523.26 (276.02, 991.96) |
| Age < 65 White Non-Hispanic | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 54 | 12694.31 (8088.43, 19922.98) |
| Age < 65 White Non-Hispanic | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 54 | 7479.68 (5101.02, 10967.54) |
| Age < 65 White Non-Hispanic | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 54 | 1099.25 (740.37, 1632.09) |
| Age < 65 White Non-Hispanic | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID80 | 54 | 1562.37 (1219.05, 2002.37) |
| 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 | 1.21 (1.21, 1.21) |
| Age < 65 White Non-Hispanic | Day 57 | Placebo | Negative | Pseudovirus-nAb ID80 | 32 | 7.51 (7.51, 7.51) |
| Age < 65 White Non-Hispanic | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 58 | 104.39 (54.65, 199.40) |
| Age < 65 White Non-Hispanic | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 58 | 1855.13 (1102.73, 3120.92) |
| Age < 65 White Non-Hispanic | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 58 | 1597.52 (992.02, 2572.62) |
| Age < 65 White Non-Hispanic | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 58 | 251.25 (181.38, 348.03) |
| Age < 65 White Non-Hispanic | Day 57 | Placebo | Positive | Pseudovirus-nAb ID80 | 58 | 411.10 (314.50, 537.38) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|------------------------------------|-------|---------|---------------------|------------------------|-----|-----------------------|
| Age \geq 65 Communities of Color | Day 1 | Vaccine | Negative | Anti N IgG (IU/ml) | 196 | 0.05 (0.05, 0.05) |
| Age \geq 65 Communities of Color | Day 1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 196 | 0.80 (0.80, 0.80) |
| Age \geq 65 Communities of Color | Day 1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 196 | 0.15 (0.15, 0.15) |
| Age \geq 65 Communities of Color | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 196 | 1.21 (1.21, 1.21) |
| Age \geq 65 Communities of Color | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 196 | 7.51 (7.51, 7.51) |
| Age \geq 65 Communities of Color | Day 1 | Vaccine | Positive | Anti N IgG (IU/ml) | 56 | 0.05 (0.05, 0.05) |
| Age \geq 65 Communities of Color | Day 1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 56 | 0.80 (0.80, 0.80) |
| Age \geq 65 Communities of Color | Day 1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 56 | 0.15 (0.15, 0.15) |
| Age \geq 65 Communities of Color | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 56 | 1.60 (1.36, 1.89) |
| Age \geq 65 Communities of Color | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 56 | 9.84 (8.49, 11.39) |
| Age \geq 65 Communities of Color | Day 1 | Placebo | Negative | Anti N IgG (IU/ml) | 35 | 0.05 (0.05, 0.05) |
| Age \geq 65 Communities of Color | Day 1 | Placebo | Negative | Anti RBD IgG (IU/ml) | 35 | 0.80 (0.80, 0.80) |
| Age \geq 65 Communities of Color | Day 1 | Placebo | Negative | Anti Spike IgG (IU/ml) | 35 | 0.15 (0.15, 0.15) |
| Age \geq 65 Communities of Color | Day 1 | Placebo | Negative | Pseudovirus-nAb ID50 | 35 | 1.21 (1.21, 1.21) |
| Age \geq 65 Communities of Color | Day 1 | Placebo | Negative | Pseudovirus-nAb ID80 | 35 | 7.65 (7.38, 7.92) |

(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, 0.06) |
| Age ≥ 65 Communities of Color | Day 1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 58 | 0.83 (0.78, 0.88) |
| 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 | 1.71 (1.45, 2.01) |
| Age ≥ 65 Communities of Color | Day 1 | Placebo | Positive | Pseudovirus-nAb ID80 | 58 | 9.51 (8.23, 10.99) |
| Age ≥ 65 Communities of Color | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 196 | 85.51 (68.12, 107.32) |
| Age ≥ 65 Communities of Color | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 196 | 1367.10 (1120.52, 1667.95) |
| Age ≥ 65 Communities of Color | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 196 | 718.28 (608.48, 847.90) |
| Age ≥ 65 Communities of Color | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID50 | 196 | 26.06 (22.95, 29.59) |
| Age ≥ 65 Communities of Color | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID80 | 196 | 36.31 (31.75, 41.53) |
| Age ≥ 65 Communities of Color | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 56 | 240.37 (149.08, 387.55) |
| Age ≥ 65 Communities of Color | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 56 | 2915.65 (1928.59, 4407.89) |
| Age ≥ 65 Communities of Color | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 56 | 1354.33 (1009.85, 1816.33) |
| Age ≥ 65 Communities of Color | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 56 | 57.31 (44.38, 73.99) |
| Age ≥ 65 Communities of Color | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID80 | 56 | 57.61 (45.41, 73.08) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|------------------------------------|--------|---------|---------------------|------------------------|-----|----------------------------------|
| Age \geq 65 Communities of Color | Day 29 | Placebo | Negative | Anti N IgG (IU/ml) | 35 | 0.05 (0.05, 0.05) |
| Age \geq 65 Communities of Color | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 35 | 0.80 (0.80, 0.80) |
| Age \geq 65 Communities of Color | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 35 | 0.15 (0.15, 0.15) |
| Age \geq 65 Communities of Color | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 35 | 1.21 (1.21, 1.21) |
| Age \geq 65 Communities of Color | Day 29 | Placebo | Negative | Pseudovirus-nAb ID80 | 35 | 7.51 (7.51, 7.51) |
| Age \geq 65 Communities of Color | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 58 | 74.69 (50.19, 111.13) |
| Age \geq 65 Communities of Color | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 58 | 1072.80 (748.14, 1538.36) |
| Age \geq 65 Communities of Color | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 58 | 463.24 (352.22, 609.26) |
| Age \geq 65 Communities of Color | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 58 | 18.83 (15.12, 23.46) |
| Age \geq 65 Communities of Color | Day 29 | Placebo | Positive | Pseudovirus-nAb ID80 | 58 | 23.23 (18.67, 28.90) |
| Age \geq 65 Communities of Color | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 196 | 509.74 (377.39, 688.51) |
| Age \geq 65 Communities of Color | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 196 | 17397.22 (13573.73, 22297.71) |
| Age \geq 65 Communities of Color | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 196 | 11229.81 (9207.59, 13696.17) |
| Age \geq 65 Communities of Color | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 196 | 763.94 (641.68, 909.50) |
| Age \geq 65 Communities of Color | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID80 | 196 | 794.07 (687.17, 917.59) |

(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) | 56 | 1488.93 (859.44, 2579.47) |
| Age ≥ 65 Communities of Color | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 56 | 60111.35 (40246.72, 89780.62) |
| Age ≥ 65 Communities of Color | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 56 | 35635.46 (24143.48, 52597.47) |
| Age ≥ 65 Communities of Color | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 56 | 2238.45 (1675.95, 2989.74) |
| Age ≥ 65 Communities of Color | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID80 | 56 | 2135.17 (1598.70, 2851.65) |
| 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 | 1.26 (1.19, 1.33) |
| Age ≥ 65 Communities of Color | Day 57 | Placebo | Negative | Pseudovirus-nAb ID80 | 35 | 7.73 (7.30, 8.18) |
| Age ≥ 65 Communities of Color | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 58 | 341.70 (208.05, 561.20) |
| Age ≥ 65 Communities of Color | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 58 | 14505.10 (9439.81, 22288.36) |
| Age ≥ 65 Communities of Color | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 58 | 8712.33 (6274.68, 12097.00) |
| Age ≥ 65 Communities of Color | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 58 | 596.13 (446.31, 796.24) |
| Age ≥ 65 Communities of Color | Day 57 | Placebo | Positive | Pseudovirus-nAb ID80 | 58 | 682.84 (543.58, 857.77) |

(continued)

| Group | Visit | Arm | Baseline SARS-CoV-2 | Marker | N | GMT/GMC |
|----------------------------------|-------|---------|---------------------|------------------------|-----|----------------------|
| Age \geq 65 White Non-Hispanic | Day 1 | Vaccine | Negative | Anti N IgG (IU/ml) | 194 | 0.05 (0.05, 0.05) |
| Age \geq 65 White Non-Hispanic | Day 1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 194 | 0.80 (0.80, 0.80) |
| Age \geq 65 White Non-Hispanic | Day 1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 194 | 0.15 (0.15, 0.15) |
| Age \geq 65 White Non-Hispanic | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 194 | 1.21 (1.21, 1.21) |
| Age \geq 65 White Non-Hispanic | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 194 | 7.51 (7.51, 7.51) |
| Age \geq 65 White Non-Hispanic | Day 1 | Vaccine | Positive | Anti N IgG (IU/ml) | 64 | 0.05 (0.05, 0.05) |
| Age \geq 65 White Non-Hispanic | Day 1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 64 | 0.80 (0.80, 0.80) |
| Age \geq 65 White Non-Hispanic | Day 1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 64 | 0.15 (0.15, 0.15) |
| Age \geq 65 White Non-Hispanic | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 64 | 1.48 (1.30, 1.67) |
| Age \geq 65 White Non-Hispanic | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 64 | 8.93 (8.10, 9.84) |
| Age \geq 65 White Non-Hispanic | Day 1 | Placebo | Negative | Anti N IgG (IU/ml) | 31 | 0.05 (0.05, 0.05) |
| Age \geq 65 White Non-Hispanic | Day 1 | Placebo | Negative | Anti RBD IgG (IU/ml) | 31 | 0.80 (0.80, 0.80) |
| Age \geq 65 White Non-Hispanic | Day 1 | Placebo | Negative | Anti Spike IgG (IU/ml) | 31 | 0.15 (0.15, 0.15) |
| Age \geq 65 White Non-Hispanic | Day 1 | Placebo | Negative | Pseudovirus-nAb ID50 | 31 | 1.21 (1.21, 1.21) |
| Age \geq 65 White Non-Hispanic | Day 1 | Placebo | Negative | Pseudovirus-nAb ID80 | 31 | 7.51 (7.51, 7.51) |

(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) | 63 | 0.05 (0.05, 0.05) |
| Age ≥ 65 White Non-Hispanic | Day 1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 63 | 0.80 (0.80, 0.80) |
| Age ≥ 65 White Non-Hispanic | Day 1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 63 | 0.15 (0.15, 0.15) |
| Age ≥ 65 White Non-Hispanic | Day 1 | Placebo | Positive | Pseudovirus-nAb ID50 | 63 | 1.63 (1.43, 1.85) |
| Age ≥ 65 White Non-Hispanic | Day 1 | Placebo | Positive | Pseudovirus-nAb ID80 | 63 | 8.94 (7.89, 10.14) |
| Age ≥ 65 White Non-Hispanic | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 194 | 123.31 (96.30, 157.89) |
| Age ≥ 65 White Non-Hispanic | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 194 | 1412.35 (1141.70, 1747.16) |
| Age ≥ 65 White Non-Hispanic | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 194 | 867.91 (724.66, 1039.47) |
| Age ≥ 65 White Non-Hispanic | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID50 | 194 | 30.24 (26.67, 34.29) |
| Age ≥ 65 White Non-Hispanic | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID80 | 194 | 39.02 (34.58, 44.03) |
| Age ≥ 65 White Non-Hispanic | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 64 | 193.76 (131.26, 286.01) |
| Age ≥ 65 White Non-Hispanic | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 64 | 2806.76 (2061.51, 3821.41) |
| Age ≥ 65 White Non-Hispanic | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 64 | 1569.51 (1213.12, 2030.60) |
| Age ≥ 65 White Non-Hispanic | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 64 | 53.62 (43.78, 65.66) |
| Age ≥ 65 White Non-Hispanic | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID80 | 64 | 65.59 (52.60, 81.78) |

(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) | 31 | 0.05 (0.05, 0.05) |
| Age ≥ 65 White Non-Hispanic | Day 29 | Placebo | Negative | Anti RBD IgG (IU/ml) | 31 | 0.80 (0.80, 0.80) |
| Age ≥ 65 White Non-Hispanic | Day 29 | Placebo | Negative | Anti Spike IgG (IU/ml) | 31 | 0.15 (0.15, 0.15) |
| Age ≥ 65 White Non-Hispanic | Day 29 | Placebo | Negative | Pseudovirus-nAb ID50 | 31 | 1.25 (1.17, 1.34) |
| Age ≥ 65 White Non-Hispanic | Day 29 | Placebo | Negative | Pseudovirus-nAb ID80 | 31 | 7.51 (7.51, 7.51) |
| Age ≥ 65 White Non-Hispanic | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 63 | 77.42 (51.70, 115.94) |
| Age ≥ 65 White Non-Hispanic | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 63 | 915.81 (627.71, 1336.14) |
| Age ≥ 65 White Non-Hispanic | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 63 | 592.74 (452.27, 776.85) |
| Age ≥ 65 White Non-Hispanic | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 63 | 19.63 (16.06, 24.00) |
| Age ≥ 65 White Non-Hispanic | Day 29 | Placebo | Positive | Pseudovirus-nAb ID80 | 63 | 28.80 (23.45, 35.37) |
| Age ≥ 65 White Non-Hispanic | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 194 | 587.10 (439.80, 783.73) |
| Age ≥ 65 White Non-Hispanic | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 194 | 18139.10 (14345.34, 22936.16) |
| Age ≥ 65 White Non-Hispanic | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 194 | 14236.08 (11584.07, 17495.23) |
| Age ≥ 65 White Non-Hispanic | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 194 | 899.16 (765.84, 1055.68) |
| Age ≥ 65 White Non-Hispanic | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID80 | 194 | 829.50 (719.17, 956.76) |

(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) | 64 | 2393.12 (1477.83, 3875.29) |
| Age ≥ 65 White Non-Hispanic | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 64 | 55942.36 (36988.10, 84609.57) |
| Age ≥ 65 White Non-Hispanic | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 64 | 31971.03 (23196.84, 44064.05) |
| Age ≥ 65 White Non-Hispanic | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 64 | 2428.01 (1824.93, 3230.40) |
| Age ≥ 65 White Non-Hispanic | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID80 | 64 | 2150.25 (1684.59, 2744.63) |
| Age ≥ 65 White Non-Hispanic | Day 57 | Placebo | Negative | Anti N IgG (IU/ml) | 31 | 0.05 (0.05, 0.05) |
| Age ≥ 65 White Non-Hispanic | Day 57 | Placebo | Negative | Anti RBD IgG (IU/ml) | 31 | 0.80 (0.80, 0.80) |
| Age ≥ 65 White Non-Hispanic | Day 57 | Placebo | Negative | Anti Spike IgG (IU/ml) | 31 | 0.15 (0.15, 0.15) |
| Age ≥ 65 White Non-Hispanic | Day 57 | Placebo | Negative | Pseudovirus-nAb ID50 | 31 | 1.26 (1.16, 1.38) |
| Age ≥ 65 White Non-Hispanic | Day 57 | Placebo | Negative | Pseudovirus-nAb ID80 | 31 | 7.51 (7.51, 7.51) |
| Age ≥ 65 White Non-Hispanic | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 63 | 399.18 (225.22, 707.51) |
| Age ≥ 65 White Non-Hispanic | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 63 | 14104.09 (9867.31, 20160.04) |
| Age ≥ 65 White Non-Hispanic | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 63 | 10718.36 (7686.05, 14946.97) |
| Age ≥ 65 White Non-Hispanic | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 63 | 659.35 (509.51, 853.25) |
| Age ≥ 65 White Non-Hispanic | Day 57 | Placebo | Positive | Pseudovirus-nAb ID80 | 63 | 622.36 (487.13, 795.13) |

2.8 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) | 747 | 0.05 (0.05, 0.05) | 39.38 (33.04, 46.94) | 18.71 (15.95, 21.95) |
| | D29 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 747 | 0.80 (0.80, 0.80) | 476.21 (415.28, 546.08) | 277.97 (242.41, 318.76) |
| | D29 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 747 | 0.15 (0.15, 0.15) | 266.96 (239.24, 297.88) | 297.15 (266.30, 331.57) |
| | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 747 | 1.21 (1.21, 1.21) | 17.38 (15.88, 19.02) | 7.61 (6.94, 8.36) |
| | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 747 | 7.51 (7.51, 7.51) | 26.00 (24.01, 28.15) | 2.42 (2.25, 2.61) |
| | D29 fold-rise over D1 | Vaccine | Positive | Anti N IgG (IU/ml) | 234 | 0.05 (0.05, 0.05) | 81.71 (61.73, 108.16) | 36.31 (27.35, 48.20) |
| | D29 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 234 | 0.81 (0.79, 0.84) | 842.22 (650.71, 1090.08) | 487.76 (377.03, 631.02) |
| | D29 fold-rise over D1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 234 | 0.16 (0.15, 0.16) | 473.58 (396.77, 565.26) | 527.14 (441.64, 629.19) |
| | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 234 | 1.67 (1.51, 1.84) | 32.67 (28.06, 38.03) | 13.04 (11.14, 15.27) |
| | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 234 | 9.87 (9.00, 10.83) | 51.20 (44.63, 58.75) | 4.03 (3.46, 4.69) |
| | D29 fold-rise over D1 | Placebo | Negative | Anti N IgG (IU/ml) | 138 | 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) | 138 | 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 |
|-------|-----------------------|---------|---------------------|------------------------|-----|-----------------------|----------------------------------|--------------------------------|
| | D29 fold-rise over D1 | Placebo | Negative | Anti Spike IgG (IU/ml) | 138 | 0.15 (0.15, 0.15) | 0.15 (0.15, 0.15) | 1.00 (1.00, 1.00) |
| | D29 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID50 | 138 | 1.21 (1.21, 1.22) | 1.22 (1.20, 1.23) | 1.00 (1.00, 1.00) |
| | D29 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 138 | 7.72 (7.51, 7.95) | 7.51 (7.51, 7.51) | 0.99 (0.98, 1.01) |
| | D29 fold-rise over D1 | Placebo | Positive | Anti N IgG (IU/ml) | 241 | 0.05 (0.05, 0.05) | 27.27 (20.41, 36.44) | 12.69 (9.65, 16.69) |
| | D29 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 241 | 0.80 (0.80, 0.80) | 303.87 (230.21, 401.11) | 177.38 (134.38, 234.13) |
| | D29 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 241 | 0.15 (0.15, 0.16) | 169.66 (136.33, 211.14) | 188.85 (151.75, 235.02) |
| | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 241 | 1.64 (1.49, 1.80) | 11.38 (9.63, 13.45) | 4.61 (3.93, 5.41) |
| | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 241 | 9.87 (9.08, 10.74) | 20.22 (17.73, 23.07) | 1.68 (1.48, 1.90) |
| | D57 fold-rise over D1 | Vaccine | Negative | Anti N IgG (IU/ml) | 747 | 0.05 (0.05, 0.05) | 169.29 (138.13, 207.49) | 77.17 (63.42, 93.90) |
| | D57 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 747 | 0.80 (0.80, 0.80) | 4768.44 (4097.10, 5549.78) | 2783.43 (2391.56, 3239.52) |
| | D57 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 747 | 0.15 (0.15, 0.15) | 3384.52 (2945.38, 3889.12) | 3767.27 (3278.48, 4328.94) |
| | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 747 | 1.21 (1.21, 1.21) | 427.80 (384.20, 476.35) | 191.11 (171.63, 212.80) |
| | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 747 | 7.51 (7.51, 7.51) | 565.58 (512.62, 624.02) | 52.66 (47.73, 58.11) |
| | D57 fold-rise over D1 | Vaccine | Positive | Anti N IgG (IU/ml) | 234 | 0.05 (0.05, 0.05) | 648.88 (451.21, 933.14) | 286.67 (198.52, 413.96) |
| | D57 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 234 | 0.81 (0.79, 0.84) | 16689.18 (12811.64, 21740.29) | 9665.37 (7422.46, 12586.05) |

(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 | Anti Spike IgG (IU/ml) | 234 | 0.16 (0.15, 0.16) | 10741.38 (8558.81, 13480.53) | 11956.12 (9526.72, 15005.04) |
| | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 234 | 1.67 (1.51, 1.84) | 1256.68 (1017.71, 1551.75) | 502.30 (407.43, 619.27) |
| | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 234 | 9.87 (9.00, 10.83) | 1561.17 (1336.08, 1824.18) | 125.94 (107.79, 147.15) |
| | D57 fold-rise over D1 | Placebo | Negative | Anti N IgG (IU/ml) | 138 | 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) | 138 | 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) | 138 | 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 | 138 | 1.21 (1.21, 1.22) | 1.25 (1.21, 1.28) | 1.00 (1.00, 1.01) |
| | D57 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 138 | 7.72 (7.51, 7.95) | 7.54 (7.49, 7.58) | 0.99 (0.98, 1.01) |
| | D57 fold-rise over D1 | Placebo | Positive | Anti N IgG (IU/ml) | 241 | 0.05 (0.05, 0.05) | 133.24 (92.21, 192.52) | 59.99 (41.73, 86.24) |
| | D57 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 241 | 0.80 (0.80, 0.80) | 3052.94 (2308.16, 4038.04) | 1782.06 (1347.32, 2357.08) |
| | D57 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 241 | 0.15 (0.15, 0.16) | 2310.36 (1764.78, 3024.62) | 2571.64 (1964.35, 3366.67) |
| | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 241 | 1.64 (1.49, 1.80) | 309.33 (255.18, 374.97) | 125.02 (103.14, 151.55) |
| | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 241 | 9.87 (9.08, 10.74) | 456.31 (389.81, 534.14) | 37.15 (31.88, 43.28) |

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) | 357 | 0.05 (0.05, 0.05) | 30.25 (24.33, 37.60) | 14.67 (12.05, 17.86) |
| Age < 65 | D29 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 357 | 0.80 (0.80, 0.80) | 356.86 (301.49, 422.39) | 208.31 (175.99, 246.56) |
| Age < 65 | D29 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 357 | 0.15 (0.15, 0.15) | 198.79 (173.81, 227.36) | 221.27 (193.47, 253.07) |
| Age < 65 | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 357 | 1.21 (1.21, 1.21) | 15.24 (13.63, 17.04) | 6.64 (5.92, 7.46) |
| Age < 65 | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 357 | 7.51 (7.51, 7.51) | 23.51 (21.31, 25.93) | 2.20 (2.00, 2.41) |
| Age < 65 | D29 fold-rise over D1 | Vaccine | Positive | Anti N IgG (IU/ml) | 114 | 0.05 (0.05, 0.05) | 64.27 (45.66, 90.47) | 28.54 (20.20, 40.32) |
| Age < 65 | D29 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 114 | 0.82 (0.79, 0.85) | 617.21 (450.57, 845.49) | 356.74 (260.59, 488.36) |
| Age < 65 | D29 fold-rise over D1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 114 | 0.16 (0.15, 0.16) | 353.46 (285.77, 437.17) | 393.43 (318.09, 486.61) |
| Age < 65 | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 114 | 1.71 (1.52, 1.93) | 28.61 (23.76, 34.45) | 11.35 (9.37, 13.76) |
| Age < 65 | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 114 | 10.04 (8.96, 11.26) | 48.64 (41.15, 57.48) | 3.77 (3.13, 4.53) |
| Age < 65 | D29 fold-rise over D1 | Placebo | Negative | Anti N IgG (IU/ml) | 72 | 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) | 72 | 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) | 72 | 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 | 72 | 1.21 (1.21, 1.22) | 1.21 (1.21, 1.21) | 1.00 (1.00, 1.00) |
| Age < 65 | D29 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 72 | 7.78 (7.49, 8.08) | 7.51 (7.51, 7.51) | 0.99 (0.97, 1.01) |

(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) | 120 | 0.05 (0.05, 0.05) | 20.88 (14.63, 29.80) | 9.85 (7.05, 13.77) |
| Age < 65 | D29 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 120 | 0.80 (0.80, 0.80) | 224.00 (159.42, 314.74) | 130.75 (93.06, 183.72) |
| Age < 65 | D29 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 120 | 0.15 (0.15, 0.16) | 126.14 (96.53, 164.83) | 140.41 (107.45, 183.47) |
| Age < 65 | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 120 | 1.63 (1.45, 1.84) | 9.92 (8.08, 12.19) | 4.03 (3.31, 4.91) |
| Age < 65 | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 120 | 10.06 (9.08, 11.15) | 18.92 (16.11, 22.22) | 1.56 (1.34, 1.81) |
| Age < 65 | D57 fold-rise over D1 | Vaccine | Negative | Anti N IgG (IU/ml) | 357 | 0.05 (0.05, 0.05) | 123.20 (95.80, 158.44) | 56.54 (44.38, 72.02) |
| Age < 65 | D57 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 357 | 0.80 (0.80, 0.80) | 3345.62 (2777.00, 4030.66) | 1952.90 (1620.99, 2352.78) |
| Age < 65 | D57 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 357 | 0.15 (0.15, 0.15) | 2364.92 (1992.88, 2806.42) | 2632.37 (2218.25, 3123.80) |
| Age < 65 | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 357 | 1.21 (1.21, 1.21) | 357.11 (312.83, 407.65) | 159.53 (139.75, 182.11) |
| Age < 65 | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 357 | 7.51 (7.51, 7.51) | 512.86 (454.13, 579.18) | 47.76 (42.29, 53.93) |
| Age < 65 | D57 fold-rise over D1 | Vaccine | Positive | Anti N IgG (IU/ml) | 114 | 0.05 (0.05, 0.05) | 485.45 (311.29, 757.03) | 214.02 (136.51, 335.52) |
| Age < 65 | D57 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 114 | 0.82 (0.79, 0.85) | 12175.02 (8842.14, 16764.17) | 7036.87 (5113.19, 9684.29) |
| Age < 65 | D57 fold-rise over D1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 114 | 0.16 (0.15, 0.16) | 8050.61 (6114.49, 10599.79) | 8961.05 (6805.98, 11798.52) |
| Age < 65 | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 114 | 1.71 (1.52, 1.93) | 1070.02 (826.48, 1385.33) | 425.27 (329.26, 549.27) |
| Age < 65 | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 114 | 10.04 (8.96, 11.26) | 1439.55 (1191.48, 1739.25) | 114.50 (94.78, 138.33) |

(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) | 72 | 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) | 72 | 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) | 72 | 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 | 72 | 1.21 (1.21, 1.22) | 1.24 (1.20, 1.28) | 1.00 (1.00, 1.00) |
| Age < 65 | D57 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 72 | 7.78 (7.49, 8.08) | 7.51 (7.51, 7.51) | 0.99 (0.97, 1.01) |
| Age < 65 | D57 fold-rise over D1 | Placebo | Positive | Anti N IgG (IU/ml) | 120 | 0.05 (0.05, 0.05) | 102.01 (64.98, 160.15) | 45.98 (29.48, 71.72) |
| Age < 65 | D57 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 120 | 0.80 (0.80, 0.80) | 2044.73 (1455.28, 2872.94) | 1193.55 (849.47, 1676.99) |
| Age < 65 | D57 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 120 | 0.15 (0.15, 0.16) | 1588.46 (1142.67, 2208.16) | 1768.10 (1271.90, 2457.88) |
| Age < 65 | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 120 | 1.63 (1.45, 1.84) | 257.10 (203.12, 325.43) | 104.05 (82.18, 131.75) |
| Age < 65 | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 120 | 10.06 (9.08, 11.15) | 416.45 (343.36, 505.10) | 33.80 (28.02, 40.77) |
| Age ≥ 65 | D29 fold-rise over D1 | Vaccine | Negative | Anti N IgG (IU/ml) | 390 | 0.05 (0.05, 0.05) | 105.10 (88.47, 124.86) | 46.30 (38.87, 55.15) |
| Age ≥ 65 | D29 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 390 | 0.80 (0.80, 0.80) | 1392.43 (1200.78, 1614.67) | 812.79 (700.92, 942.52) |
| Age ≥ 65 | D29 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 390 | 0.15 (0.15, 0.15) | 799.13 (705.06, 905.76) | 889.51 (784.80, 1008.19) |
| Age ≥ 65 | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 390 | 1.21 (1.21, 1.21) | 28.34 (25.89, 31.02) | 12.63 (11.53, 13.83) |
| Age ≥ 65 | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 390 | 7.51 (7.51, 7.51) | 37.82 (34.56, 41.37) | 3.47 (3.18, 3.80) |

(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) | 120 | 0.05 (0.05, 0.05) | 209.19 (154.61, 283.03) | 93.19 (68.87, 126.08) |
| Age ≥ 65 | D29 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 120 | 0.80 (0.80, 0.80) | 2844.99 (2222.07, 3642.53) | 1660.68 (1297.07, 2126.22) |
| Age ≥ 65 | D29 fold-rise over D1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 120 | 0.15 (0.15, 0.15) | 1489.36 (1223.39, 1813.16) | 1657.79 (1361.74, 2018.21) |
| Age ≥ 65 | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 120 | 1.52 (1.37, 1.68) | 54.90 (46.83, 64.36) | 22.44 (19.08, 26.39) |
| Age ≥ 65 | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 120 | 9.24 (8.52, 10.03) | 62.63 (53.04, 73.97) | 5.25 (4.42, 6.24) |
| Age ≥ 65 | 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) |
| Age ≥ 65 | 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) |
| Age ≥ 65 | 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) |
| Age ≥ 65 | D29 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID50 | 66 | 1.21 (1.21, 1.21) | 1.23 (1.19, 1.28) | 1.00 (1.00, 1.00) |
| Age ≥ 65 | D29 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 66 | 7.57 (7.45, 7.70) | 7.51 (7.51, 7.51) | 1.00 (1.00, 1.00) |
| Age ≥ 65 | D29 fold-rise over D1 | Placebo | Positive | Anti N IgG (IU/ml) | 121 | 0.05 (0.05, 0.05) | 76.19 (57.27, 101.36) | 33.66 (25.25, 44.88) |
| Age ≥ 65 | D29 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 121 | 0.81 (0.79, 0.84) | 982.84 (754.71, 1279.93) | 573.70 (440.54, 747.12) |
| Age ≥ 65 | D29 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 121 | 0.15 (0.15, 0.15) | 530.97 (437.49, 644.42) | 591.02 (486.97, 717.30) |
| Age ≥ 65 | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 121 | 1.66 (1.50, 1.84) | 19.27 (16.61, 22.35) | 7.73 (6.68, 8.94) |
| Age ≥ 65 | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 121 | 9.19 (8.36, 10.11) | 26.17 (22.51, 30.42) | 2.20 (1.90, 2.55) |

(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) | 390 | 0.05 (0.05, 0.05) | 552.00 (447.81, 680.43) | 245.38 (198.94, 302.66) |
| Age ≥ 65 | D57 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 390 | 0.80 (0.80, 0.80) | 17811.61 (15012.46, 21132.68) | 10397.00 (8763.07, 12335.57) |
| Age ≥ 65 | D57 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 390 | 0.15 (0.15, 0.15) | 12836.45 (11096.62, 14849.05) | 14288.12 (12351.54, 16528.33) |
| Age ≥ 65 | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 390 | 1.21 (1.21, 1.21) | 837.45 (743.98, 942.66) | 374.11 (332.36, 421.11) |
| Age ≥ 65 | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 390 | 7.51 (7.51, 7.51) | 813.85 (734.70, 901.52) | 75.78 (68.41, 83.95) |
| Age ≥ 65 | D57 fold-rise over D1 | Vaccine | Positive | Anti N IgG (IU/ml) | 120 | 0.05 (0.05, 0.05) | 2021.65 (1395.66, 2928.42) | 900.57 (621.71, 1304.51) |
| Age ≥ 65 | D57 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 120 | 0.80 (0.80, 0.80) | 57390.09 (42425.39, 77633.31) | 33499.75 (24764.55, 45316.12) |
| Age ≥ 65 | D57 fold-rise over D1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 120 | 0.15 (0.15, 0.15) | 33228.31 (25909.63, 42614.29) | 36986.10 (28839.75, 47433.54) |
| Age ≥ 65 | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 120 | 1.52 (1.37, 1.68) | 2358.86 (1909.82, 2913.48) | 964.12 (776.47, 1197.12) |
| Age ≥ 65 | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 120 | 9.24 (8.52, 10.03) | 2144.88 (1777.29, 2588.48) | 182.87 (151.86, 220.22) |
| Age ≥ 65 | 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) |
| Age ≥ 65 | 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) |
| Age ≥ 65 | 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) |
| Age ≥ 65 | D57 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID50 | 66 | 1.21 (1.21, 1.21) | 1.26 (1.20, 1.33) | 1.01 (0.99, 1.04) |
| Age ≥ 65 | D57 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 66 | 7.57 (7.45, 7.70) | 7.61 (7.41, 7.81) | 1.01 (0.99, 1.03) |

(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) | 121 | 0.05 (0.05, 0.05) | 372.41 (252.92, 548.36) | 166.99 (113.82, 245.00) |
| Age ≥ 65 | D57 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 121 | 0.81 (0.79, 0.84) | 14281.73 (10842.90, 18811.19) | 8336.53 (6329.22, 10980.47) |
| Age ≥ 65 | D57 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 121 | 0.15 (0.15, 0.15) | 9771.25 (7721.56, 12365.03) | 10876.29 (8594.80, 13763.40) |
| Age ≥ 65 | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 121 | 1.66 (1.50, 1.84) | 630.33 (519.76, 764.44) | 253.43 (209.89, 306.01) |
| Age ≥ 65 | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 121 | 9.19 (8.36, 10.11) | 648.67 (547.29, 768.82) | 53.41 (45.41, 62.83) |

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) | 381 | 0.05 (0.05, 0.05) | 40.32 (33.02, 49.23) | 18.58 (15.41, 22.41) |
| At-risk | D29 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 381 | 0.80 (0.80, 0.80) | 516.91 (434.48, 614.97) | 301.73 (253.62, 358.97) |
| At-risk | D29 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 381 | 0.15 (0.15, 0.15) | 294.81 (255.35, 340.37) | 328.15 (284.23, 378.86) |
| At-risk | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 381 | 1.21 (1.21, 1.21) | 18.02 (16.26, 19.98) | 7.97 (7.18, 8.84) |
| At-risk | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 381 | 7.51 (7.51, 7.51) | 27.52 (24.95, 30.36) | 2.60 (2.37, 2.85) |
| At-risk | D29 fold-rise over D1 | Vaccine | Positive | Anti N IgG (IU/ml) | 111 | 0.05 (0.05, 0.05) | 72.75 (49.40, 107.15) | 33.07 (22.65, 48.28) |
| At-risk | D29 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 111 | 0.82 (0.77, 0.88) | 875.73 (634.67, 1208.35) | 500.02 (363.38, 688.04) |
| At-risk | D29 fold-rise over D1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 111 | 0.15 (0.15, 0.15) | 577.86 (452.58, 737.83) | 643.22 (503.76, 821.27) |
| At-risk | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 111 | 1.57 (1.40, 1.76) | 32.53 (26.65, 39.71) | 13.46 (10.98, 16.51) |
| At-risk | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 111 | 9.36 (8.35, 10.48) | 49.96 (40.47, 61.68) | 4.24 (3.51, 5.13) |
| At-risk | D29 fold-rise over D1 | Placebo | Negative | Anti N IgG (IU/ml) | 71 | 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) | 71 | 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) | 71 | 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 | 71 | 1.22 (1.20, 1.24) | 1.22 (1.20, 1.25) | 1.00 (1.00, 1.00) |
| At-risk | D29 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 71 | 7.51 (7.51, 7.51) | 7.51 (7.51, 7.51) | 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) | 117 | 0.05 (0.05, 0.05) | 39.07 (27.06, 56.40) | 17.61 (12.32, 25.16) |
| At-risk | D29 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 117 | 0.80 (0.79, 0.81) | 399.73 (291.24, 548.63) | 233.33 (170.00, 320.24) |
| At-risk | D29 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 117 | 0.16 (0.15, 0.16) | 230.58 (178.83, 297.31) | 256.66 (199.06, 330.93) |
| At-risk | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 117 | 1.53 (1.38, 1.69) | 13.89 (11.24, 17.17) | 5.61 (4.50, 7.00) |
| At-risk | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 117 | 10.00 (8.97, 11.14) | 21.72 (18.34, 25.72) | 1.82 (1.59, 2.10) |
| At-risk | D57 fold-rise over D1 | Vaccine | Negative | Anti N IgG (IU/ml) | 381 | 0.05 (0.05, 0.05) | 175.84 (138.12, 223.86) | 79.05 (62.39, 100.15) |
| At-risk | D57 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 381 | 0.80 (0.80, 0.80) | 5606.18 (4585.35, 6854.28) | 3272.44 (2676.56, 4000.98) |
| At-risk | D57 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 381 | 0.15 (0.15, 0.15) | 3919.84 (3269.77, 4699.17) | 4363.14 (3639.54, 5230.60) |
| At-risk | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 381 | 1.21 (1.21, 1.21) | 468.02 (411.38, 532.45) | 209.08 (183.77, 237.86) |
| At-risk | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 381 | 7.51 (7.51, 7.51) | 614.23 (547.72, 688.82) | 57.19 (51.00, 64.14) |
| At-risk | D57 fold-rise over D1 | Vaccine | Positive | Anti N IgG (IU/ml) | 111 | 0.05 (0.05, 0.05) | 681.83 (436.93, 1064.01) | 301.87 (192.91, 472.38) |
| At-risk | D57 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 111 | 0.82 (0.77, 0.88) | 15742.11 (11096.03, 22333.56) | 8988.39 (6348.75, 12725.53) |
| At-risk | D57 fold-rise over D1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 111 | 0.15 (0.15, 0.15) | 12327.67 (9020.42, 16847.51) | 13721.81 (10040.54, 18752.79) |
| At-risk | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 111 | 1.57 (1.40, 1.76) | 1375.89 (1057.21, 1790.64) | 571.44 (435.76, 749.38) |
| At-risk | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 111 | 9.36 (8.35, 10.48) | 1593.34 (1280.14, 1983.16) | 131.75 (107.04, 162.17) |

(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) | 71 | 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) | 71 | 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) | 71 | 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 | 71 | 1.22 (1.20, 1.24) | 1.26 (1.19, 1.35) | 1.01 (0.99, 1.03) |
| At-risk | D57 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 71 | 7.51 (7.51, 7.51) | 7.51 (7.51, 7.51) | 1.00 (1.00, 1.00) |
| At-risk | D57 fold-rise over D1 | Placebo | Positive | Anti N IgG (IU/ml) | 117 | 0.05 (0.05, 0.05) | 191.20 (125.62, 291.02) | 83.77 (54.60, 128.52) |
| At-risk | D57 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 117 | 0.80 (0.79, 0.81) | 4423.09 (3257.84, 6005.14) | 2581.85 (1901.66, 3505.32) |
| At-risk | D57 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 117 | 0.16 (0.15, 0.16) | 3158.86 (2281.20, 4374.18) | 3516.10 (2539.18, 4868.86) |
| At-risk | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 117 | 1.53 (1.38, 1.69) | 351.46 (273.50, 451.64) | 145.54 (112.42, 188.43) |
| At-risk | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 117 | 10.00 (8.97, 11.14) | 399.37 (320.90, 497.03) | 32.03 (26.11, 39.28) |
| Not at-risk | D29 fold-rise over D1 | Vaccine | Negative | Anti N IgG (IU/ml) | 366 | 0.05 (0.05, 0.05) | 38.84 (30.11, 50.10) | 18.79 (14.93, 23.65) |
| Not at-risk | D29 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 366 | 0.80 (0.80, 0.80) | 453.52 (373.62, 550.49) | 264.73 (218.09, 321.33) |
| Not at-risk | D29 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 366 | 0.15 (0.15, 0.15) | 251.64 (215.64, 293.64) | 280.10 (240.03, 326.85) |
| Not at-risk | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 366 | 1.21 (1.21, 1.21) | 17.01 (14.92, 19.38) | 7.41 (6.47, 8.48) |
| Not at-risk | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 366 | 7.51 (7.51, 7.51) | 25.13 (22.44, 28.14) | 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) | 123 | 0.05 (0.05, 0.05) | 87.15 (59.57, 127.48) | 38.24 (25.94, 56.38) |
| Not at-risk | D29 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 123 | 0.81 (0.79, 0.83) | 824.18 (574.54, 1182.28) | 481.09 (335.37, 690.12) |
| Not at-risk | D29 fold-rise over D1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 123 | 0.16 (0.15, 0.16) | 424.06 (333.14, 539.80) | 472.02 (370.81, 600.84) |
| Not at-risk | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 123 | 1.73 (1.50, 1.98) | 32.75 (26.56, 40.38) | 12.81 (10.30, 15.93) |
| Not at-risk | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 123 | 10.17 (8.94, 11.58) | 51.91 (43.40, 62.08) | 3.92 (3.17, 4.84) |
| Not 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) |
| Not 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) |
| Not 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) |
| Not at-risk | D29 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID50 | 67 | 1.21 (1.21, 1.21) | 1.21 (1.21, 1.21) | 1.00 (1.00, 1.00) |
| Not at-risk | D29 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 67 | 7.86 (7.50, 8.23) | 7.51 (7.51, 7.51) | 0.99 (0.96, 1.01) |
| Not at-risk | D29 fold-rise over D1 | Placebo | Positive | Anti N IgG (IU/ml) | 124 | 0.05 (0.05, 0.05) | 22.29 (14.89, 33.35) | 10.56 (7.23, 15.42) |
| Not at-risk | D29 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 124 | 0.80 (0.79, 0.81) | 260.53 (175.30, 387.19) | 152.08 (102.33, 226.01) |
| Not at-risk | D29 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 124 | 0.15 (0.15, 0.15) | 142.82 (104.63, 194.96) | 158.97 (116.46, 217.01) |
| Not at-risk | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 124 | 1.70 (1.48, 1.96) | 10.17 (8.07, 12.83) | 4.13 (3.32, 5.13) |
| Not at-risk | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 124 | 9.81 (8.74, 11.01) | 19.43 (16.19, 23.32) | 1.60 (1.34, 1.91) |

(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) | 366 | 0.05 (0.05, 0.05) | 165.51 (123.58, 221.68) | 76.07 (57.45, 100.72) |
| Not at-risk | D57 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 366 | 0.80 (0.80, 0.80) | 4330.32 (3501.86, 5354.77) | 2527.69 (2044.11, 3125.69) |
| Not at-risk | D57 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 366 | 0.15 (0.15, 0.15) | 3101.15 (2549.75, 3771.78) | 3451.85 (2838.10, 4198.33) |
| Not at-risk | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 366 | 1.21 (1.21, 1.21) | 405.51 (347.62, 473.04) | 181.15 (155.29, 211.32) |
| Not at-risk | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 366 | 7.51 (7.51, 7.51) | 538.46 (467.44, 620.28) | 50.14 (43.53, 57.76) |
| Not at-risk | D57 fold-rise over D1 | Vaccine | Positive | Anti N IgG (IU/ml) | 123 | 0.05 (0.05, 0.05) | 631.28 (379.42, 1050.35) | 278.57 (166.36, 466.46) |
| Not at-risk | D57 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 123 | 0.81 (0.79, 0.83) | 17239.12 (11977.96, 24811.18) | 10062.82 (6991.78, 14482.78) |
| Not at-risk | D57 fold-rise over D1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 123 | 0.16 (0.15, 0.16) | 9950.91 (7303.49, 13557.98) | 11076.26 (8129.44, 15091.25) |
| Not at-risk | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 123 | 1.73 (1.50, 1.98) | 1195.03 (890.64, 1603.47) | 467.61 (350.24, 624.32) |
| Not at-risk | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 123 | 10.17 (8.94, 11.58) | 1543.60 (1251.74, 1903.51) | 122.83 (99.27, 151.99) |
| Not 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) |
| Not 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) |
| Not 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) |
| Not at-risk | D57 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID50 | 67 | 1.21 (1.21, 1.21) | 1.23 (1.20, 1.27) | 1.00 (1.00, 1.00) |
| Not at-risk | D57 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 67 | 7.86 (7.50, 8.23) | 7.55 (7.47, 7.63) | 0.99 (0.97, 1.02) |

(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) | 124 | 0.05 (0.05, 0.05) | 108.79 (64.41, 183.76) | 49.74 (29.77, 83.12) |
| Not at-risk | D57 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 124 | 0.80 (0.79, 0.81) | 2479.40 (1657.15, 3709.64) | 1447.28 (967.31, 2165.39) |
| Not at-risk | D57 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 124 | 0.15 (0.15, 0.15) | 1938.34 (1324.99, 2835.62) | 2157.55 (1474.83, 3156.30) |
| Not at-risk | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 124 | 1.70 (1.48, 1.96) | 287.94 (220.69, 375.68) | 114.80 (88.19, 149.44) |
| Not at-risk | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 124 | 9.81 (8.74, 11.01) | 491.75 (397.36, 608.56) | 40.37 (32.74, 49.78) |



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) | 185 | 0.05 (0.05, 0.05) | 27.71 (21.41, 35.84) | 13.02 (10.26, 16.52) |
| Age < 65 At-risk | D29 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 185 | 0.80 (0.80, 0.80) | 349.87 (279.45, 438.03) | 204.23 (163.12, 255.69) |
| Age < 65 At-risk | D29 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 185 | 0.15 (0.15, 0.15) | 199.73 (166.21, 240.01) | 222.31 (185.00, 267.15) |
| Age < 65 At-risk | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 185 | 1.21 (1.21, 1.21) | 15.18 (13.27, 17.35) | 6.69 (5.84, 7.65) |
| Age < 65 At-risk | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 185 | 7.51 (7.51, 7.51) | 24.27 (21.38, 27.56) | 2.30 (2.05, 2.59) |
| Age < 65 At-risk | D29 fold-rise over D1 | Vaccine | Positive | Anti N IgG (IU/ml) | 56 | 0.05 (0.05, 0.05) | 48.62 (29.53, 80.04) | 22.26 (13.69, 36.20) |
| Age < 65 At-risk | D29 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 56 | 0.83 (0.76, 0.91) | 555.52 (371.70, 830.23) | 314.59 (211.51, 467.92) |
| Age < 65 At-risk | D29 fold-rise over D1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 56 | 0.15 (0.15, 0.15) | 381.68 (284.39, 512.26) | 424.85 (316.55, 570.20) |
| Age < 65 At-risk | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 56 | 1.59 (1.38, 1.84) | 26.59 (20.62, 34.29) | 11.08 (8.54, 14.39) |
| Age < 65 At-risk | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 56 | 9.39 (8.08, 10.90) | 43.84 (33.39, 57.55) | 3.74 (2.94, 4.75) |
| Age < 65 At-risk | 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 At-risk | 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 At-risk | 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 At-risk | D29 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID50 | 36 | 1.22 (1.20, 1.25) | 1.21 (1.21, 1.21) | 1.00 (1.00, 1.00) |
| Age < 65 At-risk | D29 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 36 | 7.51 (7.51, 7.51) | 7.51 (7.51, 7.51) | 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) | 59 | 0.05 (0.05, 0.05) | 30.34 (18.77, 49.04) | 13.89 (8.73, 22.08) |
| Age < 65 At-risk | D29 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 59 | 0.80 (0.80, 0.80) | 290.24 (193.43, 435.51) | 169.42 (112.91, 254.22) |
| Age < 65 At-risk | D29 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 59 | 0.16 (0.15, 0.16) | 163.09 (117.48, 226.43) | 181.54 (130.76, 252.03) |
| Age < 65 At-risk | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 59 | 1.48 (1.30, 1.69) | 12.23 (9.23, 16.21) | 4.93 (3.67, 6.61) |
| Age < 65 At-risk | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 59 | 10.31 (8.97, 11.86) | 21.07 (16.95, 26.19) | 1.77 (1.48, 2.11) |
| Age < 65 At-risk | D57 fold-rise over D1 | Vaccine | Negative | Anti N IgG (IU/ml) | 185 | 0.05 (0.05, 0.05) | 114.61 (83.79, 156.78) | 51.78 (38.14, 70.31) |
| Age < 65 At-risk | D57 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 185 | 0.80 (0.80, 0.80) | 3684.93 (2839.16, 4782.66) | 2150.97 (1657.27, 2791.74) |
| Age < 65 At-risk | D57 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 185 | 0.15 (0.15, 0.15) | 2411.71 (1908.81, 3047.12) | 2684.45 (2124.67, 3391.72) |
| Age < 65 At-risk | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 185 | 1.21 (1.21, 1.21) | 368.01 (311.75, 434.43) | 164.40 (139.27, 194.07) |
| Age < 65 At-risk | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 185 | 7.51 (7.51, 7.51) | 555.98 (479.07, 645.23) | 51.77 (44.61, 60.08) |
| Age < 65 At-risk | D57 fold-rise over D1 | Vaccine | Positive | Anti N IgG (IU/ml) | 56 | 0.05 (0.05, 0.05) | 411.63 (236.09, 717.69) | 181.83 (103.87, 318.30) |
| Age < 65 At-risk | D57 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 56 | 0.83 (0.76, 0.91) | 9098.59 (5981.40, 13840.28) | 5152.61 (3400.81, 7806.80) |
| Age < 65 At-risk | D57 fold-rise over D1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 56 | 0.15 (0.15, 0.15) | 8014.18 (5452.45, 11779.48) | 8920.50 (6069.07, 13111.62) |
| Age < 65 At-risk | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 56 | 1.59 (1.38, 1.84) | 1047.93 (752.94, 1458.49) | 438.99 (312.23, 617.20) |
| Age < 65 At-risk | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 56 | 9.39 (8.08, 10.90) | 1411.41 (1070.84, 1860.31) | 114.95 (88.44, 149.41) |

(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) | 36 | 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) | 36 | 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) | 36 | 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 | 36 | 1.22 (1.20, 1.25) | 1.26 (1.16, 1.37) | 1.00 (1.00, 1.00) |
| Age < 65 At-risk | D57 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 36 | 7.51 (7.51, 7.51) | 7.51 (7.51, 7.51) | 1.00 (1.00, 1.00) |
| Age < 65 At-risk | D57 fold-rise over D1 | Placebo | Positive | Anti N IgG (IU/ml) | 59 | 0.05 (0.05, 0.05) | 160.93 (92.55, 279.82) | 70.06 (39.83, 123.21) |
| Age < 65 At-risk | D57 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 59 | 0.80 (0.80, 0.80) | 2810.16 (1910.33, 4133.85) | 1640.35 (1115.10, 2413.01) |
| Age < 65 At-risk | D57 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 59 | 0.16 (0.15, 0.16) | 2081.83 (1367.84, 3168.51) | 2317.26 (1522.52, 3526.84) |
| Age < 65 At-risk | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 59 | 1.48 (1.30, 1.69) | 289.96 (209.02, 402.23) | 120.61 (85.96, 169.24) |
| Age < 65 At-risk | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 59 | 10.31 (8.97, 11.86) | 335.47 (251.88, 446.80) | 26.66 (20.45, 34.76) |
| Age < 65 Not at-risk | D29 fold-rise over D1 | Vaccine | Negative | Anti N IgG (IU/ml) | 172 | 0.05 (0.05, 0.05) | 31.64 (23.41, 42.76) | 15.59 (11.89, 20.45) |
| Age < 65 Not at-risk | D29 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 172 | 0.80 (0.80, 0.80) | 360.49 (287.17, 452.52) | 210.42 (167.63, 264.14) |
| Age < 65 Not at-risk | D29 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 172 | 0.15 (0.15, 0.15) | 198.32 (165.67, 237.39) | 220.74 (184.41, 264.24) |
| Age < 65 Not at-risk | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 172 | 1.21 (1.21, 1.21) | 15.27 (13.08, 17.82) | 6.62 (5.64, 7.77) |
| Age < 65 Not at-risk | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 172 | 7.51 (7.51, 7.51) | 23.12 (20.24, 26.42) | 2.14 (1.89, 2.43) |

(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) | 58 | 0.05 (0.05, 0.05) | 73.59 (47.11, 114.95) | 32.19 (20.41, 50.77) |
| Age < 65 Not at-risk | D29 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 58 | 0.81 (0.78, 0.84) | 649.55 (424.79, 993.24) | 379.16 (247.96, 579.77) |
| Age < 65 Not at-risk | D29 fold-rise over D1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 58 | 0.16 (0.15, 0.16) | 340.53 (256.98, 451.24) | 379.04 (286.04, 502.27) |
| Age < 65 Not at-risk | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 58 | 1.77 (1.50, 2.09) | 29.65 (23.17, 37.94) | 11.49 (8.89, 14.84) |
| Age < 65 Not at-risk | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 58 | 10.38 (8.90, 12.09) | 51.15 (41.46, 63.11) | 3.78 (2.95, 4.85) |
| Age < 65 Not at-risk | 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 Not at-risk | 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 Not at-risk | 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 Not at-risk | D29 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID50 | 36 | 1.21 (1.21, 1.21) | 1.21 (1.21, 1.21) | 1.00 (1.00, 1.00) |
| Age < 65 Not at-risk | D29 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 36 | 7.91 (7.47, 8.38) | 7.51 (7.51, 7.51) | 0.98 (0.96, 1.01) |
| Age < 65 Not at-risk | D29 fold-rise over D1 | Placebo | Positive | Anti N IgG (IU/ml) | 61 | 0.05 (0.05, 0.05) | 17.42 (10.85, 27.95) | 8.34 (5.35, 12.99) |
| Age < 65 Not at-risk | D29 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 61 | 0.80 (0.80, 0.80) | 197.51 (124.06, 314.42) | 115.29 (72.42, 183.54) |
| Age < 65 Not at-risk | D29 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 61 | 0.15 (0.15, 0.15) | 111.34 (77.39, 160.17) | 123.93 (86.14, 178.28) |
| Age < 65 Not at-risk | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 61 | 1.71 (1.45, 2.02) | 8.97 (6.83, 11.78) | 3.66 (2.83, 4.72) |
| Age < 65 Not at-risk | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 61 | 9.94 (8.67, 11.39) | 17.95 (14.49, 22.24) | 1.47 (1.20, 1.81) |

(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) | 172 | 0.05 (0.05, 0.05) | 127.83 (90.56, 180.44) | 59.14 (42.49, 82.31) |
| Age < 65 Not at-risk | D57 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 172 | 0.80 (0.80, 0.80) | 3184.52 (2485.29, 4080.48) | 1858.87 (1450.71, 2381.86) |
| Age < 65 Not at-risk | D57 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 172 | 0.15 (0.15, 0.15) | 2341.37 (1861.50, 2944.94) | 2606.15 (2072.01, 3277.99) |
| Age < 65 Not at-risk | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 172 | 1.21 (1.21, 1.21) | 351.66 (293.40, 421.50) | 157.10 (131.07, 188.30) |
| Age < 65 Not at-risk | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 172 | 7.51 (7.51, 7.51) | 492.14 (416.35, 581.73) | 45.83 (38.77, 54.17) |
| Age < 65 Not at-risk | D57 fold-rise over D1 | Vaccine | Positive | Anti N IgG (IU/ml) | 58 | 0.05 (0.05, 0.05) | 525.87 (287.99, 960.23) | 231.62 (125.87, 426.21) |
| Age < 65 Not at-risk | D57 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 58 | 0.81 (0.78, 0.84) | 14021.90 (9132.45, 21529.13) | 8184.86 (5330.79, 12566.98) |
| Age < 65 Not at-risk | D57 fold-rise over D1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 58 | 0.16 (0.15, 0.16) | 8068.33 (5610.64, 11602.60) | 8980.78 (6245.15, 12914.73) |
| Age < 65 Not at-risk | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 58 | 1.77 (1.50, 2.09) | 1080.90 (762.94, 1531.39) | 418.77 (297.43, 589.61) |
| Age < 65 Not at-risk | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 58 | 10.38 (8.90, 12.09) | 1453.39 (1135.47, 1860.32) | 114.29 (88.98, 146.79) |
| Age < 65 Not at-risk | 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 Not at-risk | 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 Not at-risk | 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 Not at-risk | D57 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID50 | 36 | 1.21 (1.21, 1.21) | 1.23 (1.19, 1.26) | 1.00 (1.00, 1.00) |
| Age < 65 Not at-risk | D57 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 36 | 7.91 (7.47, 8.38) | 7.51 (7.51, 7.51) | 0.98 (0.96, 1.01) |

(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) | 61 | 0.05 (0.05, 0.05) | 81.75 (44.28, 150.91) | 37.48 (20.56, 68.30) |
| Age < 65 Not at-risk | D57 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 61 | 0.80 (0.80, 0.80) | 1752.03 (1096.43, 2799.64) | 1022.70 (640.01, 1634.20) |
| Age < 65 Not at-risk | D57 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 61 | 0.15 (0.15, 0.15) | 1392.85 (893.03, 2172.39) | 1550.36 (994.03, 2418.07) |
| Age < 65 Not at-risk | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 61 | 1.71 (1.45, 2.02) | 242.51 (177.54, 331.27) | 96.85 (71.08, 131.97) |
| Age < 65 Not at-risk | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 61 | 9.94 (8.67, 11.39) | 462.59 (360.18, 594.12) | 37.93 (29.64, 48.53) |
| Age ≥ 65 At-risk | D29 fold-rise over D1 | Vaccine | Negative | Anti N IgG (IU/ml) | 196 | 0.05 (0.05, 0.05) | 102.84 (80.14, 131.98) | 45.19 (35.06, 58.25) |
| Age ≥ 65 At-risk | D29 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 196 | 0.80 (0.80, 0.80) | 1369.34 (1115.31, 1681.23) | 799.31 (651.03, 981.37) |
| Age ≥ 65 At-risk | D29 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 196 | 0.15 (0.15, 0.15) | 779.20 (655.36, 926.44) | 867.32 (729.48, 1031.22) |
| Age ≥ 65 At-risk | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 196 | 1.21 (1.21, 1.21) | 27.69 (24.44, 31.37) | 12.34 (10.88, 13.98) |
| Age ≥ 65 At-risk | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 196 | 7.51 (7.51, 7.51) | 37.65 (33.10, 42.82) | 3.50 (3.09, 3.97) |
| Age ≥ 65 At-risk | D29 fold-rise over D1 | Vaccine | Positive | Anti N IgG (IU/ml) | 55 | 0.05 (0.05, 0.06) | 215.03 (142.79, 323.81) | 95.79 (63.61, 144.24) |
| Age ≥ 65 At-risk | D29 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 55 | 0.80 (0.80, 0.80) | 2977.08 (2034.61, 4356.13) | 1737.78 (1187.64, 2542.76) |
| Age ≥ 65 At-risk | D29 fold-rise over D1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 55 | 0.15 (0.15, 0.15) | 1762.27 (1275.34, 2435.10) | 1961.56 (1419.57, 2710.48) |
| Age ≥ 65 At-risk | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 55 | 1.52 (1.31, 1.76) | 55.95 (44.23, 70.77) | 22.71 (17.85, 28.88) |
| Age ≥ 65 At-risk | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 55 | 9.28 (8.27, 10.42) | 71.03 (55.54, 90.85) | 5.98 (4.60, 7.77) |

(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 | 1.21 (1.21, 1.21) | 1.25 (1.17, 1.34) | 1.00 (1.00, 1.00) |
| Age ≥ 65 At-risk | D29 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 35 | 7.51 (7.51, 7.51) | 7.51 (7.51, 7.51) | 1.00 (1.00, 1.00) |
| Age ≥ 65 At-risk | D29 fold-rise over D1 | Placebo | Positive | Anti N IgG (IU/ml) | 58 | 0.05 (0.05, 0.05) | 75.35 (50.45, 112.55) | 32.62 (21.51, 49.46) |
| Age ≥ 65 At-risk | D29 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 58 | 0.81 (0.78, 0.84) | 917.85 (629.03, 1339.28) | 535.77 (367.17, 781.76) |
| Age ≥ 65 At-risk | D29 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 58 | 0.15 (0.15, 0.15) | 566.74 (445.20, 721.46) | 630.83 (495.55, 803.05) |
| Age ≥ 65 At-risk | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 58 | 1.66 (1.45, 1.91) | 19.34 (15.80, 23.67) | 7.86 (6.37, 9.71) |
| Age ≥ 65 At-risk | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 58 | 9.22 (8.01, 10.60) | 23.52 (18.82, 29.40) | 1.98 (1.61, 2.43) |
| Age ≥ 65 At-risk | D57 fold-rise over D1 | Vaccine | Negative | Anti N IgG (IU/ml) | 196 | 0.05 (0.05, 0.05) | 511.75 (381.45, 686.55) | 227.21 (169.14, 305.21) |
| Age ≥ 65 At-risk | D57 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 196 | 0.80 (0.80, 0.80) | 15978.46 (12608.12, 20249.74) | 9326.95 (7359.62, 11820.18) |
| Age ≥ 65 At-risk | D57 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 196 | 0.15 (0.15, 0.15) | 13176.09 (10726.24, 16185.49) | 14666.18 (11939.27, 18015.91) |
| Age ≥ 65 At-risk | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 196 | 1.21 (1.21, 1.21) | 852.81 (723.19, 1005.66) | 380.97 (323.07, 449.26) |
| Age ≥ 65 At-risk | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 196 | 7.51 (7.51, 7.51) | 787.68 (679.83, 912.64) | 73.35 (63.30, 84.98) |

(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) | 55 | 0.05 (0.05, 0.06) | 2647.77 (1480.53, 4735.25) | 1179.49 (659.52, 2109.38) |
| Age ≥ 65 At-risk | D57 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 55 | 0.80 (0.80, 0.80) | 68728.43 (41689.06, 113305.43) | 40118.16 (24334.74, 66138.65) |
| Age ≥ 65 At-risk | D57 fold-rise over D1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 55 | 0.15 (0.15, 0.15) | 39234.47 (25954.09, 59310.24) | 43671.49 (28889.24, 66017.64) |
| Age ≥ 65 At-risk | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 55 | 1.52 (1.31, 1.76) | 2860.83 (2021.86, 4047.93) | 1161.04 (811.14, 1661.88) |
| Age ≥ 65 At-risk | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 55 | 9.28 (8.27, 10.42) | 2207.30 (1624.62, 2998.97) | 190.11 (142.83, 253.04) |
| 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 | 1.21 (1.21, 1.21) | 1.27 (1.16, 1.38) | 1.03 (0.98, 1.08) |
| Age ≥ 65 At-risk | D57 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 35 | 7.51 (7.51, 7.51) | 7.51 (7.51, 7.51) | 1.00 (1.00, 1.00) |
| Age ≥ 65 At-risk | D57 fold-rise over D1 | Placebo | Positive | Anti N IgG (IU/ml) | 58 | 0.05 (0.05, 0.05) | 299.14 (189.84, 471.35) | 133.25 (84.57, 209.97) |
| Age ≥ 65 At-risk | D57 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 58 | 0.81 (0.78, 0.84) | 14365.55 (10202.75, 20226.80) | 8385.46 (5955.55, 11806.79) |
| Age ≥ 65 At-risk | D57 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 58 | 0.15 (0.15, 0.15) | 9328.48 (6731.41, 12927.52) | 10383.43 (7492.67, 14389.49) |
| Age ≥ 65 At-risk | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 58 | 1.66 (1.45, 1.91) | 579.22 (440.09, 762.33) | 237.09 (180.63, 311.19) |
| Age ≥ 65 At-risk | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 58 | 9.22 (8.01, 10.60) | 628.10 (499.76, 789.42) | 51.55 (41.19, 64.51) |

(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) | 194 | 0.05 (0.05, 0.05) | 107.45 (84.75, 136.23) | 47.46 (37.32, 60.35) |
| Age ≥ 65 Not at-risk | D29 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 194 | 0.80 (0.80, 0.80) | 1416.27 (1143.81, 1753.62) | 826.70 (667.66, 1023.62) |
| Age ≥ 65 Not at-risk | D29 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 194 | 0.15 (0.15, 0.15) | 819.89 (684.18, 982.51) | 912.61 (761.55, 1093.63) |
| Age ≥ 65 Not at-risk | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 194 | 1.21 (1.21, 1.21) | 29.02 (25.46, 33.07) | 12.94 (11.34, 14.76) |
| Age ≥ 65 Not at-risk | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 194 | 7.51 (7.51, 7.51) | 37.98 (33.51, 43.06) | 3.44 (3.03, 3.91) |
| Age ≥ 65 Not at-risk | D29 fold-rise over D1 | Vaccine | Positive | Anti N IgG (IU/ml) | 65 | 0.05 (0.05, 0.05) | 204.03 (131.17, 317.36) | 90.89 (58.43, 141.37) |
| Age ≥ 65 Not at-risk | D29 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 65 | 0.80 (0.80, 0.80) | 2730.22 (1984.51, 3756.13) | 1593.68 (1158.40, 2192.53) |
| Age ≥ 65 Not at-risk | D29 fold-rise over D1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 65 | 0.15 (0.15, 0.15) | 1278.50 (1021.04, 1600.88) | 1423.08 (1136.51, 1781.92) |
| Age ≥ 65 Not at-risk | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 65 | 1.52 (1.33, 1.74) | 53.97 (43.52, 66.93) | 22.20 (17.83, 27.64) |
| Age ≥ 65 Not at-risk | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 65 | 9.20 (8.20, 10.32) | 55.87 (44.81, 69.67) | 4.67 (3.75, 5.83) |
| 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 | 1.21 (1.21, 1.21) | 1.21 (1.21, 1.21) | 1.00 (1.00, 1.00) |
| Age ≥ 65 Not at-risk | D29 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 31 | 7.64 (7.39, 7.91) | 7.51 (7.51, 7.51) | 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 \geq 65 Not at-risk | D29 fold-rise over D1 | Placebo | Positive | Anti N IgG (IU/ml) | 63 | 0.05 (0.05, 0.06) | 76.98 (51.40, 115.29) | 34.67 (23.34, 51.51) |
| Age \geq 65 Not at-risk | D29 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 63 | 0.82 (0.78, 0.85) | 1048.16 (725.71, 1513.87) | 611.83 (423.61, 883.68) |
| Age \geq 65 Not at-risk | D29 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 63 | 0.15 (0.15, 0.15) | 499.40 (370.25, 673.59) | 555.87 (412.12, 749.77) |
| Age \geq 65 Not at-risk | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 63 | 1.66 (1.43, 1.93) | 19.21 (15.49, 23.82) | 7.60 (6.22, 9.27) |
| Age \geq 65 Not at-risk | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 63 | 9.17 (8.05, 10.44) | 28.92 (23.76, 35.22) | 2.43 (2.00, 2.97) |
| Age \geq 65 Not at-risk | D57 fold-rise over D1 | Vaccine | Negative | Anti N IgG (IU/ml) | 194 | 0.05 (0.05, 0.05) | 596.10 (442.78, 802.51) | 265.31 (196.99, 357.34) |
| Age \geq 65 Not at-risk | D57 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 194 | 0.80 (0.80, 0.80) | 19887.87 (15555.85, 25426.29) | 11608.95 (9080.26, 14841.84) |
| Age \geq 65 Not at-risk | D57 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 194 | 0.15 (0.15, 0.15) | 12500.59 (10172.50, 15361.49) | 13914.28 (11322.91, 17098.72) |
| Age \geq 65 Not at-risk | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 194 | 1.21 (1.21, 1.21) | 822.13 (693.64, 974.43) | 367.27 (309.87, 435.31) |
| Age \geq 65 Not at-risk | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 194 | 7.51 (7.51, 7.51) | 841.31 (730.05, 969.52) | 78.34 (67.98, 90.28) |
| Age \geq 65 Not at-risk | D57 fold-rise over D1 | Vaccine | Positive | Anti N IgG (IU/ml) | 65 | 0.05 (0.05, 0.05) | 1582.67 (1000.64, 2503.23) | 705.02 (445.75, 1115.10) |
| Age \geq 65 Not at-risk | D57 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 65 | 0.80 (0.80, 0.80) | 48729.63 (34487.01, 68854.24) | 28444.46 (20130.76, 40191.60) |
| Age \geq 65 Not at-risk | D57 fold-rise over D1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 65 | 0.15 (0.15, 0.15) | 28578.23 (21460.52, 38056.65) | 31810.14 (23887.49, 42360.47) |
| Age \geq 65 Not at-risk | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 65 | 1.52 (1.33, 1.74) | 1980.05 (1553.05, 2524.44) | 814.51 (636.86, 1041.71) |
| Age \geq 65 Not at-risk | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 65 | 9.20 (8.20, 10.32) | 2089.76 (1666.22, 2620.97) | 176.54 (138.73, 224.67) |

(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) | 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 | 1.21 (1.21, 1.21) | 1.26 (1.19, 1.33) | 1.00 (1.00, 1.00) |
| Age ≥ 65 Not at-risk | D57 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 31 | 7.64 (7.39, 7.91) | 7.72 (7.31, 8.16) | 1.02 (0.98, 1.06) |
| Age ≥ 65 Not at-risk | D57 fold-rise over D1 | Placebo | Positive | Anti N IgG (IU/ml) | 63 | 0.05 (0.05, 0.06) | 457.63 (248.51, 842.70) | 206.47 (113.14, 376.80) |
| Age ≥ 65 Not at-risk | D57 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 63 | 0.82 (0.78, 0.85) | 14203.36 (9280.26, 21738.13) | 8290.79 (5417.07, 12688.98) |
| Age ≥ 65 Not at-risk | D57 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 63 | 0.15 (0.15, 0.15) | 10206.80 (7288.69, 14293.21) | 11361.09 (8112.97, 15909.63) |
| Age ≥ 65 Not at-risk | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 63 | 1.66 (1.43, 1.93) | 682.51 (521.47, 893.29) | 269.83 (208.05, 349.96) |
| Age ≥ 65 Not at-risk | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 63 | 9.17 (8.05, 10.44) | 668.62 (520.90, 858.23) | 55.23 (43.73, 69.75) |

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) | 320 | 0.05 (0.05, 0.05) | 38.15 (28.53, 51.02) | 18.57 (14.35, 24.04) |
| Male | D29 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 320 | 0.80 (0.80, 0.80) | 457.64 (371.12, 564.33) | 267.13 (216.63, 329.41) |
| Male | D29 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 320 | 0.15 (0.15, 0.15) | 252.49 (212.53, 299.95) | 281.04 (236.57, 333.87) |
| Male | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 320 | 1.21 (1.21, 1.21) | 17.10 (14.87, 19.67) | 7.44 (6.43, 8.60) |
| Male | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 320 | 7.51 (7.51, 7.51) | 25.48 (22.40, 29.00) | 2.38 (2.11, 2.69) |
| Male | D29 fold-rise over D1 | Vaccine | Positive | Anti N IgG (IU/ml) | 95 | 0.05 (0.05, 0.05) | 78.94 (50.06, 124.47) | 34.54 (21.67, 55.03) |
| Male | D29 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 95 | 0.80 (0.80, 0.80) | 664.48 (437.18, 1009.94) | 387.87 (255.19, 589.52) |
| Male | D29 fold-rise over D1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 95 | 0.16 (0.15, 0.16) | 438.29 (330.76, 580.78) | 487.86 (368.17, 646.46) |
| Male | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 95 | 1.67 (1.45, 1.92) | 29.52 (22.97, 37.93) | 11.95 (9.24, 15.45) |
| Male | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 95 | 9.61 (8.30, 11.12) | 46.32 (37.37, 57.41) | 3.60 (2.80, 4.63) |
| Male | 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) |
| Male | 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) |
| Male | 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) |
| Male | D29 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID50 | 63 | 1.21 (1.21, 1.21) | 1.21 (1.21, 1.21) | 1.00 (1.00, 1.00) |
| Male | D29 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 63 | 7.78 (7.40, 8.18) | 7.51 (7.51, 7.51) | 0.98 (0.95, 1.02) |

(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) | 108 | 0.05 (0.05, 0.05) | 23.92 (14.87, 38.48) | 11.32 (7.25, 17.68) |
| Male | D29 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 108 | 0.80 (0.79, 0.81) | 298.61 (197.76, 450.90) | 174.31 (115.44, 263.20) |
| Male | D29 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 108 | 0.15 (0.15, 0.15) | 173.03 (122.78, 243.83) | 192.59 (136.67, 271.40) |
| Male | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 108 | 1.44 (1.30, 1.59) | 10.66 (8.22, 13.83) | 4.36 (3.38, 5.61) |
| Male | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 108 | 10.11 (9.02, 11.34) | 19.86 (16.26, 24.24) | 1.73 (1.47, 2.04) |
| Male | D57 fold-rise over D1 | Vaccine | Negative | Anti N IgG (IU/ml) | 320 | 0.05 (0.05, 0.05) | 178.15 (128.55, 246.88) | 83.19 (61.30, 112.90) |
| Male | D57 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 320 | 0.80 (0.80, 0.80) | 4244.31 (3392.29, 5310.33) | 2477.49 (1980.15, 3099.75) |
| Male | D57 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 320 | 0.15 (0.15, 0.15) | 3437.26 (2774.16, 4258.86) | 3825.98 (3087.89, 4740.50) |
| Male | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 320 | 1.21 (1.21, 1.21) | 441.92 (376.96, 518.07) | 197.42 (168.40, 231.44) |
| Male | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 320 | 7.51 (7.51, 7.51) | 544.29 (469.26, 631.32) | 50.68 (43.70, 58.79) |
| Male | D57 fold-rise over D1 | Vaccine | Positive | Anti N IgG (IU/ml) | 95 | 0.05 (0.05, 0.05) | 556.97 (327.90, 946.06) | 248.11 (146.07, 421.44) |
| Male | D57 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 95 | 0.80 (0.80, 0.80) | 15154.35 (10160.04, 22603.69) | 8845.90 (5930.62, 13194.23) |
| Male | D57 fold-rise over D1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 95 | 0.16 (0.15, 0.16) | 10123.18 (7262.75, 14110.20) | 11268.01 (8084.09, 15705.92) |
| Male | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 95 | 1.67 (1.45, 1.92) | 1249.39 (877.99, 1777.91) | 505.74 (352.14, 726.33) |
| Male | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 95 | 9.61 (8.30, 11.12) | 1549.68 (1188.99, 2019.79) | 123.22 (94.61, 160.48) |

(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) | 63 | 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) | 63 | 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) | 63 | 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 | 63 | 1.21 (1.21, 1.21) | 1.23 (1.19, 1.27) | 1.00 (1.00, 1.00) |
| Male | D57 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 63 | 7.78 (7.40, 8.18) | 7.51 (7.51, 7.51) | 0.98 (0.95, 1.02) |
| Male | D57 fold-rise over D1 | Placebo | Positive | Anti N IgG (IU/ml) | 108 | 0.05 (0.05, 0.05) | 107.97 (60.07, 194.08) | 49.72 (28.19, 87.69) |
| Male | D57 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 108 | 0.80 (0.79, 0.81) | 2584.72 (1697.12, 3936.53) | 1508.75 (990.64, 2297.83) |
| Male | D57 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 108 | 0.15 (0.15, 0.15) | 2423.64 (1588.60, 3697.60) | 2697.72 (1768.25, 4115.76) |
| Male | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 108 | 1.44 (1.30, 1.59) | 270.04 (197.13, 369.92) | 114.27 (83.95, 155.53) |
| Male | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 108 | 10.11 (9.02, 11.34) | 428.33 (338.81, 541.51) | 35.67 (28.46, 44.70) |
| Female | D29 fold-rise over D1 | Vaccine | Negative | Anti N IgG (IU/ml) | 427 | 0.05 (0.05, 0.05) | 40.32 (32.34, 50.27) | 18.82 (15.33, 23.10) |
| Female | D29 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 427 | 0.80 (0.80, 0.80) | 490.45 (407.20, 590.72) | 286.28 (237.69, 344.82) |
| Female | D29 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 427 | 0.15 (0.15, 0.15) | 278.21 (240.00, 322.50) | 309.67 (267.14, 358.97) |
| Female | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 427 | 1.21 (1.21, 1.21) | 17.59 (15.59, 19.83) | 7.75 (6.85, 8.76) |
| Female | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 427 | 7.51 (7.51, 7.51) | 26.38 (23.82, 29.22) | 2.45 (2.23, 2.70) |

(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) | 139 | 0.05 (0.05, 0.05) | 83.72 (58.61, 119.58) | 37.61 (26.34, 53.70) |
| Female | D29 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 139 | 0.83 (0.79, 0.87) | 995.38 (720.00, 1376.06) | 573.27 (414.89, 792.12) |
| Female | D29 fold-rise over D1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 139 | 0.16 (0.15, 0.16) | 500.15 (395.47, 632.53) | 556.71 (440.19, 704.06) |
| Female | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 139 | 1.67 (1.46, 1.91) | 35.09 (29.05, 42.38) | 13.87 (11.37, 16.92) |
| Female | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 139 | 10.07 (8.92, 11.36) | 54.95 (46.08, 65.54) | 4.36 (3.62, 5.26) |
| 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 | 1.22 (1.20, 1.23) | 1.22 (1.20, 1.24) | 1.00 (1.00, 1.00) |
| Female | D29 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 75 | 7.67 (7.41, 7.94) | 7.51 (7.51, 7.51) | 1.00 (1.00, 1.00) |
| Female | D29 fold-rise over D1 | Placebo | Positive | Anti N IgG (IU/ml) | 133 | 0.05 (0.05, 0.05) | 30.29 (21.02, 43.65) | 13.91 (9.82, 19.72) |
| Female | D29 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 133 | 0.80 (0.79, 0.81) | 308.16 (209.13, 454.08) | 179.88 (122.07, 265.06) |
| Female | D29 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 133 | 0.15 (0.15, 0.16) | 167.01 (124.57, 223.90) | 185.89 (138.66, 249.22) |
| Female | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 133 | 1.82 (1.57, 2.10) | 11.99 (9.61, 14.96) | 4.82 (3.91, 5.95) |
| Female | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 133 | 9.69 (8.59, 10.92) | 20.53 (17.22, 24.47) | 1.63 (1.36, 1.96) |

(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) | 427 | 0.05 (0.05, 0.05) | 163.03 (125.40, 211.94) | 72.99 (56.34, 94.57) |
| Female | D57 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 427 | 0.80 (0.80, 0.80) | 5197.76 (4204.66, 6425.43) | 3034.04 (2454.34, 3750.65) |
| Female | D57 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 427 | 0.15 (0.15, 0.15) | 3345.99 (2766.97, 4046.17) | 3724.39 (3079.89, 4503.75) |
| Female | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 427 | 1.21 (1.21, 1.21) | 417.64 (359.94, 484.59) | 186.57 (160.79, 216.48) |
| Female | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 427 | 7.51 (7.51, 7.51) | 581.88 (509.61, 664.40) | 54.18 (47.45, 61.87) |
| Female | D57 fold-rise over D1 | Vaccine | Positive | Anti N IgG (IU/ml) | 139 | 0.05 (0.05, 0.05) | 722.64 (442.21, 1180.89) | 317.40 (192.51, 523.32) |
| Female | D57 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 139 | 0.83 (0.79, 0.87) | 17863.54 (12513.50, 25500.93) | 10288.21 (7210.72, 14679.15) |
| Female | D57 fold-rise over D1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 139 | 0.16 (0.15, 0.16) | 11199.68 (8160.35, 15371.03) | 12466.26 (9083.20, 17109.34) |
| Female | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 139 | 1.67 (1.46, 1.91) | 1261.83 (970.99, 1639.79) | 499.89 (388.50, 643.23) |
| Female | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 139 | 10.07 (8.92, 11.36) | 1569.32 (1298.20, 1897.06) | 127.90 (105.83, 154.58) |
| 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 | 1.22 (1.20, 1.23) | 1.26 (1.20, 1.32) | 1.01 (0.99, 1.02) |
| Female | D57 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 75 | 7.67 (7.41, 7.94) | 7.56 (7.46, 7.65) | 1.00 (1.00, 1.01) |

(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) | 133 | 0.05 (0.05, 0.05) | 157.75 (98.56, 252.50) | 69.76 (43.48, 111.93) |
| Female | D57 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 133 | 0.80 (0.79, 0.81) | 3489.69 (2373.53, 5130.73) | 2037.00 (1385.48, 2994.91) |
| Female | D57 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 133 | 0.15 (0.15, 0.16) | 2223.24 (1551.15, 3186.52) | 2474.66 (1726.57, 3546.89) |
| Female | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 133 | 1.82 (1.57, 2.10) | 344.99 (271.92, 437.69) | 134.39 (104.89, 172.17) |
| Female | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 133 | 9.69 (8.59, 10.92) | 480.09 (387.71, 594.47) | 38.38 (31.10, 47.37) |

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) | 201 | 0.05 (0.05, 0.05) | 30.87 (23.53, 40.49) | 14.65 (11.40, 18.83) |
| Age < 65 Female | D29 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 201 | 0.80 (0.80, 0.80) | 370.15 (294.84, 464.71) | 216.07 (172.10, 271.26) |
| Age < 65 Female | D29 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 201 | 0.15 (0.15, 0.15) | 207.80 (174.00, 248.17) | 231.30 (193.67, 276.23) |
| Age < 65 Female | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 201 | 1.21 (1.21, 1.21) | 15.29 (13.18, 17.74) | 6.72 (5.77, 7.82) |
| Age < 65 Female | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 201 | 7.51 (7.51, 7.51) | 23.80 (21.00, 26.98) | 2.22 (1.98, 2.50) |
| Age < 65 Female | D29 fold-rise over D1 | Vaccine | Positive | Anti N IgG (IU/ml) | 66 | 0.05 (0.05, 0.05) | 68.33 (44.04, 106.00) | 30.76 (19.84, 47.71) |
| Age < 65 Female | D29 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 66 | 0.83 (0.78, 0.89) | 779.97 (523.98, 1161.03) | 447.63 (300.92, 665.86) |
| Age < 65 Female | D29 fold-rise over D1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 66 | 0.16 (0.15, 0.16) | 372.63 (282.08, 492.26) | 414.78 (313.98, 547.92) |
| Age < 65 Female | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 66 | 1.74 (1.47, 2.05) | 31.92 (25.29, 40.27) | 12.40 (9.71, 15.83) |
| Age < 65 Female | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 66 | 10.17 (8.75, 11.82) | 52.30 (42.19, 64.83) | 4.09 (3.26, 5.14) |
| Age < 65 Female | D29 fold-rise over D1 | Placebo | Negative | Anti N IgG (IU/ml) | 38 | 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) | 38 | 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) | 38 | 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 | 38 | 1.22 (1.20, 1.24) | 1.21 (1.21, 1.21) | 1.00 (1.00, 1.00) |
| Age < 65 Female | D29 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 38 | 7.69 (7.34, 8.05) | 7.51 (7.51, 7.51) | 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) | 70 | 0.05 (0.05, 0.05) | 24.29 (15.68, 37.64) | 11.23 (7.40, 17.04) |
| Age < 65 Female | D29 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 70 | 0.80 (0.80, 0.80) | 235.96 (148.54, 374.83) | 137.74 (86.71, 218.80) |
| Age < 65 Female | D29 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 70 | 0.16 (0.15, 0.16) | 125.69 (88.81, 177.88) | 139.90 (98.86, 198.00) |
| Age < 65 Female | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 70 | 1.83 (1.53, 2.19) | 10.61 (8.12, 13.85) | 4.30 (3.34, 5.54) |
| Age < 65 Female | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 70 | 9.83 (8.50, 11.37) | 19.31 (15.62, 23.87) | 1.51 (1.21, 1.88) |
| Age < 65 Female | D57 fold-rise over D1 | Vaccine | Negative | Anti N IgG (IU/ml) | 201 | 0.05 (0.05, 0.05) | 114.73 (83.20, 158.20) | 51.50 (37.52, 70.69) |
| Age < 65 Female | D57 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 201 | 0.80 (0.80, 0.80) | 3714.56 (2870.02, 4807.62) | 2168.27 (1675.29, 2806.30) |
| Age < 65 Female | D57 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 201 | 0.15 (0.15, 0.15) | 2331.29 (1851.47, 2935.44) | 2594.93 (2060.86, 3267.41) |
| Age < 65 Female | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 201 | 1.21 (1.21, 1.21) | 344.75 (287.42, 413.53) | 154.01 (128.40, 184.74) |
| Age < 65 Female | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 201 | 7.51 (7.51, 7.51) | 522.37 (443.42, 615.38) | 48.64 (41.29, 57.30) |
| Age < 65 Female | D57 fold-rise over D1 | Vaccine | Positive | Anti N IgG (IU/ml) | 66 | 0.05 (0.05, 0.05) | 573.17 (312.85, 1050.10) | 250.82 (135.35, 464.80) |
| Age < 65 Female | D57 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 66 | 0.83 (0.78, 0.89) | 13231.73 (8582.30, 20399.99) | 7593.73 (4928.89, 11699.33) |
| Age < 65 Female | D57 fold-rise over D1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 66 | 0.16 (0.15, 0.16) | 8410.23 (5726.22, 12352.28) | 9361.34 (6373.80, 13749.19) |
| Age < 65 Female | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 66 | 1.74 (1.47, 2.05) | 1072.88 (778.33, 1478.90) | 417.83 (307.20, 568.30) |
| Age < 65 Female | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 66 | 10.17 (8.75, 11.82) | 1433.60 (1138.13, 1805.77) | 115.86 (92.07, 145.79) |

(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) | 38 | 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) | 38 | 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) | 38 | 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 | 38 | 1.22 (1.20, 1.24) | 1.25 (1.18, 1.32) | 1.00 (1.00, 1.00) |
| Age < 65 Female | D57 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 38 | 7.69 (7.34, 8.05) | 7.51 (7.51, 7.51) | 1.00 (1.00, 1.00) |
| Age < 65 Female | D57 fold-rise over D1 | Placebo | Positive | Anti N IgG (IU/ml) | 70 | 0.05 (0.05, 0.05) | 125.93 (71.58, 221.53) | 55.32 (31.33, 97.68) |
| Age < 65 Female | D57 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 70 | 0.80 (0.80, 0.80) | 2496.01 (1579.81, 3943.57) | 1456.97 (922.16, 2301.94) |
| Age < 65 Female | D57 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 70 | 0.16 (0.15, 0.16) | 1564.76 (1020.53, 2399.22) | 1741.72 (1135.94, 2670.55) |
| Age < 65 Female | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 70 | 1.83 (1.53, 2.19) | 294.59 (221.56, 391.68) | 115.00 (85.45, 154.77) |
| Age < 65 Female | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 70 | 9.83 (8.50, 11.37) | 441.33 (340.60, 571.85) | 34.92 (27.06, 45.08) |
| Age < 65 Male | D29 fold-rise over D1 | Vaccine | Negative | Anti N IgG (IU/ml) | 156 | 0.05 (0.05, 0.05) | 29.43 (20.59, 42.07) | 14.69 (10.72, 20.14) |
| Age < 65 Male | D29 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 156 | 0.80 (0.80, 0.80) | 339.74 (264.28, 436.75) | 198.31 (154.26, 254.94) |
| Age < 65 Male | D29 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 156 | 0.15 (0.15, 0.15) | 187.30 (152.65, 229.82) | 208.48 (169.91, 255.81) |
| Age < 65 Male | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 156 | 1.21 (1.21, 1.21) | 15.17 (12.78, 18.00) | 6.55 (5.48, 7.83) |
| Age < 65 Male | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 156 | 7.51 (7.51, 7.51) | 23.11 (19.75, 27.04) | 2.16 (1.86, 2.50) |

(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) | 48 | 0.05 (0.05, 0.05) | 59.00 (34.31, 101.47) | 25.70 (14.75, 44.79) |
| Age < 65 Male | D29 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 48 | 0.80 (0.80, 0.80) | 444.98 (273.94, 722.80) | 259.74 (159.91, 421.91) |
| Age < 65 Male | D29 fold-rise over D1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 48 | 0.16 (0.15, 0.16) | 328.29 (237.15, 454.44) | 365.41 (263.97, 505.84) |
| Age < 65 Male | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 48 | 1.68 (1.42, 1.98) | 24.56 (18.23, 33.09) | 10.04 (7.40, 13.63) |
| Age < 65 Male | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 48 | 9.87 (8.25, 11.81) | 43.94 (33.90, 56.95) | 3.35 (2.47, 4.55) |
| Age < 65 Male | D29 fold-rise over D1 | Placebo | Negative | Anti N IgG (IU/ml) | 34 | 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) | 34 | 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) | 34 | 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 | 34 | 1.21 (1.21, 1.21) | 1.21 (1.21, 1.21) | 1.00 (1.00, 1.00) |
| Age < 65 Male | D29 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 34 | 7.86 (7.37, 8.38) | 7.51 (7.51, 7.51) | 0.98 (0.94, 1.02) |
| Age < 65 Male | D29 fold-rise over D1 | Placebo | Positive | Anti N IgG (IU/ml) | 50 | 0.05 (0.05, 0.05) | 17.18 (9.56, 30.90) | 8.32 (4.81, 14.40) |
| Age < 65 Male | D29 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 50 | 0.80 (0.80, 0.80) | 209.48 (126.34, 347.35) | 122.28 (73.75, 202.76) |
| Age < 65 Male | D29 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 50 | 0.15 (0.15, 0.15) | 126.72 (83.31, 192.75) | 141.05 (92.73, 214.55) |
| Age < 65 Male | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 50 | 1.41 (1.24, 1.60) | 9.11 (6.59, 12.58) | 3.71 (2.71, 5.08) |
| Age < 65 Male | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 50 | 10.36 (9.00, 11.93) | 18.42 (14.40, 23.56) | 1.63 (1.34, 1.98) |

(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) | 135.59 (90.77, 202.55) | 64.10 (44.08, 93.22) |
| Age < 65 Male | D57 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 156 | 0.80 (0.80, 0.80) | 2906.70 (2231.61, 3786.02) | 1696.70 (1302.64, 2209.97) |
| Age < 65 Male | D57 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 156 | 0.15 (0.15, 0.15) | 2410.90 (1867.20, 3112.93) | 2683.55 (2078.36, 3464.97) |
| Age < 65 Male | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 156 | 1.21 (1.21, 1.21) | 374.41 (308.74, 454.06) | 167.26 (137.92, 202.84) |
| Age < 65 Male | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 156 | 7.51 (7.51, 7.51) | 500.34 (417.13, 600.16) | 46.59 (38.84, 55.88) |
| Age < 65 Male | D57 fold-rise over D1 | Vaccine | Positive | Anti N IgG (IU/ml) | 48 | 0.05 (0.05, 0.05) | 384.85 (204.57, 724.01) | 171.44 (91.13, 322.52) |
| Age < 65 Male | D57 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 48 | 0.80 (0.80, 0.80) | 10837.65 (6781.54, 17319.77) | 6326.16 (3958.52, 10109.90) |
| Age < 65 Male | D57 fold-rise over D1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 48 | 0.16 (0.15, 0.16) | 7573.48 (5159.23, 11117.48) | 8429.97 (5742.69, 12374.76) |
| Age < 65 Male | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 48 | 1.68 (1.42, 1.98) | 1066.04 (695.25, 1634.57) | 435.89 (281.25, 675.56) |
| Age < 65 Male | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 48 | 9.87 (8.25, 11.81) | 1447.90 (1051.53, 1993.70) | 112.64 (81.88, 154.96) |
| Age < 65 Male | D57 fold-rise over D1 | Placebo | Negative | Anti N IgG (IU/ml) | 34 | 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) | 34 | 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) | 34 | 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 | 34 | 1.21 (1.21, 1.21) | 1.23 (1.19, 1.28) | 1.00 (1.00, 1.00) |
| Age < 65 Male | D57 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 34 | 7.86 (7.37, 8.38) | 7.51 (7.51, 7.51) | 0.98 (0.94, 1.02) |

(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) | 50 | 0.05 (0.05, 0.05) | 77.78 (37.60, 160.89) | 36.24 (17.96, 73.13) |
| Age < 65 Male | D57 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 50 | 0.80 (0.80, 0.80) | 1581.64 (956.49, 2615.38) | 923.24 (558.33, 1526.65) |
| Age < 65 Male | D57 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 50 | 0.15 (0.15, 0.15) | 1619.50 (968.96, 2706.81) | 1802.65 (1078.54, 3012.92) |
| Age < 65 Male | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 50 | 1.41 (1.24, 1.60) | 215.77 (146.34, 318.14) | 91.48 (62.51, 133.87) |
| Age < 65 Male | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 50 | 10.36 (9.00, 11.93) | 386.48 (288.77, 517.25) | 32.41 (24.46, 42.94) |
| Age ≥ 65 Male | D29 fold-rise over D1 | Vaccine | Negative | Anti N IgG (IU/ml) | 164 | 0.05 (0.05, 0.05) | 101.43 (77.47, 132.81) | 44.92 (34.24, 58.94) |
| Age ≥ 65 Male | D29 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 164 | 0.80 (0.80, 0.80) | 1405.41 (1112.39, 1775.62) | 820.37 (649.32, 1036.46) |
| Age ≥ 65 Male | D29 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 164 | 0.15 (0.15, 0.15) | 777.59 (649.48, 930.96) | 865.52 (722.93, 1036.25) |
| Age ≥ 65 Male | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 164 | 1.21 (1.21, 1.21) | 26.89 (23.31, 31.02) | 11.99 (10.40, 13.84) |
| Age ≥ 65 Male | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 164 | 7.51 (7.51, 7.51) | 36.83 (31.81, 42.63) | 3.43 (2.97, 3.96) |
| Age ≥ 65 Male | D29 fold-rise over D1 | Vaccine | Positive | Anti N IgG (IU/ml) | 47 | 0.05 (0.04, 0.05) | 259.42 (147.00, 457.81) | 115.56 (65.48, 203.94) |
| Age ≥ 65 Male | D29 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 47 | 0.80 (0.80, 0.80) | 3422.86 (2178.46, 5378.10) | 1997.99 (1271.61, 3139.30) |
| Age ≥ 65 Male | D29 fold-rise over D1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 47 | 0.15 (0.15, 0.15) | 1428.51 (1027.92, 1985.21) | 1590.06 (1144.17, 2209.72) |
| Age ≥ 65 Male | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 47 | 1.66 (1.37, 2.00) | 62.61 (46.81, 83.75) | 24.32 (18.00, 32.85) |
| Age ≥ 65 Male | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 47 | 8.60 (7.70, 9.62) | 57.47 (44.46, 74.29) | 4.82 (3.67, 6.33) |

(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) | 29 | 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) | 29 | 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) | 29 | 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 | 29 | 1.21 (1.21, 1.21) | 1.21 (1.21, 1.21) | 1.00 (1.00, 1.00) |
| Age ≥ 65 Male | D29 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 29 | 7.51 (7.51, 7.51) | 7.51 (7.51, 7.51) | 1.00 (1.00, 1.00) |
| Age ≥ 65 Male | D29 fold-rise over D1 | Placebo | Positive | Anti N IgG (IU/ml) | 58 | 0.05 (0.05, 0.05) | 76.80 (50.51, 116.79) | 33.52 (21.82, 51.51) |
| Age ≥ 65 Male | D29 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 58 | 0.81 (0.78, 0.84) | 1041.94 (729.11, 1488.98) | 608.20 (425.60, 869.15) |
| Age ≥ 65 Male | D29 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 58 | 0.15 (0.15, 0.15) | 518.70 (393.95, 682.95) | 577.36 (438.50, 760.19) |
| Age ≥ 65 Male | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 58 | 1.55 (1.37, 1.76) | 18.59 (14.96, 23.11) | 7.68 (6.13, 9.62) |
| Age ≥ 65 Male | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 58 | 9.29 (8.10, 10.65) | 25.87 (20.55, 32.57) | 2.15 (1.72, 2.70) |
| Age ≥ 65 Male | D57 fold-rise over D1 | Vaccine | Negative | Anti N IgG (IU/ml) | 164 | 0.05 (0.05, 0.05) | 498.06 (364.76, 680.08) | 222.05 (162.67, 303.12) |
| Age ≥ 65 Male | D57 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 164 | 0.80 (0.80, 0.80) | 17661.59 (13716.78, 22740.88) | 10309.42 (8006.76, 13274.31) |
| Age ≥ 65 Male | D57 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 164 | 0.15 (0.15, 0.15) | 13072.56 (10513.04, 16255.22) | 14550.94 (11701.96, 18093.53) |
| Age ≥ 65 Male | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 164 | 1.21 (1.21, 1.21) | 825.07 (691.94, 983.81) | 368.58 (309.11, 439.50) |
| Age ≥ 65 Male | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 164 | 7.51 (7.51, 7.51) | 747.39 (639.52, 873.46) | 69.59 (59.55, 81.33) |

(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 | Positive | Anti N IgG (IU/ml) | 47 | 0.05 (0.04, 0.05) | 2524.36 (1375.71, 4632.06) | 1124.51 (612.83, 2063.42) |
| Age ≥ 65 Male | D57 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 47 | 0.80 (0.80, 0.80) | 59673.02 (36223.25, 98303.40) | 34832.34 (21144.24, 57381.67) |
| Age ≥ 65 Male | D57 fold-rise over D1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 47 | 0.15 (0.15, 0.15) | 33151.92 (21828.30, 50349.78) | 36901.07 (24296.86, 56043.83) |
| Age ≥ 65 Male | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 47 | 1.66 (1.37, 2.00) | 2390.44 (1693.45, 3374.29) | 928.56 (640.04, 1347.14) |
| Age ≥ 65 Male | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 47 | 8.60 (7.70, 9.62) | 2045.76 (1495.80, 2797.92) | 177.86 (132.15, 239.37) |
| Age ≥ 65 Male | D57 fold-rise over D1 | Placebo | Negative | Anti N IgG (IU/ml) | 29 | 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) | 29 | 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) | 29 | 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 | 29 | 1.21 (1.21, 1.21) | 1.21 (1.21, 1.21) | 1.00 (1.00, 1.00) |
| Age ≥ 65 Male | D57 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 29 | 7.51 (7.51, 7.51) | 7.51 (7.51, 7.51) | 1.00 (1.00, 1.00) |
| Age ≥ 65 Male | D57 fold-rise over D1 | Placebo | Positive | Anti N IgG (IU/ml) | 58 | 0.05 (0.05, 0.05) | 343.06 (197.27, 596.59) | 151.55 (86.70, 264.91) |
| Age ≥ 65 Male | D57 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 58 | 0.81 (0.78, 0.84) | 14599.56 (10069.02, 21168.62) | 8522.06 (5877.49, 12356.55) |
| Age ≥ 65 Male | D57 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 58 | 0.15 (0.15, 0.15) | 10038.45 (7048.36, 14297.03) | 11173.70 (7845.45, 15913.88) |
| Age ≥ 65 Male | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 58 | 1.55 (1.37, 1.76) | 595.51 (450.41, 787.35) | 250.30 (191.82, 326.61) |
| Age ≥ 65 Male | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 58 | 9.29 (8.10, 10.65) | 615.46 (481.20, 787.17) | 49.98 (39.70, 62.93) |

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| 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) | 226 | 0.05 (0.05, 0.05) | 107.86 (86.26, 134.86) | 47.33 (37.68, 59.46) |
| Age ≥ 65 Female | D29 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 226 | 0.80 (0.80, 0.80) | 1383.06 (1142.45, 1674.34) | 807.32 (666.87, 977.35) |
| Age ≥ 65 Female | D29 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 226 | 0.15 (0.15, 0.15) | 815.18 (686.33, 968.24) | 907.37 (763.94, 1077.73) |
| Age ≥ 65 Female | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 226 | 1.21 (1.21, 1.21) | 29.44 (26.22, 33.07) | 13.12 (11.67, 14.75) |
| Age ≥ 65 Female | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 226 | 7.51 (7.51, 7.51) | 38.55 (34.44, 43.16) | 3.51 (3.13, 3.93) |
| Age ≥ 65 Female | D29 fold-rise over D1 | Vaccine | Positive | Anti N IgG (IU/ml) | 73 | 0.05 (0.05, 0.05) | 181.28 (130.29, 252.23) | 80.76 (58.04, 112.36) |
| Age ≥ 65 Female | D29 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 73 | 0.80 (0.80, 0.80) | 2515.69 (1904.03, 3323.83) | 1468.46 (1111.42, 1940.19) |
| Age ≥ 65 Female | D29 fold-rise over D1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 73 | 0.15 (0.15, 0.15) | 1531.27 (1200.95, 1952.46) | 1704.45 (1336.76, 2173.27) |
| Age ≥ 65 Female | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 73 | 1.43 (1.29, 1.59) | 50.31 (42.13, 60.07) | 21.27 (17.74, 25.49) |
| Age ≥ 65 Female | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 73 | 9.69 (8.66, 10.85) | 66.32 (53.42, 82.34) | 5.56 (4.47, 6.93) |
| Age ≥ 65 Female | D29 fold-rise over D1 | Placebo | Negative | Anti N IgG (IU/ml) | 37 | 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) | 37 | 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) | 37 | 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 | 37 | 1.21 (1.21, 1.21) | 1.25 (1.17, 1.33) | 1.00 (1.00, 1.00) |
| Age ≥ 65 Female | D29 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 37 | 7.62 (7.41, 7.84) | 7.51 (7.51, 7.51) | 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) | 63 | 0.05 (0.05, 0.06) | 75.63 (51.24, 111.63) | 33.79 (22.97, 49.71) |
| Age ≥ 65 Female | D29 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 63 | 0.81 (0.78, 0.85) | 931.81 (633.65, 1370.27) | 543.92 (369.88, 799.85) |
| Age ≥ 65 Female | D29 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 63 | 0.15 (0.15, 0.15) | 542.43 (412.65, 713.03) | 603.78 (459.32, 793.66) |
| Age ≥ 65 Female | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 63 | 1.77 (1.51, 2.07) | 19.91 (16.26, 24.38) | 7.77 (6.43, 9.38) |
| Age ≥ 65 Female | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 63 | 9.10 (7.97, 10.39) | 26.44 (21.70, 32.20) | 2.25 (1.86, 2.71) |
| Age ≥ 65 Female | D57 fold-rise over D1 | Vaccine | Negative | Anti N IgG (IU/ml) | 226 | 0.05 (0.05, 0.05) | 594.88 (449.10, 787.98) | 263.88 (198.91, 350.08) |
| Age ≥ 65 Female | D57 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 226 | 0.80 (0.80, 0.80) | 17921.58 (14230.07, 22570.72) | 10461.18 (8306.38, 13174.98) |
| Age ≥ 65 Female | D57 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 226 | 0.15 (0.15, 0.15) | 12667.33 (10427.44, 15388.36) | 14099.87 (11606.68, 17128.63) |
| Age ≥ 65 Female | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 226 | 1.21 (1.21, 1.21) | 846.57 (721.74, 993.00) | 378.19 (322.42, 443.60) |
| Age ≥ 65 Female | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 226 | 7.51 (7.51, 7.51) | 865.89 (756.54, 991.05) | 80.63 (70.45, 92.28) |
| Age ≥ 65 Female | D57 fold-rise over D1 | Vaccine | Positive | Anti N IgG (IU/ml) | 73 | 0.05 (0.05, 0.05) | 1744.00 (1096.73, 2773.29) | 776.89 (488.55, 1235.40) |
| Age ≥ 65 Female | D57 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 73 | 0.80 (0.80, 0.80) | 55919.99 (38298.44, 81649.43) | 32641.62 (22355.56, 47660.41) |
| Age ≥ 65 Female | D57 fold-rise over D1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 73 | 0.15 (0.15, 0.15) | 33279.22 (24477.15, 45246.55) | 37042.77 (27245.27, 50363.48) |
| Age ≥ 65 Female | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 73 | 1.43 (1.29, 1.59) | 2338.08 (1790.89, 3052.46) | 988.54 (760.96, 1284.17) |
| Age ≥ 65 Female | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 73 | 9.69 (8.66, 10.85) | 2213.46 (1752.04, 2796.39) | 186.29 (146.80, 236.39) |

(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) | 37 | 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) | 37 | 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) | 37 | 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 | 37 | 1.21 (1.21, 1.21) | 1.30 (1.19, 1.43) | 1.02 (0.98, 1.07) |
| Age ≥ 65 Female | D57 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 37 | 7.62 (7.41, 7.84) | 7.69 (7.35, 8.05) | 1.02 (0.98, 1.05) |
| Age ≥ 65 Female | D57 fold-rise over D1 | Placebo | Positive | Anti N IgG (IU/ml) | 63 | 0.05 (0.05, 0.06) | 401.40 (233.83, 689.05) | 182.46 (107.82, 308.78) |
| Age ≥ 65 Female | D57 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 63 | 0.81 (0.78, 0.85) | 13997.56 (9354.70, 20944.71) | 8170.65 (5460.53, 12225.85) |
| Age ≥ 65 Female | D57 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 63 | 0.15 (0.15, 0.15) | 9533.48 (6959.53, 13059.39) | 10611.62 (7746.59, 14536.27) |
| Age ≥ 65 Female | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 63 | 1.77 (1.51, 2.07) | 663.91 (508.79, 866.33) | 256.32 (196.36, 334.60) |
| Age ≥ 65 Female | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 63 | 9.10 (7.97, 10.39) | 680.56 (538.86, 859.51) | 56.75 (45.23, 71.19) |

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) | 99 | 0.05 (0.05, 0.05) | 46.32 (28.82, 74.43) | 21.68 (14.11, 33.32) |
| Hispanic or Latino | D29 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 99 | 0.80 (0.80, 0.80) | 502.10 (352.24, 715.72) | 293.09 (205.61, 417.78) |
| Hispanic or Latino | D29 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 99 | 0.15 (0.15, 0.15) | 338.02 (242.86, 470.47) | 376.25 (270.32, 523.68) |
| Hispanic or Latino | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 99 | 1.21 (1.21, 1.21) | 18.49 (14.43, 23.71) | 8.19 (6.43, 10.44) |
| Hispanic or Latino | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 99 | 7.51 (7.51, 7.51) | 30.05 (24.15, 37.41) | 2.81 (2.30, 3.45) |
| Hispanic or Latino | D29 fold-rise over D1 | Vaccine | Positive | Anti N IgG (IU/ml) | 31 | 0.05 (0.05, 0.05) | 43.00 (20.21, 91.49) | 20.58 (10.19, 41.58) |
| Hispanic or Latino | D29 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 31 | 0.80 (0.80, 0.80) | 1004.65 (484.57, 2082.93) | 586.43 (282.85, 1215.85) |
| Hispanic or Latino | D29 fold-rise over D1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 31 | 0.15 (0.15, 0.15) | 442.54 (245.55, 797.58) | 492.59 (273.32, 887.78) |
| Hispanic or Latino | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 31 | 1.30 (1.20, 1.41) | 22.57 (15.32, 33.26) | 9.67 (6.49, 14.41) |
| Hispanic or Latino | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 31 | 8.94 (7.17, 11.14) | 38.37 (24.64, 59.75) | 3.33 (2.22, 4.99) |
| Hispanic or Latino | D29 fold-rise over D1 | Placebo | Negative | Anti N IgG (IU/ml) | 20 | 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) | 20 | 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) | 20 | 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 | 20 | 1.21 (1.21, 1.21) | 1.21 (1.21, 1.21) | 1.00 (1.00, 1.00) |
| Hispanic or Latino | D29 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 20 | 8.68 (6.92, 10.87) | 7.51 (7.51, 7.51) | 0.92 (0.78, 1.08) |

(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) | 34 | 0.05 (0.05, 0.05) | 25.54 (13.70, 47.59) | 11.88 (6.68, 21.13) |
| Hispanic or Latino | D29 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 34 | 0.81 (0.79, 0.83) | 338.50 (176.86, 647.86) | 197.59 (103.24, 378.17) |
| Hispanic or Latino | D29 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 34 | 0.15 (0.15, 0.15) | 173.67 (111.05, 271.61) | 193.31 (123.61, 302.33) |
| Hispanic or Latino | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 34 | 1.56 (1.22, 2.01) | 10.06 (6.98, 14.48) | 4.08 (2.84, 5.86) |
| Hispanic or Latino | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 34 | 11.37 (8.64, 14.96) | 21.37 (15.55, 29.37) | 1.49 (1.08, 2.06) |
| Hispanic or Latino | D57 fold-rise over D1 | Vaccine | Negative | Anti N IgG (IU/ml) | 99 | 0.05 (0.05, 0.05) | 162.78 (90.74, 292.01) | 73.09 (41.00, 130.32) |
| Hispanic or Latino | D57 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 99 | 0.80 (0.80, 0.80) | 6188.84 (4091.31, 9361.73) | 3612.55 (2388.18, 5464.63) |
| Hispanic or Latino | D57 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 99 | 0.15 (0.15, 0.15) | 4186.98 (2879.54, 6088.08) | 4660.49 (3205.18, 6776.58) |
| Hispanic or Latino | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 99 | 1.21 (1.21, 1.21) | 567.55 (425.73, 756.63) | 253.54 (190.18, 338.01) |
| Hispanic or Latino | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 99 | 7.51 (7.51, 7.51) | 690.79 (533.04, 895.23) | 64.32 (49.63, 83.36) |
| Hispanic or Latino | D57 fold-rise over D1 | Vaccine | Positive | Anti N IgG (IU/ml) | 31 | 0.05 (0.05, 0.05) | 483.42 (160.82, 1453.11) | 209.87 (68.53, 642.74) |
| Hispanic or Latino | D57 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 31 | 0.80 (0.80, 0.80) | 10296.90 (5080.81, 20867.99) | 6010.51 (2965.77, 12181.07) |
| Hispanic or Latino | D57 fold-rise over D1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 31 | 0.15 (0.15, 0.15) | 7610.09 (3673.58, 15764.86) | 8470.71 (4089.02, 17547.71) |
| Hispanic or Latino | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 31 | 1.30 (1.20, 1.41) | 888.60 (580.47, 1360.29) | 386.35 (253.27, 589.37) |
| Hispanic or Latino | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 31 | 8.94 (7.17, 11.14) | 1748.56 (1094.71, 2792.95) | 148.63 (93.28, 236.82) |

(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) | 20 | 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) | 20 | 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) | 20 | 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 | 20 | 1.21 (1.21, 1.21) | 1.35 (1.15, 1.59) | 1.00 (1.00, 1.00) |
| Hispanic or Latino | D57 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 20 | 8.68 (6.92, 10.87) | 7.80 (7.24, 8.39) | 0.94 (0.79, 1.11) |
| Hispanic or Latino | D57 fold-rise over D1 | Placebo | Positive | Anti N IgG (IU/ml) | 34 | 0.05 (0.05, 0.05) | 128.60 (56.95, 290.39) | 57.14 (25.24, 129.34) |
| Hispanic or Latino | D57 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 34 | 0.81 (0.79, 0.83) | 3323.85 (1770.49, 6240.10) | 1940.20 (1033.47, 3642.47) |
| Hispanic or Latino | D57 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 34 | 0.15 (0.15, 0.15) | 2202.73 (1326.45, 3657.89) | 2451.83 (1476.46, 4071.56) |
| Hispanic or Latino | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 34 | 1.56 (1.22, 2.01) | 349.80 (194.63, 628.69) | 139.73 (76.47, 255.33) |
| Hispanic or Latino | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 34 | 11.37 (8.64, 14.96) | 487.73 (302.81, 785.59) | 34.44 (22.08, 53.72) |
| Not Hispanic or Latino | D29 fold-rise over D1 | Vaccine | Negative | Anti N IgG (IU/ml) | 623 | 0.05 (0.05, 0.05) | 38.39 (31.70, 46.50) | 18.31 (15.38, 21.79) |
| Not Hispanic or Latino | D29 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 623 | 0.80 (0.80, 0.80) | 466.22 (401.27, 541.69) | 272.14 (234.23, 316.20) |
| Not Hispanic or Latino | D29 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 623 | 0.15 (0.15, 0.15) | 258.55 (229.78, 290.93) | 287.79 (255.76, 323.83) |
| Not Hispanic or Latino | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 623 | 1.21 (1.21, 1.21) | 17.21 (15.60, 18.99) | 7.53 (6.81, 8.34) |
| Not Hispanic or Latino | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 623 | 7.51 (7.51, 7.51) | 25.58 (23.47, 27.88) | 2.37 (2.19, 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) | 194 | 0.05 (0.05, 0.05) | 85.41 (63.37, 115.13) | 37.68 (27.82, 51.04) |
| Not Hispanic or Latino | D29 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 194 | 0.82 (0.79, 0.84) | 805.15 (610.19, 1062.40) | 465.85 (353.24, 614.36) |
| Not Hispanic or Latino | D29 fold-rise over D1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 194 | 0.16 (0.15, 0.16) | 462.89 (383.82, 558.25) | 515.24 (427.22, 621.38) |
| Not Hispanic or Latino | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 194 | 1.70 (1.53, 1.90) | 33.52 (28.49, 39.45) | 13.34 (11.25, 15.81) |
| Not Hispanic or Latino | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 194 | 9.92 (8.97, 10.97) | 51.70 (44.84, 59.62) | 4.02 (3.43, 4.73) |
| Not Hispanic or Latino | D29 fold-rise over D1 | Placebo | Negative | Anti N IgG (IU/ml) | 113 | 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) | 113 | 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) | 113 | 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 | 113 | 1.21 (1.21, 1.22) | 1.22 (1.20, 1.23) | 1.00 (1.00, 1.00) |
| Not Hispanic or Latino | D29 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 113 | 7.56 (7.46, 7.67) | 7.51 (7.51, 7.51) | 1.00 (1.00, 1.00) |
| Not Hispanic or Latino | D29 fold-rise over D1 | Placebo | Positive | Anti N IgG (IU/ml) | 201 | 0.05 (0.05, 0.05) | 27.97 (20.22, 38.70) | 13.01 (9.57, 17.69) |
| Not Hispanic or Latino | D29 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 201 | 0.80 (0.79, 0.80) | 303.85 (222.61, 414.76) | 177.37 (129.94, 242.10) |
| Not Hispanic or Latino | D29 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 201 | 0.15 (0.15, 0.16) | 171.82 (134.06, 220.21) | 191.25 (149.22, 245.12) |
| Not Hispanic or Latino | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 201 | 1.66 (1.49, 1.85) | 11.72 (9.73, 14.12) | 4.76 (3.99, 5.69) |
| Not Hispanic or Latino | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 201 | 9.51 (8.74, 10.34) | 20.30 (17.53, 23.50) | 1.74 (1.53, 1.99) |

(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) | 623 | 0.05 (0.05, 0.05) | 169.83 (136.22, 211.74) | 77.58 (62.75, 95.92) |
| Not Hispanic or Latino | D57 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 623 | 0.80 (0.80, 0.80) | 4600.05 (3897.55, 5429.17) | 2685.14 (2275.08, 3169.12) |
| Not Hispanic or Latino | D57 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 623 | 0.15 (0.15, 0.15) | 3277.33 (2816.17, 3814.02) | 3647.97 (3134.65, 4245.34) |
| Not Hispanic or Latino | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 623 | 1.21 (1.21, 1.21) | 412.28 (366.72, 463.51) | 184.18 (163.82, 207.06) |
| Not Hispanic or Latino | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 623 | 7.51 (7.51, 7.51) | 551.24 (495.10, 613.75) | 51.33 (46.10, 57.15) |
| Not Hispanic or Latino | D57 fold-rise over D1 | Vaccine | Positive | Anti N IgG (IU/ml) | 194 | 0.05 (0.05, 0.05) | 637.57 (432.60, 939.64) | 282.09 (190.57, 417.54) |
| Not Hispanic or Latino | D57 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 194 | 0.82 (0.79, 0.84) | 16777.78 (12636.54, 22276.19) | 9707.49 (7314.62, 12883.16) |
| Not Hispanic or Latino | D57 fold-rise over D1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 194 | 0.16 (0.15, 0.16) | 10681.93 (8474.58, 13464.24) | 11889.95 (9432.96, 14986.91) |
| Not Hispanic or Latino | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 194 | 1.70 (1.53, 1.90) | 1278.57 (1013.95, 1612.25) | 508.69 (404.10, 640.34) |
| Not Hispanic or Latino | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 194 | 9.92 (8.97, 10.97) | 1545.15 (1306.41, 1827.53) | 123.91 (104.80, 146.50) |
| Not Hispanic or Latino | D57 fold-rise over D1 | Placebo | Negative | Anti N IgG (IU/ml) | 113 | 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) | 113 | 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) | 113 | 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 | 113 | 1.21 (1.21, 1.22) | 1.24 (1.20, 1.27) | 1.00 (1.00, 1.01) |
| Not Hispanic or Latino | D57 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 113 | 7.56 (7.46, 7.67) | 7.51 (7.51, 7.51) | 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) | 201 | 0.05 (0.05, 0.05) | 140.31 (93.26, 211.10) | 62.68 (41.78, 94.02) |
| Not Hispanic or Latino | D57 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 201 | 0.80 (0.79, 0.80) | 2986.56 (2181.24, 4089.20) | 1743.31 (1273.23, 2386.95) |
| Not Hispanic or Latino | D57 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 201 | 0.15 (0.15, 0.16) | 2446.19 (1807.34, 3310.86) | 2722.83 (2011.73, 3685.29) |
| Not Hispanic or Latino | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 201 | 1.66 (1.49, 1.85) | 304.11 (247.38, 373.85) | 122.78 (99.99, 150.77) |
| Not Hispanic or Latino | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 201 | 9.51 (8.74, 10.34) | 451.25 (381.67, 533.51) | 37.88 (32.08, 44.74) |
| Not reported and unknown | D29 fold-rise over D1 | Vaccine | Negative | Anti N IgG (IU/ml) | 25 | 0.05 (0.05, 0.05) | 55.82 (28.97, 107.55) | 24.60 (12.67, 47.77) |
| Not reported and unknown | D29 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 25 | 0.80 (0.80, 0.80) | 884.05 (622.13, 1256.23) | 516.04 (363.15, 733.29) |
| Not reported and unknown | D29 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 25 | 0.15 (0.15, 0.15) | 363.19 (173.61, 759.79) | 404.26 (193.24, 845.71) |
| Not reported and unknown | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 25 | 1.21 (1.21, 1.21) | 19.70 (13.53, 28.69) | 8.56 (5.76, 12.73) |
| Not reported and unknown | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 25 | 7.51 (7.51, 7.51) | 27.32 (16.34, 45.68) | 2.79 (1.80, 4.31) |
| Not reported and unknown | D29 fold-rise over D1 | Vaccine | Positive | Anti N IgG (IU/ml) | 9 | 0.05 (0.04, 0.05) | 161.82 (17.77, 1473.20) | 72.09 (7.92, 656.26) |
| Not reported and unknown | D29 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 9 | 0.80 (0.80, 0.80) | 2628.59 (831.44, 8310.29) | 1534.36 (485.33, 4850.88) |
| Not reported and unknown | D29 fold-rise over D1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 9 | 0.15 (0.15, 0.15) | 1546.38 (962.33, 2484.89) | 1721.26 (1071.16, 2765.91) |

(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 | 9 | 1.96 (1.01, 3.81) | 48.00 (17.20, 133.97) | 16.73 (8.32, 33.66) |
| Not reported and unknown | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 9 | 12.12 (7.72, 19.04) | 105.37 (26.78, 414.58) | 8.85 (2.23, 35.11) |
| Not reported and unknown | D29 fold-rise over D1 | Placebo | Negative | Anti N IgG (IU/ml) | 5 | 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) | 5 | 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) | 5 | 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 | 5 | 1.21 (1.21, 1.21) | 1.21 (1.21, 1.21) | 1.00 (1.00, 1.00) |
| Not reported and unknown | D29 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 5 | 10.55 (6.25, 17.81) | 7.51 (7.51, 7.51) | 1.00 (1.00, 1.00) |
| Not reported and unknown | D29 fold-rise over D1 | Placebo | Positive | Anti N IgG (IU/ml) | 6 | 0.05 (0.05, 0.05) | 16.17 (2.67, 97.74) | 7.69 (1.38, 42.73) |
| Not reported and unknown | D29 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 6 | 0.80 (0.80, 0.80) | 170.13 (66.82, 433.17) | 99.31 (39.00, 252.85) |
| Not reported and unknown | D29 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 6 | 0.15 (0.15, 0.15) | 96.72 (31.92, 293.01) | 107.65 (35.53, 326.15) |
| Not reported and unknown | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 6 | 1.21 (1.21, 1.21) | 7.98 (3.59, 17.74) | 2.90 (1.08, 7.80) |
| Not reported and unknown | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 6 | 17.05 (8.42, 34.53) | 13.28 (7.98, 22.11) | 0.80 (0.35, 1.83) |

(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) | 25 | 0.05 (0.05, 0.05) | 174.92 (72.92, 419.62) | 77.92 (32.48, 186.93) |
| Not reported and unknown | D57 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 25 | 0.80 (0.80, 0.80) | 6861.47 (3804.55, 12374.59) | 4005.17 (2220.79, 7223.29) |
| Not reported and unknown | D57 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 25 | 0.15 (0.15, 0.15) | 5091.79 (2619.11, 9898.91) | 5667.62 (2915.31, 11018.38) |
| Not reported and unknown | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 25 | 1.21 (1.21, 1.21) | 586.32 (417.72, 822.95) | 261.92 (186.61, 367.63) |
| Not reported and unknown | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 25 | 7.51 (7.51, 7.51) | 694.34 (509.90, 945.49) | 64.65 (47.48, 88.04) |
| Not reported and unknown | D57 fold-rise over D1 | Vaccine | Positive | Anti N IgG (IU/ml) | 9 | 0.05 (0.04, 0.05) | 4104.21 (792.29, 21260.50) | 1828.28 (352.94, 9470.79) |
| Not reported and unknown | D57 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 9 | 0.80 (0.80, 0.80) | 86647.47 (19862.74, 377983.34) | 50577.87 (11594.28, 220636.45) |
| Not reported and unknown | D57 fold-rise over D1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 9 | 0.15 (0.15, 0.15) | 50715.42 (3247.12, 792103.36) | 56450.83 (3614.34, 881682.28) |
| Not reported and unknown | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 9 | 1.96 (1.01, 3.81) | 2378.74 (1267.08, 4465.69) | 829.28 (340.00, 2022.66) |
| Not reported and unknown | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 9 | 12.12 (7.72, 19.04) | 1529.62 (981.77, 2383.18) | 128.43 (86.67, 190.30) |
| Not reported and unknown | D57 fold-rise over D1 | Placebo | Negative | Anti N IgG (IU/ml) | 5 | 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) | 5 | 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) | 5 | 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 | 5 | 1.21 (1.21, 1.21) | 1.21 (1.21, 1.21) | 1.00 (1.00, 1.00) |
| Not reported and unknown | D57 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 5 | 10.55 (6.25, 17.81) | 7.51 (7.51, 7.51) | 1.00 (1.00, 1.00) |
| Not reported and unknown | D57 fold-rise over D1 | Placebo | Positive | Anti N IgG (IU/ml) | 6 | 0.05 (0.05, 0.05) | 27.10 (2.29, 321.28) | 17.27 (2.54, 117.53) |
| Not reported and unknown | D57 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 6 | 0.80 (0.80, 0.80) | 4119.35 (942.68, 18000.89) | 2404.55 (550.26, 10507.48) |
| Not reported and unknown | D57 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 6 | 0.15 (0.15, 0.15) | 416.74 (91.60, 1895.90) | 463.87 (101.96, 2110.31) |
| Not reported and unknown | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 6 | 1.21 (1.21, 1.21) | 286.72 (91.74, 896.14) | 128.09 (40.98, 400.33) |
| Not reported and unknown | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 6 | 17.05 (8.42, 34.53) | 467.99 (138.35, 1583.06) | 28.38 (13.45, 59.86) |

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) | 370 | 0.05 (0.05, 0.05) | 34.08 (26.39, 44.01) | 16.51 (13.12, 20.78) |
| White Non-Hispanic | D29 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 370 | 0.80 (0.80, 0.80) | 400.44 (330.41, 485.31) | 233.74 (192.87, 283.28) |
| White Non-Hispanic | D29 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 370 | 0.15 (0.15, 0.15) | 237.37 (204.22, 275.89) | 264.21 (227.32, 307.10) |
| White Non-Hispanic | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 370 | 1.21 (1.21, 1.21) | 15.55 (13.64, 17.71) | 6.78 (5.93, 7.76) |
| White Non-Hispanic | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 370 | 7.51 (7.51, 7.51) | 24.07 (21.54, 26.91) | 2.28 (2.06, 2.52) |
| White Non-Hispanic | D29 fold-rise over D1 | Vaccine | Positive | Anti N IgG (IU/ml) | 118 | 0.05 (0.05, 0.05) | 82.41 (56.70, 119.78) | 36.46 (24.94, 53.29) |
| White Non-Hispanic | D29 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 118 | 0.83 (0.79, 0.87) | 752.05 (520.11, 1087.41) | 433.13 (299.78, 625.80) |
| White Non-Hispanic | D29 fold-rise over D1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 118 | 0.15 (0.15, 0.15) | 513.05 (403.64, 652.12) | 571.07 (449.29, 725.87) |
| White Non-Hispanic | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 118 | 1.71 (1.48, 1.97) | 33.13 (26.98, 40.67) | 13.09 (10.44, 16.42) |
| White Non-Hispanic | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 118 | 10.90 (9.44, 12.59) | 52.80 (43.78, 63.69) | 3.82 (3.08, 4.73) |
| White Non-Hispanic | 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) |
| White Non-Hispanic | 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) |
| White Non-Hispanic | 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) |
| White Non-Hispanic | D29 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID50 | 63 | 1.21 (1.21, 1.21) | 1.22 (1.20, 1.24) | 1.00 (1.00, 1.00) |
| White Non-Hispanic | D29 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 63 | 7.51 (7.51, 7.51) | 7.51 (7.51, 7.51) | 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) | 121 | 0.05 (0.05, 0.05) | 26.72 (17.39, 41.07) | 12.48 (8.31, 18.74) |
| White Non-Hispanic | D29 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 121 | 0.80 (0.80, 0.80) | 267.93 (174.53, 411.31) | 156.39 (101.87, 240.09) |
| White Non-Hispanic | D29 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 121 | 0.15 (0.15, 0.15) | 182.62 (133.68, 249.48) | 203.28 (148.80, 277.69) |
| White Non-Hispanic | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 121 | 1.60 (1.40, 1.82) | 11.37 (8.85, 14.60) | 4.73 (3.74, 6.00) |
| White Non-Hispanic | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 121 | 9.27 (8.31, 10.33) | 20.09 (16.51, 24.45) | 1.75 (1.46, 2.10) |
| White Non-Hispanic | D57 fold-rise over D1 | Vaccine | Negative | Anti N IgG (IU/ml) | 370 | 0.05 (0.05, 0.05) | 136.02 (102.81, 179.97) | 62.90 (48.23, 82.03) |
| White Non-Hispanic | D57 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 370 | 0.80 (0.80, 0.80) | 3965.19 (3190.18, 4928.49) | 2314.56 (1862.17, 2876.86) |
| White Non-Hispanic | D57 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 370 | 0.15 (0.15, 0.15) | 2905.77 (2384.91, 3540.40) | 3234.39 (2654.61, 3940.78) |
| White Non-Hispanic | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 370 | 1.21 (1.21, 1.21) | 355.22 (305.63, 412.85) | 158.69 (136.53, 184.43) |
| White Non-Hispanic | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 370 | 7.51 (7.51, 7.51) | 506.55 (440.71, 582.22) | 47.17 (41.04, 54.21) |
| White Non-Hispanic | D57 fold-rise over D1 | Vaccine | Positive | Anti N IgG (IU/ml) | 118 | 0.05 (0.05, 0.05) | 735.04 (440.86, 1225.53) | 324.06 (192.93, 544.32) |
| White Non-Hispanic | D57 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 118 | 0.83 (0.79, 0.87) | 17684.90 (12263.74, 25502.49) | 10185.30 (7066.32, 14680.98) |
| White Non-Hispanic | D57 fold-rise over D1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 118 | 0.15 (0.15, 0.15) | 10349.34 (7588.49, 14114.66) | 11519.75 (8446.67, 15710.89) |
| White Non-Hispanic | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 118 | 1.71 (1.48, 1.97) | 1312.29 (957.88, 1797.84) | 518.66 (379.11, 709.59) |
| White Non-Hispanic | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 118 | 10.90 (9.44, 12.59) | 1677.99 (1373.02, 2050.70) | 127.67 (104.73, 155.63) |

(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) | 63 | 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) | 63 | 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) | 63 | 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 | 63 | 1.21 (1.21, 1.21) | 1.22 (1.20, 1.25) | 1.01 (0.99, 1.02) |
| White Non-Hispanic | D57 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 63 | 7.51 (7.51, 7.51) | 7.51 (7.51, 7.51) | 1.00 (1.00, 1.00) |
| White Non-Hispanic | D57 fold-rise over D1 | Placebo | Positive | Anti N IgG (IU/ml) | 121 | 0.05 (0.05, 0.05) | 138.49 (81.68, 234.80) | 62.30 (37.01, 104.88) |
| White Non-Hispanic | D57 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 121 | 0.80 (0.80, 0.80) | 2844.53 (1856.90, 4357.44) | 1660.41 (1083.91, 2543.52) |
| White Non-Hispanic | D57 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 121 | 0.15 (0.15, 0.15) | 2385.84 (1614.03, 3526.73) | 2655.66 (1796.56, 3925.56) |
| White Non-Hispanic | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 121 | 1.60 (1.40, 1.82) | 307.89 (235.98, 401.71) | 126.64 (96.91, 165.49) |
| White Non-Hispanic | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 121 | 9.27 (8.31, 10.33) | 448.64 (360.71, 558.00) | 37.96 (30.40, 47.39) |
| Black or African American | D29 fold-rise over D1 | Vaccine | Negative | Anti N IgG (IU/ml) | 184 | 0.05 (0.05, 0.05) | 48.36 (35.37, 66.13) | 22.57 (16.93, 30.08) |
| Black or African American | D29 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 184 | 0.80 (0.80, 0.80) | 618.89 (477.97, 801.36) | 361.26 (279.00, 467.77) |
| Black or African American | D29 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 184 | 0.15 (0.15, 0.15) | 277.76 (220.22, 350.33) | 309.17 (245.12, 389.95) |
| Black or African American | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 184 | 1.21 (1.21, 1.21) | 20.43 (17.33, 24.10) | 9.07 (7.68, 10.71) |

(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 | 184 | 7.51 (7.51, 7.51) | 29.05 (24.98, 33.77) | 2.61 (2.23, 3.05) |
| Black or African American | D29 fold-rise over D1 | Vaccine | Positive | Anti N IgG (IU/ml) | 58 | 0.05 (0.05, 0.05) | 91.09 (50.53, 164.20) | 40.11 (22.05, 72.95) |
| Black or African American | D29 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 58 | 0.80 (0.80, 0.80) | 1224.75 (802.19, 1869.89) | 714.91 (468.25, 1091.49) |
| Black or African American | D29 fold-rise over D1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 58 | 0.16 (0.15, 0.17) | 483.24 (358.12, 652.08) | 537.89 (398.62, 725.83) |
| Black or African American | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 58 | 1.68 (1.40, 2.01) | 33.46 (25.52, 43.87) | 13.61 (10.52, 17.60) |
| Black or African American | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 58 | 8.49 (7.63, 9.45) | 49.22 (38.99, 62.14) | 4.29 (3.34, 5.51) |
| Black or African American | D29 fold-rise over D1 | Placebo | Negative | Anti N IgG (IU/ml) | 40 | 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) | 40 | 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) | 40 | 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 | 40 | 1.23 (1.19, 1.26) | 1.21 (1.21, 1.21) | 1.00 (1.00, 1.00) |
| Black or African American | D29 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 40 | 8.16 (7.28, 9.15) | 7.51 (7.51, 7.51) | 0.96 (0.90, 1.04) |
| Black or African American | D29 fold-rise over D1 | Placebo | Positive | Anti N IgG (IU/ml) | 45 | 0.05 (0.04, 0.06) | 44.00 (20.44, 94.70) | 19.87 (9.45, 41.77) |

(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) | 45 | 0.80 (0.80, 0.80) | 495.71 (275.52, 891.88) | 289.36 (160.83, 520.61) |
| Black or African American | D29 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 45 | 0.16 (0.15, 0.17) | 158.14 (87.58, 285.56) | 176.02 (97.48, 317.85) |
| Black or African American | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 45 | 1.89 (1.45, 2.47) | 15.82 (10.87, 23.04) | 5.79 (3.96, 8.45) |
| Black or African American | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 45 | 10.14 (8.39, 12.26) | 20.73 (15.40, 27.92) | 1.75 (1.33, 2.30) |
| Black or African American | D57 fold-rise over D1 | Vaccine | Negative | Anti N IgG (IU/ml) | 184 | 0.05 (0.05, 0.05) | 204.32 (141.34, 295.38) | 91.19 (63.30, 131.38) |
| Black or African American | D57 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 184 | 0.80 (0.80, 0.80) | 6550.93 (4947.81, 8673.48) | 3823.91 (2888.14, 5062.88) |
| Black or African American | D57 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 184 | 0.15 (0.15, 0.15) | 4332.80 (3331.81, 5634.52) | 4822.80 (3708.61, 6271.73) |
| Black or African American | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 184 | 1.21 (1.21, 1.21) | 466.63 (385.59, 564.71) | 208.46 (172.25, 252.27) |
| Black or African American | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 184 | 7.51 (7.51, 7.51) | 602.26 (505.22, 717.93) | 56.08 (47.04, 66.85) |
| Black or African American | D57 fold-rise over D1 | Vaccine | Positive | Anti N IgG (IU/ml) | 58 | 0.05 (0.05, 0.05) | 510.41 (276.01, 943.86) | 227.37 (122.95, 420.46) |
| Black or African American | D57 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 58 | 0.80 (0.80, 0.80) | 16791.27 (11442.61, 24640.08) | 9801.40 (6679.28, 14382.91) |
| Black or African American | D57 fold-rise over D1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 58 | 0.16 (0.15, 0.17) | 11834.30 (8032.47, 17435.57) | 13172.64 (8940.86, 19407.36) |

(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 | 58 | 1.68 (1.40, 2.01) | 1190.86 (863.21, 1642.88) | 484.39 (346.14, 677.84) |
| Black or African American | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 58 | 8.49 (7.63, 9.45) | 1295.98 (930.59, 1804.83) | 114.69 (81.64, 161.10) |
| Black or African American | D57 fold-rise over D1 | Placebo | Negative | Anti N IgG (IU/ml) | 40 | 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) | 40 | 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) | 40 | 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 | 40 | 1.23 (1.19, 1.26) | 1.21 (1.21, 1.21) | 1.00 (1.00, 1.00) |
| Black or African American | D57 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 40 | 8.16 (7.28, 9.15) | 7.51 (7.51, 7.51) | 0.96 (0.90, 1.04) |
| Black or African American | D57 fold-rise over D1 | Placebo | Positive | Anti N IgG (IU/ml) | 45 | 0.05 (0.04, 0.06) | 139.02 (56.11, 344.45) | 65.79 (28.12, 153.89) |
| Black or African American | D57 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 45 | 0.80 (0.80, 0.80) | 3611.11 (2108.60, 6184.23) | 2107.88 (1230.83, 3609.86) |
| Black or African American | D57 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 45 | 0.16 (0.15, 0.17) | 2485.87 (1256.81, 4916.86) | 2767.00 (1398.94, 5472.90) |
| Black or African American | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 45 | 1.89 (1.45, 2.47) | 367.94 (254.22, 532.53) | 141.57 (98.94, 202.58) |
| Black or African American | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 45 | 10.14 (8.39, 12.26) | 379.30 (263.98, 545.00) | 30.33 (21.63, 42.54) |

(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) | 56 | 0.05 (0.05, 0.05) | 51.94 (30.47, 88.55) | 23.34 (13.85, 39.31) |
| Asian | D29 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 56 | 0.80 (0.80, 0.80) | 566.83 (333.88, 962.32) | 330.87 (194.89, 561.73) |
| Asian | D29 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 56 | 0.15 (0.15, 0.15) | 346.14 (242.73, 493.61) | 385.29 (270.18, 549.43) |
| Asian | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 56 | 1.21 (1.21, 1.21) | 21.15 (16.36, 27.33) | 9.20 (6.92, 12.24) |
| Asian | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 56 | 7.51 (7.51, 7.51) | 27.00 (20.02, 36.41) | 2.54 (1.92, 3.37) |
| Asian | D29 fold-rise over D1 | Vaccine | Positive | Anti N IgG (IU/ml) | 19 | 0.05 (0.05, 0.05) | 67.33 (25.71, 176.36) | 29.34 (11.02, 78.12) |
| Asian | D29 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 19 | 0.80 (0.80, 0.80) | 699.97 (328.96, 1489.42) | 408.59 (192.02, 869.40) |
| Asian | D29 fold-rise over D1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 19 | 0.15 (0.15, 0.15) | 336.86 (211.65, 536.15) | 374.96 (235.58, 596.78) |
| Asian | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 19 | 1.70 (1.26, 2.28) | 30.29 (16.75, 54.77) | 11.88 (7.16, 19.73) |
| Asian | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 19 | 7.79 (7.25, 8.36) | 44.36 (28.60, 68.80) | 4.22 (2.81, 6.34) |
| Asian | D29 fold-rise over D1 | Placebo | Negative | Anti N IgG (IU/ml) | 10 | 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) | 10 | 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) | 10 | 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 | 10 | 1.21 (1.21, 1.21) | 1.21 (1.21, 1.21) | 1.00 (1.00, 1.00) |
| Asian | D29 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 10 | 7.51 (7.51, 7.51) | 7.51 (7.51, 7.51) | 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) | 27 | 0.05 (0.04, 0.06) | 16.51 (8.01, 34.05) | 8.08 (4.20, 15.53) |
| Asian | D29 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 27 | 0.81 (0.78, 0.84) | 249.55 (119.56, 520.87) | 145.67 (69.79, 304.04) |
| Asian | D29 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 27 | 0.15 (0.15, 0.15) | 133.39 (65.36, 272.24) | 148.48 (72.75, 303.03) |
| Asian | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 27 | 1.74 (1.28, 2.38) | 9.06 (5.87, 13.97) | 3.75 (2.49, 5.65) |
| Asian | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 27 | 10.98 (8.68, 13.89) | 22.24 (16.20, 30.52) | 1.77 (1.35, 2.32) |
| Asian | D57 fold-rise over D1 | Vaccine | Negative | Anti N IgG (IU/ml) | 56 | 0.05 (0.05, 0.05) | 411.66 (201.84, 839.58) | 183.38 (89.91, 374.00) |
| Asian | D57 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 56 | 0.80 (0.80, 0.80) | 6371.68 (3790.87, 10709.49) | 3719.27 (2212.81, 6251.34) |
| Asian | D57 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 56 | 0.15 (0.15, 0.15) | 4086.36 (2466.61, 6769.76) | 4548.49 (2745.56, 7535.35) |
| Asian | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 56 | 1.21 (1.21, 1.21) | 663.53 (502.33, 876.46) | 296.42 (224.40, 391.54) |
| Asian | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 56 | 7.51 (7.51, 7.51) | 607.99 (457.15, 808.59) | 56.61 (42.57, 75.29) |
| Asian | D57 fold-rise over D1 | Vaccine | Positive | Anti N IgG (IU/ml) | 19 | 0.05 (0.05, 0.05) | 590.76 (180.19, 1936.83) | 263.16 (80.27, 862.79) |
| Asian | D57 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 19 | 0.80 (0.80, 0.80) | 13898.62 (4771.63, 40483.40) | 8112.90 (2785.29, 23630.97) |
| Asian | D57 fold-rise over D1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 19 | 0.15 (0.15, 0.15) | 8349.05 (4992.03, 13963.57) | 9293.24 (5556.58, 15542.71) |
| Asian | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 19 | 1.70 (1.26, 2.28) | 1495.86 (986.88, 2267.36) | 586.81 (417.13, 825.51) |
| Asian | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 19 | 7.79 (7.25, 8.36) | 1308.98 (747.39, 2292.57) | 118.45 (67.61, 207.51) |

(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) | 10 | 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) | 10 | 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) | 10 | 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 | 10 | 1.21 (1.21, 1.21) | 1.38 (1.08, 1.76) | 1.00 (1.00, 1.00) |
| Asian | D57 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 10 | 7.51 (7.51, 7.51) | 7.51 (7.51, 7.51) | 1.00 (1.00, 1.00) |
| Asian | D57 fold-rise over D1 | Placebo | Positive | Anti N IgG (IU/ml) | 27 | 0.05 (0.04, 0.06) | 101.48 (29.62, 347.66) | 44.12 (12.77, 152.46) |
| Asian | D57 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 27 | 0.81 (0.78, 0.84) | 2953.93 (1396.61, 6247.76) | 1724.27 (815.23, 3646.94) |
| Asian | D57 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 27 | 0.15 (0.15, 0.15) | 1905.73 (805.16, 4510.69) | 2121.25 (896.22, 5020.80) |
| Asian | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 27 | 1.74 (1.28, 2.38) | 179.78 (107.24, 301.40) | 71.38 (44.45, 114.63) |
| Asian | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 27 | 10.98 (8.68, 13.89) | 516.66 (344.79, 774.19) | 42.75 (29.76, 61.40) |
| American Indian or Alaska Native | D29 fold-rise over D1 | Vaccine | Negative | Anti N IgG (IU/ml) | 16 | 0.05 (0.05, 0.05) | 25.22 (11.33, 56.17) | 11.24 (5.05, 25.02) |
| American Indian or Alaska Native | D29 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 16 | 0.80 (0.80, 0.80) | 455.88 (234.59, 885.93) | 266.11 (136.94, 517.13) |
| American Indian or Alaska Native | D29 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 16 | 0.15 (0.15, 0.15) | 207.27 (109.14, 393.62) | 230.71 (121.48, 438.14) |
| American Indian or Alaska Native | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 16 | 1.21 (1.21, 1.21) | 18.96 (13.23, 27.17) | 8.47 (5.91, 12.14) |

(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 | 16 | 7.51 (7.51, 7.51) | 20.17 (13.85, 29.35) | 1.57 (1.10, 2.22) |
| American Indian or Alaska Native | D29 fold-rise over D1 | Vaccine | Positive | Anti N IgG (IU/ml) | 10 | 0.05 (0.05, 0.05) | 232.47 (53.43, 1011.46) | 103.56 (23.80, 450.57) |
| American Indian or Alaska Native | D29 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 10 | 0.80 (0.80, 0.80) | 1312.99 (224.38, 7683.24) | 766.42 (130.97, 4484.86) |
| American Indian or Alaska Native | D29 fold-rise over D1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 10 | 0.15 (0.15, 0.15) | 416.16 (65.22, 2655.65) | 463.22 (72.59, 2955.98) |
| American Indian or Alaska Native | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 10 | 1.75 (1.07, 2.85) | 57.28 (24.69, 132.87) | 21.80 (10.64, 44.69) |
| American Indian or Alaska Native | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 10 | 9.50 (6.80, 13.26) | 107.89 (46.22, 251.85) | 9.86 (4.22, 23.05) |
| 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 | 1.21 (1.21, 1.21) | 1.21 (1.21, 1.21) | 1.00 (1.00, 1.00) |
| American Indian or Alaska Native | D29 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 2 | 7.51 (7.51, 7.51) | 7.51 (7.51, 7.51) | 1.00 (1.00, 1.00) |
| American Indian or Alaska Native | D29 fold-rise over D1 | Placebo | Positive | Anti N IgG (IU/ml) | 7 | 0.05 (0.04, 0.07) | 33.82 (14.88, 76.90) | 15.07 (6.63, 34.26) |

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| 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) | 7 | 0.80 (0.80, 0.80) | 262.68 (163.15, 422.93) | 153.33 (95.23, 246.87) |
| American Indian or Alaska Native | D29 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 7 | 0.15 (0.15, 0.15) | 135.50 (83.53, 219.82) | 150.82 (92.97, 244.68) |
| American Indian or Alaska Native | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 7 | 1.39 (1.05, 1.83) | 13.57 (9.48, 19.44) | 5.39 (3.52, 8.25) |
| American Indian or Alaska Native | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 7 | 13.04 (6.28, 27.07) | 19.42 (14.26, 26.44) | 0.90 (0.41, 1.99) |
| American Indian or Alaska Native | D57 fold-rise over D1 | Vaccine | Negative | Anti N IgG (IU/ml) | 16 | 0.05 (0.05, 0.05) | 66.41 (21.00, 210.06) | 29.58 (9.35, 93.57) |
| American Indian or Alaska Native | D57 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 16 | 0.80 (0.80, 0.80) | 3570.73 (1847.87, 6899.89) | 2084.30 (1078.64, 4027.60) |
| American Indian or Alaska Native | D57 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 16 | 0.15 (0.15, 0.15) | 2054.65 (1024.62, 4120.16) | 2287.01 (1140.49, 4586.11) |
| American Indian or Alaska Native | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 16 | 1.21 (1.21, 1.21) | 306.21 (168.96, 554.95) | 136.79 (75.48, 247.91) |
| American Indian or Alaska Native | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 16 | 7.51 (7.51, 7.51) | 494.65 (261.44, 935.89) | 46.06 (24.34, 87.15) |
| American Indian or Alaska Native | D57 fold-rise over D1 | Vaccine | Positive | Anti N IgG (IU/ml) | 10 | 0.05 (0.05, 0.05) | 1458.89 (207.87, 10238.70) | 649.88 (92.60, 4560.97) |
| American Indian or Alaska Native | D57 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 10 | 0.80 (0.80, 0.80) | 23740.75 (5249.95, 107357.95) | 13857.95 (3064.50, 62666.99) |
| American Indian or Alaska Native | D57 fold-rise over D1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 10 | 0.15 (0.15, 0.15) | 37087.45 (6047.70, 227438.46) | 41281.67 (6731.63, 253159.47) |

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| 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 | 10 | 1.75 (1.07, 2.85) | 1086.35 (243.01, 4856.54) | 413.53 (94.70, 1805.67) |
| American Indian or Alaska Native | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 10 | 9.50 (6.80, 13.26) | 2009.48 (634.11, 6367.97) | 181.45 (57.57, 571.88) |
| 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 | 1.21 (1.21, 1.21) | 1.44 (1.00, 2.09) | 1.00 (1.00, 1.00) |
| American Indian or Alaska Native | D57 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 2 | 7.51 (7.51, 7.51) | 7.51 (7.51, 7.51) | 1.00 (1.00, 1.00) |
| American Indian or Alaska Native | D57 fold-rise over D1 | Placebo | Positive | Anti N IgG (IU/ml) | 7 | 0.05 (0.04, 0.07) | 174.33 (66.36, 457.98) | 77.66 (29.56, 204.01) |
| American Indian or Alaska Native | D57 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 7 | 0.80 (0.80, 0.80) | 4351.57 (1137.99, 16639.96) | 2540.10 (664.27, 9713.08) |
| American Indian or Alaska Native | D57 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 7 | 0.15 (0.15, 0.15) | 1731.09 (1091.13, 2746.41) | 1926.86 (1214.52, 3057.00) |
| American Indian or Alaska Native | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 7 | 1.39 (1.05, 1.83) | 360.80 (161.38, 806.62) | 145.33 (64.68, 326.53) |
| American Indian or Alaska Native | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 7 | 13.04 (6.28, 27.07) | 545.79 (275.33, 1081.96) | 35.10 (30.21, 40.78) |

(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) | 17 | 0.05 (0.05, 0.05) | 41.57 (10.45, 165.37) | 18.63 (4.70, 73.83) |
| Native Hawaiian or Other Pacific Islander | D29 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 17 | 0.80 (0.80, 0.80) | 831.43 (392.72, 1760.20) | 485.32 (229.24, 1027.47) |
| Native Hawaiian or Other Pacific Islander | D29 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 17 | 0.15 (0.15, 0.15) | 281.31 (161.65, 489.57) | 313.13 (179.93, 544.93) |
| Native Hawaiian or Other Pacific Islander | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 17 | 1.21 (1.21, 1.21) | 14.63 (8.47, 25.25) | 6.30 (3.56, 11.12) |
| Native Hawaiian or Other Pacific Islander | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 17 | 7.51 (7.51, 7.51) | 34.71 (21.21, 56.78) | 2.82 (1.56, 5.08) |
| 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) | 315.89 (136.25, 732.40) | 140.72 (60.69, 326.26) |
| 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) | 2517.21 (1854.59, 3416.57) | 1469.34 (1082.56, 1994.32) |
| 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) | 1094.52 (540.97, 2214.51) | 1218.30 (602.15, 2464.95) |
| Native Hawaiian or Other Pacific Islander | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 4 | 1.52 (1.03, 2.23) | 68.87 (50.08, 94.70) | 30.77 (22.37, 42.31) |
| Native Hawaiian or Other Pacific Islander | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 4 | 10.96 (5.71, 21.05) | 87.89 (73.45, 105.16) | 6.07 (3.93, 9.37) |
| Native Hawaiian or Other Pacific Islander | 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) |
| Native Hawaiian or Other Pacific Islander | 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) |

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| 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) | 2 | 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 | 2 | 1.21 (1.21, 1.21) | 1.21 (1.21, 1.21) | 1.00 (1.00, 1.00) |
| Native Hawaiian or Other Pacific Islander | D29 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 2 | 12.53 (6.04, 26.02) | 7.51 (7.51, 7.51) | 1.00 (1.00, 1.00) |
| Native Hawaiian or Other Pacific Islander | D29 fold-rise over D1 | Placebo | Positive | Anti N IgG (IU/ml) | 2 | 0.05 (0.05, 0.05) | 249.46 (103.20, 603.03) | 111.13 (45.97, 268.63) |
| Native Hawaiian or Other Pacific Islander | D29 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 2 | 0.80 (0.80, 0.80) | 2643.54 (1298.34, 5382.52) | 1543.09 (757.86, 3141.88) |
| Native Hawaiian or Other Pacific Islander | D29 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 2 | 0.15 (0.15, 0.15) | 96.24 (94.64, 97.87) | 107.12 (105.34, 108.94) |
| Native Hawaiian or Other Pacific Islander | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 2 | 1.21 (1.21, 1.21) | 33.19 (19.82, 55.58) | 14.83 (8.85, 24.83) |
| Native Hawaiian or Other Pacific Islander | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 2 | 7.51 (7.51, 7.51) | 15.55 (10.80, 22.39) | 1.00 (1.00, 1.00) |
| Native Hawaiian or Other Pacific Islander | D57 fold-rise over D1 | Vaccine | Negative | Anti N IgG (IU/ml) | 17 | 0.05 (0.05, 0.05) | 345.70 (100.57, 1188.36) | 154.00 (44.80, 529.37) |
| Native Hawaiian or Other Pacific Islander | D57 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 17 | 0.80 (0.80, 0.80) | 5000.82 (2764.75, 9045.36) | 2919.08 (1613.84, 5279.96) |
| Native Hawaiian or Other Pacific Islander | D57 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 17 | 0.15 (0.15, 0.15) | 3526.24 (1694.94, 7336.17) | 3925.02 (1886.62, 8165.82) |
| Native Hawaiian or Other Pacific Islander | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 17 | 1.21 (1.21, 1.21) | 711.04 (339.62, 1488.66) | 317.64 (151.72, 665.02) |

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| 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 | 17 | 7.51 (7.51, 7.51) | 1038.11 (632.04, 1705.07) | 96.66 (58.85, 158.77) |
| 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) | 795.44 (596.70, 1060.38) | 354.34 (265.81, 472.36) |
| 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) | 117506.98 (74615.70, 185053.42) | 68591.18 (43554.68, 108019.39) |
| 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) | 102048.52 (60099.71, 173277.04) | 113589.18 (66896.39, 192872.93) |
| Native Hawaiian or Other Pacific Islander | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 4 | 1.52 (1.03, 2.23) | 2330.62 (1137.68, 4774.45) | 1041.15 (508.23, 2132.88) |
| Native Hawaiian or Other Pacific Islander | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 4 | 10.96 (5.71, 21.05) | 5679.32 (4474.10, 7209.18) | 392.33 (196.56, 783.05) |
| Native Hawaiian or Other Pacific Islander | 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) |
| Native Hawaiian or Other Pacific Islander | 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) |
| Native Hawaiian or Other Pacific Islander | 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) |
| Native Hawaiian or Other Pacific Islander | D57 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID50 | 2 | 1.21 (1.21, 1.21) | 1.21 (1.21, 1.21) | 1.00 (1.00, 1.00) |
| Native Hawaiian or Other Pacific Islander | D57 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 2 | 12.53 (6.04, 26.02) | 7.51 (7.51, 7.51) | 1.00 (1.00, 1.00) |
| Native Hawaiian or Other Pacific Islander | D57 fold-rise over D1 | Placebo | Positive | Anti N IgG (IU/ml) | 2 | 0.05 (0.05, 0.05) | 112.85 (101.38, 125.62) | 50.27 (45.16, 55.96) |

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| 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) | 2 | 0.80 (0.80, 0.80) | 1281.73 (1129.81, 1454.08) | 748.17 (659.49, 848.77) |
| Native Hawaiian or Other Pacific Islander | D57 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 2 | 0.15 (0.15, 0.15) | 5853.33 (5254.52, 6520.38) | 6515.28 (5848.75, 7257.77) |
| Native Hawaiian or Other Pacific Islander | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 2 | 1.21 (1.21, 1.21) | 865.00 (376.47, 1987.51) | 386.42 (168.18, 887.87) |
| Native Hawaiian or Other Pacific Islander | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 2 | 7.51 (7.51, 7.51) | 273.59 (192.26, 389.32) | 25.48 (17.90, 36.25) |
| Multiracial | D29 fold-rise over D1 | Vaccine | Negative | Anti N IgG (IU/ml) | 57 | 0.05 (0.05, 0.05) | 63.72 (39.06, 103.95) | 29.40 (19.00, 45.49) |
| Multiracial | D29 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 57 | 0.80 (0.80, 0.80) | 680.89 (439.41, 1055.08) | 397.45 (256.49, 615.87) |
| Multiracial | D29 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 57 | 0.15 (0.15, 0.15) | 468.79 (300.62, 731.03) | 521.80 (334.61, 813.71) |
| Multiracial | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 57 | 1.21 (1.21, 1.21) | 24.25 (18.56, 31.68) | 10.55 (7.92, 14.06) |
| Multiracial | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 57 | 7.51 (7.51, 7.51) | 36.61 (28.88, 46.41) | 3.40 (2.73, 4.24) |
| Multiracial | D29 fold-rise over D1 | Vaccine | Positive | Anti N IgG (IU/ml) | 10 | 0.05 (0.05, 0.05) | 35.81 (17.22, 74.45) | 15.95 (7.67, 33.16) |
| Multiracial | D29 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 10 | 0.80 (0.80, 0.80) | 585.30 (248.65, 1377.72) | 341.65 (145.14, 804.20) |
| Multiracial | D29 fold-rise over D1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 10 | 0.15 (0.15, 0.15) | 307.16 (121.84, 774.38) | 341.90 (135.62, 861.96) |
| Multiracial | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 10 | 1.21 (1.21, 1.21) | 20.16 (13.18, 30.82) | 9.00 (5.89, 13.77) |
| Multiracial | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 10 | 10.28 (6.07, 17.40) | 33.38 (15.78, 70.60) | 2.50 (1.37, 4.55) |

(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) | 8 | 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) | 8 | 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) | 8 | 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 | 8 | 1.21 (1.21, 1.21) | 1.21 (1.21, 1.21) | 1.00 (1.00, 1.00) |
| Multiracial | D29 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 8 | 7.51 (7.51, 7.51) | 7.51 (7.51, 7.51) | 1.00 (1.00, 1.00) |
| Multiracial | D29 fold-rise over D1 | Placebo | Positive | Anti N IgG (IU/ml) | 16 | 0.05 (0.05, 0.05) | 29.89 (13.84, 64.54) | 12.21 (5.34, 27.93) |
| Multiracial | D29 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 16 | 0.83 (0.77, 0.89) | 924.61 (523.85, 1631.96) | 539.71 (305.78, 952.61) |
| Multiracial | D29 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 16 | 0.15 (0.15, 0.15) | 352.91 (218.34, 570.41) | 392.82 (243.04, 634.92) |
| Multiracial | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 16 | 1.60 (1.18, 2.16) | 9.72 (5.69, 16.62) | 3.82 (2.10, 6.94) |
| Multiracial | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 16 | 17.15 (10.75, 27.38) | 25.75 (16.52, 40.13) | 1.53 (1.08, 2.18) |
| Multiracial | D57 fold-rise over D1 | Vaccine | Negative | Anti N IgG (IU/ml) | 57 | 0.05 (0.05, 0.05) | 255.11 (118.56, 548.94) | 114.44 (53.43, 245.10) |
| Multiracial | D57 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 57 | 0.80 (0.80, 0.80) | 8215.71 (4964.67, 13595.66) | 4795.68 (2897.98, 7936.06) |
| Multiracial | D57 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 57 | 0.15 (0.15, 0.15) | 5617.50 (3951.81, 7985.29) | 6252.78 (4398.72, 8888.35) |
| Multiracial | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 57 | 1.21 (1.21, 1.21) | 707.51 (496.25, 1008.71) | 316.07 (221.69, 450.62) |
| Multiracial | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 57 | 7.51 (7.51, 7.51) | 929.00 (667.01, 1293.91) | 86.50 (62.11, 120.48) |

(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) | 10 | 0.05 (0.05, 0.05) | 406.85 (56.32, 2939.29) | 181.24 (25.09, 1309.35) |
| Multiracial | D57 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 10 | 0.80 (0.80, 0.80) | 7480.16 (2394.58, 23366.38) | 4366.32 (1397.77, 13639.43) |
| Multiracial | D57 fold-rise over D1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 10 | 0.15 (0.15, 0.15) | 5537.31 (1571.82, 19507.16) | 6163.53 (1749.58, 21713.22) |
| Multiracial | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 10 | 1.21 (1.21, 1.21) | 855.78 (402.27, 1820.57) | 382.30 (179.71, 813.30) |
| Multiracial | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 10 | 10.28 (6.07, 17.40) | 1670.65 (1084.79, 2572.89) | 122.78 (81.40, 185.20) |
| Multiracial | 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) |
| Multiracial | 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) |
| Multiracial | 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) |
| Multiracial | D57 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID50 | 8 | 1.21 (1.21, 1.21) | 1.21 (1.21, 1.21) | 1.00 (1.00, 1.00) |
| Multiracial | D57 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 8 | 7.51 (7.51, 7.51) | 7.51 (7.51, 7.51) | 1.00 (1.00, 1.00) |
| Multiracial | D57 fold-rise over D1 | Placebo | Positive | Anti N IgG (IU/ml) | 16 | 0.05 (0.05, 0.05) | 365.33 (82.27, 1622.24) | 162.73 (36.64, 722.66) |
| Multiracial | D57 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 16 | 0.83 (0.77, 0.89) | 6641.75 (2467.22, 17879.61) | 3876.92 (1440.16, 10436.69) |
| Multiracial | D57 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 16 | 0.15 (0.15, 0.15) | 2918.31 (1507.00, 5651.30) | 3248.34 (1677.43, 6290.41) |
| Multiracial | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 16 | 1.60 (1.18, 2.16) | 471.29 (253.46, 876.30) | 187.19 (100.10, 350.07) |
| Multiracial | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 16 | 17.15 (10.75, 27.38) | 819.72 (368.54, 1823.25) | 46.01 (20.80, 101.80) |

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| 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) | 16 | 0.05 (0.05, 0.05) | 45.59 (14.02, 148.20) | 22.17 (7.48, 65.74) |
| Other | D29 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 16 | 0.80 (0.80, 0.80) | 954.67 (452.96, 2012.08) | 557.26 (264.40, 1174.49) |
| Other | D29 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 16 | 0.15 (0.15, 0.15) | 362.47 (196.46, 668.78) | 403.46 (218.67, 744.41) |
| Other | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 16 | 1.21 (1.21, 1.21) | 22.42 (13.44, 37.40) | 9.46 (5.28, 16.95) |
| Other | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 16 | 7.51 (7.51, 7.51) | 26.66 (14.34, 49.57) | 2.60 (1.53, 4.43) |
| Other | D29 fold-rise over D1 | Vaccine | Positive | Anti N IgG (IU/ml) | 7 | 0.05 (0.04, 0.07) | 91.30 (29.66, 281.03) | 40.67 (13.21, 125.19) |
| Other | D29 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 7 | 0.80 (0.80, 0.80) | 1683.69 (1105.78, 2563.63) | 982.80 (645.47, 1496.44) |
| Other | D29 fold-rise over D1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 7 | 0.15 (0.15, 0.15) | 577.79 (232.90, 1433.42) | 643.13 (259.23, 1595.52) |
| Other | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 7 | 1.47 (1.06, 2.04) | 33.43 (19.66, 56.84) | 13.31 (7.83, 22.61) |
| Other | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 7 | 9.41 (6.79, 13.05) | 56.36 (37.43, 84.87) | 5.25 (3.49, 7.90) |
| Other | 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) |
| Other | 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) |
| Other | 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) |
| Other | D29 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID50 | 1 | 1.21 (1.21, 1.21) | 1.21 (1.21, 1.21) | 1.00 (1.00, 1.00) |
| Other | D29 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 1 | 7.51 (7.51, 7.51) | 7.51 (7.51, 7.51) | 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) | 13 | 0.05 (0.05, 0.05) | 30.54 (11.57, 80.62) | 14.33 (5.79, 35.47) |
| Other | D29 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 13 | 0.80 (0.80, 0.80) | 233.75 (99.57, 548.73) | 136.44 (58.12, 320.31) |
| Other | D29 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 13 | 0.15 (0.15, 0.15) | 153.92 (75.16, 315.23) | 171.33 (83.66, 350.88) |
| Other | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 13 | 1.43 (1.11, 1.85) | 9.72 (5.02, 18.80) | 4.33 (2.28, 8.22) |
| Other | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 13 | 8.37 (6.78, 10.34) | 18.09 (10.25, 31.92) | 1.73 (1.04, 2.89) |
| Other | D57 fold-rise over D1 | Vaccine | Negative | Anti N IgG (IU/ml) | 16 | 0.05 (0.05, 0.05) | 179.09 (80.22, 399.84) | 79.78 (35.73, 178.12) |
| Other | D57 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 16 | 0.80 (0.80, 0.80) | 5123.38 (1923.26, 13648.21) | 2990.62 (1122.64, 7966.74) |
| Other | D57 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 16 | 0.15 (0.15, 0.15) | 6094.59 (2760.52, 13455.48) | 6783.83 (3072.70, 14977.16) |
| Other | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 16 | 1.21 (1.21, 1.21) | 838.28 (321.29, 2187.15) | 374.48 (143.53, 977.06) |
| Other | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 16 | 7.51 (7.51, 7.51) | 537.41 (216.29, 1335.28) | 50.04 (20.14, 124.34) |
| Other | D57 fold-rise over D1 | Vaccine | Positive | Anti N IgG (IU/ml) | 7 | 0.05 (0.04, 0.07) | 469.54 (166.46, 1324.43) | 209.16 (74.15, 589.99) |
| Other | D57 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 7 | 0.80 (0.80, 0.80) | 9884.65 (2588.20, 37750.60) | 5769.87 (1510.79, 22035.78) |
| Other | D57 fold-rise over D1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 7 | 0.15 (0.15, 0.15) | 15218.24 (5421.81, 42715.39) | 16939.27 (6034.97, 47546.07) |
| Other | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 7 | 1.47 (1.06, 2.04) | 1132.03 (353.43, 3625.94) | 450.62 (147.88, 1373.17) |
| Other | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 7 | 9.41 (6.79, 13.05) | 1571.30 (512.63, 4816.26) | 146.31 (47.73, 448.47) |

(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) | 1 | 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) | 1 | 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) | 1 | 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 | 1 | 1.21 (1.21, 1.21) | 1.21 (1.21, 1.21) | 1.00 (1.00, 1.00) |
| Other | D57 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 1 | 7.51 (7.51, 7.51) | 7.51 (7.51, 7.51) | 1.00 (1.00, 1.00) |
| Other | D57 fold-rise over D1 | Placebo | Positive | Anti N IgG (IU/ml) | 13 | 0.05 (0.05, 0.05) | 98.02 (28.64, 335.45) | 43.44 (12.61, 149.59) |
| Other | D57 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 13 | 0.80 (0.80, 0.80) | 2580.02 (811.17, 8206.11) | 1506.01 (473.49, 4790.07) |
| Other | D57 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 13 | 0.15 (0.15, 0.15) | 1905.90 (604.75, 6006.49) | 2121.44 (673.15, 6685.77) |
| Other | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 13 | 1.43 (1.11, 1.85) | 406.27 (141.59, 1165.71) | 178.11 (62.27, 509.43) |
| Other | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 13 | 8.37 (6.78, 10.34) | 486.57 (223.05, 1061.44) | 41.51 (18.82, 91.54) |
| Not reported and unknown | D29 fold-rise over D1 | Vaccine | Negative | Anti N IgG (IU/ml) | 4 | 0.05 (0.05, 0.05) | 22.70 (0.94, 547.12) | 13.44 (0.77, 233.10) |
| Not reported and unknown | D29 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 4 | 0.80 (0.80, 0.80) | 425.33 (131.39, 1376.88) | 248.27 (76.69, 803.71) |
| Not reported and unknown | D29 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 4 | 0.15 (0.15, 0.15) | 214.96 (30.19, 1530.49) | 239.27 (33.61, 1703.57) |
| Not reported and unknown | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 4 | 1.21 (1.21, 1.21) | 17.17 (3.38, 87.16) | 5.97 (0.88, 40.42) |

(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 | 4 | 7.51 (7.51, 7.51) | 18.80 (5.55, 63.69) | 2.19 (0.76, 6.30) |
| 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 | 1.21 (1.21, 1.21) | 1.21 (1.21, 1.21) | 1.00 (1.00, 1.00) |
| Not reported and unknown | D29 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 1 | 7.51 (7.51, 7.51) | 7.51 (7.51, 7.51) | 1.00 (1.00, 1.00) |
| Not reported and unknown | D29 fold-rise over D1 | Placebo | Positive | Anti N IgG (IU/ml) | 2 | 0.05 (0.05, 0.05) | 11.18 (5.91, 21.17) | 4.98 (2.63, 9.43) |
| Not reported and unknown | D29 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 2 | 0.80 (0.80, 0.80) | 355.07 (154.05, 818.42) | 207.26 (89.92, 477.73) |
| Not reported and unknown | D29 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 2 | 0.15 (0.15, 0.15) | 115.90 (46.80, 287.06) | 129.01 (52.09, 319.53) |
| Not reported and unknown | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 2 | 3.37 (0.79, 14.35) | 9.94 (5.30, 18.65) | 2.17 (1.48, 3.19) |
| Not reported and unknown | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 2 | 7.51 (7.51, 7.51) | 20.03 (5.01, 80.10) | 2.23 (0.72, 6.93) |
| Not reported and unknown | D57 fold-rise over D1 | Vaccine | Negative | Anti N IgG (IU/ml) | 4 | 0.05 (0.05, 0.05) | 239.33 (43.05, 1330.56) | 106.61 (19.18, 592.72) |

(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 RBD IgG (IU/ml) | 4 | 0.80 (0.80, 0.80) | 1359.83 (35.46, 52152.50) | 793.76 (20.70, 30442.46) |
| Not reported and unknown | D57 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 4 | 0.15 (0.15, 0.15) | 1869.74 (295.22, 11841.84) | 2081.19 (328.61, 13181.04) |
| Not reported and unknown | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 4 | 1.21 (1.21, 1.21) | 214.93 (97.85, 472.11) | 96.02 (43.71, 210.90) |
| Not reported and unknown | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 4 | 7.51 (7.51, 7.51) | 527.73 (211.45, 1317.11) | 49.14 (19.69, 122.64) |
| 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 | 1.21 (1.21, 1.21) | 1.21 (1.21, 1.21) | 1.00 (1.00, 1.00) |
| Not reported and unknown | D57 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 1 | 7.51 (7.51, 7.51) | 7.51 (7.51, 7.51) | 1.00 (1.00, 1.00) |
| Not reported and unknown | D57 fold-rise over D1 | Placebo | Positive | Anti N IgG (IU/ml) | 2 | 0.05 (0.05, 0.05) | 59.40 (5.40, 653.72) | 26.46 (2.40, 291.21) |
| Not reported and unknown | D57 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 2 | 0.80 (0.80, 0.80) | 1036.14 (428.68, 2504.42) | 604.82 (250.23, 1461.88) |
| Not reported and unknown | D57 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 2 | 0.15 (0.15, 0.15) | 2699.56 (369.10, 19744.27) | 3004.85 (410.84, 21977.15) |

(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 | Positive | Pseudovirus-nAb ID50 | 2 | 3.37 (0.79, 14.35) | 111.24 (25.15, 491.99) | 24.26 (15.11, 38.94) |
| Not reported and unknown | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 2 | 7.51 (7.51, 7.51) | 374.13 (373.95, 374.31) | 34.84 (34.82, 34.85) |

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) | 377 | 0.05 (0.05, 0.05) | 47.88 (38.41, 59.67) | 22.15 (18.03, 27.23) |
| Communities of Color | D29 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 377 | 0.80 (0.80, 0.80) | 601.72 (499.59, 724.73) | 351.24 (291.62, 423.04) |
| Communities of Color | D29 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 377 | 0.15 (0.15, 0.15) | 312.83 (267.85, 365.36) | 348.21 (298.15, 406.68) |
| Communities of Color | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 377 | 1.21 (1.21, 1.21) | 20.20 (18.04, 22.63) | 8.90 (7.92, 10.00) |
| Communities of Color | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 377 | 7.51 (7.51, 7.51) | 28.84 (25.80, 32.24) | 2.63 (2.35, 2.93) |
| Communities of Color | D29 fold-rise over D1 | Vaccine | Positive | Anti N IgG (IU/ml) | 116 | 0.05 (0.05, 0.05) | 80.72 (53.07, 122.80) | 36.10 (23.72, 54.93) |
| Communities of Color | D29 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 116 | 0.80 (0.80, 0.80) | 988.93 (705.93, 1385.38) | 577.26 (412.07, 808.67) |
| Communities of Color | D29 fold-rise over D1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 116 | 0.16 (0.15, 0.16) | 422.75 (324.82, 550.21) | 470.56 (361.56, 612.44) |
| Communities of Color | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 116 | 1.62 (1.43, 1.83) | 32.03 (25.63, 40.04) | 12.97 (10.59, 15.89) |
| Communities of Color | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 116 | 8.58 (7.93, 9.28) | 49.02 (40.19, 59.78) | 4.35 (3.57, 5.29) |
| Communities of Color | 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) |
| Communities of Color | 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) |
| Communities of Color | 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) |
| Communities of Color | D29 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID50 | 75 | 1.22 (1.20, 1.24) | 1.21 (1.21, 1.21) | 1.00 (1.00, 1.00) |
| Communities of Color | D29 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 75 | 8.05 (7.49, 8.64) | 7.51 (7.51, 7.51) | 0.98 (0.95, 1.02) |

(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) | 120 | 0.05 (0.05, 0.06) | 27.93 (18.97, 41.13) | 12.95 (8.99, 18.66) |
| Communities of Color | D29 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 120 | 0.80 (0.79, 0.81) | 352.63 (249.40, 498.60) | 205.84 (145.58, 291.04) |
| Communities of Color | D29 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 120 | 0.16 (0.15, 0.16) | 155.52 (114.15, 211.87) | 173.11 (127.06, 235.83) |
| Communities of Color | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 120 | 1.69 (1.46, 1.95) | 11.40 (9.17, 14.17) | 4.47 (3.60, 5.54) |
| Communities of Color | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 120 | 10.64 (9.36, 12.10) | 20.39 (17.22, 24.13) | 1.59 (1.35, 1.87) |
| Communities of Color | D57 fold-rise over D1 | Vaccine | Negative | Anti N IgG (IU/ml) | 377 | 0.05 (0.05, 0.05) | 227.46 (171.83, 301.11) | 101.70 (76.97, 134.37) |
| Communities of Color | D57 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 377 | 0.80 (0.80, 0.80) | 6116.64 (5002.83, 7478.42) | 3570.40 (2920.25, 4365.30) |
| Communities of Color | D57 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 377 | 0.15 (0.15, 0.15) | 4158.17 (3454.12, 5005.74) | 4628.42 (3844.74, 5571.83) |
| Communities of Color | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 377 | 1.21 (1.21, 1.21) | 549.84 (479.76, 630.15) | 245.63 (214.32, 281.50) |
| Communities of Color | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 377 | 7.51 (7.51, 7.51) | 656.33 (575.68, 748.27) | 61.11 (53.60, 69.68) |
| Communities of Color | D57 fold-rise over D1 | Vaccine | Positive | Anti N IgG (IU/ml) | 116 | 0.05 (0.05, 0.05) | 543.72 (333.11, 887.50) | 240.93 (147.32, 394.02) |
| Communities of Color | D57 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 116 | 0.80 (0.80, 0.80) | 15372.49 (10572.42, 22351.88) | 8973.23 (6171.33, 13047.24) |
| Communities of Color | D57 fold-rise over D1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 116 | 0.16 (0.15, 0.16) | 11322.94 (8105.96, 15816.62) | 12603.45 (9022.66, 17605.32) |
| Communities of Color | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 116 | 1.62 (1.43, 1.83) | 1181.83 (923.19, 1512.91) | 479.98 (376.77, 611.47) |
| Communities of Color | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 116 | 8.58 (7.93, 9.28) | 1409.31 (1101.23, 1803.57) | 123.54 (96.25, 158.57) |

(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) | 75 | 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) | 75 | 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) | 75 | 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 | 75 | 1.22 (1.20, 1.24) | 1.28 (1.20, 1.36) | 1.00 (1.00, 1.00) |
| Communities of Color | D57 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 75 | 8.05 (7.49, 8.64) | 7.57 (7.45, 7.69) | 0.99 (0.95, 1.03) |
| Communities of Color | D57 fold-rise over D1 | Placebo | Positive | Anti N IgG (IU/ml) | 120 | 0.05 (0.05, 0.06) | 127.29 (76.15, 212.77) | 57.37 (34.58, 95.19) |
| Communities of Color | D57 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 120 | 0.80 (0.79, 0.81) | 3319.09 (2360.16, 4667.65) | 1937.42 (1377.67, 2724.60) |
| Communities of Color | D57 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 120 | 0.16 (0.15, 0.16) | 2224.20 (1531.96, 3229.24) | 2475.74 (1705.21, 3594.44) |
| Communities of Color | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 120 | 1.69 (1.46, 1.95) | 311.04 (233.55, 414.23) | 123.14 (92.64, 163.68) |
| Communities of Color | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 120 | 10.64 (9.36, 12.10) | 465.54 (369.92, 585.87) | 36.21 (29.35, 44.67) |
| White Non-Hispanic | D29 fold-rise over D1 | Vaccine | Negative | Anti N IgG (IU/ml) | 370 | 0.05 (0.05, 0.05) | 34.08 (26.39, 44.01) | 16.51 (13.12, 20.78) |
| White Non-Hispanic | D29 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 370 | 0.80 (0.80, 0.80) | 400.44 (330.41, 485.31) | 233.74 (192.87, 283.28) |
| White Non-Hispanic | D29 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 370 | 0.15 (0.15, 0.15) | 237.37 (204.22, 275.89) | 264.21 (227.32, 307.10) |
| White Non-Hispanic | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 370 | 1.21 (1.21, 1.21) | 15.55 (13.64, 17.71) | 6.78 (5.93, 7.76) |
| White Non-Hispanic | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 370 | 7.51 (7.51, 7.51) | 24.07 (21.54, 26.91) | 2.28 (2.06, 2.52) |

(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) | 118 | 0.05 (0.05, 0.05) | 82.41 (56.70, 119.78) | 36.46 (24.94, 53.29) |
| White Non-Hispanic | D29 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 118 | 0.83 (0.79, 0.87) | 752.05 (520.11, 1087.41) | 433.13 (299.78, 625.80) |
| White Non-Hispanic | D29 fold-rise over D1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 118 | 0.15 (0.15, 0.15) | 513.05 (403.64, 652.12) | 571.07 (449.29, 725.87) |
| White Non-Hispanic | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 118 | 1.71 (1.48, 1.97) | 33.13 (26.98, 40.67) | 13.09 (10.44, 16.42) |
| White Non-Hispanic | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 118 | 10.90 (9.44, 12.59) | 52.80 (43.78, 63.69) | 3.82 (3.08, 4.73) |
| White Non-Hispanic | 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) |
| White Non-Hispanic | 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) |
| White Non-Hispanic | 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) |
| White Non-Hispanic | D29 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID50 | 63 | 1.21 (1.21, 1.21) | 1.22 (1.20, 1.24) | 1.00 (1.00, 1.00) |
| White Non-Hispanic | D29 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 63 | 7.51 (7.51, 7.51) | 7.51 (7.51, 7.51) | 1.00 (1.00, 1.00) |
| White Non-Hispanic | D29 fold-rise over D1 | Placebo | Positive | Anti N IgG (IU/ml) | 121 | 0.05 (0.05, 0.05) | 26.72 (17.39, 41.07) | 12.48 (8.31, 18.74) |
| White Non-Hispanic | D29 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 121 | 0.80 (0.80, 0.80) | 267.93 (174.53, 411.31) | 156.39 (101.87, 240.09) |
| White Non-Hispanic | D29 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 121 | 0.15 (0.15, 0.15) | 182.62 (133.68, 249.48) | 203.28 (148.80, 277.69) |
| White Non-Hispanic | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 121 | 1.60 (1.40, 1.82) | 11.37 (8.85, 14.60) | 4.73 (3.74, 6.00) |
| White Non-Hispanic | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 121 | 9.27 (8.31, 10.33) | 20.09 (16.51, 24.45) | 1.75 (1.46, 2.10) |

(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) | 370 | 0.05 (0.05, 0.05) | 136.02 (102.81, 179.97) | 62.90 (48.23, 82.03) |
| White Non-Hispanic | D57 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 370 | 0.80 (0.80, 0.80) | 3965.19 (3190.18, 4928.49) | 2314.56 (1862.17, 2876.86) |
| White Non-Hispanic | D57 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 370 | 0.15 (0.15, 0.15) | 2905.77 (2384.91, 3540.40) | 3234.39 (2654.61, 3940.78) |
| White Non-Hispanic | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 370 | 1.21 (1.21, 1.21) | 355.22 (305.63, 412.85) | 158.69 (136.53, 184.43) |
| White Non-Hispanic | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 370 | 7.51 (7.51, 7.51) | 506.55 (440.71, 582.22) | 47.17 (41.04, 54.21) |
| White Non-Hispanic | D57 fold-rise over D1 | Vaccine | Positive | Anti N IgG (IU/ml) | 118 | 0.05 (0.05, 0.05) | 735.04 (440.86, 1225.53) | 324.06 (192.93, 544.32) |
| White Non-Hispanic | D57 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 118 | 0.83 (0.79, 0.87) | 17684.90 (12263.74, 25502.49) | 10185.30 (7066.32, 14680.98) |
| White Non-Hispanic | D57 fold-rise over D1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 118 | 0.15 (0.15, 0.15) | 10349.34 (7588.49, 14114.66) | 11519.75 (8446.67, 15710.89) |
| White Non-Hispanic | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 118 | 1.71 (1.48, 1.97) | 1312.29 (957.88, 1797.84) | 518.66 (379.11, 709.59) |
| White Non-Hispanic | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 118 | 10.90 (9.44, 12.59) | 1677.99 (1373.02, 2050.70) | 127.67 (104.73, 155.63) |
| White Non-Hispanic | 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) |
| White Non-Hispanic | 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) |
| White Non-Hispanic | 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) |
| White Non-Hispanic | D57 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID50 | 63 | 1.21 (1.21, 1.21) | 1.22 (1.20, 1.25) | 1.01 (0.99, 1.02) |
| White Non-Hispanic | D57 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 63 | 7.51 (7.51, 7.51) | 7.51 (7.51, 7.51) | 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) | 121 | 0.05 (0.05, 0.05) | 138.49 (81.68, 234.80) | 62.30 (37.01, 104.88) |
| White Non-Hispanic | D57 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 121 | 0.80 (0.80, 0.80) | 2844.53 (1856.90, 4357.44) | 1660.41 (1083.91, 2543.52) |
| White Non-Hispanic | D57 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 121 | 0.15 (0.15, 0.15) | 2385.84 (1614.03, 3526.73) | 2655.66 (1796.56, 3925.56) |
| White Non-Hispanic | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 121 | 1.60 (1.40, 1.82) | 307.89 (235.98, 401.71) | 126.64 (96.91, 165.49) |
| White Non-Hispanic | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 121 | 9.27 (8.31, 10.33) | 448.64 (360.71, 558.00) | 37.96 (30.40, 47.39) |

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) | 181 | 0.05 (0.05, 0.05) | 40.76 (30.95, 53.67) | 19.11 (14.78, 24.69) |
| Age < 65 Communities of Color | D29 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 181 | 0.80 (0.80, 0.80) | 479.15 (380.27, 603.74) | 279.69 (221.97, 352.41) |
| Age < 65 Communities of Color | D29 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 181 | 0.15 (0.15, 0.15) | 248.38 (204.73, 301.33) | 276.47 (227.88, 335.41) |
| Age < 65 Communities of Color | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 181 | 1.21 (1.21, 1.21) | 18.82 (16.35, 21.67) | 8.26 (7.14, 9.55) |
| Age < 65 Communities of Color | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 181 | 7.51 (7.51, 7.51) | 27.06 (23.59, 31.03) | 2.44 (2.14, 2.80) |
| Age < 65 Communities of Color | D29 fold-rise over D1 | Vaccine | Positive | Anti N IgG (IU/ml) | 60 | 0.05 (0.05, 0.05) | 64.06 (38.89, 105.52) | 28.67 (17.40, 47.24) |
| Age < 65 Communities of Color | D29 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 60 | 0.80 (0.80, 0.80) | 786.45 (529.58, 1167.93) | 459.07 (309.12, 681.75) |
| Age < 65 Communities of Color | D29 fold-rise over D1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 60 | 0.16 (0.15, 0.17) | 330.33 (243.57, 448.00) | 367.69 (271.12, 498.67) |
| Age < 65 Communities of Color | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 60 | 1.62 (1.40, 1.87) | 28.32 (21.73, 36.90) | 11.46 (9.02, 14.55) |
| Age < 65 Communities of Color | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 60 | 8.33 (7.62, 9.11) | 47.37 (37.42, 59.96) | 4.29 (3.40, 5.42) |
| Age < 65 Communities of Color | D29 fold-rise over D1 | Placebo | Negative | Anti N IgG (IU/ml) | 40 | 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) | 40 | 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) | 40 | 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 | 40 | 1.22 (1.20, 1.25) | 1.21 (1.21, 1.21) | 1.00 (1.00, 1.00) |
| Age < 65 Communities of Color | D29 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 40 | 8.21 (7.44, 9.06) | 7.51 (7.51, 7.51) | 0.97 (0.92, 1.03) |
| Age < 65 Communities of Color | D29 fold-rise over D1 | Placebo | Positive | Anti N IgG (IU/ml) | 62 | 0.05 (0.05, 0.06) | 21.81 (13.71, 34.71) | 10.27 (6.64, 15.89) |
| Age < 65 Communities of Color | D29 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 62 | 0.80 (0.80, 0.80) | 266.59 (176.70, 402.20) | 155.61 (103.14, 234.77) |
| Age < 65 Communities of Color | D29 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 62 | 0.16 (0.15, 0.16) | 118.20 (81.43, 171.57) | 131.56 (90.63, 190.97) |
| Age < 65 Communities of Color | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 62 | 1.68 (1.41, 2.00) | 10.05 (7.73, 13.05) | 3.96 (3.06, 5.13) |
| Age < 65 Communities of Color | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 62 | 10.95 (9.36, 12.81) | 19.73 (16.09, 24.19) | 1.51 (1.24, 1.85) |
| Age < 65 Communities of Color | D57 fold-rise over D1 | Vaccine | Negative | Anti N IgG (IU/ml) | 181 | 0.05 (0.05, 0.05) | 181.82 (128.01, 258.25) | 81.36 (57.42, 115.27) |
| Age < 65 Communities of Color | D57 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 181 | 0.80 (0.80, 0.80) | 4576.25 (3579.40, 5850.72) | 2671.25 (2089.37, 3415.18) |
| Age < 65 Communities of Color | D57 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 181 | 0.15 (0.15, 0.15) | 3156.05 (2506.81, 3973.43) | 3512.96 (2790.30, 4422.79) |

(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 | 181 | 1.21 (1.21, 1.21) | 501.87 (424.02, 594.01) | 224.20 (189.42, 265.36) |
| Age < 65 Communities of Color | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 181 | 7.51 (7.51, 7.51) | 622.52 (528.99, 732.60) | 57.97 (49.26, 68.22) |
| Age < 65 Communities of Color | D57 fold-rise over D1 | Vaccine | Positive | Anti N IgG (IU/ml) | 60 | 0.05 (0.05, 0.05) | 439.21 (244.36, 789.44) | 194.40 (107.90, 350.26) |
| Age < 65 Communities of Color | D57 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 60 | 0.80 (0.80, 0.80) | 11515.00 (7382.14, 17961.63) | 6721.54 (4309.10, 10484.56) |
| Age < 65 Communities of Color | D57 fold-rise over D1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 60 | 0.16 (0.15, 0.17) | 8880.91 (6021.62, 13097.90) | 9885.25 (6702.60, 14579.14) |
| Age < 65 Communities of Color | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 60 | 1.62 (1.40, 1.87) | 1032.23 (769.96, 1383.86) | 419.28 (315.00, 558.09) |
| Age < 65 Communities of Color | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 60 | 8.33 (7.62, 9.11) | 1290.56 (962.67, 1730.13) | 115.09 (85.45, 155.00) |
| Age < 65 Communities of Color | D57 fold-rise over D1 | Placebo | Negative | Anti N IgG (IU/ml) | 40 | 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) | 40 | 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) | 40 | 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 | 40 | 1.22 (1.20, 1.25) | 1.29 (1.18, 1.40) | 1.00 (1.00, 1.00) |
| Age < 65 Communities of Color | D57 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 40 | 8.21 (7.44, 9.06) | 7.51 (7.51, 7.51) | 0.97 (0.92, 1.03) |

(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) | 62 | 0.05 (0.05, 0.06) | 99.31 (53.20, 185.39) | 44.89 (24.28, 82.99) |
| Age < 65 Communities of Color | D57 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 62 | 0.80 (0.80, 0.80) | 2290.78 (1529.69, 3430.54) | 1337.17 (892.91, 2002.48) |
| Age < 65 Communities of Color | D57 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 62 | 0.16 (0.15, 0.16) | 1577.94 (1007.97, 2470.22) | 1756.39 (1121.96, 2749.58) |
| Age < 65 Communities of Color | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 62 | 1.68 (1.41, 2.00) | 264.11 (187.12, 372.78) | 104.93 (74.49, 147.82) |
| Age < 65 Communities of Color | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 62 | 10.95 (9.36, 12.81) | 422.79 (318.67, 560.93) | 32.63 (25.21, 42.24) |
| Age < 65 White Non-Hispanic | D29 fold-rise over D1 | Vaccine | Negative | Anti N IgG (IU/ml) | 176 | 0.05 (0.05, 0.05) | 24.32 (17.76, 33.29) | 12.09 (9.13, 16.01) |
| Age < 65 White Non-Hispanic | D29 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 176 | 0.80 (0.80, 0.80) | 287.61 (227.68, 363.32) | 167.88 (132.90, 212.08) |
| Age < 65 White Non-Hispanic | D29 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 176 | 0.15 (0.15, 0.15) | 168.88 (140.99, 202.30) | 187.98 (156.94, 225.17) |
| Age < 65 White Non-Hispanic | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 176 | 1.21 (1.21, 1.21) | 13.05 (11.12, 15.32) | 5.67 (4.80, 6.68) |
| Age < 65 White Non-Hispanic | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 176 | 7.51 (7.51, 7.51) | 21.20 (18.50, 24.30) | 2.03 (1.79, 2.30) |
| Age < 65 White Non-Hispanic | D29 fold-rise over D1 | Vaccine | Positive | Anti N IgG (IU/ml) | 54 | 0.05 (0.05, 0.05) | 64.43 (40.45, 102.62) | 28.44 (17.72, 45.65) |
| Age < 65 White Non-Hispanic | D29 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 54 | 0.83 (0.78, 0.89) | 514.72 (325.06, 815.04) | 295.30 (186.71, 467.05) |

(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) | 54 | 0.15 (0.15, 0.15) | 371.84 (277.65, 497.98) | 413.89 (309.05, 554.29) |
| Age < 65 White Non-Hispanic | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 54 | 1.78 (1.49, 2.13) | 28.84 (22.32, 37.25) | 11.28 (8.49, 14.98) |
| Age < 65 White Non-Hispanic | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 54 | 11.55 (9.62, 13.87) | 49.61 (39.32, 62.60) | 3.42 (2.62, 4.46) |
| 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 | 1.21 (1.21, 1.21) | 1.21 (1.21, 1.21) | 1.00 (1.00, 1.00) |
| Age < 65 White Non-Hispanic | D29 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 32 | 7.51 (7.51, 7.51) | 7.51 (7.51, 7.51) | 1.00 (1.00, 1.00) |
| Age < 65 White Non-Hispanic | D29 fold-rise over D1 | Placebo | Positive | Anti N IgG (IU/ml) | 58 | 0.05 (0.05, 0.05) | 20.11 (11.86, 34.13) | 9.50 (5.77, 15.66) |
| Age < 65 White Non-Hispanic | D29 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 58 | 0.80 (0.80, 0.80) | 192.98 (113.92, 326.90) | 112.65 (66.50, 190.82) |
| Age < 65 White Non-Hispanic | D29 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 58 | 0.15 (0.15, 0.15) | 133.37 (91.19, 195.06) | 148.45 (101.50, 217.12) |
| Age < 65 White Non-Hispanic | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 58 | 1.59 (1.35, 1.87) | 9.82 (7.20, 13.40) | 4.09 (3.05, 5.49) |

(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 | 58 | 9.36 (8.19, 10.69) | 18.24 (14.33, 23.23) | 1.60 (1.28, 2.00) |
| Age < 65 White Non-Hispanic | D57 fold-rise over D1 | Vaccine | Negative | Anti N IgG (IU/ml) | 176 | 0.05 (0.05, 0.05) | 92.65 (65.76, 130.55) | 43.31 (31.32, 59.90) |
| Age < 65 White Non-Hispanic | D57 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 176 | 0.80 (0.80, 0.80) | 2660.00 (2042.25, 3464.59) | 1552.69 (1192.10, 2022.35) |
| Age < 65 White Non-Hispanic | D57 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 176 | 0.15 (0.15, 0.15) | 1914.52 (1506.58, 2432.91) | 2131.03 (1676.96, 2708.05) |
| Age < 65 White Non-Hispanic | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 176 | 1.21 (1.21, 1.21) | 278.35 (231.74, 334.33) | 124.35 (103.53, 149.36) |
| Age < 65 White Non-Hispanic | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 176 | 7.51 (7.51, 7.51) | 445.02 (375.02, 528.09) | 41.44 (34.92, 49.17) |
| Age < 65 White Non-Hispanic | D57 fold-rise over D1 | Vaccine | Positive | Anti N IgG (IU/ml) | 54 | 0.05 (0.05, 0.05) | 523.26 (276.02, 991.96) | 230.00 (120.15, 440.30) |
| Age < 65 White Non-Hispanic | D57 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 54 | 0.83 (0.78, 0.89) | 12694.31 (8088.43, 19922.98) | 7282.85 (4643.92, 11421.35) |
| Age < 65 White Non-Hispanic | D57 fold-rise over D1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 54 | 0.15 (0.15, 0.15) | 7479.68 (5101.02, 10967.54) | 8325.56 (5677.89, 12207.86) |
| Age < 65 White Non-Hispanic | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 54 | 1.78 (1.49, 2.13) | 1099.25 (740.37, 1632.09) | 429.81 (290.11, 636.77) |
| Age < 65 White Non-Hispanic | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 54 | 11.55 (9.62, 13.87) | 1562.37 (1219.05, 2002.37) | 114.07 (89.38, 145.59) |
| 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 | 1.21 (1.21, 1.21) | 1.21 (1.21, 1.21) | 1.00 (1.00, 1.00) |
| Age < 65 White Non-Hispanic | D57 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 32 | 7.51 (7.51, 7.51) | 7.51 (7.51, 7.51) | 1.00 (1.00, 1.00) |
| Age < 65 White Non-Hispanic | D57 fold-rise over D1 | Placebo | Positive | Anti N IgG (IU/ml) | 58 | 0.05 (0.05, 0.05) | 104.39 (54.65, 199.40) | 46.94 (24.79, 88.87) |
| Age < 65 White Non-Hispanic | D57 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 58 | 0.80 (0.80, 0.80) | 1855.13 (1102.73, 3120.92) | 1082.88 (643.68, 1821.75) |
| Age < 65 White Non-Hispanic | D57 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 58 | 0.15 (0.15, 0.15) | 1597.52 (992.02, 2572.62) | 1778.19 (1104.20, 2863.56) |
| Age < 65 White Non-Hispanic | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 58 | 1.59 (1.35, 1.87) | 251.25 (181.38, 348.03) | 103.31 (74.40, 143.44) |
| Age < 65 White Non-Hispanic | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 58 | 9.36 (8.19, 10.69) | 411.10 (314.50, 537.38) | 34.84 (26.49, 45.81) |
| Age ≥ 65 Communities of Color | D29 fold-rise over D1 | Vaccine | Negative | Anti N IgG (IU/ml) | 196 | 0.05 (0.05, 0.05) | 85.51 (68.12, 107.32) | 37.76 (29.99, 47.54) |
| Age ≥ 65 Communities of Color | D29 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 196 | 0.80 (0.80, 0.80) | 1367.10 (1120.52, 1667.95) | 798.00 (654.07, 973.62) |
| Age ≥ 65 Communities of Color | D29 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 196 | 0.15 (0.15, 0.15) | 718.28 (608.48, 847.90) | 799.51 (677.29, 943.79) |

(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 | 196 | 1.21 (1.21, 1.21) | 26.06 (22.95, 29.59) | 11.62 (10.24, 13.20) |
| Age ≥ 65 Communities of Color | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 196 | 7.51 (7.51, 7.51) | 36.31 (31.75, 41.53) | 3.40 (2.99, 3.87) |
| Age ≥ 65 Communities of Color | D29 fold-rise over D1 | Vaccine | Positive | Anti N IgG (IU/ml) | 56 | 0.05 (0.05, 0.05) | 240.37 (149.08, 387.55) | 107.07 (66.41, 172.64) |
| Age ≥ 65 Communities of Color | D29 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 56 | 0.80 (0.80, 0.80) | 2915.65 (1928.59, 4407.89) | 1701.92 (1125.75, 2572.97) |
| Age ≥ 65 Communities of Color | D29 fold-rise over D1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 56 | 0.15 (0.15, 0.15) | 1354.33 (1009.85, 1816.33) | 1507.49 (1124.05, 2021.74) |
| Age ≥ 65 Communities of Color | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 56 | 1.60 (1.36, 1.89) | 57.31 (44.38, 73.99) | 23.26 (17.68, 30.59) |
| Age ≥ 65 Communities of Color | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 56 | 9.84 (8.49, 11.39) | 57.61 (45.41, 73.08) | 4.64 (3.67, 5.86) |
| 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 | 1.21 (1.21, 1.21) | 1.21 (1.21, 1.21) | 1.00 (1.00, 1.00) |
| Age ≥ 65 Communities of Color | D29 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 35 | 7.65 (7.38, 7.92) | 7.51 (7.51, 7.51) | 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) | 58 | 0.05 (0.05, 0.06) | 74.69 (50.19, 111.13) | 32.55 (21.61, 49.04) |
| Age ≥ 65 Communities of Color | D29 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 58 | 0.83 (0.78, 0.88) | 1072.80 (748.14, 1538.36) | 626.22 (436.70, 897.97) |
| Age ≥ 65 Communities of Color | D29 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 58 | 0.15 (0.15, 0.15) | 463.24 (352.22, 609.26) | 515.63 (392.06, 678.16) |
| Age ≥ 65 Communities of Color | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 58 | 1.71 (1.45, 2.01) | 18.83 (15.12, 23.46) | 7.22 (5.74, 9.08) |
| Age ≥ 65 Communities of Color | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 58 | 9.51 (8.23, 10.99) | 23.23 (18.67, 28.90) | 1.91 (1.53, 2.38) |
| Age ≥ 65 Communities of Color | D57 fold-rise over D1 | Vaccine | Negative | Anti N IgG (IU/ml) | 196 | 0.05 (0.05, 0.05) | 509.74 (377.39, 688.51) | 227.25 (168.29, 306.87) |
| Age ≥ 65 Communities of Color | D57 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 196 | 0.80 (0.80, 0.80) | 17397.22 (13573.73, 22297.71) | 10155.10 (7923.26, 13015.62) |
| Age ≥ 65 Communities of Color | D57 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 196 | 0.15 (0.15, 0.15) | 11229.81 (9207.59, 13696.17) | 12499.79 (10248.87, 15245.07) |
| Age ≥ 65 Communities of Color | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 196 | 1.21 (1.21, 1.21) | 763.94 (641.68, 909.50) | 341.27 (286.66, 406.30) |
| Age ≥ 65 Communities of Color | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 196 | 7.51 (7.51, 7.51) | 794.07 (687.17, 917.59) | 73.94 (63.99, 85.44) |
| Age ≥ 65 Communities of Color | D57 fold-rise over D1 | Vaccine | Positive | Anti N IgG (IU/ml) | 56 | 0.05 (0.05, 0.05) | 1488.93 (859.44, 2579.47) | 663.26 (382.85, 1149.06) |
| Age ≥ 65 Communities of Color | D57 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 56 | 0.80 (0.80, 0.80) | 60111.35 (40246.72, 89780.62) | 35088.20 (23492.81, 52406.75) |

(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) | 56 | 0.15 (0.15, 0.15) | 35635.46 (24143.48, 52597.47) | 39665.47 (26873.87, 58545.72) |
| Age ≥ 65 Communities of Color | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 56 | 1.60 (1.36, 1.89) | 2238.45 (1675.95, 2989.74) | 908.56 (665.23, 1240.91) |
| Age ≥ 65 Communities of Color | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 56 | 9.84 (8.49, 11.39) | 2135.17 (1598.70, 2851.65) | 172.64 (131.56, 226.54) |
| 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 | 1.21 (1.21, 1.21) | 1.26 (1.19, 1.33) | 1.00 (1.00, 1.00) |
| Age ≥ 65 Communities of Color | D57 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 35 | 7.65 (7.38, 7.92) | 7.73 (7.30, 8.18) | 1.02 (0.98, 1.06) |
| Age ≥ 65 Communities of Color | D57 fold-rise over D1 | Placebo | Positive | Anti N IgG (IU/ml) | 58 | 0.05 (0.05, 0.06) | 341.70 (208.05, 561.20) | 152.22 (92.68, 249.99) |
| Age ≥ 65 Communities of Color | D57 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 58 | 0.83 (0.78, 0.88) | 14505.10 (9439.81, 22288.36) | 8466.92 (5510.21, 13010.16) |
| Age ≥ 65 Communities of Color | D57 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 58 | 0.15 (0.15, 0.15) | 8712.33 (6274.68, 12097.00) | 9697.61 (6984.28, 13465.05) |
| Age ≥ 65 Communities of Color | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 58 | 1.71 (1.45, 2.01) | 596.13 (446.31, 796.24) | 232.68 (175.48, 308.52) |

(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 | 58 | 9.51 (8.23, 10.99) | 682.84 (543.58, 857.77) | 54.78 (43.56, 68.88) |
| Age ≥ 65 White Non-Hispanic | D29 fold-rise over D1 | Vaccine | Negative | Anti N IgG (IU/ml) | 194 | 0.05 (0.05, 0.05) | 123.31 (96.30, 157.89) | 54.22 (42.18, 69.70) |
| Age ≥ 65 White Non-Hispanic | D29 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 194 | 0.80 (0.80, 0.80) | 1412.35 (1141.70, 1747.16) | 824.42 (666.44, 1019.85) |
| Age ≥ 65 White Non-Hispanic | D29 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 194 | 0.15 (0.15, 0.15) | 867.91 (724.66, 1039.47) | 966.06 (806.61, 1157.02) |
| Age ≥ 65 White Non-Hispanic | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 194 | 1.21 (1.21, 1.21) | 30.24 (26.67, 34.29) | 13.47 (11.87, 15.29) |
| Age ≥ 65 White Non-Hispanic | D29 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 194 | 7.51 (7.51, 7.51) | 39.02 (34.58, 44.03) | 3.53 (3.12, 3.99) |
| Age ≥ 65 White Non-Hispanic | D29 fold-rise over D1 | Vaccine | Positive | Anti N IgG (IU/ml) | 64 | 0.05 (0.05, 0.05) | 193.76 (131.26, 286.01) | 86.31 (58.47, 127.41) |
| Age ≥ 65 White Non-Hispanic | D29 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 64 | 0.80 (0.80, 0.80) | 2806.76 (2061.51, 3821.41) | 1638.36 (1203.35, 2230.63) |
| Age ≥ 65 White Non-Hispanic | D29 fold-rise over D1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 64 | 0.15 (0.15, 0.15) | 1569.51 (1213.12, 2030.60) | 1747.01 (1350.31, 2260.24) |
| Age ≥ 65 White Non-Hispanic | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 64 | 1.48 (1.30, 1.67) | 53.62 (43.78, 65.66) | 22.00 (17.98, 26.92) |
| Age ≥ 65 White Non-Hispanic | D29 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 64 | 8.93 (8.10, 9.84) | 65.59 (52.60, 81.78) | 5.63 (4.47, 7.09) |
| Age ≥ 65 White Non-Hispanic | 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 White Non-Hispanic | 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 White Non-Hispanic | 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 White Non-Hispanic | D29 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID50 | 31 | 1.21 (1.21, 1.21) | 1.25 (1.17, 1.34) | 1.00 (1.00, 1.00) |
| Age ≥ 65 White Non-Hispanic | D29 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 31 | 7.51 (7.51, 7.51) | 7.51 (7.51, 7.51) | 1.00 (1.00, 1.00) |
| Age ≥ 65 White Non-Hispanic | D29 fold-rise over D1 | Placebo | Positive | Anti N IgG (IU/ml) | 63 | 0.05 (0.05, 0.05) | 77.42 (51.70, 115.94) | 34.59 (23.16, 51.64) |
| Age ≥ 65 White Non-Hispanic | D29 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 63 | 0.80 (0.80, 0.80) | 915.81 (627.71, 1336.14) | 534.58 (366.41, 779.93) |
| Age ≥ 65 White Non-Hispanic | D29 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 63 | 0.15 (0.15, 0.15) | 592.74 (452.27, 776.85) | 659.78 (503.42, 864.70) |
| Age ≥ 65 White Non-Hispanic | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 63 | 1.63 (1.43, 1.85) | 19.63 (16.06, 24.00) | 8.16 (6.78, 9.83) |
| Age ≥ 65 White Non-Hispanic | D29 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 63 | 8.94 (7.89, 10.14) | 28.80 (23.45, 35.37) | 2.47 (2.04, 2.98) |
| Age ≥ 65 White Non-Hispanic | D57 fold-rise over D1 | Vaccine | Negative | Anti N IgG (IU/ml) | 194 | 0.05 (0.05, 0.05) | 587.10 (439.80, 783.73) | 260.40 (194.76, 348.17) |
| Age ≥ 65 White Non-Hispanic | D57 fold-rise over D1 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 194 | 0.80 (0.80, 0.80) | 18139.10 (14345.34, 22936.16) | 10588.16 (8373.66, 13388.30) |
| Age ≥ 65 White Non-Hispanic | D57 fold-rise over D1 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 194 | 0.15 (0.15, 0.15) | 14236.08 (11584.07, 17495.23) | 15846.04 (12894.11, 19473.77) |

(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 | 194 | 1.21 (1.21, 1.21) | 899.16 (765.84, 1055.68) | 401.68 (342.12, 471.60) |
| Age ≥ 65 White Non-Hispanic | D57 fold-rise over D1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 194 | 7.51 (7.51, 7.51) | 829.50 (719.17, 956.76) | 77.24 (66.97, 89.09) |
| Age ≥ 65 White Non-Hispanic | D57 fold-rise over D1 | Vaccine | Positive | Anti N IgG (IU/ml) | 64 | 0.05 (0.05, 0.05) | 2393.12 (1477.83, 3875.29) | 1066.05 (658.32, 1726.30) |
| Age ≥ 65 White Non-Hispanic | D57 fold-rise over D1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 64 | 0.80 (0.80, 0.80) | 55942.36 (36988.10, 84609.57) | 32654.68 (21590.70, 49388.30) |
| Age ≥ 65 White Non-Hispanic | D57 fold-rise over D1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 64 | 0.15 (0.15, 0.15) | 31971.03 (23196.84, 44064.05) | 35586.63 (25820.16, 49047.25) |
| Age ≥ 65 White Non-Hispanic | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 64 | 1.48 (1.30, 1.67) | 2428.01 (1824.93, 3230.40) | 996.21 (747.24, 1328.11) |
| Age ≥ 65 White Non-Hispanic | D57 fold-rise over D1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 64 | 8.93 (8.10, 9.84) | 2150.25 (1684.59, 2744.63) | 188.78 (147.74, 241.20) |
| Age ≥ 65 White Non-Hispanic | 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 White Non-Hispanic | 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 White Non-Hispanic | 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 White Non-Hispanic | D57 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID50 | 31 | 1.21 (1.21, 1.21) | 1.26 (1.16, 1.38) | 1.02 (0.98, 1.08) |
| Age ≥ 65 White Non-Hispanic | D57 fold-rise over D1 | Placebo | Negative | Pseudovirus-nAb ID80 | 31 | 7.51 (7.51, 7.51) | 7.51 (7.51, 7.51) | 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) | 63 | 0.05 (0.05, 0.05) | 399.18 (225.22, 707.51) | 179.95 (102.35, 316.37) |
| Age ≥ 65 White Non-Hispanic | D57 fold-rise over D1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 63 | 0.80 (0.80, 0.80) | 14104.09 (9867.31, 20160.04) | 8232.84 (5759.75, 11767.82) |
| Age ≥ 65 White Non-Hispanic | D57 fold-rise over D1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 63 | 0.15 (0.15, 0.15) | 10718.36 (7686.05, 14946.97) | 11930.50 (8555.27, 16637.32) |
| Age ≥ 65 White Non-Hispanic | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID50 | 63 | 1.63 (1.43, 1.85) | 659.35 (509.51, 853.25) | 271.51 (211.11, 349.19) |
| Age ≥ 65 White Non-Hispanic | D57 fold-rise over D1 | Placebo | Positive | Pseudovirus-nAb ID80 | 63 | 8.94 (7.89, 10.14) | 622.36 (487.13, 795.13) | 52.34 (41.69, 65.71) |

2.9 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, 0.15) | 1.00 (1.00, 1.00) |
| Age ≥ 65 vs Age < 65 | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 1.21 (1.21, 1.21) | 1.21 (1.21, 1.21) | 1.00 (1.00, 1.00) |
| Age ≥ 65 vs Age < 65 | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 7.51 (7.51, 7.51) | 7.51 (7.51, 7.51) | 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, 0.05) | 1.02 (0.97, 1.08) |
| Age ≥ 65 vs Age < 65 | Day 1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 0.80 (0.80, 0.80) | 0.82 (0.79, 0.85) | 0.97 (0.94, 1.01) |
| Age ≥ 65 vs Age < 65 | Day 1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 0.15 (0.15, 0.15) | 0.16 (0.15, 0.16) | 0.99 (0.97, 1.00) |
| Age ≥ 65 vs Age < 65 | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 1.52 (1.37, 1.68) | 1.71 (1.52, 1.93) | 0.89 (0.76, 1.04) |
| Age ≥ 65 vs Age < 65 | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 9.24 (8.52, 10.03) | 10.04 (8.96, 11.26) | 0.92 (0.80, 1.06) |
| 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 | 1.21 (1.21, 1.21) | 1.21 (1.21, 1.22) | 1.00 (0.99, 1.00) |
| Age ≥ 65 vs Age < 65 | Day 1 | Placebo | Negative | Pseudovirus-nAb ID80 | 7.57 (7.45, 7.70) | 7.78 (7.49, 8.08) | 0.97 (0.93, 1.01) |
| 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) | 0.99 (0.92, 1.06) |
| Age ≥ 65 vs Age < 65 | Day 1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 0.81 (0.79, 0.84) | 0.80 (0.80, 0.80) | 1.02 (0.99, 1.05) |
| Age ≥ 65 vs Age < 65 | Day 1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 0.15 (0.15, 0.15) | 0.15 (0.15, 0.16) | 0.99 (0.98, 1.01) |
| Age ≥ 65 vs Age < 65 | Day 1 | Placebo | Positive | Pseudovirus-nAb ID50 | 1.66 (1.50, 1.84) | 1.63 (1.45, 1.84) | 1.02 (0.87, 1.19) |
| Age ≥ 65 vs Age < 65 | Day 1 | Placebo | Positive | Pseudovirus-nAb ID80 | 9.19 (8.36, 10.11) | 10.06 (9.08, 11.15) | 0.91 (0.79, 1.05) |
| Age ≥ 65 vs Age < 65 | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 105.10 (88.47, 124.86) | 30.25 (24.33, 37.60) | 3.47 (2.63, 4.59) |
| Age ≥ 65 vs Age < 65 | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 1392.43 (1200.78, 1614.67) | 356.86 (301.49, 422.39) | 3.90 (3.12, 4.88) |
| Age ≥ 65 vs Age < 65 | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 799.13 (705.06, 905.76) | 198.79 (173.81, 227.36) | 4.02 (3.35, 4.83) |
| Age ≥ 65 vs Age < 65 | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID50 | 28.34 (25.89, 31.02) | 15.24 (13.63, 17.04) | 1.86 (1.61, 2.15) |
| Age ≥ 65 vs Age < 65 | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID80 | 37.82 (34.56, 41.37) | 23.51 (21.31, 25.93) | 1.61 (1.41, 1.84) |
| Age ≥ 65 vs Age < 65 | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 209.19 (154.61, 283.03) | 64.27 (45.66, 90.47) | 3.25 (2.06, 5.14) |
| Age ≥ 65 vs Age < 65 | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 2844.99 (2222.07, 3642.53) | 617.21 (450.57, 845.49) | 4.61 (3.09, 6.88) |
| Age ≥ 65 vs Age < 65 | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 1489.36 (1223.39, 1813.16) | 353.46 (285.77, 437.17) | 4.21 (3.15, 5.63) |

(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 | 54.90 (46.83, 64.36) | 28.61 (23.76, 34.45) | 1.92 (1.50, 2.45) |
| Age ≥ 65 vs Age < 65 | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID80 | 62.63 (53.04, 73.97) | 48.64 (41.15, 57.48) | 1.29 (1.02, 1.63) |
| 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 | 1.23 (1.19, 1.28) | 1.21 (1.21, 1.21) | 1.02 (0.98, 1.06) |
| Age ≥ 65 vs Age < 65 | Day 29 | Placebo | Negative | Pseudovirus-nAb ID80 | 7.51 (7.51, 7.51) | 7.51 (7.51, 7.51) | 1.00 (1.00, 1.00) |
| Age ≥ 65 vs Age < 65 | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 76.19 (57.27, 101.36) | 20.88 (14.63, 29.80) | 3.65 (2.31, 5.76) |
| Age ≥ 65 vs Age < 65 | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 982.84 (754.71, 1279.93) | 224.00 (159.42, 314.74) | 4.39 (2.85, 6.75) |
| Age ≥ 65 vs Age < 65 | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 530.97 (437.49, 644.42) | 126.14 (96.53, 164.83) | 4.21 (3.03, 5.86) |
| Age ≥ 65 vs Age < 65 | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 19.27 (16.61, 22.35) | 9.92 (8.08, 12.19) | 1.94 (1.51, 2.50) |
| Age ≥ 65 vs Age < 65 | Day 29 | Placebo | Positive | Pseudovirus-nAb ID80 | 26.17 (22.51, 30.42) | 18.92 (16.11, 22.22) | 1.38 (1.11, 1.72) |
| Age ≥ 65 vs Age < 65 | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 552.00 (447.81, 680.43) | 123.20 (95.80, 158.44) | 4.48 (3.23, 6.21) |
| Age ≥ 65 vs Age < 65 | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 17811.61 (15012.46, 21132.68) | 3345.62 (2777.00, 4030.66) | 5.32 (4.13, 6.86) |
| Age ≥ 65 vs Age < 65 | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 12836.45 (11096.62, 14849.05) | 2364.92 (1992.88, 2806.42) | 5.43 (4.34, 6.80) |

(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 | 837.45 (743.98, 942.66) | 357.11 (312.83, 407.65) | 2.35 (1.96, 2.80) |
| Age ≥ 65 vs Age < 65 | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID80 | 813.85 (734.70, 901.52) | 512.86 (454.13, 579.18) | 1.59 (1.35, 1.86) |
| Age ≥ 65 vs Age < 65 | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 2021.65 (1395.66, 2928.42) | 485.45 (311.29, 757.03) | 4.16 (2.34, 7.43) |
| Age ≥ 65 vs Age < 65 | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 57390.09 (42425.39, 77633.31) | 12175.02 (8842.14, 16764.17) | 4.71 (3.04, 7.32) |
| Age ≥ 65 vs Age < 65 | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 33228.31 (25909.63, 42614.29) | 8050.61 (6114.49, 10599.79) | 4.13 (2.85, 5.98) |
| Age ≥ 65 vs Age < 65 | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 2358.86 (1909.82, 2913.48) | 1070.02 (826.48, 1385.33) | 2.20 (1.58, 3.08) |
| Age ≥ 65 vs Age < 65 | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID80 | 2144.88 (1777.29, 2588.48) | 1439.55 (1191.48, 1739.25) | 1.49 (1.14, 1.95) |
| 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 | 1.26 (1.20, 1.33) | 1.24 (1.20, 1.28) | 1.02 (0.96, 1.09) |
| Age ≥ 65 vs Age < 65 | Day 57 | Placebo | Negative | Pseudovirus-nAb ID80 | 7.61 (7.41, 7.81) | 7.51 (7.51, 7.51) | 1.01 (0.99, 1.04) |
| Age ≥ 65 vs Age < 65 | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 372.41 (252.92, 548.36) | 102.01 (64.98, 160.15) | 3.65 (2.02, 6.61) |
| Age ≥ 65 vs Age < 65 | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 14281.73 (10842.90, 18811.19) | 2044.73 (1455.28, 2872.94) | 6.98 (4.51, 10.82) |
| Age ≥ 65 vs Age < 65 | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 9771.25 (7721.56, 12365.03) | 1588.46 (1142.67, 2208.16) | 6.15 (4.10, 9.22) |

(continued)

| Group 1 vs 2 | Visit | Arm | Baseline SARS-CoV-2 | Marker | Group 1 GMT/GMC | Group 2 GMT/GMC | Ratios of GMT/GMC |
|-----------------------------|--------|---------|---------------------|----------------------|----------------------------|----------------------------|----------------------|
| Age \geq 65 vs Age $<$ 65 | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 630.33 (519.76, 764.44) | 257.10 (203.12, 325.43) | 2.45 (1.81, 3.32) |
| Age \geq 65 vs Age $<$ 65 | Day 57 | Placebo | Positive | Pseudovirus-nAb ID80 | 648.67 (547.29, 768.82) | 416.45 (343.36, 505.10) | 1.56 (1.20, 2.01) |

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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, 0.15) | 1.00 (1.00, 1.00) |
| At-risk vs Not at-risk | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 1.21 (1.21, 1.21) | 1.21 (1.21, 1.21) | 1.00 (1.00, 1.00) |
| At-risk vs Not at-risk | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 7.51 (7.51, 7.51) | 7.51 (7.51, 7.51) | 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, 0.05) | 1.02 (0.97, 1.06) |
| At-risk vs Not at-risk | Day 1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 0.82 (0.77, 0.88) | 0.81 (0.79, 0.83) | 1.02 (0.95, 1.09) |
| At-risk vs Not at-risk | Day 1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 0.15 (0.15, 0.15) | 0.16 (0.15, 0.16) | 0.98 (0.96, 1.01) |
| At-risk vs Not at-risk | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 1.57 (1.40, 1.76) | 1.73 (1.50, 1.98) | 0.91 (0.76, 1.09) |
| At-risk vs Not at-risk | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 9.36 (8.35, 10.48) | 10.17 (8.94, 11.58) | 0.92 (0.77, 1.09) |
| 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 | 1.22 (1.20, 1.24) | 1.21 (1.21, 1.21) | 1.01 (0.99, 1.02) |
| At-risk vs Not at-risk | Day 1 | Placebo | Negative | Pseudovirus-nAb ID80 | 7.51 (7.51, 7.51) | 7.86 (7.50, 8.23) | 0.96 (0.91, 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) | 0.94 (0.88, 1.01) |
| At-risk vs Not at-risk | Day 1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 0.80 (0.79, 0.81) | 0.80 (0.79, 0.81) | 1.00 (0.99, 1.01) |
| At-risk vs Not at-risk | Day 1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 0.16 (0.15, 0.16) | 0.15 (0.15, 0.15) | 1.01 (0.99, 1.04) |
| At-risk vs Not at-risk | Day 1 | Placebo | Positive | Pseudovirus-nAb ID50 | 1.53 (1.38, 1.69) | 1.70 (1.48, 1.96) | 0.90 (0.76, 1.07) |
| At-risk vs Not at-risk | Day 1 | Placebo | Positive | Pseudovirus-nAb ID80 | 10.00 (8.97, 11.14) | 9.81 (8.74, 11.01) | 1.02 (0.87, 1.19) |
| At-risk vs Not at-risk | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 40.32 (33.02, 49.23) | 38.84 (30.11, 50.10) | 1.04 (0.75, 1.44) |
| At-risk vs Not at-risk | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 516.91 (434.48, 614.97) | 453.52 (373.62, 550.49) | 1.14 (0.88, 1.48) |
| At-risk vs Not at-risk | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 294.81 (255.35, 340.37) | 251.64 (215.64, 293.64) | 1.17 (0.95, 1.45) |
| At-risk vs Not at-risk | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID50 | 18.02 (16.26, 19.98) | 17.01 (14.92, 19.38) | 1.06 (0.90, 1.25) |
| At-risk vs Not at-risk | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID80 | 27.52 (24.95, 30.36) | 25.13 (22.44, 28.14) | 1.10 (0.94, 1.27) |
| At-risk vs Not at-risk | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 72.75 (49.40, 107.15) | 87.15 (59.57, 127.48) | 0.83 (0.48, 1.44) |
| At-risk vs Not at-risk | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 875.73 (634.67, 1208.35) | 824.18 (574.54, 1182.28) | 1.06 (0.65, 1.73) |
| At-risk vs Not at-risk | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 577.86 (452.58, 737.83) | 424.06 (333.14, 539.80) | 1.36 (0.96, 1.93) |
| At-risk vs Not at-risk | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 32.53 (26.65, 39.71) | 32.75 (26.56, 40.38) | 0.99 (0.74, 1.33) |
| At-risk vs Not at-risk | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID80 | 49.96 (40.47, 61.68) | 51.91 (43.40, 62.08) | 0.96 (0.73, 1.27) |

(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 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 | 1.22 (1.20, 1.25) | 1.21 (1.21, 1.21) | 1.01 (0.99, 1.04) |
| At-risk vs Not at-risk | Day 29 | Placebo | Negative | Pseudovirus-nAb ID80 | 7.51 (7.51, 7.51) | 7.51 (7.51, 7.51) | 1.00 (1.00, 1.00) |
| At-risk vs Not at-risk | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 39.07 (27.06, 56.40) | 22.29 (14.89, 33.35) | 1.75 (1.02, 3.03) |
| At-risk vs Not at-risk | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 399.73 (291.24, 548.63) | 260.53 (175.30, 387.19) | 1.53 (0.92, 2.55) |
| At-risk vs Not at-risk | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 230.58 (178.83, 297.31) | 142.82 (104.63, 194.96) | 1.61 (1.08, 2.42) |
| At-risk vs Not at-risk | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 13.89 (11.24, 17.17) | 10.17 (8.07, 12.83) | 1.37 (1.00, 1.87) |
| At-risk vs Not at-risk | Day 29 | Placebo | Positive | Pseudovirus-nAb ID80 | 21.72 (18.34, 25.72) | 19.43 (16.19, 23.32) | 1.12 (0.87, 1.43) |
| At-risk vs Not at-risk | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 175.84 (138.12, 223.86) | 165.51 (123.58, 221.68) | 1.06 (0.73, 1.55) |
| At-risk vs Not at-risk | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 5606.18 (4585.35, 6854.28) | 4330.32 (3501.86, 5354.77) | 1.29 (0.96, 1.74) |
| At-risk vs Not at-risk | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 3919.84 (3269.77, 4699.17) | 3101.15 (2549.75, 3771.78) | 1.26 (0.97, 1.65) |
| At-risk vs Not at-risk | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 468.02 (411.38, 532.45) | 405.51 (347.62, 473.04) | 1.15 (0.94, 1.41) |
| At-risk vs Not at-risk | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID80 | 614.23 (547.72, 688.82) | 538.46 (467.44, 620.28) | 1.14 (0.95, 1.37) |

(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 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 681.83 (436.93, 1064.01) | 631.28 (379.42, 1050.35) | 1.08 (0.55, 2.13) |
| At-risk vs Not at-risk | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 15742.11 (11096.03, 22333.56) | 17239.12 (11977.96, 24811.18) | 0.91 (0.55, 1.52) |
| At-risk vs Not at-risk | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 12327.67 (9020.42, 16847.51) | 9950.91 (7303.49, 13557.98) | 1.24 (0.80, 1.93) |
| At-risk vs Not at-risk | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 1375.89 (1057.21, 1790.64) | 1195.03 (890.64, 1603.47) | 1.15 (0.78, 1.71) |
| At-risk vs Not at-risk | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID80 | 1593.34 (1280.14, 1983.16) | 1543.60 (1251.74, 1903.51) | 1.03 (0.76, 1.40) |
| 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 | 1.26 (1.19, 1.35) | 1.23 (1.20, 1.27) | 1.02 (0.96, 1.10) |
| At-risk vs Not at-risk | Day 57 | Placebo | Negative | Pseudovirus-nAb ID80 | 7.51 (7.51, 7.51) | 7.55 (7.47, 7.63) | 0.99 (0.98, 1.01) |
| At-risk vs Not at-risk | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 191.20 (125.62, 291.02) | 108.79 (64.41, 183.76) | 1.76 (0.90, 3.44) |
| At-risk vs Not at-risk | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 4423.09 (3257.84, 6005.14) | 2479.40 (1657.15, 3709.64) | 1.78 (1.07, 2.97) |
| At-risk vs Not at-risk | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 3158.86 (2281.20, 4374.18) | 1938.34 (1324.99, 2835.62) | 1.63 (0.99, 2.70) |
| At-risk vs Not at-risk | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 351.46 (273.50, 451.64) | 287.94 (220.69, 375.68) | 1.22 (0.85, 1.76) |
| At-risk vs Not at-risk | Day 57 | Placebo | Positive | Pseudovirus-nAb ID80 | 399.37 (320.90, 497.03) | 491.75 (397.36, 608.56) | 0.81 (0.60, 1.10) |

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, 0.15) | 1.00 (1.00, 1.00) |
| Age < 65 At-risk vs Age < 65 Not at-risk | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 1.21 (1.21, 1.21) | 1.21 (1.21, 1.21) | 1.00 (1.00, 1.00) |
| Age < 65 At-risk vs Age < 65 Not at-risk | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 7.51 (7.51, 7.51) | 7.51 (7.51, 7.51) | 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) | 1.00 (0.95, 1.05) |
| Age < 65 At-risk vs Age < 65 Not at-risk | Day 1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 0.83 (0.76, 0.91) | 0.81 (0.78, 0.84) | 1.03 (0.94, 1.13) |
| 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, 0.16) | 0.98 (0.95, 1.01) |
| Age < 65 At-risk vs Age < 65 Not at-risk | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 1.59 (1.38, 1.84) | 1.77 (1.50, 2.09) | 0.90 (0.72, 1.12) |
| Age < 65 At-risk vs Age < 65 Not at-risk | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 9.39 (8.08, 10.90) | 10.38 (8.90, 12.09) | 0.90 (0.73, 1.12) |
| 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 | 1.22 (1.20, 1.25) | 1.21 (1.21, 1.21) | 1.01 (0.99, 1.04) |
| Age < 65 At-risk vs Age < 65 Not at-risk | Day 1 | Placebo | Negative | Pseudovirus-nAb ID80 | 7.51 (7.51, 7.51) | 7.91 (7.47, 8.38) | 0.95 (0.90, 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) | 0.95 (0.88, 1.03) |
| 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) | 0.16 (0.15, 0.16) | 0.15 (0.15, 0.15) | 1.02 (0.98, 1.05) |
| Age < 65 At-risk vs Age < 65 Not at-risk | Day 1 | Placebo | Positive | Pseudovirus-nAb ID50 | 1.48 (1.30, 1.69) | 1.71 (1.45, 2.02) | 0.87 (0.70, 1.07) |
| Age < 65 At-risk vs Age < 65 Not at-risk | Day 1 | Placebo | Positive | Pseudovirus-nAb ID80 | 10.31 (8.97, 11.86) | 9.94 (8.67, 11.39) | 1.04 (0.85, 1.26) |
| Age < 65 At-risk vs Age < 65 Not at-risk | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 27.71 (21.41, 35.84) | 31.64 (23.41, 42.76) | 0.88 (0.59, 1.30) |
| Age < 65 At-risk vs Age < 65 Not at-risk | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 349.87 (279.45, 438.03) | 360.49 (287.17, 452.52) | 0.97 (0.70, 1.34) |
| Age < 65 At-risk vs Age < 65 Not at-risk | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 199.73 (166.21, 240.01) | 198.32 (165.67, 237.39) | 1.01 (0.78, 1.30) |

(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 | 15.18 (13.27, 17.35) | 15.27 (13.08, 17.82) | 0.99 (0.81, 1.22) |
| Age < 65 At-risk vs Age < 65 Not at-risk | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID80 | 24.27 (21.38, 27.56) | 23.12 (20.24, 26.42) | 1.05 (0.87, 1.26) |
| Age < 65 At-risk vs Age < 65 Not at-risk | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 48.62 (29.53, 80.04) | 73.59 (47.11, 114.95) | 0.66 (0.34, 1.29) |
| Age < 65 At-risk vs Age < 65 Not at-risk | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 555.52 (371.70, 830.23) | 649.55 (424.79, 993.24) | 0.86 (0.48, 1.53) |
| Age < 65 At-risk vs Age < 65 Not at-risk | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 381.68 (284.39, 512.26) | 340.53 (256.98, 451.24) | 1.12 (0.75, 1.68) |
| Age < 65 At-risk vs Age < 65 Not at-risk | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 26.59 (20.62, 34.29) | 29.65 (23.17, 37.94) | 0.90 (0.63, 1.28) |
| Age < 65 At-risk vs Age < 65 Not at-risk | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID80 | 43.84 (33.39, 57.55) | 51.15 (41.46, 63.11) | 0.86 (0.61, 1.21) |
| 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 | 1.21 (1.21, 1.21) | 1.21 (1.21, 1.21) | 1.00 (1.00, 1.00) |
| Age < 65 At-risk vs Age < 65 Not at-risk | Day 29 | Placebo | Negative | Pseudovirus-nAb ID80 | 7.51 (7.51, 7.51) | 7.51 (7.51, 7.51) | 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 29 | Placebo | Positive | Anti N IgG (IU/ml) | 30.34 (18.77, 49.04) | 17.42 (10.85, 27.95) | 1.74 (0.89, 3.42) |
| Age < 65 At-risk vs Age < 65 Not at-risk | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 290.24 (193.43, 435.51) | 197.51 (124.06, 314.42) | 1.47 (0.79, 2.72) |
| Age < 65 At-risk vs Age < 65 Not at-risk | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 163.09 (117.48, 226.43) | 111.34 (77.39, 160.17) | 1.46 (0.90, 2.39) |
| Age < 65 At-risk vs Age < 65 Not at-risk | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 12.23 (9.23, 16.21) | 8.97 (6.83, 11.78) | 1.36 (0.92, 2.02) |
| Age < 65 At-risk vs Age < 65 Not at-risk | Day 29 | Placebo | Positive | Pseudovirus-nAb ID80 | 21.07 (16.95, 26.19) | 17.95 (14.49, 22.24) | 1.17 (0.86, 1.59) |
| Age < 65 At-risk vs Age < 65 Not at-risk | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 114.61 (83.79, 156.78) | 127.83 (90.56, 180.44) | 0.90 (0.56, 1.43) |
| Age < 65 At-risk vs Age < 65 Not at-risk | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 3684.93 (2839.16, 4782.66) | 3184.52 (2485.29, 4080.48) | 1.16 (0.81, 1.66) |
| Age < 65 At-risk vs Age < 65 Not at-risk | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 2411.71 (1908.81, 3047.12) | 2341.37 (1861.50, 2944.94) | 1.03 (0.74, 1.43) |
| Age < 65 At-risk vs Age < 65 Not at-risk | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 368.01 (311.75, 434.43) | 351.66 (293.40, 421.50) | 1.05 (0.82, 1.34) |
| Age < 65 At-risk vs Age < 65 Not at-risk | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID80 | 555.98 (479.07, 645.23) | 492.14 (416.35, 581.73) | 1.13 (0.90, 1.41) |
| Age < 65 At-risk vs Age < 65 Not at-risk | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 411.63 (236.09, 717.69) | 525.87 (287.99, 960.23) | 0.78 (0.34, 1.78) |
| Age < 65 At-risk vs Age < 65 Not at-risk | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 9098.59 (5981.40, 13840.28) | 14021.90 (9132.45, 21529.13) | 0.65 (0.36, 1.18) |

(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) | 8014.18 (5452.45, 11779.48) | 8068.33 (5610.64, 11602.60) | 0.99 (0.58, 1.69) |
| Age < 65 At-risk vs Age < 65 Not at-risk | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 1047.93 (752.94, 1458.49) | 1080.90 (762.94, 1531.39) | 0.97 (0.60, 1.57) |
| Age < 65 At-risk vs Age < 65 Not at-risk | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID80 | 1411.41 (1070.84, 1860.31) | 1453.39 (1135.47, 1860.32) | 0.97 (0.67, 1.41) |
| 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 | 1.26 (1.16, 1.37) | 1.23 (1.19, 1.26) | 1.03 (0.94, 1.12) |
| Age < 65 At-risk vs Age < 65 Not at-risk | Day 57 | Placebo | Negative | Pseudovirus-nAb ID80 | 7.51 (7.51, 7.51) | 7.51 (7.51, 7.51) | 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) | 160.93 (92.55, 279.82) | 81.75 (44.28, 150.91) | 1.97 (0.86, 4.50) |
| Age < 65 At-risk vs Age < 65 Not at-risk | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 2810.16 (1910.33, 4133.85) | 1752.03 (1096.43, 2799.64) | 1.60 (0.87, 2.94) |
| Age < 65 At-risk vs Age < 65 Not at-risk | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 2081.83 (1367.84, 3168.51) | 1392.85 (893.03, 2172.39) | 1.49 (0.81, 2.76) |
| Age < 65 At-risk vs Age < 65 Not at-risk | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 289.96 (209.02, 402.23) | 242.51 (177.54, 331.27) | 1.20 (0.76, 1.88) |

(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 | 335.47 (251.88, 446.80) | 462.59 (360.18, 594.12) | 0.73 (0.50, 1.06) |

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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 | 1.21 (1.21, 1.21) | 1.21 (1.21, 1.21) | 1.00 (1.00, 1.00) |
| Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 7.51 (7.51, 7.51) | 7.51 (7.51, 7.51) | 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, 0.06) | 0.05 (0.05, 0.05) | 1.06 (0.96, 1.18) |
| 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) | 0.15 (0.15, 0.15) | 1.00 (1.00, 1.00) |
| Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 1.52 (1.31, 1.76) | 1.52 (1.33, 1.74) | 1.00 (0.82, 1.22) |
| Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 9.28 (8.27, 10.42) | 9.20 (8.20, 10.32) | 1.01 (0.86, 1.19) |
| 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 | 1.21 (1.21, 1.21) | 1.21 (1.21, 1.21) | 1.00 (1.00, 1.00) |
| Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk | Day 1 | Placebo | Negative | Pseudovirus-nAb ID80 | 7.51 (7.51, 7.51) | 7.64 (7.39, 7.91) | 0.98 (0.95, 1.02) |
| 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, 0.06) | 0.93 (0.85, 1.03) |
| Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk | Day 1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 0.81 (0.78, 0.84) | 0.82 (0.78, 0.85) | 0.99 (0.94, 1.05) |
| 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 | 1.66 (1.45, 1.91) | 1.66 (1.43, 1.93) | 1.00 (0.82, 1.23) |
| Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk | Day 1 | Placebo | Positive | Pseudovirus-nAb ID80 | 9.22 (8.01, 10.60) | 9.17 (8.05, 10.44) | 1.01 (0.83, 1.22) |
| Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 102.84 (80.14, 131.98) | 107.45 (84.75, 136.23) | 0.96 (0.68, 1.35) |
| Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 1369.34 (1115.31, 1681.23) | 1416.27 (1143.81, 1753.62) | 0.97 (0.72, 1.30) |
| Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 779.20 (655.36, 926.44) | 819.89 (684.18, 982.51) | 0.95 (0.74, 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 |
|--|--------|---------|---------------------|------------------------|-------------------------------|-------------------------------|----------------------|
| Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID50 | 27.69 (24.44, 31.37) | 29.02 (25.46, 33.07) | 0.95 (0.80, 1.14) |
| Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID80 | 37.65 (33.10, 42.82) | 37.98 (33.51, 43.06) | 0.99 (0.83, 1.19) |
| Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 215.03 (142.79, 323.81) | 204.03 (131.17, 317.36) | 1.05 (0.58, 1.93) |
| Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 2977.08 (2034.61, 4356.13) | 2730.22 (1984.51, 3756.13) | 1.09 (0.66, 1.79) |
| Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 1762.27 (1275.34, 2435.10) | 1278.50 (1021.04, 1600.88) | 1.38 (0.93, 2.04) |
| Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 55.95 (44.23, 70.77) | 53.97 (43.52, 66.93) | 1.04 (0.75, 1.43) |
| Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID80 | 71.03 (55.54, 90.85) | 55.87 (44.81, 69.67) | 1.27 (0.91, 1.77) |
| 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 | 1.25 (1.17, 1.34) | 1.21 (1.21, 1.21) | 1.04 (0.97, 1.11) |
| Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk | Day 29 | Placebo | Negative | Pseudovirus-nAb ID80 | 7.51 (7.51, 7.51) | 7.51 (7.51, 7.51) | 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 29 | Placebo | Positive | Anti N IgG (IU/ml) | 75.35 (50.45, 112.55) | 76.98 (51.40, 115.29) | 0.98 (0.55, 1.73) |
| Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 917.85 (629.03, 1339.28) | 1048.16 (725.71, 1513.87) | 0.88 (0.52, 1.48) |
| Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 566.74 (445.20, 721.46) | 499.40 (370.25, 673.59) | 1.13 (0.77, 1.67) |
| Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 19.34 (15.80, 23.67) | 19.21 (15.49, 23.82) | 1.01 (0.75, 1.35) |
| Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk | Day 29 | Placebo | Positive | Pseudovirus-nAb ID80 | 23.52 (18.82, 29.40) | 28.92 (23.76, 35.22) | 0.81 (0.60, 1.09) |
| Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 511.75 (381.45, 686.55) | 596.10 (442.78, 802.51) | 0.86 (0.57, 1.30) |
| Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 15978.46 (12608.12, 20249.74) | 19887.87 (15555.85, 25426.29) | 0.80 (0.57, 1.13) |
| Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 13176.09 (10726.24, 16185.49) | 12500.59 (10172.50, 15361.49) | 1.05 (0.79, 1.41) |
| Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 852.81 (723.19, 1005.66) | 822.13 (693.64, 974.43) | 1.04 (0.82, 1.31) |
| Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID80 | 787.68 (679.83, 912.64) | 841.31 (730.05, 969.52) | 0.94 (0.76, 1.15) |
| Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 2647.77 (1480.53, 4735.25) | 1582.67 (1000.64, 2503.23) | 1.67 (0.80, 3.51) |
| Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 68728.43 (41689.06, 113305.43) | 48729.63 (34487.01, 68854.24) | 1.41 (0.77, 2.59) |

(continued)

| Group 1 vs 2 | Visit | Arm | Baseline SARS-CoV-2 | Marker | Group 1 GMT/GMC | Group 2 GMT/GMC | Ratios of GMT/GMC |
|--|--------|---------|---------------------|------------------------|----------------------------------|----------------------------------|----------------------|
| Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 39234.47 (25954.09, 59310.24) | 28578.23 (21460.52, 38056.65) | 1.37 (0.83, 2.27) |
| Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 2860.83 (2021.86, 4047.93) | 1980.05 (1553.05, 2524.44) | 1.44 (0.95, 2.21) |
| Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID80 | 2207.30 (1624.62, 2998.97) | 2089.76 (1666.22, 2620.97) | 1.06 (0.72, 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 | 1.27 (1.16, 1.38) | 1.26 (1.19, 1.33) | 1.01 (0.91, 1.11) |
| Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk | Day 57 | Placebo | Negative | Pseudovirus-nAb ID80 | 7.51 (7.51, 7.51) | 7.72 (7.31, 8.16) | 0.97 (0.92, 1.03) |
| Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 299.14 (189.84, 471.35) | 457.63 (248.51, 842.70) | 0.65 (0.31, 1.40) |
| Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 14365.55 (10202.75, 20226.80) | 14203.36 (9280.26, 21738.13) | 1.01 (0.59, 1.74) |
| Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 9328.48 (6731.41, 12927.52) | 10206.80 (7288.69, 14293.21) | 0.91 (0.57, 1.46) |
| Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 579.22 (440.09, 762.33) | 682.51 (521.47, 893.29) | 0.85 (0.58, 1.25) |

(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 | 628.10 (499.76, 789.42) | 668.62 (520.90, 858.23) | 0.94 (0.67, 1.32) |

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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, 0.15) | 1.00 (1.00, 1.00) |
| Male vs Female | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 1.21 (1.21, 1.21) | 1.21 (1.21, 1.21) | 1.00 (1.00, 1.00) |
| Male vs Female | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 7.51 (7.51, 7.51) | 7.51 (7.51, 7.51) | 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 (0.05, 0.05) | 0.98 (0.94, 1.02) |
| Male vs Female | Day 1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 0.80 (0.80, 0.80) | 0.83 (0.79, 0.87) | 0.97 (0.92, 1.01) |
| Male vs Female | Day 1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 0.16 (0.15, 0.16) | 0.16 (0.15, 0.16) | 1.00 (0.97, 1.04) |
| Male vs Female | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 1.67 (1.45, 1.92) | 1.67 (1.46, 1.91) | 1.00 (0.83, 1.22) |
| Male vs Female | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 9.61 (8.30, 11.12) | 10.07 (8.92, 11.36) | 0.95 (0.79, 1.16) |
| 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 | 1.21 (1.21, 1.21) | 1.22 (1.20, 1.23) | 0.99 (0.98, 1.01) |
| Male vs Female | Day 1 | Placebo | Negative | Pseudovirus-nAb ID80 | 7.78 (7.40, 8.18) | 7.67 (7.41, 7.94) | 1.01 (0.95, 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 1 | Placebo | Positive | Anti N IgG (IU/ml) | 0.05 (0.05, 0.05) | 0.05 (0.05, 0.05) | 0.97 (0.89, 1.05) |
| Male vs Female | Day 1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 0.80 (0.79, 0.81) | 0.80 (0.79, 0.81) | 1.00 (0.99, 1.01) |
| Male vs Female | Day 1 | Placebo | Positive | 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 | Placebo | Positive | Pseudovirus-nAb ID50 | 1.44 (1.30, 1.59) | 1.82 (1.57, 2.10) | 0.79 (0.66, 0.95) |
| Male vs Female | Day 1 | Placebo | Positive | Pseudovirus-nAb ID80 | 10.11 (9.02, 11.34) | 9.69 (8.59, 10.92) | 1.04 (0.89, 1.23) |
| Male vs Female | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 38.15 (28.53, 51.02) | 40.32 (32.34, 50.27) | 0.95 (0.66, 1.37) |
| Male vs Female | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 457.64 (371.12, 564.33) | 490.45 (407.20, 590.72) | 0.93 (0.70, 1.24) |
| Male vs Female | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 252.49 (212.53, 299.95) | 278.21 (240.00, 322.50) | 0.91 (0.72, 1.14) |
| Male vs Female | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID50 | 17.10 (14.87, 19.67) | 17.59 (15.59, 19.83) | 0.97 (0.81, 1.17) |
| Male vs Female | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID80 | 25.48 (22.40, 29.00) | 26.38 (23.82, 29.22) | 0.97 (0.82, 1.14) |
| Male vs Female | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 78.94 (50.06, 124.47) | 83.72 (58.61, 119.58) | 0.94 (0.53, 1.68) |
| Male vs Female | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 664.48 (437.18, 1009.94) | 995.38 (720.00, 1376.06) | 0.67 (0.39, 1.14) |
| Male vs Female | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 438.29 (330.76, 580.78) | 500.15 (395.47, 632.53) | 0.88 (0.60, 1.27) |
| Male vs Female | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 29.52 (22.97, 37.93) | 35.09 (29.05, 42.38) | 0.84 (0.61, 1.15) |
| Male vs Female | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID80 | 46.32 (37.37, 57.41) | 54.95 (46.08, 65.54) | 0.84 (0.64, 1.11) |

(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 | 1.21 (1.21, 1.21) | 1.22 (1.20, 1.24) | 0.99 (0.97, 1.01) |
| Male vs Female | Day 29 | Placebo | Negative | Pseudovirus-nAb ID80 | 7.51 (7.51, 7.51) | 7.51 (7.51, 7.51) | 1.00 (1.00, 1.00) |
| Male vs Female | Day 29 | Placebo | Positive | Anti N IgG (IU/ml) | 23.92 (14.87, 38.48) | 30.29 (21.02, 43.65) | 0.79 (0.43, 1.45) |
| Male vs Female | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 298.61 (197.76, 450.90) | 308.16 (209.13, 454.08) | 0.97 (0.54, 1.72) |
| Male vs Female | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 173.03 (122.78, 243.83) | 167.01 (124.57, 223.90) | 1.04 (0.65, 1.64) |
| Male vs Female | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 10.66 (8.22, 13.83) | 11.99 (9.61, 14.96) | 0.89 (0.63, 1.26) |
| Male vs Female | Day 29 | Placebo | Positive | Pseudovirus-nAb ID80 | 19.86 (16.26, 24.24) | 20.53 (17.22, 24.47) | 0.97 (0.74, 1.26) |
| Male vs Female | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 178.15 (128.55, 246.88) | 163.03 (125.40, 211.94) | 1.09 (0.72, 1.67) |
| Male vs Female | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 4244.31 (3392.29, 5310.33) | 5197.76 (4204.66, 6425.43) | 0.82 (0.60, 1.12) |
| Male vs Female | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 3437.26 (2774.16, 4258.86) | 3345.99 (2766.97, 4046.17) | 1.03 (0.77, 1.38) |
| Male vs Female | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 441.92 (376.96, 518.07) | 417.64 (359.94, 484.59) | 1.06 (0.85, 1.32) |
| Male vs Female | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID80 | 544.29 (469.26, 631.32) | 581.88 (509.61, 664.40) | 0.94 (0.77, 1.14) |

(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) | 556.97 (327.90, 946.06) | 722.64 (442.21, 1180.89) | 0.77 (0.37, 1.59) |
| Male vs Female | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 15154.35 (10160.04, 22603.69) | 17863.54 (12513.50, 25500.93) | 0.85 (0.49, 1.46) |
| Male vs Female | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 10123.18 (7262.75, 14110.20) | 11199.68 (8160.35, 15371.03) | 0.90 (0.57, 1.44) |
| Male vs Female | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 1249.39 (877.99, 1777.91) | 1261.83 (970.99, 1639.79) | 0.99 (0.64, 1.54) |
| Male vs Female | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID80 | 1549.68 (1188.99, 2019.79) | 1569.32 (1298.20, 1897.06) | 0.99 (0.71, 1.37) |
| 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 | 1.23 (1.19, 1.27) | 1.26 (1.20, 1.32) | 0.97 (0.92, 1.03) |
| Male vs Female | Day 57 | Placebo | Negative | Pseudovirus-nAb ID80 | 7.51 (7.51, 7.51) | 7.56 (7.46, 7.65) | 0.99 (0.98, 1.01) |
| Male vs Female | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 107.97 (60.07, 194.08) | 157.75 (98.56, 252.50) | 0.68 (0.32, 1.46) |
| Male vs Female | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 2584.72 (1697.12, 3936.53) | 3489.69 (2373.53, 5130.73) | 0.74 (0.41, 1.33) |
| Male vs Female | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 2423.64 (1588.60, 3697.60) | 2223.24 (1551.15, 3186.52) | 1.09 (0.62, 1.92) |
| Male vs Female | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 270.04 (197.13, 369.92) | 344.99 (271.92, 437.69) | 0.78 (0.53, 1.17) |
| Male vs Female | Day 57 | Placebo | Positive | Pseudovirus-nAb ID80 | 428.33 (338.81, 541.51) | 480.09 (387.71, 594.47) | 0.89 (0.65, 1.23) |

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, 0.15) | 1.00 (1.00, 1.00) |
| Hispanic or Latino vs Not Hispanic or Latino | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID50 | 1.21 (1.21, 1.21) | 1.21 (1.21, 1.21) | 1.00 (1.00, 1.00) |
| Hispanic or Latino vs Not Hispanic or Latino | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 7.51 (7.51, 7.51) | 7.51 (7.51, 7.51) | 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, 0.05) | 1.01 (0.95, 1.08) |
| Hispanic or Latino vs Not Hispanic or Latino | Day 1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 0.80 (0.80, 0.80) | 0.82 (0.79, 0.84) | 0.98 (0.95, 1.01) |
| Hispanic or Latino vs Not Hispanic or Latino | Day 1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 0.15 (0.15, 0.15) | 0.16 (0.15, 0.16) | 0.99 (0.97, 1.00) |
| Hispanic or Latino vs Not Hispanic or Latino | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 1.30 (1.20, 1.41) | 1.70 (1.53, 1.90) | 0.76 (0.67, 0.88) |
| Hispanic or Latino vs Not Hispanic or Latino | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 8.94 (7.17, 11.14) | 9.92 (8.97, 10.97) | 0.90 (0.71, 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 | 1.21 (1.21, 1.21) | 1.21 (1.21, 1.22) | 1.00 (0.99, 1.00) |
| Hispanic or Latino vs Not Hispanic or Latino | Day 1 | Placebo | Negative | Pseudovirus-nAb ID80 | 8.68 (6.92, 10.87) | 7.56 (7.46, 7.67) | 1.15 (0.91, 1.44) |
| 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) | 0.95 (0.90, 0.99) |
| Hispanic or Latino vs Not Hispanic or Latino | Day 1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 0.81 (0.79, 0.83) | 0.80 (0.79, 0.80) | 1.01 (0.98, 1.04) |
| 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, 0.16) | 0.99 (0.99, 1.00) |
| Hispanic or Latino vs Not Hispanic or Latino | Day 1 | Placebo | Positive | Pseudovirus-nAb ID50 | 1.56 (1.22, 2.01) | 1.66 (1.49, 1.85) | 0.94 (0.72, 1.23) |
| Hispanic or Latino vs Not Hispanic or Latino | Day 1 | Placebo | Positive | Pseudovirus-nAb ID80 | 11.37 (8.64, 14.96) | 9.51 (8.74, 10.34) | 1.20 (0.90, 1.59) |
| Hispanic or Latino vs Not Hispanic or Latino | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 46.32 (28.82, 74.43) | 38.39 (31.70, 46.50) | 1.21 (0.72, 2.01) |
| Hispanic or Latino vs Not Hispanic or Latino | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 502.10 (352.24, 715.72) | 466.22 (401.27, 541.69) | 1.08 (0.73, 1.58) |
| Hispanic or Latino vs Not Hispanic or Latino | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 338.02 (242.86, 470.47) | 258.55 (229.78, 290.93) | 1.31 (0.92, 1.86) |

(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 | 18.49 (14.43, 23.71) | 17.21 (15.60, 18.99) | 1.07 (0.82, 1.40) |
| Hispanic or Latino vs Not Hispanic or Latino | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID80 | 30.05 (24.15, 37.41) | 25.58 (23.47, 27.88) | 1.17 (0.93, 1.49) |
| Hispanic or Latino vs Not Hispanic or Latino | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 43.00 (20.21, 91.49) | 85.41 (63.37, 115.13) | 0.50 (0.22, 1.13) |
| Hispanic or Latino vs Not Hispanic or Latino | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 1004.65 (484.57, 2082.93) | 805.15 (610.19, 1062.40) | 1.25 (0.57, 2.72) |
| Hispanic or Latino vs Not Hispanic or Latino | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 442.54 (245.55, 797.58) | 462.89 (383.82, 558.25) | 0.96 (0.51, 1.78) |
| Hispanic or Latino vs Not Hispanic or Latino | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 22.57 (15.32, 33.26) | 33.52 (28.49, 39.45) | 0.67 (0.44, 1.02) |
| Hispanic or Latino vs Not Hispanic or Latino | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID80 | 38.37 (24.64, 59.75) | 51.70 (44.84, 59.62) | 0.74 (0.47, 1.18) |
| 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 | 1.21 (1.21, 1.21) | 1.22 (1.20, 1.23) | 0.99 (0.99, 1.00) |
| Hispanic or Latino vs Not Hispanic or Latino | Day 29 | Placebo | Negative | Pseudovirus-nAb ID80 | 7.51 (7.51, 7.51) | 7.51 (7.51, 7.51) | 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 29 | Placebo | Positive | Anti N IgG (IU/ml) | 25.54 (13.70, 47.59) | 27.97 (20.22, 38.70) | 0.91 (0.45, 1.84) |
| Hispanic or Latino vs Not Hispanic or Latino | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 338.50 (176.86, 647.86) | 303.85 (222.61, 414.76) | 1.11 (0.54, 2.29) |
| Hispanic or Latino vs Not Hispanic or Latino | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 173.67 (111.05, 271.61) | 171.82 (134.06, 220.21) | 1.01 (0.60, 1.69) |
| Hispanic or Latino vs Not Hispanic or Latino | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 10.06 (6.98, 14.48) | 11.72 (9.73, 14.12) | 0.86 (0.57, 1.29) |
| Hispanic or Latino vs Not Hispanic or Latino | Day 29 | Placebo | Positive | Pseudovirus-nAb ID80 | 21.37 (15.55, 29.37) | 20.30 (17.53, 23.50) | 1.05 (0.74, 1.49) |
| Hispanic or Latino vs Not Hispanic or Latino | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 162.78 (90.74, 292.01) | 169.83 (136.22, 211.74) | 0.96 (0.51, 1.79) |
| Hispanic or Latino vs Not Hispanic or Latino | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 6188.84 (4091.31, 9361.73) | 4600.05 (3897.55, 5429.17) | 1.35 (0.86, 2.10) |
| Hispanic or Latino vs Not Hispanic or Latino | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 4186.98 (2879.54, 6088.08) | 3277.33 (2816.17, 3814.02) | 1.28 (0.85, 1.92) |
| Hispanic or Latino vs Not Hispanic or Latino | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 567.55 (425.73, 756.63) | 412.28 (366.72, 463.51) | 1.38 (1.01, 1.88) |
| Hispanic or Latino vs Not Hispanic or Latino | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID80 | 690.79 (533.04, 895.23) | 551.24 (495.10, 613.75) | 1.25 (0.95, 1.66) |
| Hispanic or Latino vs Not Hispanic or Latino | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 483.42 (160.82, 1453.11) | 637.57 (432.60, 939.64) | 0.76 (0.24, 2.44) |
| Hispanic or Latino vs Not Hispanic or Latino | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 10296.90 (5080.81, 20867.99) | 16777.78 (12636.54, 22276.19) | 0.61 (0.29, 1.32) |

(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) | 7610.09 (3673.58, 15764.86) | 10681.93 (8474.58, 13464.24) | 0.71 (0.33, 1.53) |
| Hispanic or Latino vs Not Hispanic or Latino | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 888.60 (580.47, 1360.29) | 1278.57 (1013.95, 1612.25) | 0.69 (0.43, 1.13) |
| Hispanic or Latino vs Not Hispanic or Latino | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID80 | 1748.56 (1094.71, 2792.95) | 1545.15 (1306.41, 1827.53) | 1.13 (0.69, 1.86) |
| 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 | 1.35 (1.15, 1.59) | 1.24 (1.20, 1.27) | 1.09 (0.93, 1.29) |
| Hispanic or Latino vs Not Hispanic or Latino | Day 57 | Placebo | Negative | Pseudovirus-nAb ID80 | 7.80 (7.24, 8.39) | 7.51 (7.51, 7.51) | 1.04 (0.96, 1.12) |
| Hispanic or Latino vs Not Hispanic or Latino | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 128.60 (56.95, 290.39) | 140.31 (93.26, 211.10) | 0.92 (0.37, 2.28) |
| Hispanic or Latino vs Not Hispanic or Latino | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 3323.85 (1770.49, 6240.10) | 2986.56 (2181.24, 4089.20) | 1.11 (0.55, 2.26) |
| Hispanic or Latino vs Not Hispanic or Latino | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 2202.73 (1326.45, 3657.89) | 2446.19 (1807.34, 3310.86) | 0.90 (0.50, 1.63) |
| Hispanic or Latino vs Not Hispanic or Latino | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 349.80 (194.63, 628.69) | 304.11 (247.38, 373.85) | 1.15 (0.62, 2.14) |

(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 | 487.73 (302.81, 785.59) | 451.25 (381.67, 533.51) | 1.08 (0.65, 1.79) |

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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) | 0.15 (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 | Vaccine | Negative | Pseudovirus-nAb ID50 | 1.21 (1.21, 1.21) | 1.21 (1.21, 1.21) | 1.00 (1.00, 1.00) |
| Communities of Color vs White Non-Hispanic | Day 1 | Vaccine | Negative | Pseudovirus-nAb ID80 | 7.51 (7.51, 7.51) | 7.51 (7.51, 7.51) | 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 (0.05, 0.05) | 0.98 (0.94, 1.02) |
| Communities of Color vs White Non-Hispanic | Day 1 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 0.80 (0.80, 0.80) | 0.83 (0.79, 0.87) | 0.97 (0.92, 1.01) |
| Communities of Color vs White Non-Hispanic | Day 1 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 0.16 (0.15, 0.16) | 0.15 (0.15, 0.15) | 1.03 (0.99, 1.06) |
| Communities of Color vs White Non-Hispanic | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID50 | 1.62 (1.43, 1.83) | 1.71 (1.48, 1.97) | 0.95 (0.78, 1.14) |
| Communities of Color vs White Non-Hispanic | Day 1 | Vaccine | Positive | Pseudovirus-nAb ID80 | 8.58 (7.93, 9.28) | 10.90 (9.44, 12.59) | 0.79 (0.67, 0.93) |
| 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 | 1.22 (1.20, 1.24) | 1.21 (1.21, 1.21) | 1.01 (0.99, 1.02) |
| Communities of Color vs White Non-Hispanic | Day 1 | Placebo | Negative | Pseudovirus-nAb ID80 | 8.05 (7.49, 8.64) | 7.51 (7.51, 7.51) | 1.07 (1.00, 1.15) |
| Communities of Color vs White Non-Hispanic | Day 1 | Placebo | Positive | Anti N IgG (IU/ml) | 0.05 (0.05, 0.06) | 0.05 (0.05, 0.05) | 1.07 (0.98, 1.17) |
| Communities of Color vs White Non-Hispanic | Day 1 | Placebo | Positive | Anti RBD IgG (IU/ml) | 0.80 (0.79, 0.81) | 0.80 (0.80, 0.80) | 1.01 (1.00, 1.02) |
| Communities of Color vs White Non-Hispanic | Day 1 | Placebo | Positive | Anti Spike IgG (IU/ml) | 0.16 (0.15, 0.16) | 0.15 (0.15, 0.15) | 1.01 (0.99, 1.03) |
| Communities of Color vs White Non-Hispanic | Day 1 | Placebo | Positive | Pseudovirus-nAb ID50 | 1.69 (1.46, 1.95) | 1.60 (1.40, 1.82) | 1.06 (0.87, 1.28) |
| Communities of Color vs White Non-Hispanic | Day 1 | Placebo | Positive | Pseudovirus-nAb ID80 | 10.64 (9.36, 12.10) | 9.27 (8.31, 10.33) | 1.15 (0.97, 1.36) |
| Communities of Color vs White Non-Hispanic | Day 29 | Vaccine | Negative | Anti N IgG (IU/ml) | 47.88 (38.41, 59.67) | 34.08 (26.39, 44.01) | 1.40 (1.00, 1.97) |
| Communities of Color vs White Non-Hispanic | Day 29 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 601.72 (499.59, 724.73) | 400.44 (330.41, 485.31) | 1.50 (1.15, 1.96) |
| Communities of Color vs White Non-Hispanic | Day 29 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 312.83 (267.85, 365.36) | 237.37 (204.22, 275.89) | 1.32 (1.06, 1.64) |

(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 | 20.20 (18.04, 22.63) | 15.55 (13.64, 17.71) | 1.30 (1.09, 1.54) |
| Communities of Color vs White Non-Hispanic | Day 29 | Vaccine | Negative | Pseudovirus-nAb ID80 | 28.84 (25.80, 32.24) | 24.07 (21.54, 26.91) | 1.20 (1.02, 1.40) |
| Communities of Color vs White Non-Hispanic | Day 29 | Vaccine | Positive | Anti N IgG (IU/ml) | 80.72 (53.07, 122.80) | 82.41 (56.70, 119.78) | 0.98 (0.56, 1.72) |
| Communities of Color vs White Non-Hispanic | Day 29 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 988.93 (705.93, 1385.38) | 752.05 (520.11, 1087.41) | 1.31 (0.80, 2.17) |
| Communities of Color vs White Non-Hispanic | Day 29 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 422.75 (324.82, 550.21) | 513.05 (403.64, 652.12) | 0.82 (0.58, 1.18) |
| Communities of Color vs White Non-Hispanic | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID50 | 32.03 (25.63, 40.04) | 33.13 (26.98, 40.67) | 0.97 (0.72, 1.31) |
| Communities of Color vs White Non-Hispanic | Day 29 | Vaccine | Positive | Pseudovirus-nAb ID80 | 49.02 (40.19, 59.78) | 52.80 (43.78, 63.69) | 0.93 (0.71, 1.22) |
| 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 | 1.21 (1.21, 1.21) | 1.22 (1.20, 1.24) | 0.99 (0.98, 1.01) |
| Communities of Color vs White Non-Hispanic | Day 29 | Placebo | Negative | Pseudovirus-nAb ID80 | 7.51 (7.51, 7.51) | 7.51 (7.51, 7.51) | 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 29 | Placebo | Positive | Anti N IgG (IU/ml) | 27.93 (18.97, 41.13) | 26.72 (17.39, 41.07) | 1.05 (0.58, 1.87) |
| Communities of Color vs White Non-Hispanic | Day 29 | Placebo | Positive | Anti RBD IgG (IU/ml) | 352.63 (249.40, 498.60) | 267.93 (174.53, 411.31) | 1.32 (0.75, 2.30) |
| Communities of Color vs White Non-Hispanic | Day 29 | Placebo | Positive | Anti Spike IgG (IU/ml) | 155.52 (114.15, 211.87) | 182.62 (133.68, 249.48) | 0.85 (0.55, 1.33) |
| Communities of Color vs White Non-Hispanic | Day 29 | Placebo | Positive | Pseudovirus-nAb ID50 | 11.40 (9.17, 14.17) | 11.37 (8.85, 14.60) | 1.00 (0.72, 1.40) |
| Communities of Color vs White Non-Hispanic | Day 29 | Placebo | Positive | Pseudovirus-nAb ID80 | 20.39 (17.22, 24.13) | 20.09 (16.51, 24.45) | 1.01 (0.78, 1.31) |
| Communities of Color vs White Non-Hispanic | Day 57 | Vaccine | Negative | Anti N IgG (IU/ml) | 227.46 (171.83, 301.11) | 136.02 (102.81, 179.97) | 1.67 (1.13, 2.48) |
| Communities of Color vs White Non-Hispanic | Day 57 | Vaccine | Negative | Anti RBD IgG (IU/ml) | 6116.64 (5002.83, 7478.42) | 3965.19 (3190.18, 4928.49) | 1.54 (1.15, 2.08) |
| Communities of Color vs White Non-Hispanic | Day 57 | Vaccine | Negative | Anti Spike IgG (IU/ml) | 4158.17 (3454.12, 5005.74) | 2905.77 (2384.91, 3540.40) | 1.43 (1.09, 1.88) |
| Communities of Color vs White Non-Hispanic | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID50 | 549.84 (479.76, 630.15) | 355.22 (305.63, 412.85) | 1.55 (1.27, 1.89) |
| Communities of Color vs White Non-Hispanic | Day 57 | Vaccine | Negative | Pseudovirus-nAb ID80 | 656.33 (575.68, 748.27) | 506.55 (440.71, 582.22) | 1.30 (1.07, 1.57) |
| Communities of Color vs White Non-Hispanic | Day 57 | Vaccine | Positive | Anti N IgG (IU/ml) | 543.72 (333.11, 887.50) | 735.04 (440.86, 1225.53) | 0.74 (0.37, 1.49) |
| Communities of Color vs White Non-Hispanic | Day 57 | Vaccine | Positive | Anti RBD IgG (IU/ml) | 15372.49 (10572.42, 22351.88) | 17684.90 (12263.74, 25502.49) | 0.87 (0.52, 1.47) |

(continued)

| Group 1 vs 2 | Visit | Arm | Baseline SARS-CoV-2 | Marker | Group 1 GMT/GMC | Group 2 GMT/GMC | Ratios of GMT/GMC |
|--|--------|---------|---------------------|------------------------|---------------------------------|---------------------------------|----------------------|
| Communities of Color vs White Non-Hispanic | Day 57 | Vaccine | Positive | Anti Spike IgG (IU/ml) | 11322.94 (8105.96, 15816.62) | 10349.34 (7588.49, 14114.66) | 1.09 (0.69, 1.73) |
| Communities of Color vs White Non-Hispanic | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID50 | 1181.83 (923.19, 1512.91) | 1312.29 (957.88, 1797.84) | 0.90 (0.60, 1.34) |
| Communities of Color vs White Non-Hispanic | Day 57 | Vaccine | Positive | Pseudovirus-nAb ID80 | 1409.31 (1101.23, 1803.57) | 1677.99 (1373.02, 2050.70) | 0.84 (0.61, 1.15) |
| 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 | 1.28 (1.20, 1.36) | 1.22 (1.20, 1.25) | 1.05 (0.98, 1.12) |
| Communities of Color vs White Non-Hispanic | Day 57 | Placebo | Negative | Pseudovirus-nAb ID80 | 7.57 (7.45, 7.69) | 7.51 (7.51, 7.51) | 1.01 (0.99, 1.02) |
| Communities of Color vs White Non-Hispanic | Day 57 | Placebo | Positive | Anti N IgG (IU/ml) | 127.29 (76.15, 212.77) | 138.49 (81.68, 234.80) | 0.92 (0.44, 1.93) |
| Communities of Color vs White Non-Hispanic | Day 57 | Placebo | Positive | Anti RBD IgG (IU/ml) | 3319.09 (2360.16, 4667.65) | 2844.53 (1856.90, 4357.44) | 1.17 (0.68, 2.01) |
| Communities of Color vs White Non-Hispanic | Day 57 | Placebo | Positive | Anti Spike IgG (IU/ml) | 2224.20 (1531.96, 3229.24) | 2385.84 (1614.03, 3526.73) | 0.93 (0.54, 1.61) |
| Communities of Color vs White Non-Hispanic | Day 57 | Placebo | Positive | Pseudovirus-nAb ID50 | 311.04 (233.55, 414.23) | 307.89 (235.98, 401.71) | 1.01 (0.68, 1.50) |

(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 | 465.54 (369.92, 585.87) | 448.64 (360.71, 558.00) | 1.04 (0.75, 1.43) |

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2.10 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) | 0.62 (0.57, 0.66) | 0.88 (0.85, 0.91) | 0.8 (0.76, 0.83) |
| Vaccine vs Placebo | Negative | - | Day 29 | Anti RBD IgG (IU/ml) | 0.98 (0.97, 0.99) | 1 (1, 1) | 1 (0.99, 1) |
| Vaccine vs Placebo | Negative | - | Day 29 | Anti Spike IgG (IU/ml) | 0.99 (0.98, 1) | 1 (1, 1) | 1 (1, 1) |
| Vaccine vs Placebo | Negative | - | Day 29 | Pseudovirus-nAb ID50 | 0.9 (0.86, 0.92) | 0.9 (0.86, 0.92) | 0.77 (0.73, 0.81) |
| Vaccine vs Placebo | Negative | - | Day 29 | Pseudovirus-nAb ID80 | 0.59 (0.55, 0.64) | 0.59 (0.55, 0.64) | 0.3 (0.26, 0.34) |
| Vaccine vs Placebo | Positive | - | Day 29 | Anti N IgG (IU/ml) | 0.23 (0.12, 0.33) | 0.15 (0.07, 0.23) | 0.14 (0.04, 0.23) |
| Vaccine vs Placebo | Positive | - | Day 29 | Anti RBD IgG (IU/ml) | 0.05 (0.01, 0.11) | 0 (0, 0) | 0.01 (0, 0.06) |
| Vaccine vs Placebo | Positive | - | Day 29 | Anti Spike IgG (IU/ml) | 0.02 (-0.02, 0.07) | 0 (0, 0) | 0 (0, 0) |
| Vaccine vs Placebo | Positive | - | Day 29 | Pseudovirus-nAb ID50 | 0.16 (0.08, 0.24) | 0.2 (0.12, 0.27) | 0.27 (0.17, 0.37) |
| Vaccine vs Placebo | Positive | - | Day 29 | Pseudovirus-nAb ID80 | 0.35 (0.24, 0.44) | 0.34 (0.23, 0.44) | 0.36 (0.26, 0.45) |
| Vaccine vs Placebo | Negative | - | Day 57 | Anti N IgG (IU/ml) | 0.81 (0.77, 0.85) | 0.95 (0.92, 0.97) | 0.91 (0.88, 0.93) |
| Vaccine vs Placebo | Negative | - | Day 57 | Anti RBD IgG (IU/ml) | 1 (0.99, 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 (0.97, 1) | 1 (0.97, 1) | 1 (1, 1) |
| Vaccine vs Placebo | Negative | - | Day 57 | Pseudovirus-nAb ID80 | 1 (0.98, 1) | 1 (0.98, 1) | 0.99 (0.98, 1) |
| Vaccine vs Placebo | Positive | - | Day 57 | Anti N IgG (IU/ml) | 0.19 (0.1, 0.27) | 0.08 (0.01, 0.14) | 0.1 (0.03, 0.17) |
| Vaccine vs Placebo | Positive | - | Day 57 | Anti RBD IgG (IU/ml) | 0 (0, 0) | 0 (0, 0) | 0 (0, 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 (0, 0) |
| Vaccine vs Placebo | Positive | - | 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 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) | 0.14 (0.05, 0.22) | 0.07 (0, 0.11) | 0.07 (-0.01, 0.14) |
| Positive vs Negative | - | Placebo | Day 29 | Anti N IgG (IU/ml) | 0.54 (0.46, 0.61) | 0.8 (0.72, 0.86) | 0.73 (0.65, 0.8) |
| Positive vs Negative | - | Vaccine | Day 29 | Anti RBD IgG (IU/ml) | 0.01 (-0.01, 0.03) | 0 (0, 0) | 0 (0, 0.01) |
| Positive vs Negative | - | Placebo | Day 29 | Anti RBD IgG (IU/ml) | 0.95 (0.88, 0.98) | 1 (1, 1) | 0.99 (0.94, 1) |
| Positive vs Negative | - | Vaccine | Day 29 | Anti Spike IgG (IU/ml) | 0 (-0.04, 0.02) | 0 (0, 0) | 0 (0, 0) |
| Positive vs Negative | - | Placebo | Day 29 | Anti Spike IgG (IU/ml) | 0.97 (0.92, 0.99) | 1 (1, 1) | 1 (1, 1) |
| Positive vs Negative | - | Vaccine | Day 29 | Pseudovirus-nAb ID50 | 0.05 (-0.01, 0.1) | 0.09 (0.03, 0.12) | 0.08 (0, 0.15) |
| Positive vs Negative | - | Placebo | Day 29 | Pseudovirus-nAb ID50 | 0.79 (0.71, 0.85) | 0.79 (0.71, 0.85) | 0.58 (0.5, 0.65) |
| Positive vs Negative | - | Vaccine | Day 29 | Pseudovirus-nAb ID80 | 0.15 (0.06, 0.23) | 0.18 (0.09, 0.26) | 0.23 (0.14, 0.32) |
| Positive vs Negative | - | Placebo | Day 29 | Pseudovirus-nAb ID80 | 0.39 (0.32, 0.47) | 0.43 (0.36, 0.51) | 0.17 (0.12, 0.24) |
| Positive vs Negative | - | Vaccine | Day 57 | Anti N IgG (IU/ml) | 0.14 (0.08, 0.19) | 0.04 (-0.02, 0.07) | 0.05 (-0.01, 0.09) |
| Positive vs Negative | - | Placebo | Day 57 | Anti N IgG (IU/ml) | 0.77 (0.69, 0.83) | 0.91 (0.84, 0.95) | 0.86 (0.79, 0.91) |
| Positive vs Negative | - | Vaccine | Day 57 | Anti RBD IgG (IU/ml) | 0 (0, 0.01) | 0 (0, 0) | 0 (0, 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 (0.97, 1) | 1 (0.97, 1) | 1 (1, 1) |
| Positive vs Negative | - | Vaccine | Day 57 | Pseudovirus-nAb ID80 | 0 (0, 0) | 0 (0, 0) | 0.01 (0, 0.02) |
| Positive vs Negative | - | Placebo | Day 57 | Pseudovirus-nAb ID80 | 1 (0.98, 1) | 1 (0.98, 1) | 1 (1, 1) |

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) | 0.23 (0.16, 0.3) | 0.11 (0.06, 0.15) | 0.18 (0.12, 0.23) |
| 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) | 0.02 (0.01, 0.04) | 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) | 0.01 (0, 0.03) | 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 | 0.12 (0.08, 0.16) | 0.12 (0.08, 0.16) | 0.17 (0.11, 0.23) |
| 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 | 0.21 (0.14, 0.28) | 0.21 (0.14, 0.28) | 0.18 (0.11, 0.25) |
| 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) | 0.21 (0.1, 0.31) | 0.07 (0.03, 0.13) | 0.13 (0.05, 0.22) |
| Age ≥ 65 vs Age < 65 | Positive | Placebo | Day 29 | Anti N IgG (IU/ml) | 0.31 (0.19, 0.43) | 0.2 (0.11, 0.3) | 0.2 (0.1, 0.31) |
| Age ≥ 65 vs Age < 65 | Positive | Vaccine | Day 29 | Anti RBD IgG (IU/ml) | 0 (0, 0.03) | 0 (0, 0) | 0 (0, 0) |
| Age ≥ 65 vs Age < 65 | Positive | Placebo | Day 29 | Anti RBD IgG (IU/ml) | 0.07 (0.03, 0.15) | 0 (0, 0) | 0.02 (0, 0.08) |
| Age ≥ 65 vs Age < 65 | Positive | Vaccine | Day 29 | Anti Spike IgG (IU/ml) | 0.01 (0, 0.06) | 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 \geq 65 vs Age < 65 | Positive | Placebo | Day 29 | Anti Spike IgG (IU/ml) | 0.04 (0.01, 0.1) | 0 (0, 0) | 0 (0, 0) |
| Age \geq 65 vs Age < 65 | Positive | Vaccine | Day 29 | Pseudovirus-nAb ID50 | 0.06 (0.03, 0.14) | 0.02 (0, 0.08) | 0.17 (0.08, 0.27) |
| Age \geq 65 vs Age < 65 | Positive | Placebo | Day 29 | Pseudovirus-nAb ID50 | 0.2 (0.1, 0.3) | 0.2 (0.11, 0.3) | 0.32 (0.19, 0.43) |
| Age \geq 65 vs Age < 65 | Positive | Vaccine | Day 29 | Pseudovirus-nAb ID80 | 0.13 (0.02, 0.25) | 0.13 (0.02, 0.24) | 0.11 (-0.03, 0.24) |
| Age \geq 65 vs Age < 65 | Positive | Placebo | Day 29 | Pseudovirus-nAb ID80 | 0.28 (0.15, 0.4) | 0.24 (0.11, 0.36) | 0.1 (-0.01, 0.2) |
| Age \geq 65 vs Age < 65 | Negative | Vaccine | Day 57 | Anti N IgG (IU/ml) | 0.16 (0.11, 0.21) | 0.06 (0.03, 0.09) | 0.08 (0.05, 0.13) |
| Age \geq 65 vs Age < 65 | Negative | Placebo | Day 57 | Anti N IgG (IU/ml) | 0 (0, 0) | 0 (0, 0) | 0 (0, 0) |
| Age \geq 65 vs Age < 65 | Negative | Vaccine | Day 57 | Anti RBD IgG (IU/ml) | 0 (0, 0.02) | 0 (0, 0) | 0 (0, 0) |
| Age \geq 65 vs Age < 65 | Negative | Placebo | Day 57 | Anti RBD IgG (IU/ml) | 0 (0, 0) | 0 (0, 0) | 0 (0, 0) |
| Age \geq 65 vs Age < 65 | Negative | Vaccine | Day 57 | Anti Spike IgG (IU/ml) | 0 (0, 0) | 0 (0, 0) | 0 (0, 0) |
| Age \geq 65 vs Age < 65 | Negative | Placebo | Day 57 | Anti Spike IgG (IU/ml) | 0 (0, 0) | 0 (0, 0) | 0 (0, 0) |
| Age \geq 65 vs Age < 65 | Negative | Vaccine | Day 57 | Pseudovirus-nAb ID50 | 0 (0, 0) | 0 (0, 0) | 0 (0, 0) |
| Age \geq 65 vs Age < 65 | Negative | Placebo | Day 57 | Pseudovirus-nAb ID50 | 0.02 (0, 0.12) | 0.02 (0, 0.12) | 0 (0, 0) |
| Age \geq 65 vs Age < 65 | Negative | Vaccine | Day 57 | Pseudovirus-nAb ID80 | 0 (0, 0) | 0 (0, 0) | 0.01 (0, 0.03) |
| Age \geq 65 vs Age < 65 | Negative | Placebo | Day 57 | Pseudovirus-nAb ID80 | 0.01 (0, 0.08) | 0.01 (0, 0.08) | 0 (0, 0) |

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| Comparison | Baseline SARS-CoV-2 | Arm | Visit | Marker | Responder | % 2-Fold Rise | % 4-Fold Rise |
|----------------------|---------------------|---------|--------|------------------------|----------------------|----------------------|----------------------|
| Age ≥ 65 vs Age < 65 | Positive | Vaccine | Day 57 | Anti N IgG (IU/ml) | 0.06 (0.02, 0.13) | 0.02 (0, 0.08) | 0.05 (0.02, 0.12) |
| Age ≥ 65 vs Age < 65 | Positive | Placebo | Day 57 | Anti N IgG (IU/ml) | 0.18 (0.08, 0.29) | 0.09 (0.02, 0.17) | 0.11 (0.02, 0.2) |
| Age ≥ 65 vs Age < 65 | Positive | Vaccine | Day 57 | Anti RBD IgG (IU/ml) | 0 (0, 0) | 0 (0, 0) | 0 (0, 0) |
| Age ≥ 65 vs Age < 65 | Positive | Placebo | Day 57 | Anti RBD IgG (IU/ml) | 0 (0, 0) | 0 (0, 0) | 0 (0, 0) |
| Age ≥ 65 vs Age < 65 | Positive | Vaccine | Day 57 | Anti Spike IgG (IU/ml) | 0 (0, 0) | 0 (0, 0) | 0 (0, 0) |
| Age ≥ 65 vs Age < 65 | Positive | Placebo | Day 57 | Anti Spike IgG (IU/ml) | 0 (0, 0) | 0 (0, 0) | 0 (0, 0) |
| Age ≥ 65 vs Age < 65 | Positive | Vaccine | Day 57 | Pseudovirus-nAb ID50 | 0 (0, 0) | 0 (0, 0) | 0 (0, 0) |
| Age ≥ 65 vs Age < 65 | Positive | Placebo | Day 57 | Pseudovirus-nAb ID50 | 0 (0, 0) | 0 (0, 0) | 0 (0, 0) |
| Age ≥ 65 vs Age < 65 | Positive | Vaccine | Day 57 | Pseudovirus-nAb ID80 | 0 (0, 0) | 0 (0, 0) | 0 (0, 0) |
| Age ≥ 65 vs Age < 65 | 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 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) | 0.01 (-0.07, 0.1) | 0.02 (-0.04, 0.08) | 0.02 (-0.05, 0.1) |
| 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 (-0.03, 0.03) | 0 (0, 0) | 0 (-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) | -0.01 (-0.03, 0.03) | 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 | 0.06 (0.01, 0.12) | 0.06 (0.01, 0.12) | 0.02 (-0.05, 0.1) |
| 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 | 0.09 (0.01, 0.18) | 0.09 (0.01, 0.18) | 0.03 (-0.05, 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) | -0.09 (-0.23, 0.05) | -0.02 (-0.11, 0.08) | 0 (-0.12, 0.12) |
| At-risk vs Not at-risk | Positive | Placebo | Day 29 | Anti N IgG (IU/ml) | 0.15 (0, 0.29) | 0.12 (-0.01, 0.24) | 0.04 (-0.09, 0.18) |
| At-risk vs Not at-risk | Positive | Vaccine | Day 29 | Anti RBD IgG (IU/ml) | -0.01 (-0.07, 0) | 0 (0, 0) | 0 (0, 0) |
| At-risk vs Not at-risk | Positive | Placebo | Day 29 | Anti RBD IgG (IU/ml) | 0.06 (-0.02, 0.16) | 0 (0, 0) | 0 (-0.07, 0.09) |
| At-risk vs Not at-risk | Positive | Vaccine | Day 29 | Anti Spike IgG (IU/ml) | 0.01 (0, 0.08) | 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) | 0.05 (0.02, 0.12) | 0 (0, 0) | 0 (0, 0) |
| At-risk vs Not at-risk | Positive | Vaccine | Day 29 | Pseudovirus-nAb ID50 | 0.04 (-0.05, 0.13) | 0.01 (-0.06, 0.1) | 0.06 (-0.05, 0.19) |
| At-risk vs Not at-risk | Positive | Placebo | Day 29 | Pseudovirus-nAb ID50 | 0.06 (-0.06, 0.19) | 0.07 (-0.06, 0.19) | 0.15 (0, 0.29) |
| At-risk vs Not at-risk | Positive | Vaccine | Day 29 | Pseudovirus-nAb ID80 | 0.04 (-0.09, 0.18) | 0.03 (-0.1, 0.16) | 0.05 (-0.11, 0.2) |
| At-risk vs Not at-risk | Positive | Placebo | Day 29 | Pseudovirus-nAb ID80 | 0.15 (0.01, 0.29) | 0.16 (0.02, 0.3) | -0.03 (-0.14, 0.08) |
| At-risk vs Not at-risk | Negative | Vaccine | Day 57 | Anti N IgG (IU/ml) | 0.02 (-0.05, 0.09) | 0 (-0.04, 0.05) | -0.01 (-0.07, 0.04) |
| 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 (-0.03, 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 | 0.01 (0, 0.08) | 0.01 (0, 0.08) | 0 (0, 0) |
| At-risk vs Not at-risk | Negative | Vaccine | Day 57 | Pseudovirus-nAb ID80 | 0 (0, 0) | 0 (0, 0) | 0 (-0.03, 0.03) |
| At-risk vs Not at-risk | Negative | Placebo | Day 57 | Pseudovirus-nAb ID80 | 0 (-0.03, 0) | 0 (-0.03, 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) | 0.03 (-0.05, 0.12) | 0.01 (-0.06, 0.1) | 0.02 (-0.06, 0.11) |
| At-risk vs Not at-risk | Positive | Placebo | Day 57 | Anti N IgG (IU/ml) | 0.13 (0, 0.26) | 0.08 (-0.01, 0.19) | 0.08 (-0.03, 0.19) |
| At-risk vs Not at-risk | Positive | Vaccine | Day 57 | Anti RBD IgG (IU/ml) | 0 (0, 0) | 0 (0, 0) | 0 (0, 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 (0, 0) |
| 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, 0) |

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) | -0.01 (-0.12, 0.09) | 0.01 (-0.07, 0.09) | 0.01 (-0.08, 0.1) |
| 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) | -0.01 (-0.05, 0.03) | 0 (0, 0) | 0 (-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) | -0.01 (-0.05, 0.03) | 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 | 0.06 (-0.01, 0.13) | 0.06 (-0.01, 0.13) | 0.01 (-0.09, 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 | 0.08 (-0.03, 0.19) | 0.08 (-0.03, 0.19) | 0.01 (-0.09, 0.1) |
| 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) | -0.15 (-0.32, 0.03) | -0.04 (-0.16, 0.08) | -0.03 (-0.18, 0.12) |

(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) | 0.14 (-0.05, 0.31) | 0.13 (-0.03, 0.28) | 0.03 (-0.14, 0.2) |
| Age < 65 At-risk vs Age < 65 Not at-risk | Positive | Vaccine | Day 29 | Anti RBD IgG (IU/ml) | -0.01 (-0.1, 0) | 0 (0, 0) | 0 (0, 0) |
| Age < 65 At-risk vs Age < 65 Not at-risk | Positive | Placebo | Day 29 | Anti RBD IgG (IU/ml) | 0.07 (-0.04, 0.19) | 0 (0, 0) | 0 (-0.11, 0.11) |
| Age < 65 At-risk vs Age < 65 Not at-risk | Positive | Vaccine | Day 29 | Anti Spike IgG (IU/ml) | 0.01 (0, 0.09) | 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) | 0.06 (0.02, 0.15) | 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 (-0.07, 0.15) | 0.01 (-0.08, 0.12) | 0.07 (-0.09, 0.22) |
| Age < 65 At-risk vs Age < 65 Not at-risk | Positive | Placebo | Day 29 | Pseudovirus-nAb ID50 | 0.05 (-0.11, 0.21) | 0.05 (-0.11, 0.21) | 0.15 (-0.04, 0.32) |
| Age < 65 At-risk vs Age < 65 Not at-risk | Positive | Vaccine | Day 29 | Pseudovirus-nAb ID80 | 0.02 (-0.15, 0.19) | 0 (-0.17, 0.17) | 0.02 (-0.17, 0.21) |
| Age < 65 At-risk vs Age < 65 Not at-risk | Positive | Placebo | Day 29 | Pseudovirus-nAb ID80 | 0.19 (0.01, 0.35) | 0.22 (0.03, 0.38) | -0.04 (-0.18, 0.1) |
| Age < 65 At-risk vs Age < 65 Not at-risk | Negative | Vaccine | Day 57 | Anti N IgG (IU/ml) | 0 (-0.09, 0.09) | -0.01 (-0.07, 0.05) | -0.03 (-0.1, 0.04) |
| 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) | -0.01 (-0.05, 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 (0, 0) | 0 (0, 0) | 0 (-0.04, 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 (-0.08, 0.14) | 0.01 (-0.08, 0.12) | 0.02 (-0.09, 0.13) |
| Age < 65 At-risk vs Age < 65 Not at-risk | Positive | Placebo | Day 57 | Anti N IgG (IU/ml) | 0.15 (-0.02, 0.3) | 0.09 (-0.04, 0.21) | 0.08 (-0.06, 0.22) |
| 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 (0, 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) |

(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 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 (0, 0) |
| 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, 0) |

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 (-0.11, 0.06) | 0 (-0.05, 0.04) | -0.01 (-0.07, 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 (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 | 0.01 (-0.02, 0.04) | 0.01 (-0.02, 0.04) | -0.02 (-0.08, 0.04) |
| 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 | 0.04 (-0.05, 0.12) | 0.04 (-0.05, 0.12) | 0.02 (-0.08, 0.12) |
| 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) | -0.01 (-0.13, 0.11) | 0 (0, 0) | 0.05 (0.02, 0.15) |

(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) | 0.04 (-0.12, 0.19) | -0.02 (-0.12, 0.08) | 0 (-0.13, 0.12) |
| 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 (0, 0) |
| Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk | Positive | 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 | 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 (0, 0) | 0 (0, 0) | -0.02 (-0.14, 0) |
| Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk | Positive | Placebo | Day 29 | Pseudovirus-nAb ID50 | 0.01 (-0.1, 0.11) | 0.02 (-0.08, 0.12) | 0.02 (-0.12, 0.16) |
| Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk | Positive | Vaccine | Day 29 | Pseudovirus-nAb ID80 | 0.06 (-0.09, 0.2) | 0.06 (-0.08, 0.19) | 0.09 (-0.09, 0.27) |
| Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk | Positive | Placebo | Day 29 | Pseudovirus-nAb ID80 | -0.1 (-0.27, 0.08) | -0.12 (-0.28, 0.06) | -0.06 (-0.21, 0.11) |
| Age ≥ 65 At-risk vs Age ≥ 65 Not at-risk | Negative | Vaccine | Day 57 | Anti N IgG (IU/ml) | 0.01 (-0.04, 0.06) | 0 (-0.03, 0.03) | 0.01 (-0.03, 0.04) |
| 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 \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 | 0.03 (0, 0.21) | 0.03 (0, 0.21) | 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 (0, 0) |
| Age \geq 65 At-risk vs Age \geq 65 Not at-risk | Negative | Placebo | Day 57 | Pseudovirus-nAb ID80 | -0.02 (-0.17, 0) | -0.02 (-0.17, 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 (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 N IgG (IU/ml) | -0.01 (-0.13, 0.11) | 0.03 (0.01, 0.13) | 0.03 (-0.08, 0.13) |
| 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) | 0.01 (-0.08, 0.1) | -0.01 (-0.08, 0.05) | -0.02 (-0.1, 0.05) |
| 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) | 0.01 (-0.02, 0.04) | 0 (0, 0) | 0 (0, 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) | -0.01 (-0.05, 0.01) | 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 | -0.01 (-0.07, 0.06) | -0.01 (-0.07, 0.06) | 0.01 (-0.07, 0.09) |
| 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 | -0.06 (-0.15, 0.03) | -0.06 (-0.15, 0.03) | -0.01 (-0.09, 0.07) |
| 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) | -0.04 (-0.19, 0.1) | -0.03 (-0.14, 0.06) | 0 (-0.13, 0.12) |
| Male vs Female | Positive | Placebo | Day 29 | Anti N IgG (IU/ml) | -0.04 (-0.2, 0.12) | -0.09 (-0.24, 0.05) | -0.11 (-0.25, 0.04) |
| Male vs Female | Positive | Vaccine | Day 29 | Anti RBD IgG (IU/ml) | 0.01 (0, 0.04) | 0 (0, 0) | 0 (0, 0) |
| Male vs Female | Positive | Placebo | Day 29 | Anti RBD IgG (IU/ml) | 0.06 (-0.07, 0.16) | 0 (0, 0) | 0.03 (0.01, 0.11) |
| Male vs Female | Positive | Vaccine | Day 29 | Anti Spike IgG (IU/ml) | -0.02 (-0.11, 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) | -0.04 (-0.14, 0.04) | 0 (0, 0) | 0 (0, 0) |
| Male vs Female | Positive | Vaccine | Day 29 | Pseudovirus-nAb ID50 | 0.01 (-0.12, 0.1) | 0.02 (0.01, 0.11) | -0.07 (-0.22, 0.06) |
| Male vs Female | Positive | Placebo | Day 29 | Pseudovirus-nAb ID50 | -0.02 (-0.16, 0.12) | -0.02 (-0.16, 0.12) | -0.05 (-0.21, 0.11) |
| Male vs Female | Positive | Vaccine | Day 29 | Pseudovirus-nAb ID80 | -0.08 (-0.23, 0.07) | -0.13 (-0.28, 0.01) | -0.2 (-0.35, -0.03) |
| Male vs Female | Positive | Placebo | Day 29 | Pseudovirus-nAb ID80 | 0.03 (-0.11, 0.18) | 0.06 (-0.09, 0.22) | -0.04 (-0.15, 0.08) |
| Male vs Female | Negative | Vaccine | Day 57 | Anti N IgG (IU/ml) | 0.02 (-0.06, 0.1) | 0.01 (-0.04, 0.06) | 0.02 (-0.04, 0.07) |
| 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, 0.02) | 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 | -0.01 (-0.06, 0) | -0.01 (-0.06, 0) | 0 (0, 0) |
| Male vs Female | Negative | Vaccine | Day 57 | Pseudovirus-nAb ID80 | 0 (0, 0) | 0 (0, 0) | 0.01 (-0.01, 0.04) |
| Male vs Female | Negative | Placebo | Day 57 | Pseudovirus-nAb ID80 | -0.01 (-0.04, 0) | -0.01 (-0.04, 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) | -0.02 (-0.14, 0.07) | 0.02 (0.01, 0.11) | 0 (-0.12, 0.08) |
| Male vs Female | Positive | Placebo | Day 57 | Anti N IgG (IU/ml) | -0.07 (-0.21, 0.08) | -0.05 (-0.18, 0.06) | -0.05 (-0.19, 0.07) |
| Male vs Female | Positive | Vaccine | Day 57 | Anti RBD IgG (IU/ml) | 0 (0, 0) | 0 (0, 0) | 0 (0, 0) |
| 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 (0, 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 (0, 0) |

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) | 0.1 (-0.03, 0.21) | -0.03 (-0.16, 0.05) | 0.05 (-0.08, 0.14) |
| 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) | 0.02 (0.01, 0.04) | 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) | 0.01 (0, 0.03) | 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 (-0.1, 0.09) | 0.03 (-0.1, 0.09) | 0.02 (-0.12, 0.12) |
| 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 | 0.06 (-0.08, 0.18) | 0.06 (-0.08, 0.18) | 0.15 (0.02, 0.28) |
| 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) | -0.24 (-0.47, -0.02) | -0.04 (-0.26, 0.05) | -0.01 (-0.23, 0.11) |

(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) | -0.12 (-0.32, 0.1) | 0.08 (-0.16, 0.2) | 0.02 (-0.21, 0.18) |
| Hispanic or Latino vs Not Hispanic or Latino | Positive | Vaccine | Day 29 | Anti RBD IgG (IU/ml) | -0.04 (-0.28, -0.01) | 0 (0, 0) | 0 (0, 0) |
| Hispanic or Latino vs Not Hispanic or Latino | Positive | Placebo | Day 29 | Anti RBD IgG (IU/ml) | 0.06 (0.03, 0.14) | 0 (0, 0) | 0.02 (0, 0.07) |
| Hispanic or Latino vs Not Hispanic or Latino | Positive | Vaccine | Day 29 | Anti Spike IgG (IU/ml) | 0.01 (0, 0.05) | 0 (0, 0) | 0 (0, 0) |
| Hispanic or Latino vs Not Hispanic or Latino | Positive | Placebo | Day 29 | Anti Spike IgG (IU/ml) | -0.02 (-0.28, 0.05) | 0 (0, 0) | 0 (0, 0) |
| Hispanic or Latino vs Not Hispanic or Latino | Positive | Vaccine | Day 29 | Pseudovirus-nAb ID50 | 0.01 (-0.23, 0.08) | -0.03 (-0.27, 0.05) | -0.03 (-0.25, 0.11) |
| Hispanic or Latino vs Not Hispanic or Latino | Positive | Placebo | Day 29 | Pseudovirus-nAb ID50 | -0.01 (-0.25, 0.14) | -0.01 (-0.25, 0.14) | -0.06 (-0.28, 0.15) |
| Hispanic or Latino vs Not Hispanic or Latino | Positive | Vaccine | Day 29 | Pseudovirus-nAb ID80 | -0.09 (-0.33, 0.11) | -0.12 (-0.37, 0.07) | -0.06 (-0.28, 0.18) |
| Hispanic or Latino vs Not Hispanic or Latino | Positive | Placebo | Day 29 | Pseudovirus-nAb ID80 | -0.07 (-0.25, 0.16) | -0.08 (-0.27, 0.14) | 0.02 (-0.12, 0.25) |
| Hispanic or Latino vs Not Hispanic or Latino | Negative | Vaccine | Day 57 | Anti N IgG (IU/ml) | 0 (-0.14, 0.09) | 0.02 (-0.11, 0.06) | 0 (-0.12, 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, 0.01) | 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 (-0.03, 0) | 0 (-0.03, 0) | 0 (0, 0) |
| Hispanic or Latino vs Not Hispanic or Latino | Negative | Vaccine | Day 57 | Pseudovirus-nAb ID80 | 0 (0, 0) | 0 (0, 0) | 0 (-0.07, 0.02) |
| Hispanic or Latino vs Not Hispanic or Latino | Negative | Placebo | Day 57 | Pseudovirus-nAb ID80 | 0.03 (0, 0.23) | 0.03 (0, 0.23) | 0 (0, 0) |
| Hispanic or Latino vs Not Hispanic or Latino | Positive | Vaccine | Day 57 | Anti N IgG (IU/ml) | -0.09 (-0.38, 0.03) | -0.03 (-0.27, 0.05) | -0.1 (-0.39, 0.02) |
| Hispanic or Latino vs Not Hispanic or Latino | Positive | Placebo | Day 57 | Anti N IgG (IU/ml) | 0.05 (-0.19, 0.2) | 0 (-0.22, 0.1) | 0.06 (-0.17, 0.16) |
| 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) |
| 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 (0, 0) |
| 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 (0, 0) |

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) | 0.11 (0.02, 0.19) | 0.08 (0.02, 0.14) | 0.08 (0.01, 0.15) |
| 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) | 0.01 (-0.02, 0.04) | 0 (0, 0) | 0 (-0.02, 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) | 0.01 (-0.01, 0.04) | 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 | 0.08 (0.02, 0.14) | 0.08 (0.02, 0.14) | 0.08 (0, 0.15) |
| 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 | 0.09 (0, 0.18) | 0.09 (0, 0.18) | 0.05 (-0.03, 0.13) |
| 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) | -0.06 (-0.2, 0.08) | 0.01 (-0.08, 0.1) | 0.03 (-0.08, 0.15) |

(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 (-0.2, 0.11) | 0.07 (-0.07, 0.2) | 0.05 (-0.09, 0.19) |
| Communities of Color vs White Non-Hispanic | Positive | Vaccine | Day 29 | Anti RBD IgG (IU/ml) | -0.01 (-0.06, 0) | 0 (0, 0) | 0 (0, 0) |
| Communities of Color vs White Non-Hispanic | Positive | Placebo | Day 29 | Anti RBD IgG (IU/ml) | 0.08 (0, 0.19) | 0 (0, 0) | 0.01 (-0.05, 0.11) |
| Communities of Color vs White Non-Hispanic | Positive | Vaccine | Day 29 | Anti Spike IgG (IU/ml) | -0.02 (-0.11, 0) | 0 (0, 0) | 0 (0, 0) |
| Communities of Color vs White Non-Hispanic | Positive | Placebo | Day 29 | Anti Spike IgG (IU/ml) | -0.03 (-0.11, 0.08) | 0 (0, 0) | 0 (0, 0) |
| Communities of Color vs White Non-Hispanic | Positive | Vaccine | Day 29 | Pseudovirus-nAb ID50 | 0.04 (-0.05, 0.14) | 0.01 (-0.05, 0.11) | 0.07 (-0.06, 0.2) |
| Communities of Color vs White Non-Hispanic | Positive | Placebo | Day 29 | Pseudovirus-nAb ID50 | -0.03 (-0.17, 0.11) | -0.03 (-0.17, 0.11) | 0.06 (-0.1, 0.21) |
| Communities of Color vs White Non-Hispanic | Positive | Vaccine | Day 29 | Pseudovirus-nAb ID80 | 0.14 (0, 0.27) | 0.09 (-0.04, 0.23) | 0.05 (-0.11, 0.21) |
| Communities of Color vs White Non-Hispanic | Positive | Placebo | Day 29 | Pseudovirus-nAb ID80 | -0.03 (-0.18, 0.11) | -0.05 (-0.2, 0.1) | -0.03 (-0.15, 0.09) |
| Communities of Color vs White Non-Hispanic | Negative | Vaccine | Day 57 | Anti N IgG (IU/ml) | 0.05 (-0.02, 0.13) | 0.04 (0, 0.08) | 0.03 (-0.02, 0.09) |
| 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, 0.02) | 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 | -0.01 (-0.05, 0) | -0.01 (-0.05, 0) | 0 (0, 0) |
| Communities of Color vs White Non-Hispanic | Negative | Vaccine | Day 57 | Pseudovirus-nAb ID80 | 0 (0, 0) | 0 (0, 0) | 0.01 (-0.01, 0.04) |
| Communities of Color vs White Non-Hispanic | Negative | Placebo | Day 57 | Pseudovirus-nAb ID80 | 0.01 (0, 0.05) | 0.01 (0, 0.05) | 0 (0, 0) |
| Communities of Color vs White Non-Hispanic | Positive | Vaccine | Day 57 | Anti N IgG (IU/ml) | 0 (-0.09, 0.1) | 0.01 (-0.05, 0.11) | 0.02 (-0.07, 0.12) |
| Communities of Color vs White Non-Hispanic | Positive | Placebo | Day 57 | Anti N IgG (IU/ml) | 0.04 (-0.1, 0.19) | 0 (-0.12, 0.11) | 0.02 (-0.1, 0.15) |
| Communities of Color vs White Non-Hispanic | Positive | Vaccine | Day 57 | Anti RBD IgG (IU/ml) | 0 (0, 0) | 0 (0, 0) | 0 (0, 0) |
| 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 (0, 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 (0, 0) |

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

2.11 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 | | | | | | | |
|--------|------------------------|------------------------------|--|-------------------------------|-----|-----------------------------------|----------------------|----------------------|----------------------------------|
| | | Vaccine | | | | Placebo | | | |
| | | N | Resp rate | GMT/GMC | N | Resp rate | GMT/GMC | Resp Rate Difference | GMTR/GMCR |
| Day 29 | Anti N IgG (IU/ml) | 747 | 6899.3/11127 = 62.0% (57.4%, 66.4%) | 39.38 (33.04, 46.94) | 138 | 0/11103 = 0.0% (0.0%, 0.0%) | 0.05 (0.05, 0.05) | 0.62 (0.57, 0.66) | 840.26 (704.94, 1001.55) |
| Day 29 | Anti RBD IgG (IU/ml) | 747 | 10953.9/11127 = 98.4% (96.6%, 99.3%) | 476.21 (415.28, 546.08) | 138 | 0/11103 = 0.0% (0.0%, 0.0%) | 0.80 (0.80, 0.80) | 0.98 (0.97, 0.99) | 597.64 (521.17, 685.33) |
| Day 29 | Anti Spike IgG (IU/ml) | 747 | 11038.8/11127 = 99.2% (97.7%, 99.7%) | 266.96 (239.24, 297.88) | 138 | 0/11103 = 0.0% (0.0%, 0.0%) | 0.15 (0.15, 0.15) | 0.99 (0.98, 1) | 1735.75 (1555.55, 1936.82) |
| Day 29 | Pseudovirus-nAb ID50 | 747 | 9987.8/11127 = 89.8% (86.3%, 92.5%) | 17.38 (15.88, 19.02) | 138 | 0/11103 = 0.0% (0.0%, 0.0%) | 1.22 (1.20, 1.23) | 0.9 (0.86, 0.92) | 14.30 (13.06, 15.66) |
| Day 29 | Pseudovirus-nAb ID80 | 747 | 6579.2/11127 = 59.1% (54.6%, 63.5%) | 26.00 (24.01, 28.15) | 138 | 0/11103 = 0.0% (0.0%, 0.0%) | 7.51 (7.51, 7.51) | 0.59 (0.55, 0.64) | 3.46 (3.20, 3.75) |
| Day 57 | Anti N IgG (IU/ml) | 747 | 9051.8/11127 = 81.4% (77.3%, 84.8%) | 169.29 (138.13, 207.49) | 138 | 0/11103 = 0.0% (0.0%, 0.0%) | 0.05 (0.05, 0.05) | 0.81 (0.77, 0.85) | 3611.85 (2946.99, 4426.71) |
| Day 57 | Anti RBD IgG (IU/ml) | 747 | 11107.3/11127 = 99.8% (98.7%, 100.0%) | 4768.44 (4097.10, 5549.78) | 138 | 0/11103 = 0.0% (0.0%, 0.0%) | 0.80 (0.80, 0.80) | 1 (0.99, 1) | 5984.31 (5141.78, 6964.88) |
| Day 57 | Anti Spike IgG (IU/ml) | 747 | 11127/11127 = 100.0% (100.0%, 100.0%) | 3384.52 (2945.38, 3889.12) | 138 | 0/11103 = 0.0% (0.0%, 0.0%) | 0.15 (0.15, 0.15) | 1 (1, 1) | 22005.96 (19150.73, 25286.89) |
| Day 57 | Pseudovirus-nAb ID50 | 747 | 11127/11127 = 100.0% (100.0%, 100.0%) | 427.80 (384.20, 476.35) | 138 | 47.7/11103 = 0.4% (0.1%, 3.0%) | 1.25 (1.21, 1.28) | 1 (0.97, 1) | 343.51 (307.33, 383.95) |

| | | | | | | | | | |
|-----------|----------------------|-----|--|----------------------------|-----|-----------------------------------|----------------------|----------------|-------------------------|
| Day 57 | Pseudovirus-nAb ID80 | 747 | 11127/11127 = 100.0% (100.0%, 100.0%) | 565.58 (512.62, 624.02) | 138 | 32.8/11103 = 0.3% (0.0%, 2.1%) | 7.54 (7.49, 7.58) | 1 (0.98, 1) | 75.06 (68.02, 82.83) |
|-----------|----------------------|-----|--|----------------------------|-----|-----------------------------------|----------------------|----------------|-------------------------|

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



2.12 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 | | | | | | Comparison | |
|--------|------------------------|------------------------------|--|----------------------------------|-----------|--|-------------------------------|-----------------------|----------------------|
| | | Vaccine | | | Placebo | | | Resp Rate Difference | GMTR/GMCR |
| | N | Resp rate | GMT/GMC | N | Resp rate | GMT/GMC | | | |
| Day 29 | Anti N IgG (IU/ml) | 234 | 940.6/1234 = 76.2% (68.6%, 82.5%) | 81.71 (61.73, 108.16) | 241 | 602.3/1125 = 53.5% (45.7%, 61.2%) | 27.27 (20.41, 36.44) | 0.23 (0.12, 0.33) | 3.00 (2.00, 4.48) |
| Day 29 | Anti RBD IgG (IU/ml) | 234 | 1229.4/1234 = 99.6% (97.4%, 99.9%) | 842.22 (650.71, 1090.08) | 241 | 1064/1125 = 94.6% (88.4%, 97.6%) | 303.87 (230.21, 401.11) | 0.05 (0.01, 0.11) | 2.77 (1.90, 4.05) |
| Day 29 | Anti Spike IgG (IU/ml) | 234 | 1225.4/1234 = 99.3% (95.1%, 99.9%) | 473.58 (396.77, 565.26) | 241 | 1090.8/1125 = 97.0% (92.1%, 98.9%) | 169.66 (136.33, 211.14) | 0.02 (-0.02, 0.07) | 2.79 (2.11, 3.70) |
| Day 29 | Pseudovirus-nAb ID50 | 234 | 1174.4/1234 = 95.2% (89.1%, 97.9%) | 32.67 (28.06, 38.03) | 241 | 887.2/1125 = 78.9% (71.2%, 84.9%) | 11.38 (9.63, 13.45) | 0.16 (0.08, 0.24) | 2.87 (2.29, 3.60) |
| Day 29 | Pseudovirus-nAb ID80 | 234 | 915.8/1234 = 74.2% (66.2%, 80.9%) | 51.20 (44.63, 58.75) | 241 | 443.5/1125 = 39.4% (32.4%, 46.9%) | 20.22 (17.73, 23.07) | 0.35 (0.24, 0.44) | 2.53 (2.09, 3.06) |
| Day 57 | Anti N IgG (IU/ml) | 234 | 1179.1/1234 = 95.5% (89.9%, 98.1%) | 648.88 (451.21, 933.14) | 241 | 863.2/1125 = 76.7% (68.9%, 83.0%) | 133.24 (92.21, 192.52) | 0.19 (0.1, 0.27) | 4.87 (2.90, 8.17) |
| Day 57 | Anti RBD IgG (IU/ml) | 234 | 1234/1234 = 100.0% (100.0%, 100.0%) | 16689.18 (12811.64, 21740.29) | 241 | 1125/1125 = 100.0% (100.0%, 100.0%) | 3052.94 (2308.16, 4038.04) | 0 (0, 0) | 5.47 (3.72, 8.03) |
| Day 57 | Anti Spike IgG (IU/ml) | 234 | 1234/1234 = 100.0% (100.0%, 100.0%) | 10741.38 (8558.81, 13480.53) | 241 | 1125/1125 = 100.0% (100.0%, 100.0%) | 2310.36 (1764.78, 3024.62) | 0 (0, 0) | 4.65 (3.27, 6.61) |
| Day 57 | Pseudovirus-nAb ID50 | 234 | 1234/1234 = 100.0% (100.0%, 100.0%) | 1256.68 (1017.71, 1551.75) | 241 | 1125/1125 = 100.0% (100.0%, 100.0%) | 309.33 (255.18, 374.97) | 0 (0, 0) | 4.06 (3.05, 5.40) |

| | | | | | | | | | |
|-----------|----------------------|-----|--|-------------------------------|-----|--|----------------------------|-------------|----------------------|
| Day 57 | Pseudovirus-nAb ID80 | 234 | 1234/1234 = 100.0% (100.0%, 100.0%) | 1561.17 (1336.08, 1824.18) | 241 | 1125/1125 = 100.0% (100.0%, 100.0%) | 456.31 (389.81, 534.14) | 0 (0, 0) | 3.42 (2.74, 4.27) |
|-----------|----------------------|-----|--|-------------------------------|-----|--|----------------------------|-------------|----------------------|

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



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

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

| Visit | Marker | Vaccine Recipients | | | | | | | |
|--------|------------------------|------------------------------|--|----------------------------------|-----|--|-------------------------------|-----------------------|----------------------|
| | | Baseline SARS-CoV-2 Positive | | | | Baseline SARS-CoV-2 Negative | | | Comparison |
| | | N | Resp rate | GMT/GMC | N | Resp rate | GMT/GMC | Resp Rate Difference | GMTR/GMCR |
| Day 29 | Anti N IgG (IU/ml) | 234 | 940.6/1234 = 76.2% (68.6%, 82.5%) | 81.71 (61.73, 108.16) | 747 | 6899.3/11127 = 62.0% (57.4%, 66.4%) | 39.38 (33.04, 46.94) | 0.14 (0.05, 0.22) | 2.07 (1.49, 2.89) |
| Day 29 | Anti RBD IgG (IU/ml) | 234 | 1229.4/1234 = 99.6% (97.4%, 99.9%) | 842.22 (650.71, 1090.08) | 747 | 10953.9/11127 = 98.4% (96.6%, 99.3%) | 476.21 (415.28, 546.08) | 0.01 (-0.01, 0.03) | 1.77 (1.32, 2.37) |
| Day 29 | Anti Spike IgG (IU/ml) | 234 | 1225.4/1234 = 99.3% (95.1%, 99.9%) | 473.58 (396.77, 565.26) | 747 | 11038.8/11127 = 99.2% (97.7%, 99.7%) | 266.96 (239.24, 297.88) | 0 (-0.04, 0.02) | 1.77 (1.44, 2.18) |
| Day 29 | Pseudovirus-nAb ID50 | 234 | 1174.4/1234 = 95.2% (89.1%, 97.9%) | 32.67 (28.06, 38.03) | 747 | 9987.8/11127 = 89.8% (86.3%, 92.5%) | 17.38 (15.88, 19.02) | 0.05 (-0.01, 0.1) | 1.88 (1.58, 2.24) |
| Day 29 | Pseudovirus-nAb ID80 | 234 | 915.8/1234 = 74.2% (66.2%, 80.9%) | 51.20 (44.63, 58.75) | 747 | 6579.2/11127 = 59.1% (54.6%, 63.5%) | 26.00 (24.01, 28.15) | 0.15 (0.06, 0.23) | 1.97 (1.68, 2.31) |
| Day 57 | Anti N IgG (IU/ml) | 234 | 1179.1/1234 = 95.5% (89.9%, 98.1%) | 648.88 (451.21, 933.14) | 747 | 9051.8/11127 = 81.4% (77.3%, 84.8%) | 169.29 (138.13, 207.49) | 0.14 (0.08, 0.19) | 3.83 (2.53, 5.81) |
| Day 57 | Anti RBD IgG (IU/ml) | 234 | 1234/1234 = 100.0% (100.0%, 100.0%) | 16689.18 (12811.64, 21740.29) | 747 | 11107.3/11127 = 99.8% (98.7%, 100.0%) | 4768.44 (4097.10, 5549.78) | 0 (0, 0.01) | 3.50 (2.58, 4.75) |
| Day 57 | Anti Spike IgG (IU/ml) | 234 | 1234/1234 = 100.0% (100.0%, 100.0%) | 10741.38 (8558.81, 13480.53) | 747 | 11127/11127 = 100.0% (100.0%, 100.0%) | 3384.52 (2945.38, 3889.12) | 0 (0, 0) | 3.17 (2.43, 4.14) |
| Day 57 | Pseudovirus-nAb ID50 | 234 | 1234/1234 = 100.0% (100.0%, 100.0%) | 1256.68 (1017.71, 1551.75) | 747 | 11127/11127 = 100.0% (100.0%, 100.0%) | 427.80 (384.20, 476.35) | 0 (0, 0) | 2.94 (2.32, 3.72) |

| | | | | | | | | | |
|-----------|----------------------|-----|--|-------------------------------|-----|--|----------------------------|-------------|----------------------|
| Day 57 | Pseudovirus-nAb ID80 | 234 | 1234/1234 = 100.0% (100.0%, 100.0%) | 1561.17 (1336.08, 1824.18) | 747 | 11127/11127 = 100.0% (100.0%, 100.0%) | 565.58 (512.62, 624.02) | 0 (0, 0) | 2.76 (2.30, 3.32) |
|-----------|----------------------|-----|--|-------------------------------|-----|--|----------------------------|-------------|----------------------|

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



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

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

| Visit | Marker | Placebo 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) | 241 | 602.3/1125 = 53.5% (45.7%, 61.2%) | 27.27 (20.41, 36.44) | 138 | 0/11103 = 0.0% (0.0%, 0.0%) | 0.05 (0.05, 0.05) | 0.54 (0.46, 0.61) | 581.80 (435.39, 777.44) |
| Day 29 | Anti RBD IgG (IU/ml) | 241 | 1064/1125 = 94.6% (88.4%, 97.6%) | 303.87 (230.21, 401.11) | 138 | 0/11103 = 0.0% (0.0%, 0.0%) | 0.80 (0.80, 0.80) | 0.95 (0.88, 0.98) | 381.35 (288.91, 503.38) |
| Day 29 | Anti Spike IgG (IU/ml) | 241 | 1090.8/1125 = 97.0% (92.1%, 98.9%) | 169.66 (136.33, 211.14) | 138 | 0/11103 = 0.0% (0.0%, 0.0%) | 0.15 (0.15, 0.15) | 0.97 (0.92, 0.99) | 1103.13 (886.42, 1372.81) |
| Day 29 | Pseudovirus-nAb ID50 | 241 | 887.2/1125 = 78.9% (71.2%, 84.9%) | 11.38 (9.63, 13.45) | 138 | 0/11103 = 0.0% (0.0%, 0.0%) | 1.22 (1.20, 1.23) | 0.79 (0.71, 0.85) | 9.36 (7.92, 11.06) |
| Day 29 | Pseudovirus-nAb ID80 | 241 | 443.5/1125 = 39.4% (32.4%, 46.9%) | 20.22 (17.73, 23.07) | 138 | 0/11103 = 0.0% (0.0%, 0.0%) | 7.51 (7.51, 7.51) | 0.39 (0.32, 0.47) | 2.69 (2.36, 3.07) |
| Day 57 | Anti N IgG (IU/ml) | 241 | 863.2/1125 = 76.7% (68.9%, 83.0%) | 133.24 (92.21, 192.52) | 138 | 0/11103 = 0.0% (0.0%, 0.0%) | 0.05 (0.05, 0.05) | 0.77 (0.69, 0.83) | 2842.63 (1967.38, 4107.28) |
| Day 57 | Anti RBD IgG (IU/ml) | 241 | 1125/1125 = 100.0% (100.0%, 100.0%) | 3052.94 (2308.16, 4038.04) | 138 | 0/11103 = 0.0% (0.0%, 0.0%) | 0.80 (0.80, 0.80) | 1 (1, 1) | 3831.38 (2896.69, 5067.66) |
| Day 57 | Anti Spike IgG (IU/ml) | 241 | 1125/1125 = 100.0% (100.0%, 100.0%) | 2310.36 (1764.78, 3024.62) | 138 | 0/11103 = 0.0% (0.0%, 0.0%) | 0.15 (0.15, 0.15) | 1 (1, 1) | 15021.86 (11474.48, 19665.93) |
| Day 57 | Pseudovirus-nAb ID50 | 241 | 1125/1125 = 100.0% (100.0%, 100.0%) | 309.33 (255.18, 374.97) | 138 | 47.7/11103 = 0.4% (0.1%, 3.0%) | 1.25 (1.21, 1.28) | 1 (0.97, 1) | 248.39 (204.47, 301.74) |

| | | | | | | | | | |
|-----------|----------------------|-----|--|----------------------------|-----|-----------------------------------|----------------------|----------------|-------------------------|
| Day 57 | Pseudovirus-nAb ID80 | 241 | 1125/1125 = 100.0% (100.0%, 100.0%) | 456.31 (389.81, 534.14) | 138 | 32.8/11103 = 0.3% (0.0%, 2.1%) | 7.54 (7.49, 7.58) | 1 (0.98, 1) | 60.56 (51.73, 70.90) |
|-----------|----------------------|-----|--|----------------------------|-----|-----------------------------------|----------------------|----------------|-------------------------|

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



MOCK

Chapter 3

Graphical Description of Immunogenicity Data

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

3.1.1 Baseline SARS-CoV-2 Negative



Figure 3.1: Pair plots of D29 Ab markers: baseline negative vaccine arm



Figure 3.2: Pair plots of D57 Ab markers: baseline negative vaccine arm



Figure 3.3: Pair plots of D29 fold-rise over D1 Ab markers: baseline negative vaccine arm



Figure 3.4: Pair plots of D57 fold-rise over D1 Ab markers: baseline negative vaccine arm



Figure 3.5: Pair plots of D1, D29 and D57 Binding Antibody to Spike: baseline negative vaccine arm



Figure 3.6: Pair plots of D1, D29 and D57 Binding Antibody to RBD: baseline negative vaccine arm

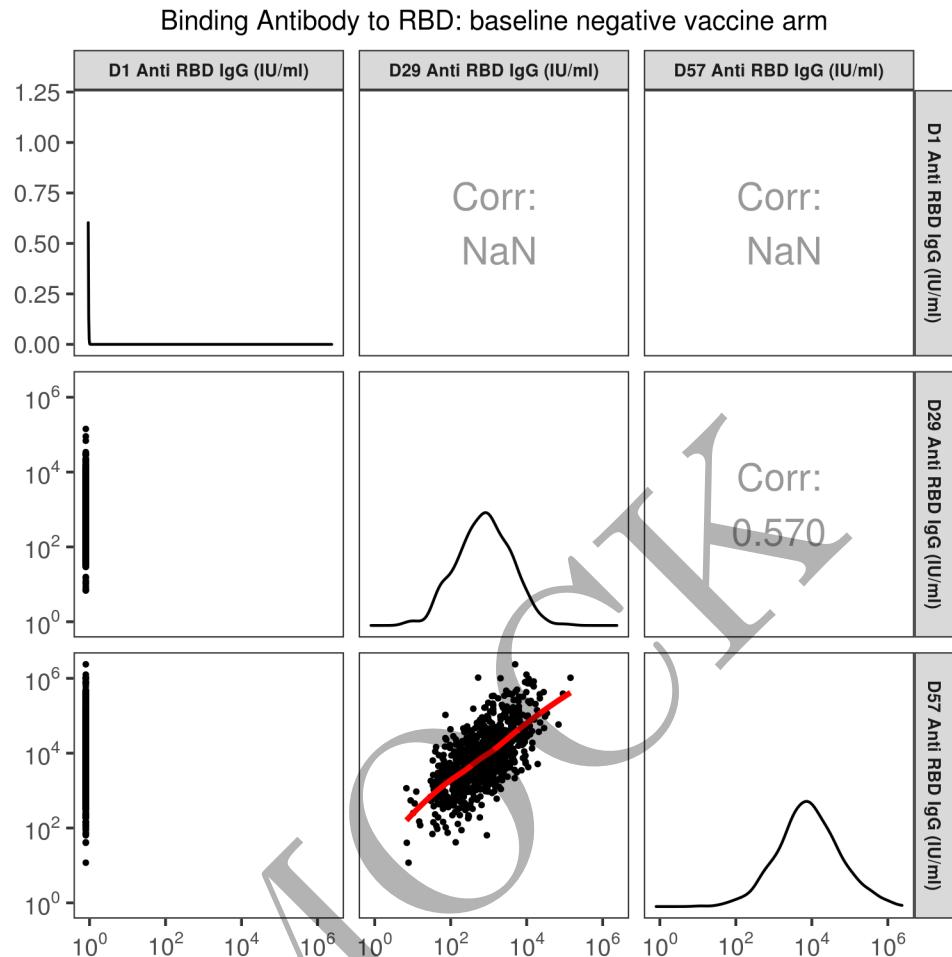


Figure 3.7: Pair plots of D1, D29 and D57 Binding Antibody to RBD: baseline negative vaccine arm



Figure 3.8: Pair plots of D1, D29 and D57 nAb Neutralization 50% Titer: baseline negative vaccine arm



Figure 3.9: Pair plots of D1, D29 and D57 nAb Neutralization 80% Titer: Baseline negative vaccine arm

3.1.2 Baseline SARS-CoV-2 Positive



Figure 3.10: Pair plots of D29 Ab markers: baseline positive vaccine arm



Figure 3.11: Pair plots of D57 Ab markers: baseline positive vaccine arm



Figure 3.12: Pair plots of D29 fold-rise over D1 Ab markers: baseline positive vaccine arm

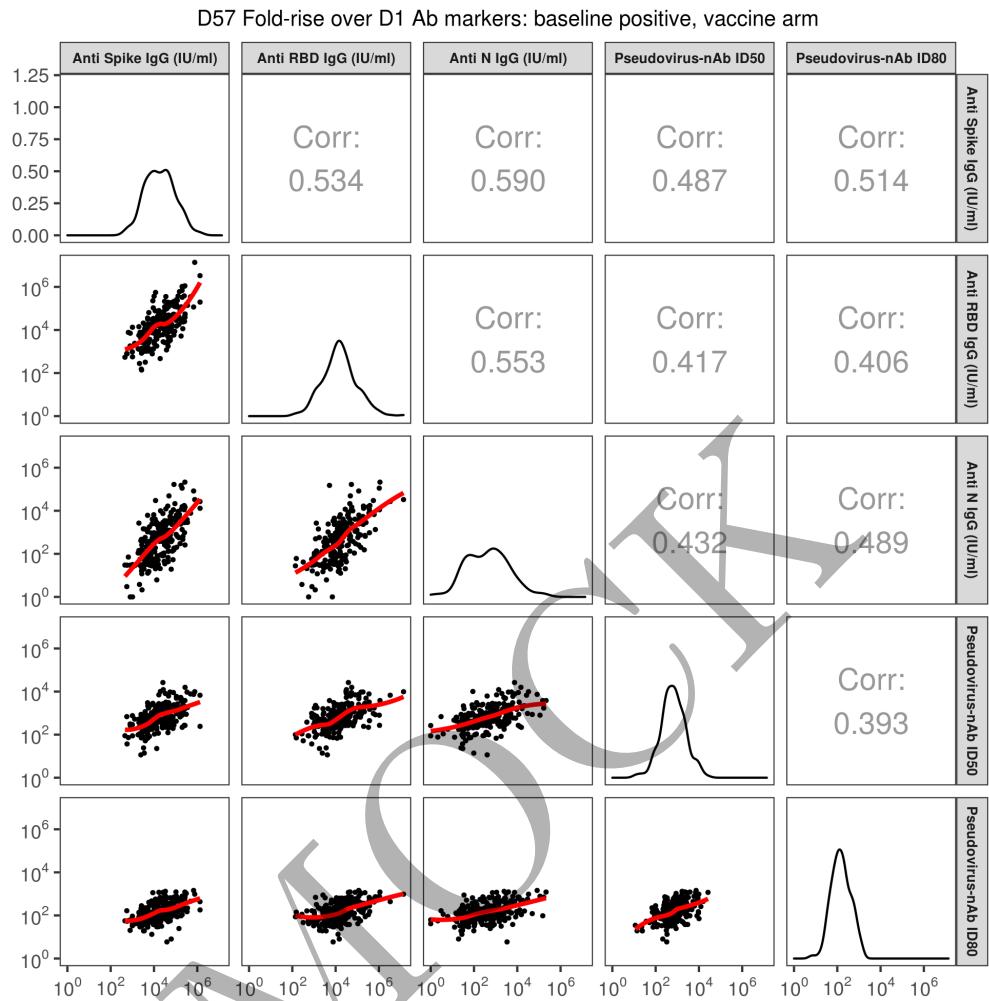


Figure 3.13: Pair plots of D57 fold-rise over D1 Ab markers: baseline positive vaccine arm

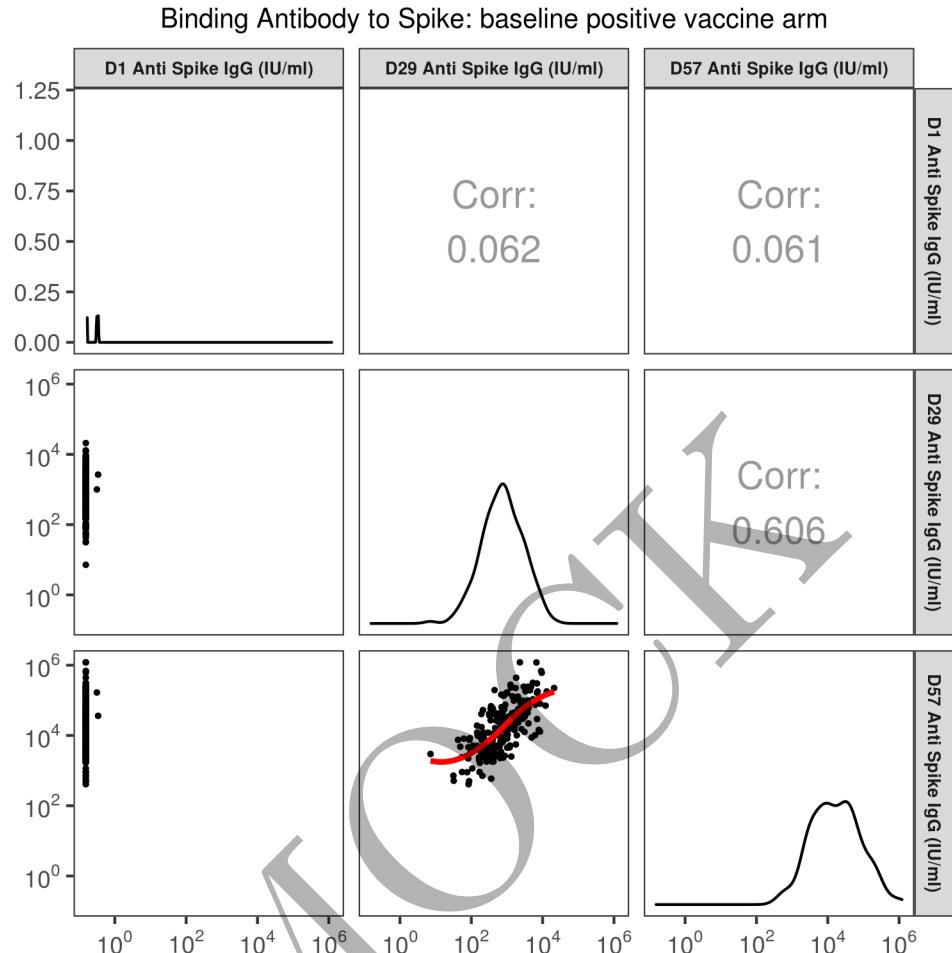


Figure 3.14: Pair plots of D1, D29 and D57 Binding Antibody to Spike: baseline positive vaccine arm



Figure 3.15: Pair plots of D1, D29 and D57 Binding Antibody to RBD: baseline positive vaccine arm



Figure 3.16: Pair plots of D1, D29 and D57 Binding Antibody to N: baseline positive vaccine arm

PsV Neutralization 50% Titer: baseline positive vaccine arm



Figure 3.17: Pair plots of D1, D29 and D57 nAb Neutralization 50% Titer: baseline positive vaccine arm



Figure 3.18: Pair plots of D1, D29 and D57 nAb Neutralization 80% Titer: Baseline positive vaccine arm

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



Figure 3.19: RCDF plots for D29 Ab markers: by baseline status x randomization arm



Figure 3.20: RCDF plots for D57 Ab markers: by baseline status x randomization arm

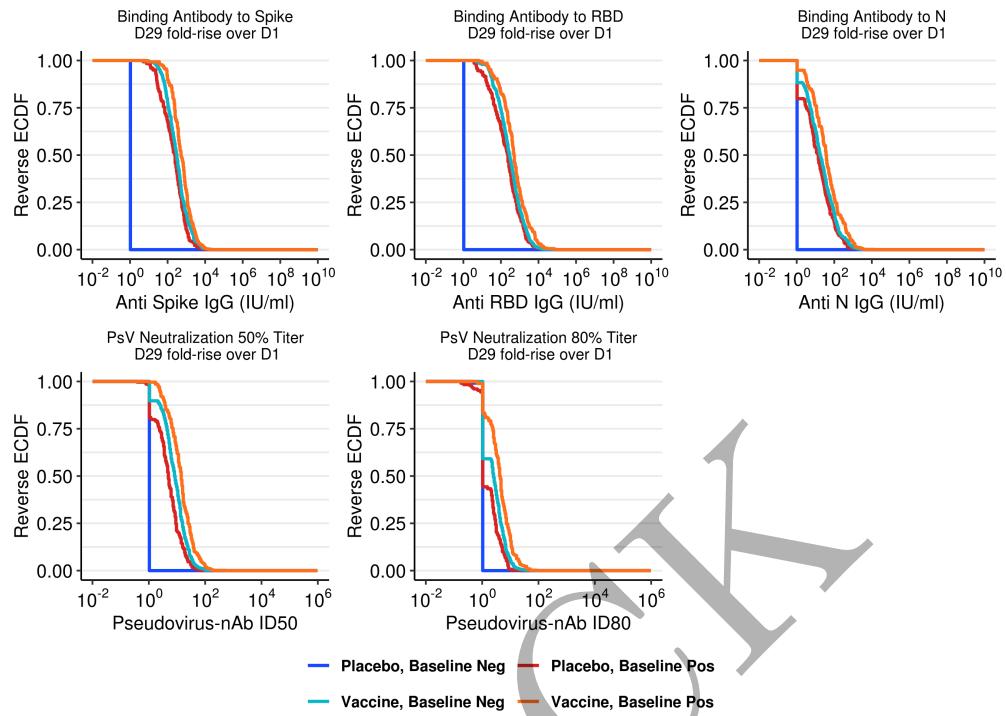


Figure 3.21: RCDF plots for D29 fold-rise over D1 Ab markers: by baseline status x randomization arm



Figure 3.22: RCDF plots for D57 fold-rise over D1 Ab markers: by baseline status x randomization arm

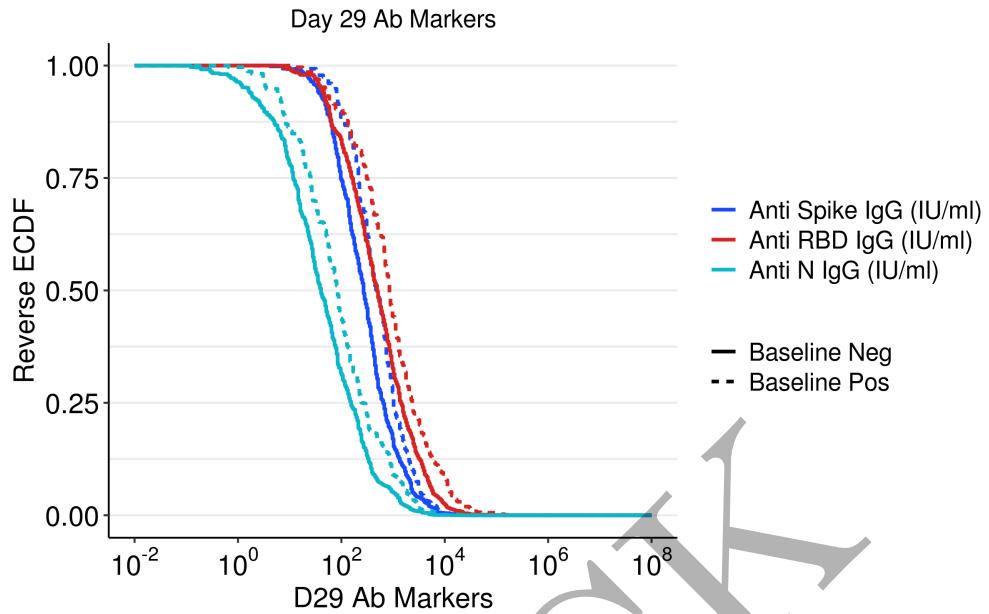


Figure 3.23: RCDF plots for D29 bAb markers: by baseline status for the vaccine arm

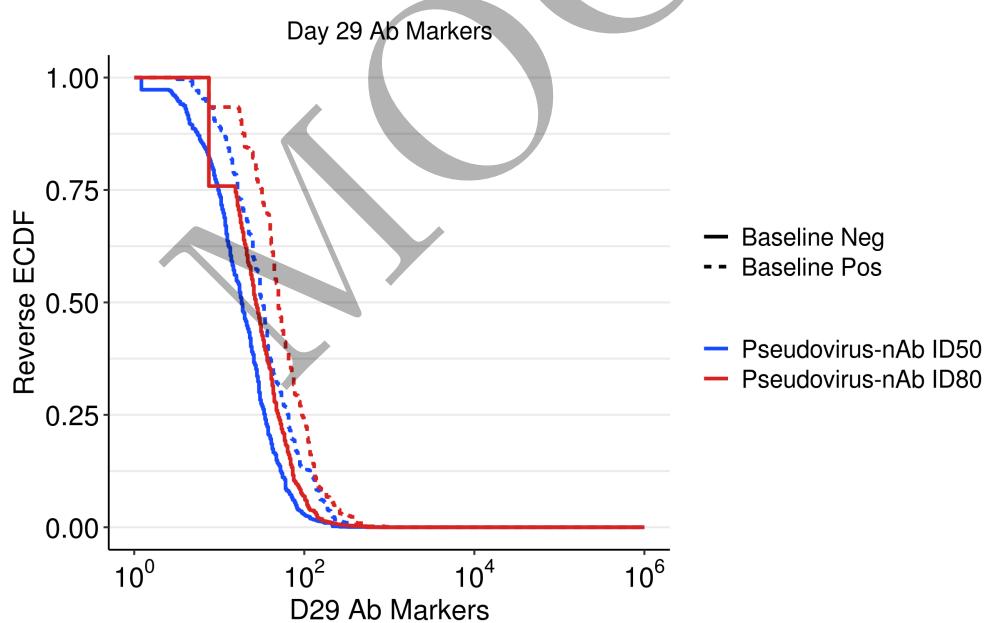


Figure 3.24: RCDF plots for D29 nAb markers: by baseline status for the vaccine arm

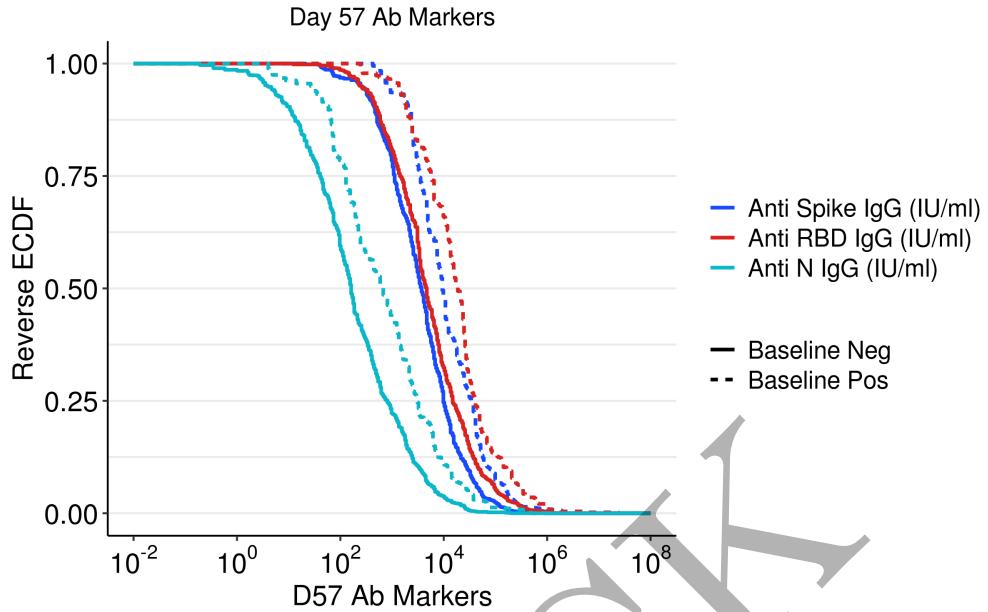


Figure 3.25: RCDF plots for D57 bAb markers: by baseline status for the vaccine arm

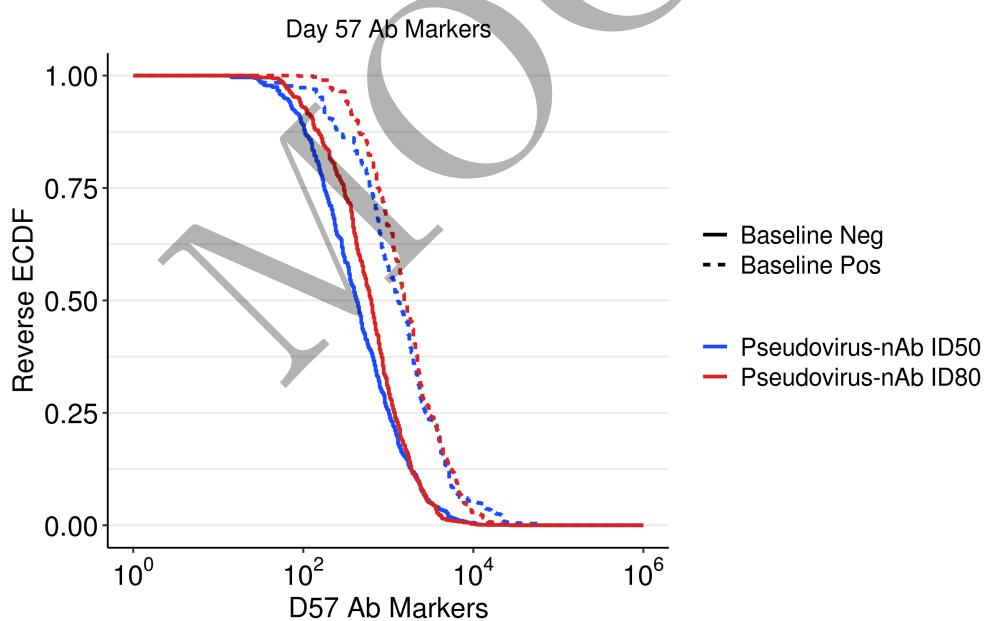


Figure 3.26: RCDF plots for D57 nAb markers: by baseline status for the vaccine arm

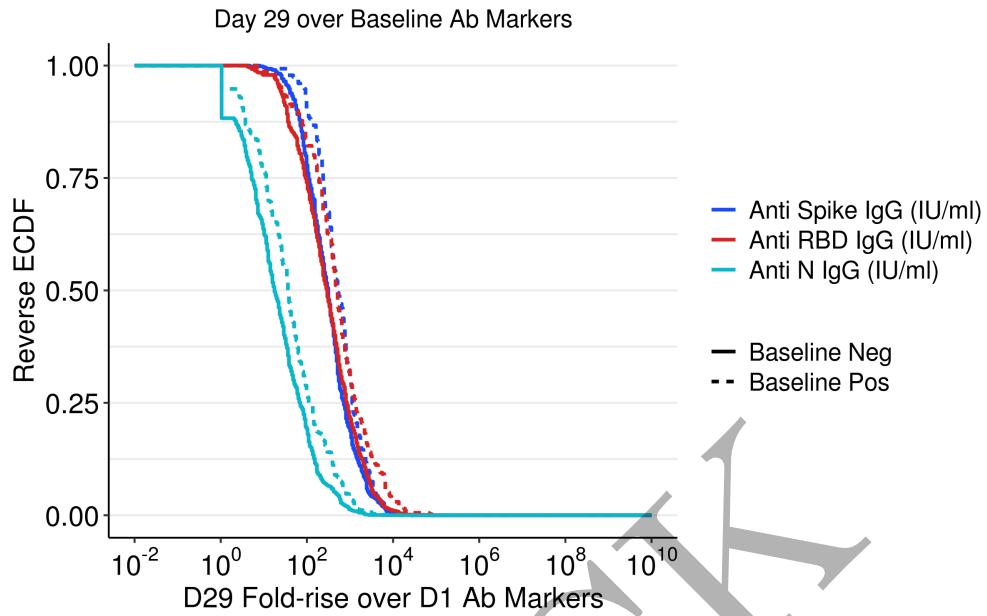


Figure 3.27: RCDF plots for D29 over D1 fold-rise bAb markers: by baseline status for the vaccine arm



Figure 3.28: RCDF plots for D29 over D1 fold-rise nAb markers: by baseline status for the vaccine arm



Figure 3.29: RCDF plots for D57 fold-rise over D1 bAb markers: by baseline status for the vaccine arm



Figure 3.30: RCDF plots for D57 fold-rise over D1 nAb markers: by baseline status for the vaccine arm

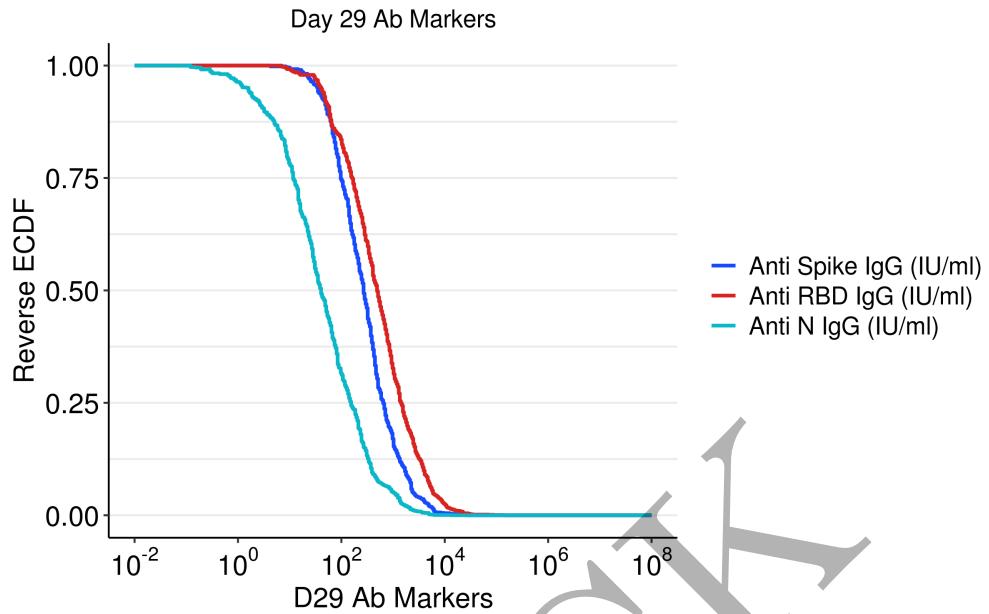


Figure 3.31: RCDF plots for D29 bAb markers: baseline negative vaccine arm

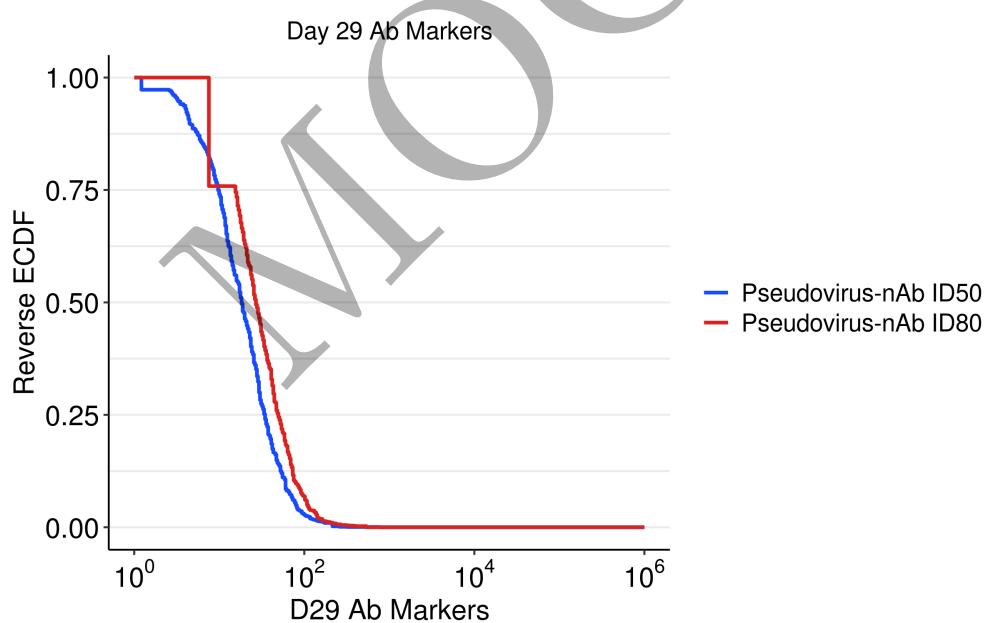


Figure 3.32: RCDF plots for D29 nAb markers: baseline negative vaccine arm

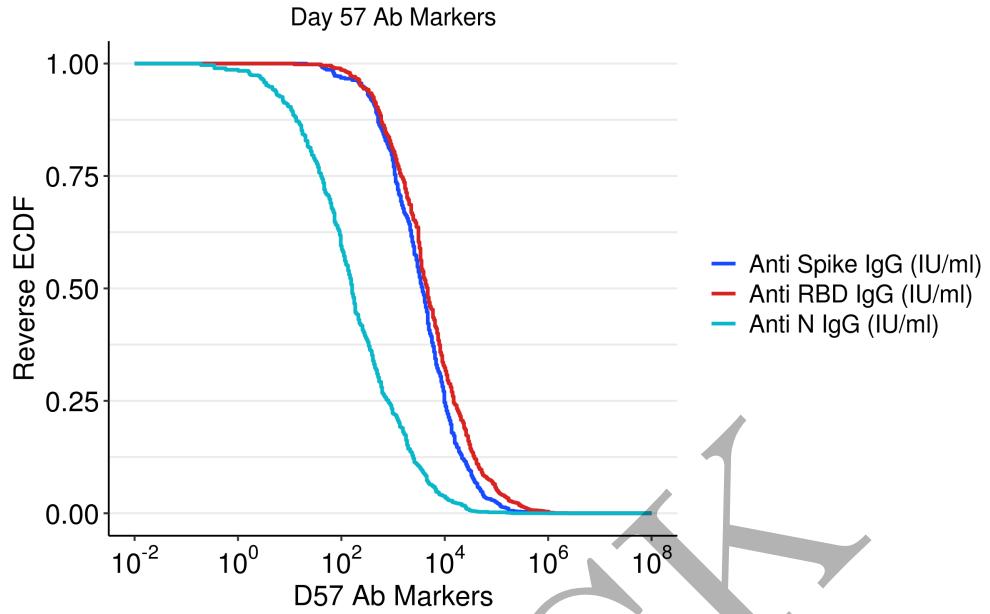


Figure 3.33: RCDF plots for D57 bAb markers: baseline negative vaccine arm

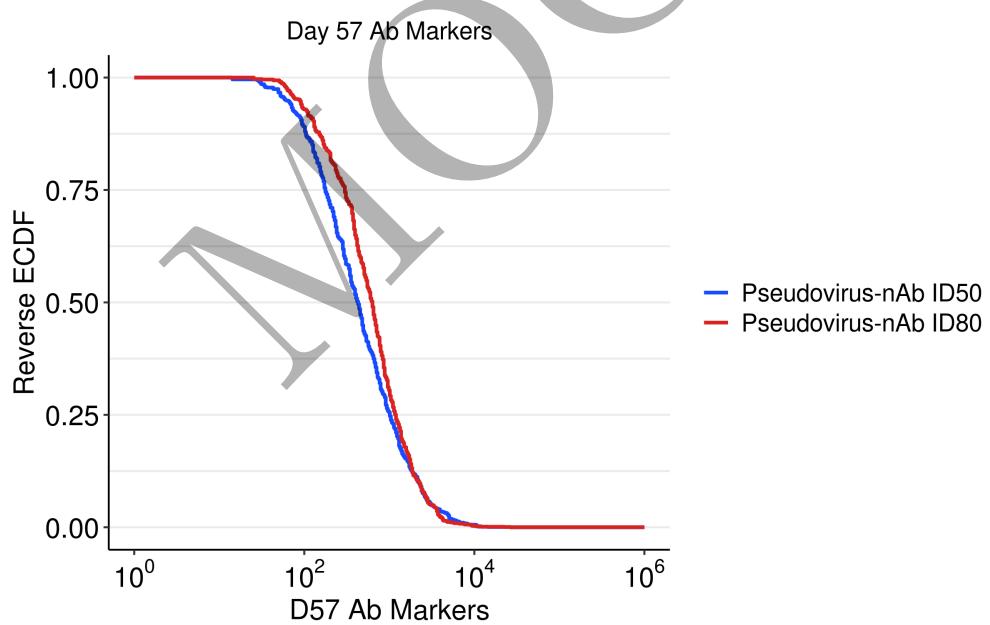


Figure 3.34: RCDF plots for D57 nAb markers: baseline negative vaccine arm



Figure 3.35: RCDF plots for D29 fold-rise over D1 bAb markers: baseline-negative vaccine arm

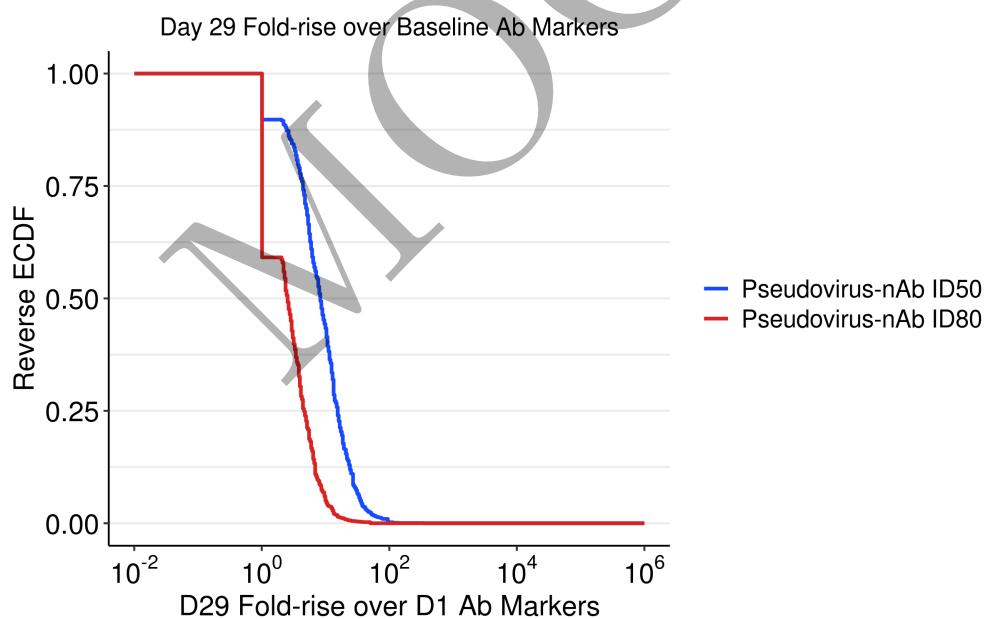


Figure 3.36: RCDF plots for D29 fold-rise over D1 nAb markers: baseline-negative vaccine arm



Figure 3.37: RCDF plots for D57 fold-rise over D1 bAb markers: baseline negative vaccine arm

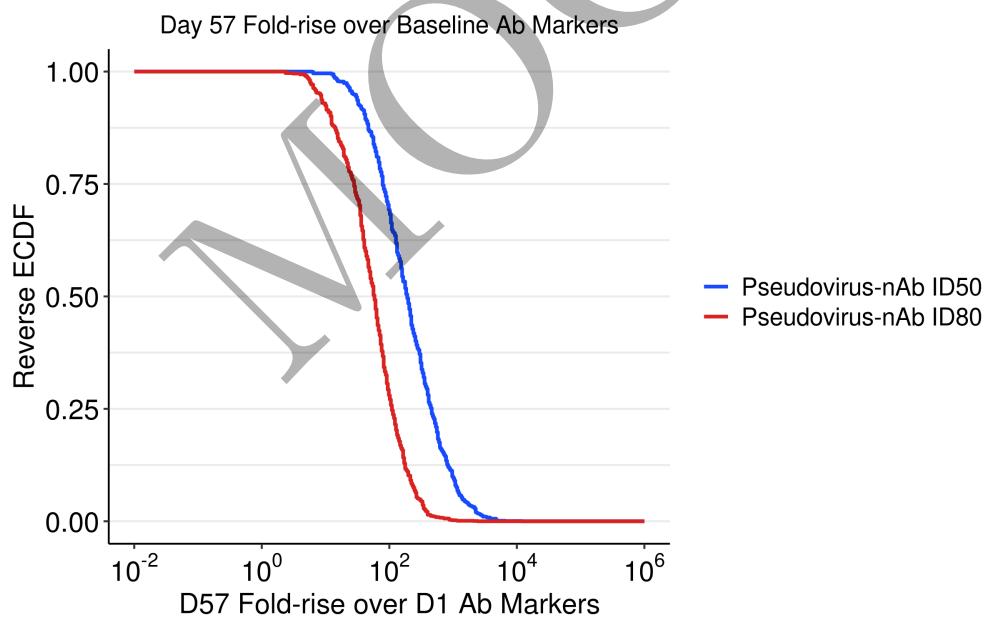


Figure 3.38: RCDF plots for D57 fold-rise over D1 nAb markers: baseline negative vaccine arm



Figure 3.39: RCDF plots for D29 bAb markers: baseline positive vaccine arm



Figure 3.40: RCDF plots for D29 nAb markers: baseline positive vaccine arm



Figure 3.41: RCDF plots for D57 bAb markers: baseline positive vaccine arm

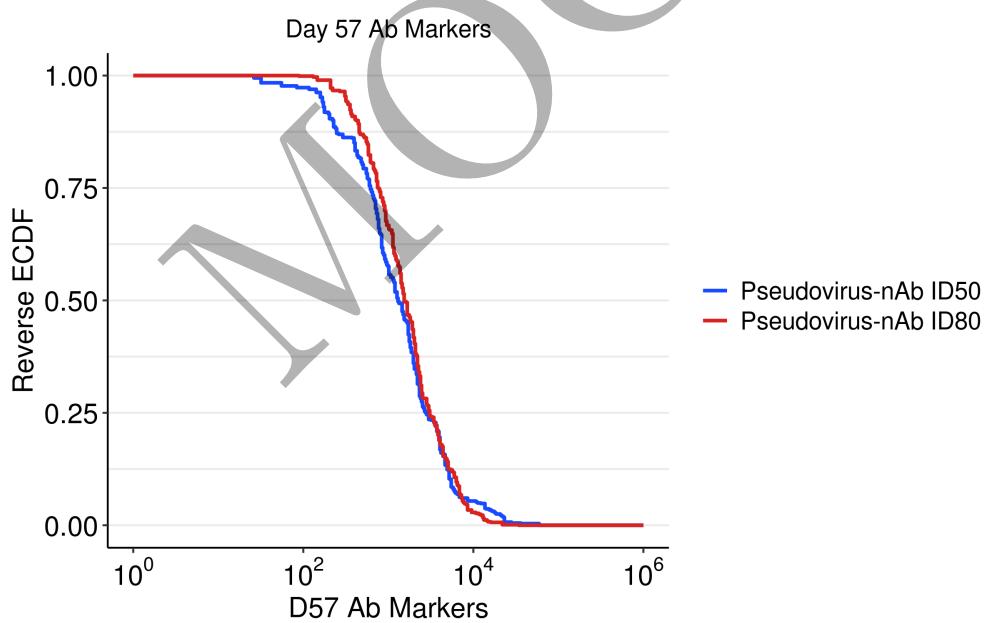


Figure 3.42: RCDF plots for D57 nAb markers: baseline positive vaccine arm



Figure 3.43: RCDF plots for D29 fold-rise over D1 bAb markers: baseline positive vaccine arm



Figure 3.44: RCDF plots for D29 fold-rise over D1 nAb markers: baseline positive vaccine arm



Figure 3.45: RCDF plots for D57 fold-rise over D1 bAb markers: baseline positive vaccine arm



Figure 3.46: RCDF plots for D57 fold-rise over D1 nAb markers: baseline positive vaccine arm

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

3.3.1 Baseline SARS-CoV-2 negative



Figure 3.47: Scatter plots for D29 Ab markers vs. age: baseline negative vaccine arm

3.3. SCATTER PLOTS OF ANTIBODY MARKERS VERSUS AGE FOR OVERALL PER-PROTOCOL COHORT527



Figure 3.48: Scatter plots for D57 Ab markers vs. age: baseline negative vaccine arm

3.3.2 Baseline SARS-CoV-2 positive

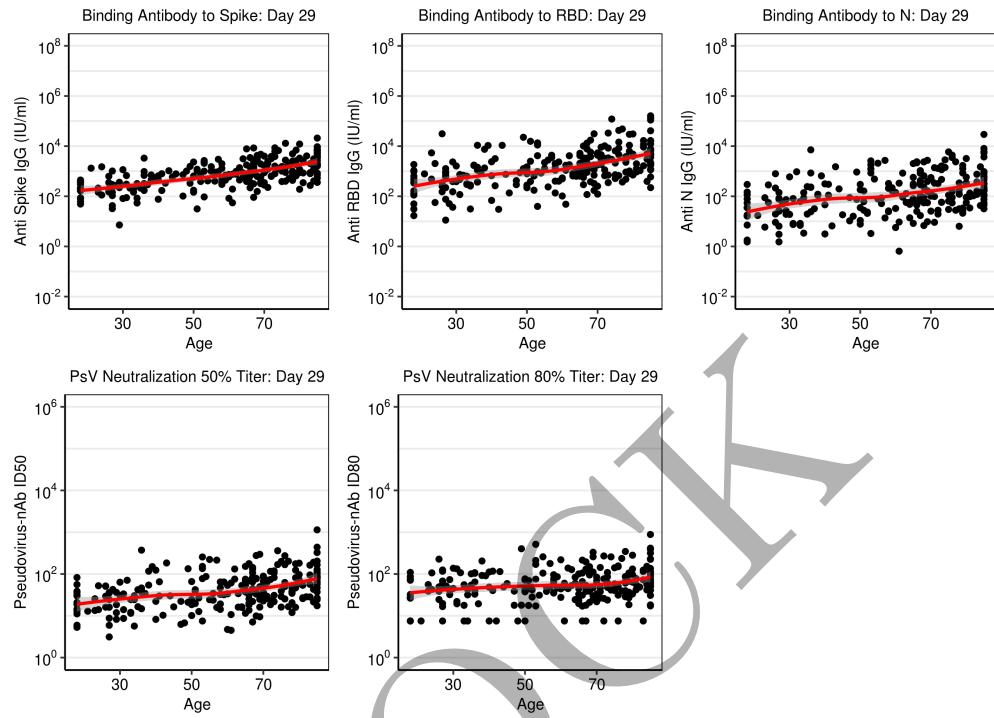


Figure 3.49: Scatter plots for D29 Ab markers vs. age: baseline positive vaccine arm

3.3. SCATTER PLOTS OF ANTIBODY MARKERS VERSUS AGE FOR OVERALL PER-PROTOCOL COHORT529

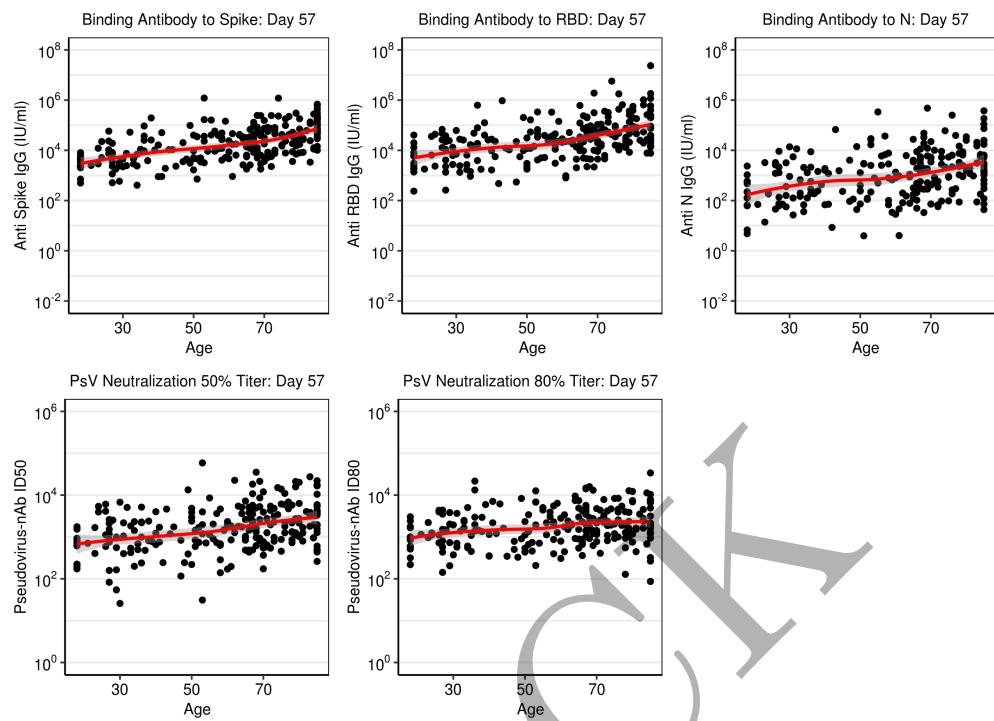


Figure 3.50: Scatter plots for D57 Ab markers vs. age: baseline positive vaccine arm

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

3.4.1 Baseline SARS-CoV-2 negative

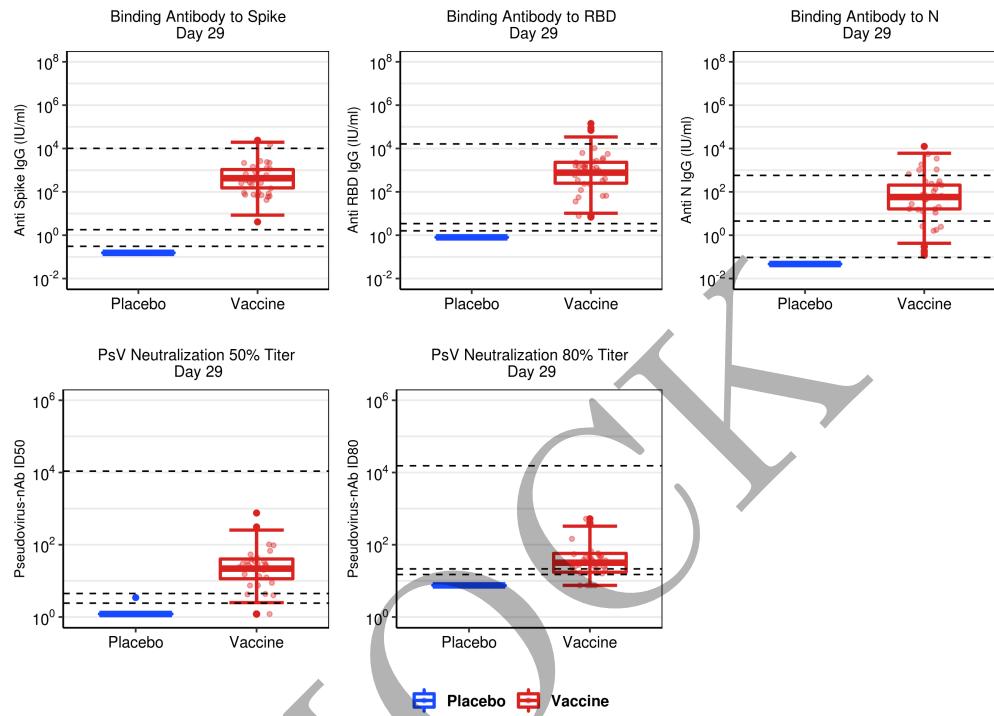


Figure 3.51: Boxplots of D29 Ab markers: baseline negative vaccine + placebo arms. The three dashed lines in each figure are ULOQ, LLOQ, and LLOD, from top to bottom respectively.

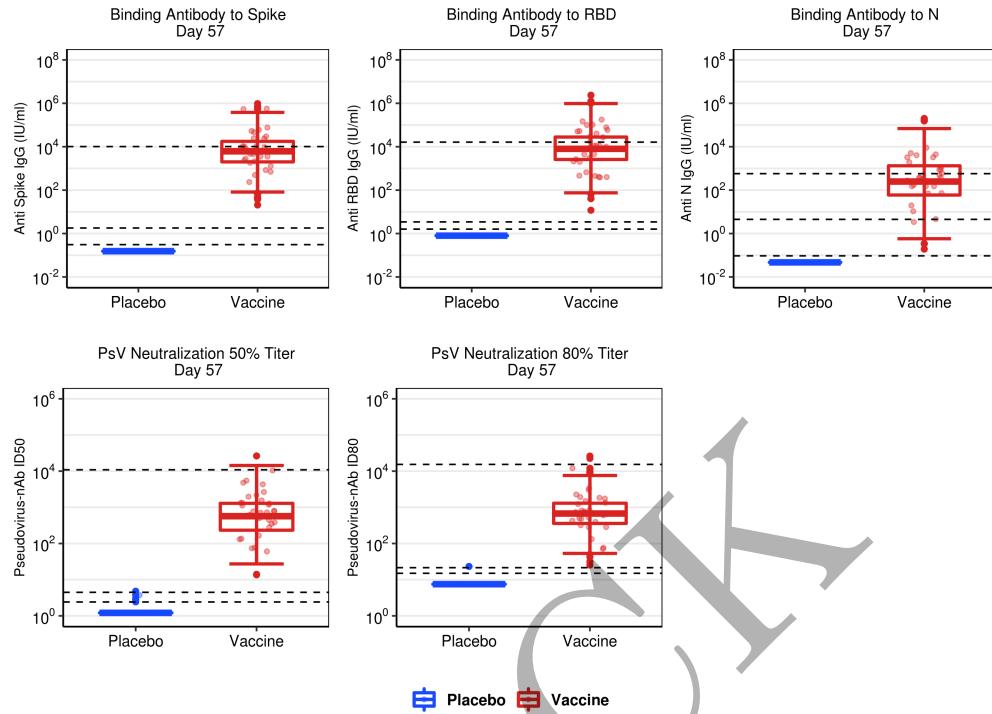


Figure 3.52: Boxplots of D57 Ab markers: baseline negative vaccine + placebo arms. The three dashed lines in each figure are ULOQ, LLOQ, and LLOD, from top to bottom respectively.



Figure 3.53: Boxplots of D29 fold-rise over D1 Ab markers: baseline negative vaccine + placebo arms

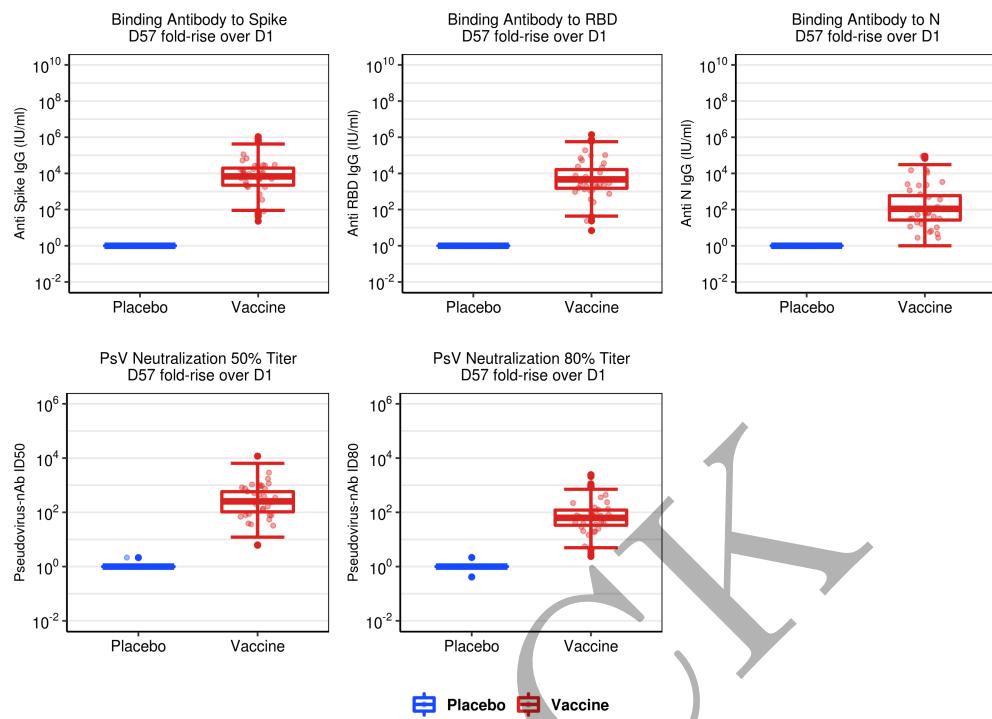


Figure 3.54: Boxplots of D57 fold-rise over D1 Ab markers: baseline negative vaccine + placebo arms

3.4.2 Baseline SARS-CoV-2 positive

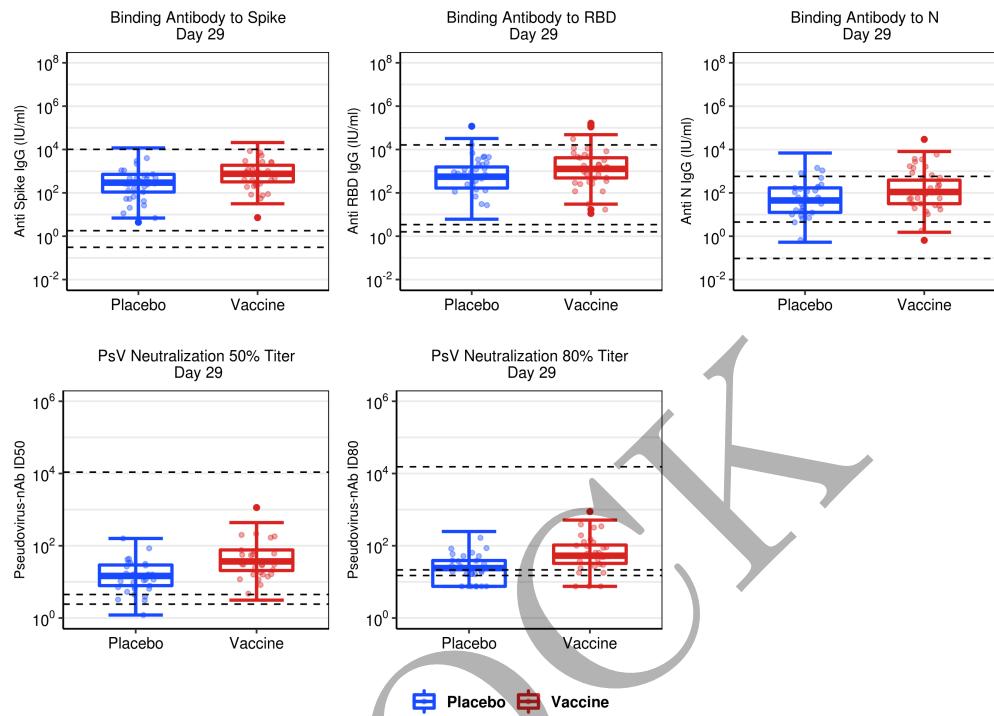


Figure 3.55: Boxplots of D29 Ab markers: baseline positive vaccine + placebo arms. The three dashed lines in each figure are ULOQ, LLOQ, and LLOD, from top to bottom respectively.

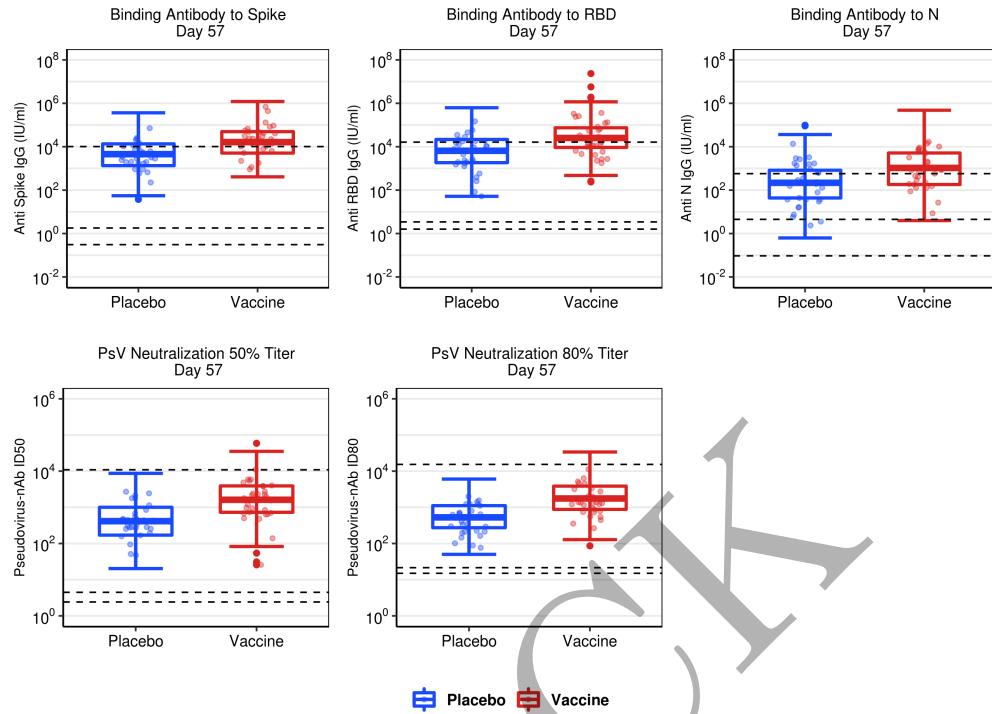


Figure 3.56: Boxplots of D57 Ab markers: baseline positive vaccine + placebo arms. The three dashed lines in each figure are ULOQ, LLOQ, and LLOD, from top to bottom respectively.



Figure 3.57: Boxplots of D29 fold-rise over D1 Ab markers: baseline positive vaccine + placebo arms



Figure 3.58: Boxplots of D57 fold-rise over D1 Ab markers: baseline positive vaccine + placebo arms

3.4.3 Baseline negative vs. positive vaccine recipients

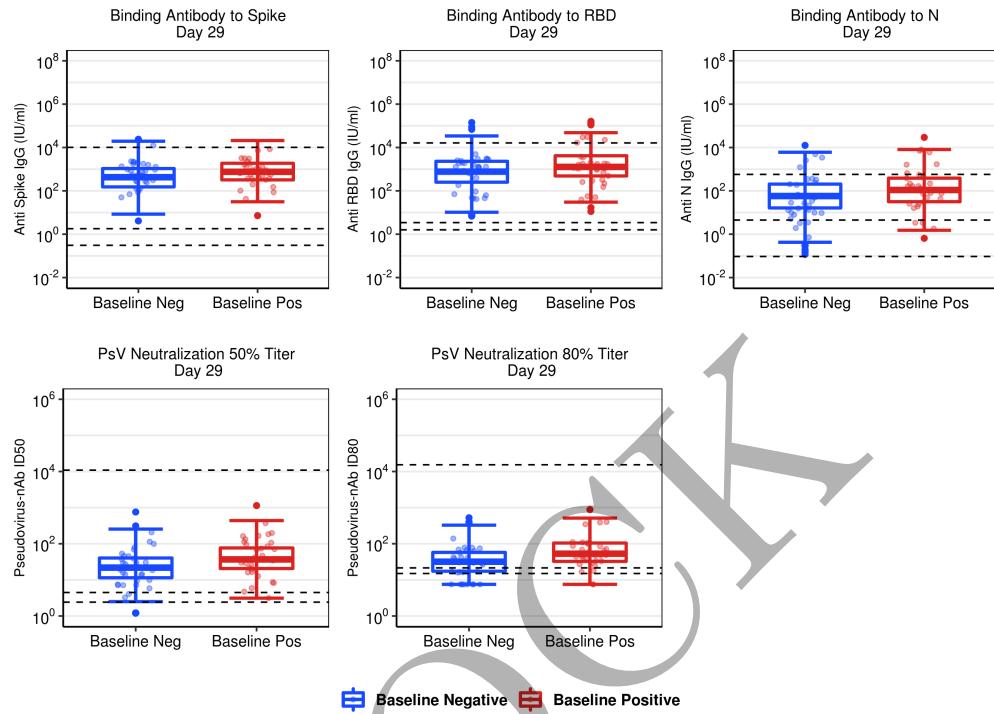


Figure 3.59: Boxplots of D29 Ab markers: baseline positive + negative vaccine arm. The three dashed lines in each figure are ULOQ, LLOQ, and LLOD, from top to bottom respectively.

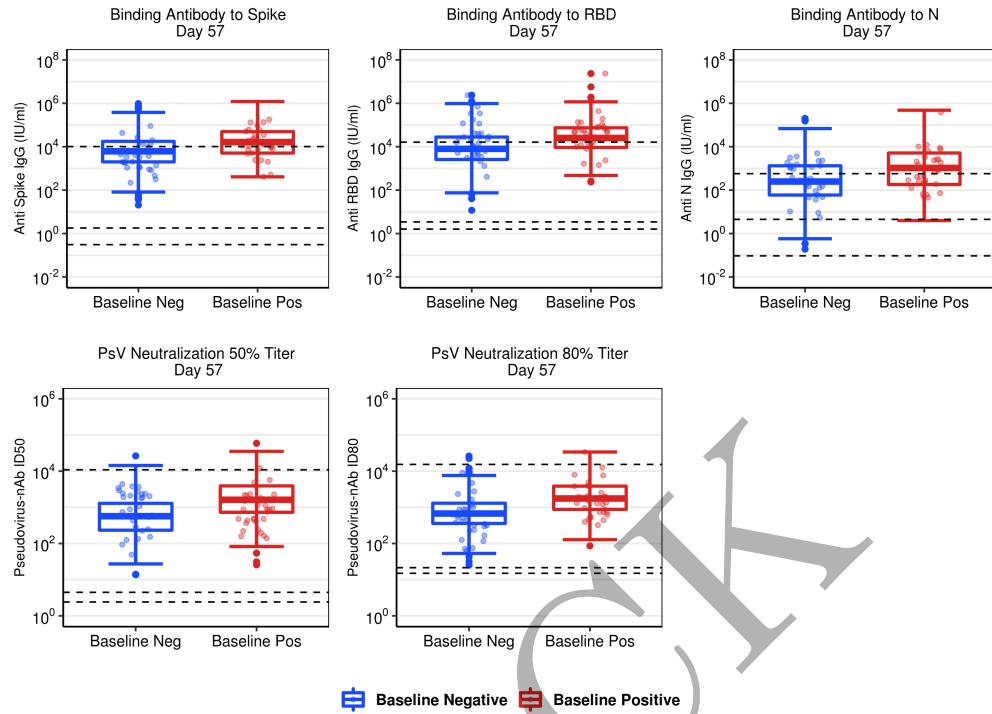


Figure 3.60: Boxplots of D57 Ab markers: baseline positive + negative vaccine arm. The three dashed lines in each figure are ULOQ, LLOQ, and LLQD, from top to bottom respectively.



Figure 3.61: Boxplots of D29 fold-rise over D1 Ab markers: baseline positive + negative vaccine arm



Figure 3.62: Boxplots of D57 fold-rise over D1 Ab markers: baseline positive + negative vaccine arm

3.4.4 Baseline negative vs. positive placebo recipients

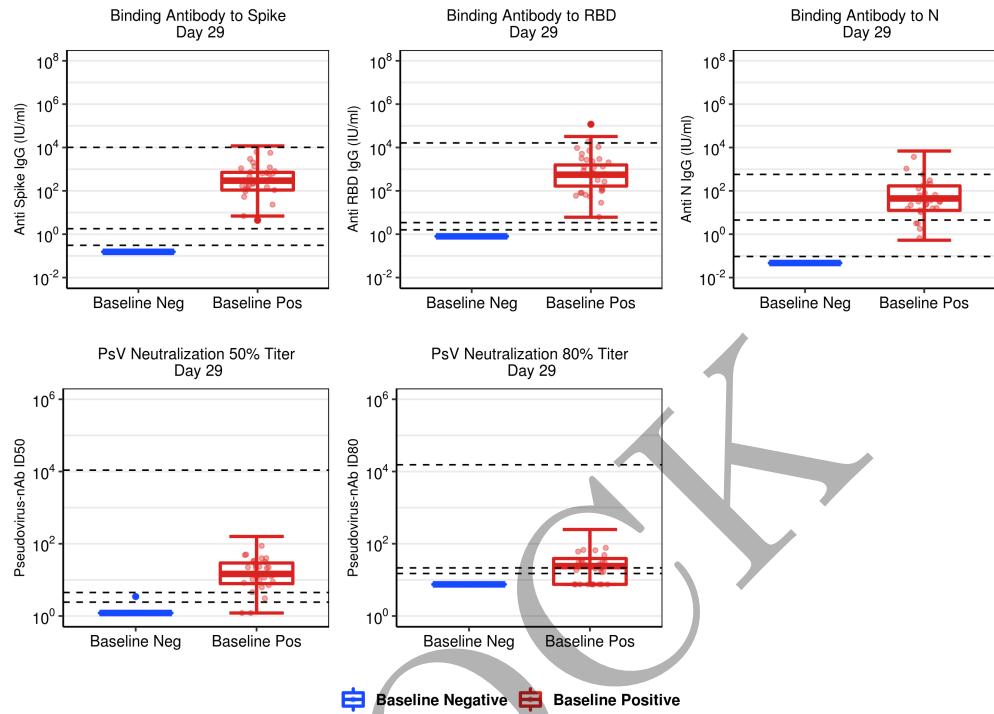


Figure 3.63: Boxplots of D29 Ab markers: baseline positive + negative placebo arm. The three dashed lines in each figure are ULOQ, LLOQ, and LLOD, from top to bottom respectively.

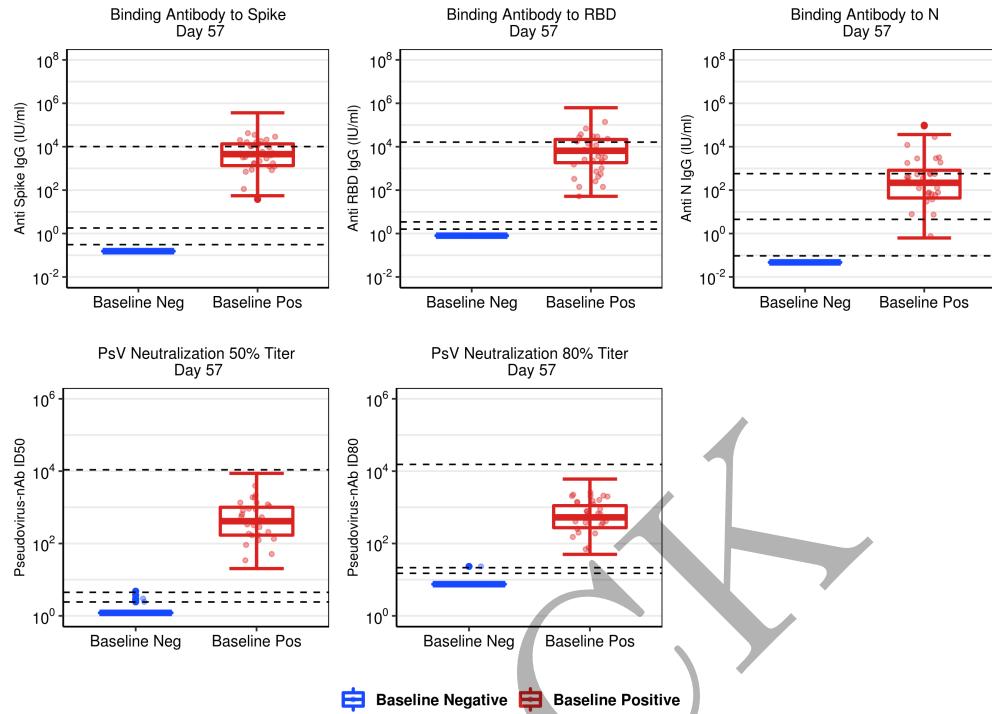


Figure 3.64: Boxplots of D57 Ab markers: baseline positive + negative placebo arm. The three dashed lines in each figure are ULOQ, LLOQ, and LLOD, from top to bottom respectively.



Figure 3.65: Boxplots of D29 fold-rise over D1 Ab markers: baseline positive + negative placebo arm

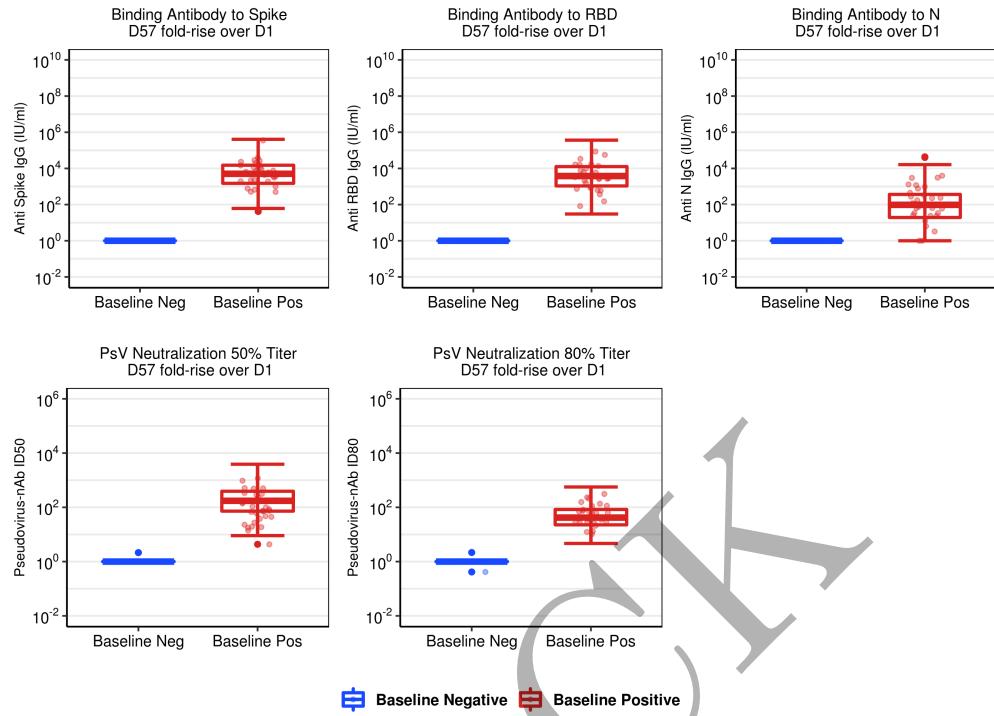


Figure 3.66: Boxplots of D57 fold-rise over D1 Ab markers: baseline positive + negative placebo arm

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

3.5.1 Baseline SARS-CoV-2 negative



Figure 3.67: Spaghetti plots of Ab markers over time: baseline negative vaccine + placebo arm

3.5.2 Baseline SARS-CoV-2 positive



Figure 3.68: Spaghetti plots of Ab markers over time: baseline positive vaccine + placebo arm

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

3.6.1 Baseline SARS-CoV-2 negative



Figure 3.69: RCDF plots for D29 Ab markers: baseline negative vaccine arm by age groups.

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



Figure 3.70: RCDF plots for D57 Ab markers: baseline negative vaccine arm by age groups.

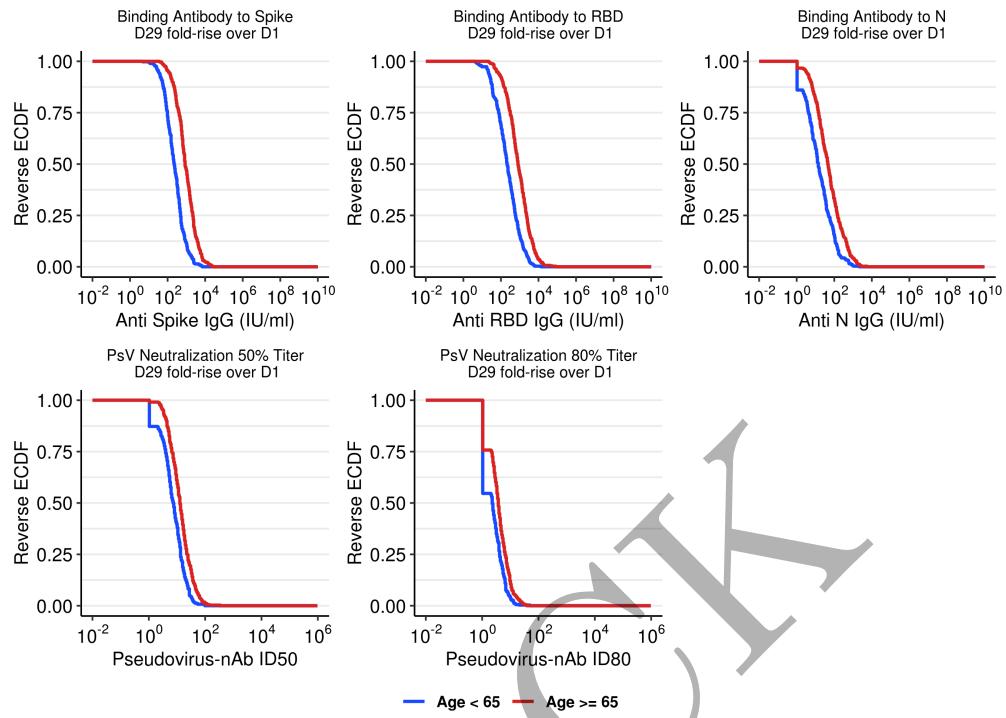


Figure 3.71: RCDF plots for D29 fold-rise over D1 Ab markers: baseline negative vaccine arm by age groups.

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



Figure 3.72: RCDF plots for D57 fold-rise over D1 Ab markers: baseline negative vaccine arm by age groups.

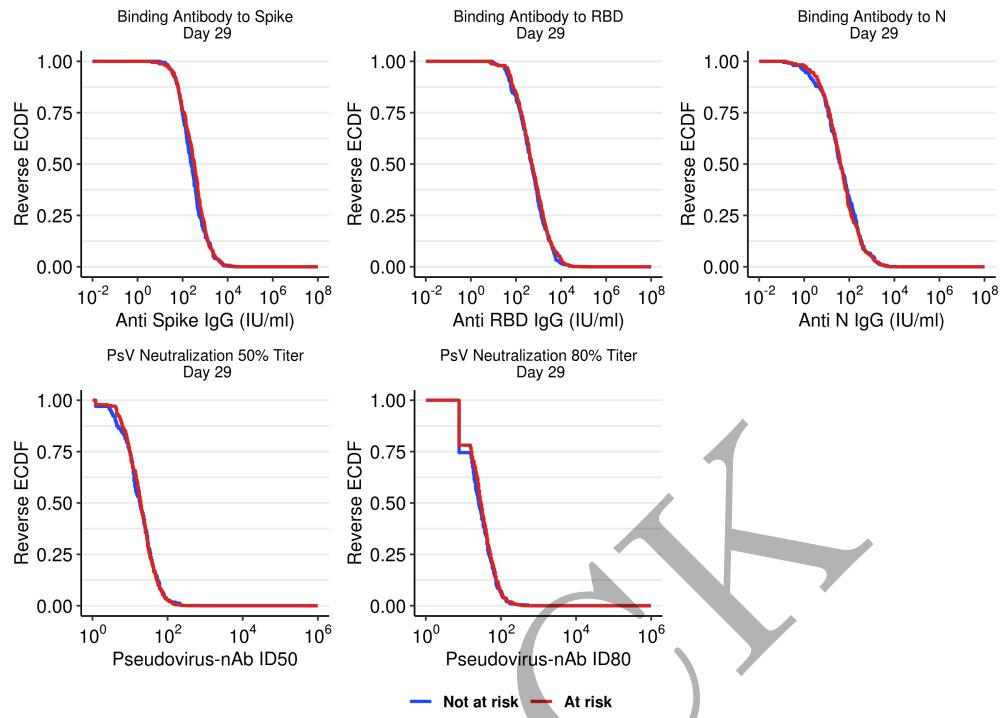


Figure 3.73: RCDF plots for D29 Ab markers: baseline negative vaccine arm by high-risk condition.

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



Figure 3.74: RCDF plots for D57 Ab markers: baseline negative vaccine arm by high-risk condition.



Figure 3.75: RCDF plots for D29 fold-rise over D1 Ab markers: baseline negative vaccine arm by high-risk condition.

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



Figure 3.76: RCDF plots for D57 fold-rise over D1 Ab markers: baseline negative vaccine arm by high-risk condition.



Figure 3.77: RCDF plots for D29 Ab markers: baseline negative vaccine arm by age and high-risk condition.

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



Figure 3.78: RCDF plots for D57 Ab markers: baseline negative vaccine arm by age and high-risk condition.



Figure 3.79: RCDF plots for D29 fold-rise over D1 Ab markers: baseline negative vaccine arm by age and high-risk condition.

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



Figure 3.80: RCDF plots for D57 fold-rise over D1 Ab markers: baseline negative vaccine arm by age and high-risk condition.

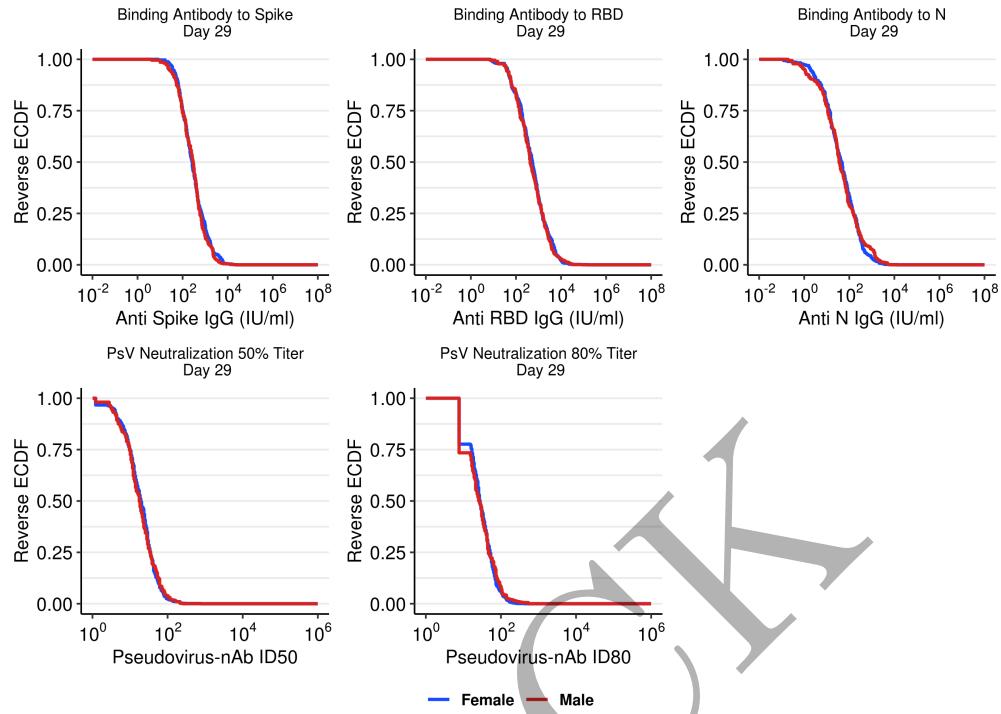


Figure 3.81: RCDF plots for D29 Ab markers: baseline negative vaccine arm by sex assigned at birth.

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

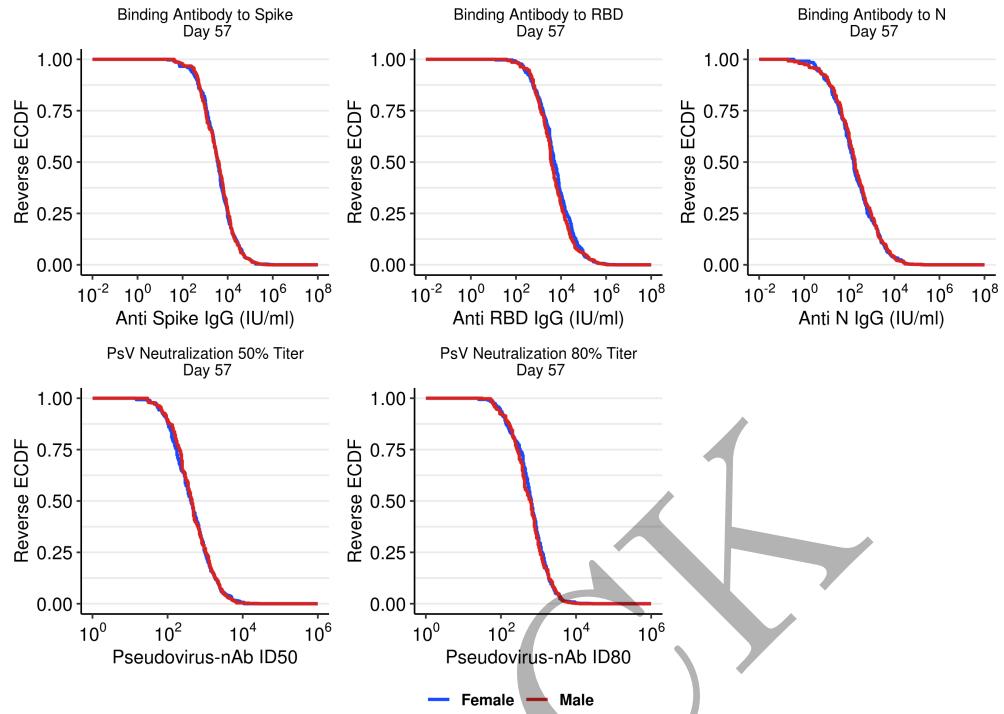


Figure 3.82: RCDF plots for D57 Ab markers: baseline negative vaccine arm by sex assigned at birth.



Figure 3.83: RCDF plots for D29 fold-rise over D1 Ab markers: baseline negative vaccine arm by sex assigned at birth.

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



Figure 3.84: RCDF plots for D57 fold-rise over D1 Ab markers: baseline negative vaccine arm by sex assigned at birth.



Figure 3.85: RCDF plots for D29 Ab markers: baseline negative vaccine arm by age and sex assigned at birth.

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



Figure 3.86: RCDF plots for D57 Ab markers: baseline negative vaccine arm by age and sex assigned at birth.



Figure 3.87: RCDF plots for D29 fold-rise over D1 Ab markers: baseline negative vaccine arm by age and sex assigned at birth.

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

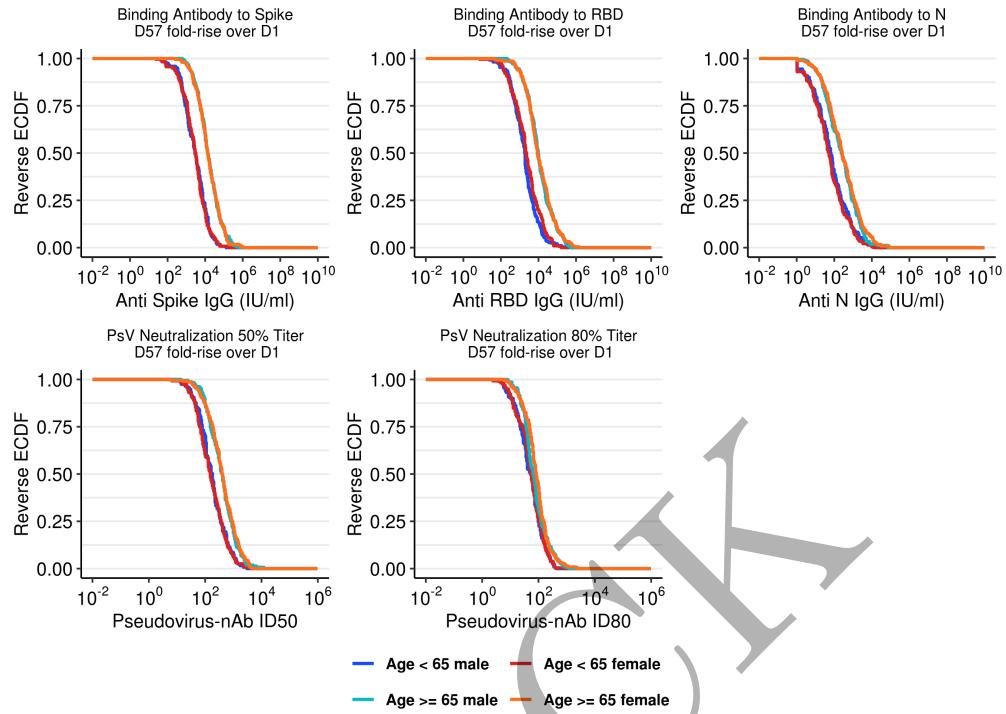


Figure 3.88: RCDF plots for D57 fold-rise over D1 Ab markers: baseline negative vaccine arm by age and sex at birth.

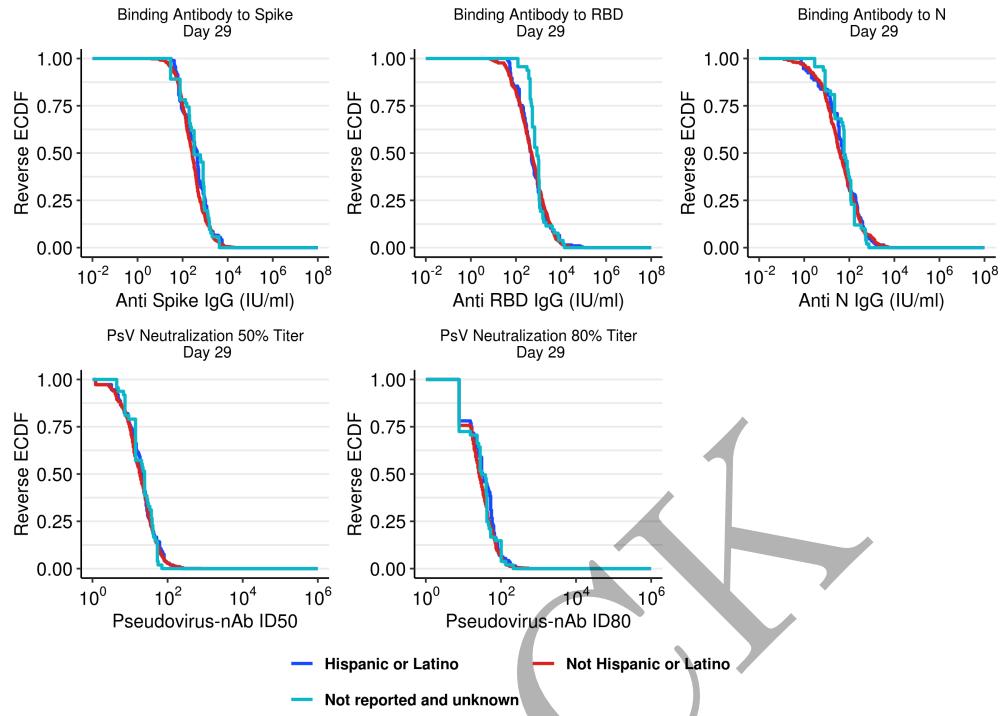


Figure 3.89: RCDF plots for D29 Ab markers: baseline negative vaccine arm by ethnicity.

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



Figure 3.90: RCDF plots for D57 Ab markers: baseline negative vaccine arm by ethnicity.

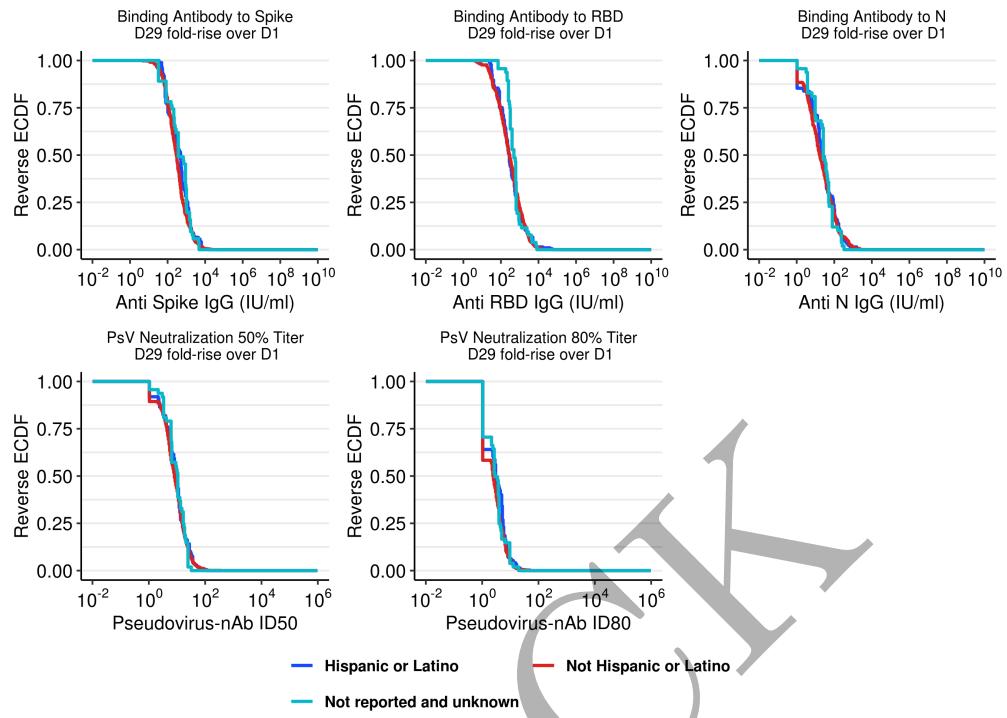


Figure 3.91: RCDF plots for D29 fold-rise over D1 Ab markers: baseline negative vaccine arm by ethnicity.

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



Figure 3.92: RCDF plots for D57 fold-rise over D1 Ab markers: baseline negative vaccine arm by ethnicity.



Figure 3.93: RCDF plots for D29 Ab markers: baseline negative vaccine arm by race.

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



Figure 3.94: RCDF plots for D57 Ab markers: baseline negative vaccine arm by race.



Figure 3.95: RCDF plots for D29 fold-rise over D1 Ab markers: baseline negative vaccine arm by race.

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



Figure 3.96: RCDF plots for D57 fold-rise over D1 Ab markers: baseline negative vaccine arm by race.

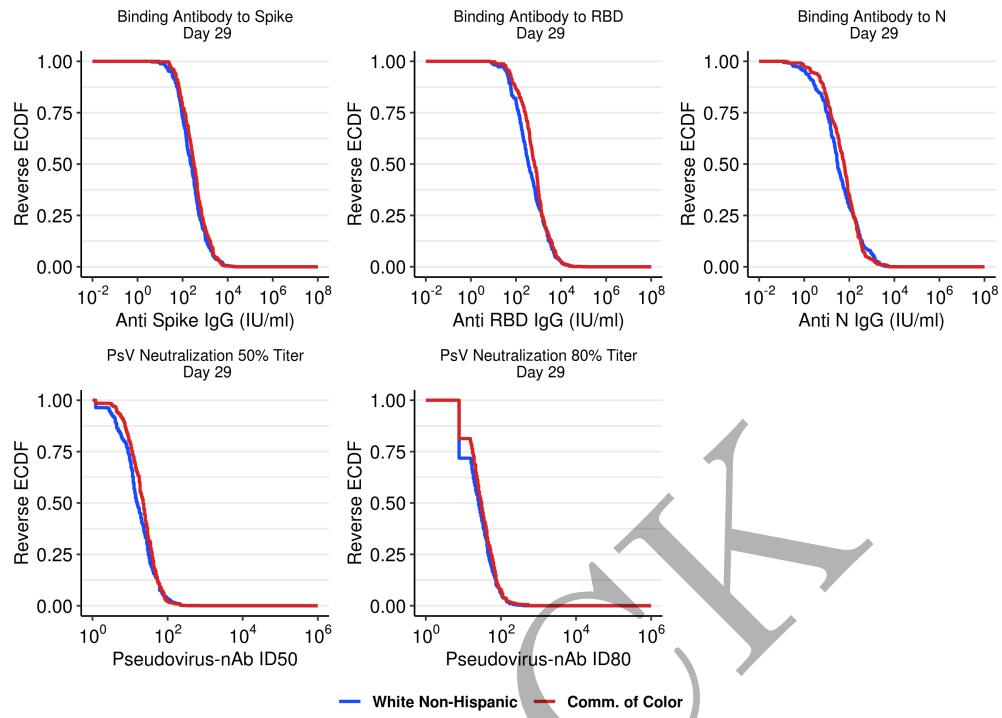


Figure 3.97: RCDF plots for D29 Ab markers: baseline negative vaccine arm by dichotomous classification of race and ethnic group.

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



Figure 3.98: RCDF plots for D57 Ab markers: baseline negative vaccine arm by dichotomous classification of race and ethnic group.

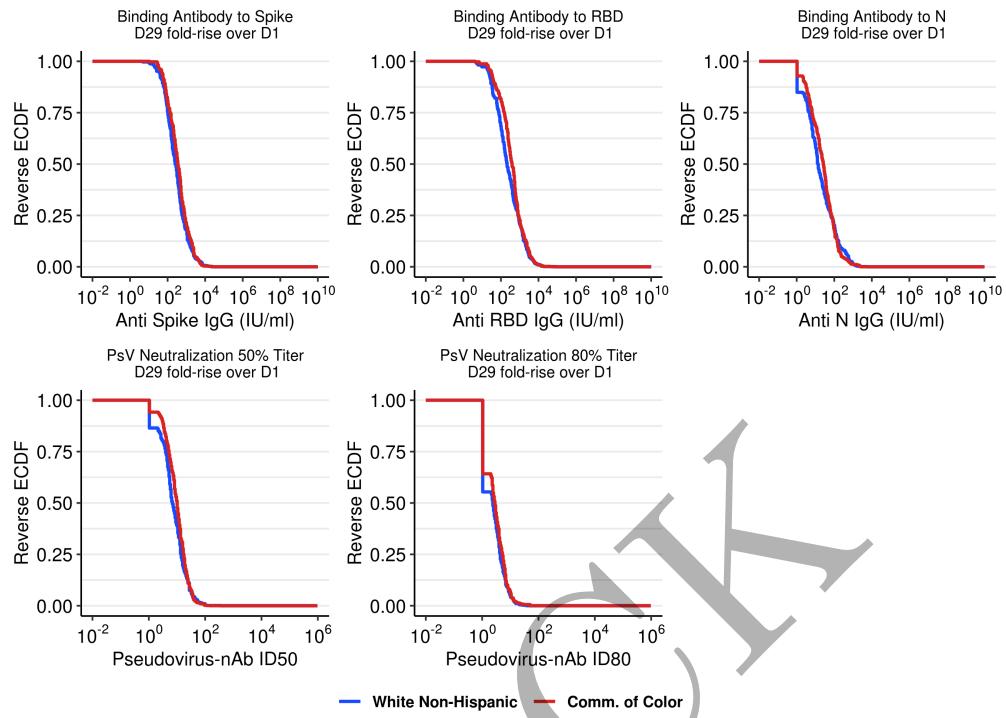


Figure 3.99: RCDF plots for D29 fold-rise over D1 Ab markers: baseline negative vaccine arm by dichotomous classification of race and ethnic group.

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



Figure 3.100: RCDF plots for D57 fold-rise over D1 Ab markers: baseline negative vaccine arm by dichotomous classification of race and ethnic group.



Figure 3.101: RCDF plots for D29 Ab markers: baseline negative vaccine arm by age and dichotomous classification of race and ethnic group.

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



Figure 3.102: RCDF plots for D57 Ab markers: baseline negative vaccine arm by age and dichotomous classification of race and ethnic group.

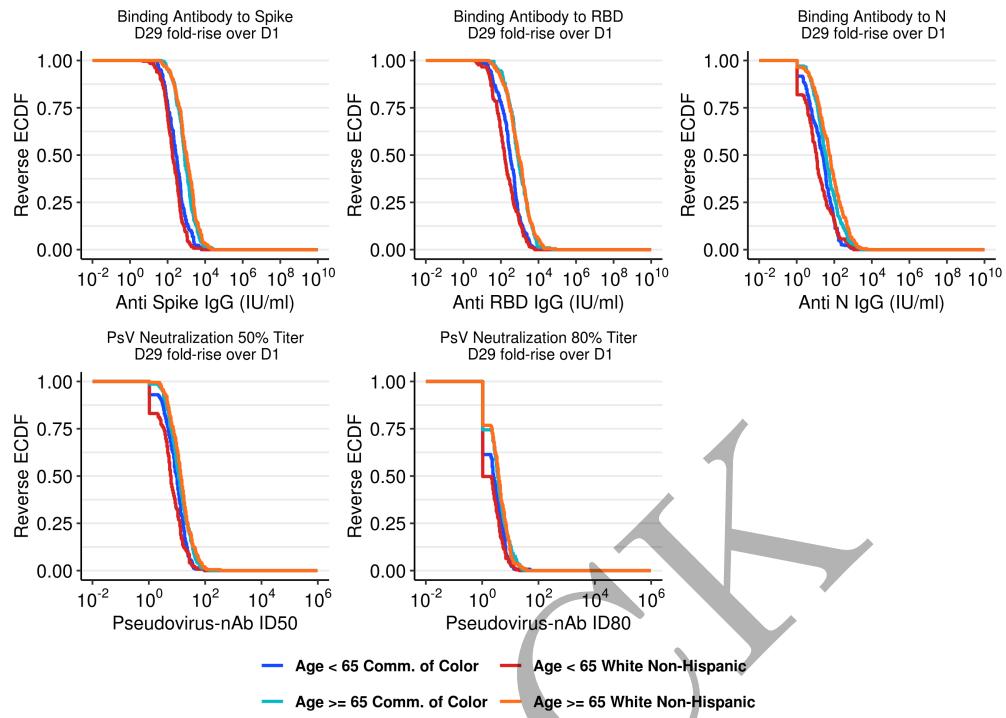


Figure 3.103: RCDF plots for D29 fold-rise over D1 Ab markers: baseline negative vaccine arm by age and dichotomous classification of race and ethnic group.

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



Figure 3.104: RCDF plots for D57 fold-rise over D1 Ab markers: baseline negative vaccine arm by age and dichotomous classification of race and ethnic group.

3.6.2 Baseline SARS-CoV-2 positive



Figure 3.105: RCDF plots for D29 Ab markers: baseline positive vaccine arm by age groups.

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



Figure 3.106: RCDF plots for D57 Ab markers: baseline positive vaccine arm by age groups.



Figure 3.107: RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by age groups.

3.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT587

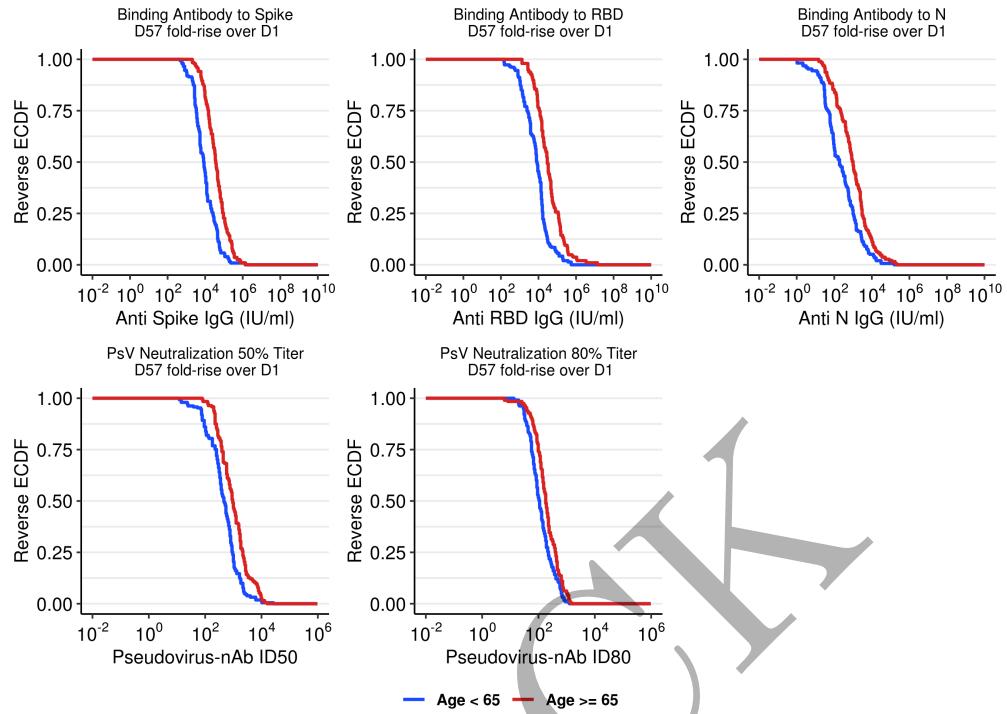


Figure 3.108: RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by age groups.



Figure 3.109: RCDF plots for D29 Ab markers: baseline positive vaccine arm by high-risk condition.

3.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT589



Figure 3.110: RCDF plots for D57 Ab markers: baseline positive vaccine arm by high-risk condition.



Figure 3.111: RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by high-risk condition.

3.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT591



Figure 3.112: RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by high-risk condition.

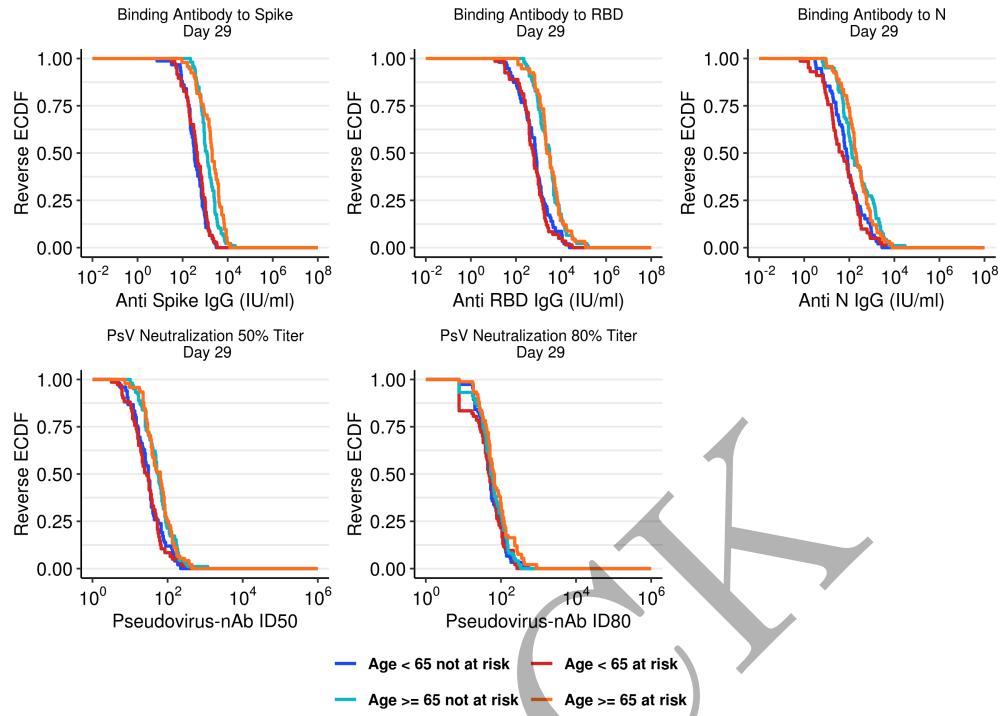


Figure 3.113: RCDF plots for D29 Ab markers: baseline positive vaccine arm by age and high-risk condition.

3.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT593



Figure 3.114: RCDF plots for D57 Ab markers: baseline positive vaccine arm by age and high-risk condition.



Figure 3.115: RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and high-risk condition.

3.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT595



Figure 3.116: RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and high-risk condition.



Figure 3.117: RCDF plots for D29 Ab markers: baseline positive vaccine arm by sex assigned at birth.

3.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT597



Figure 3.118: RCDF plots for D57 Ab markers: baseline positive vaccine arm by sex assigned at birth.



Figure 3.119: RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by sex assigned at birth.

3.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT599

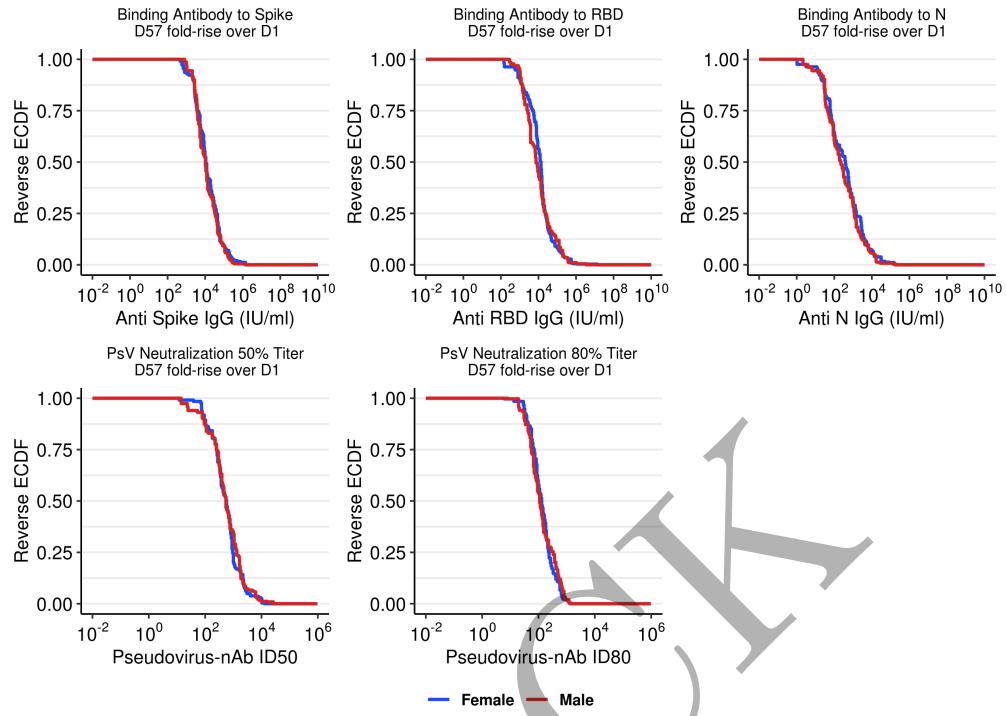


Figure 3.120: RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by sex assigned at birth.

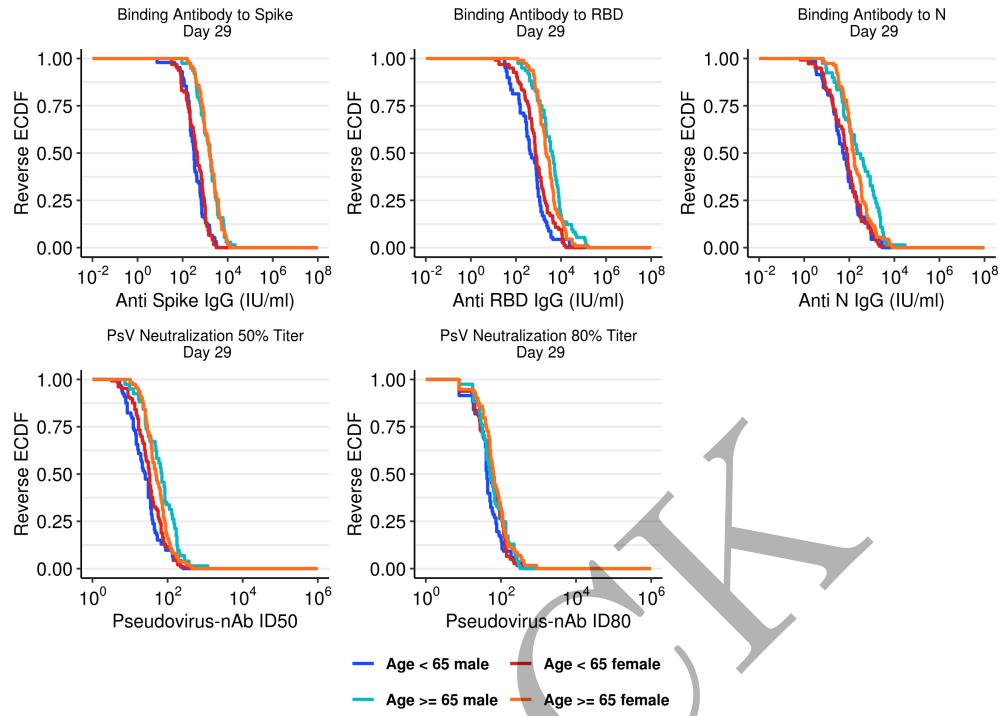


Figure 3.121: RCDF plots for D29 Ab markers: baseline positive vaccine arm by age and sex assigned at birth.

3.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT601

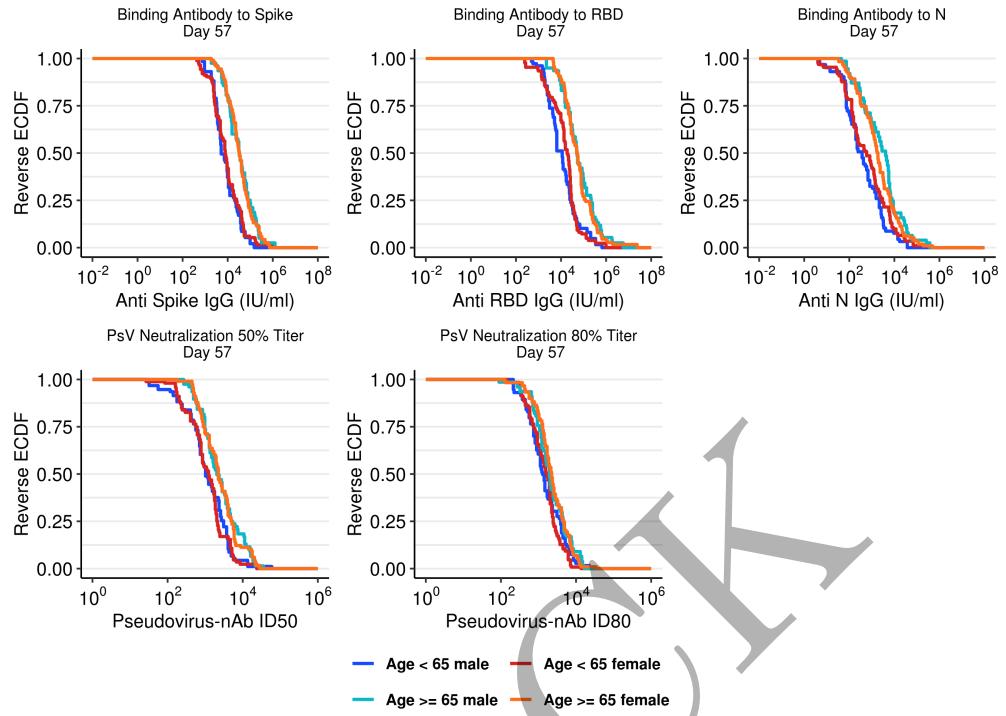


Figure 3.122: RCDF plots for D57 Ab markers: baseline positive vaccine arm by age and sex assigned at birth.



Figure 3.123: RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and sex assigned at birth.

3.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT603



Figure 3.124: RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and sex assigned at birth.



Figure 3.125: RCDF plots for D29 Ab markers: baseline positive vaccine arm by ethnicity.

3.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT605



Figure 3.126: RCDF plots for D57 Ab markers: baseline positive vaccine arm by ethnicity.



Figure 3.127: RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by ethnicity.

3.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT607

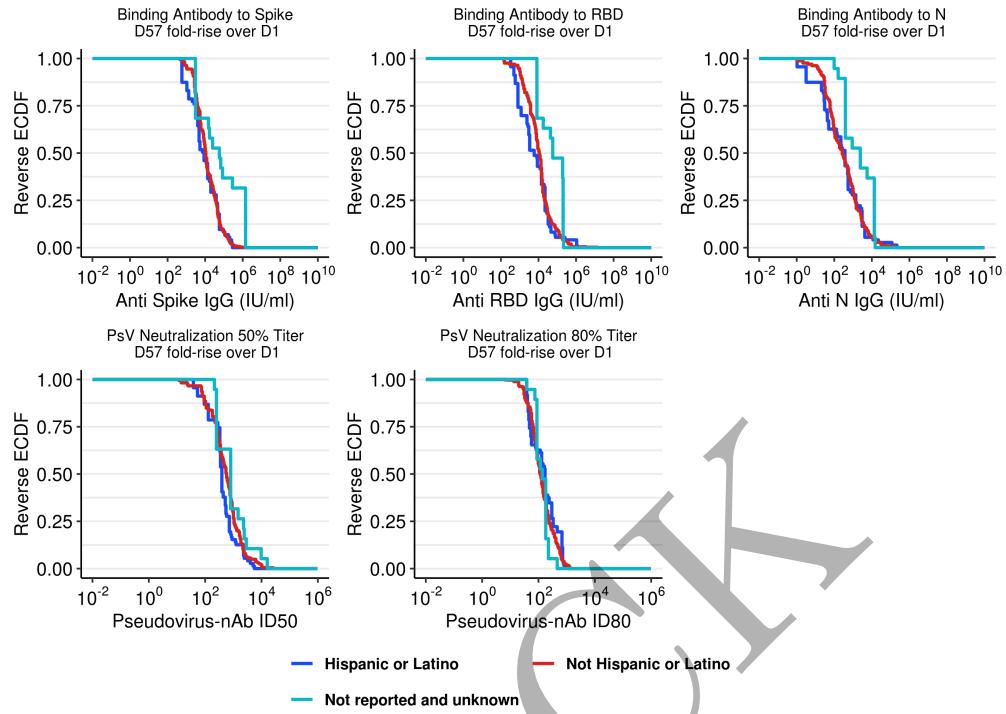


Figure 3.128: RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by ethnicity.



Figure 3.129: RCDF plots for D29 Ab markers: baseline positive vaccine arm by race.

3.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT609



Figure 3.130: RCDF plots for D57 Ab markers: baseline positive vaccine arm by race.



Figure 3.131: RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by race.

3.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT611



Figure 3.132: RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by race.

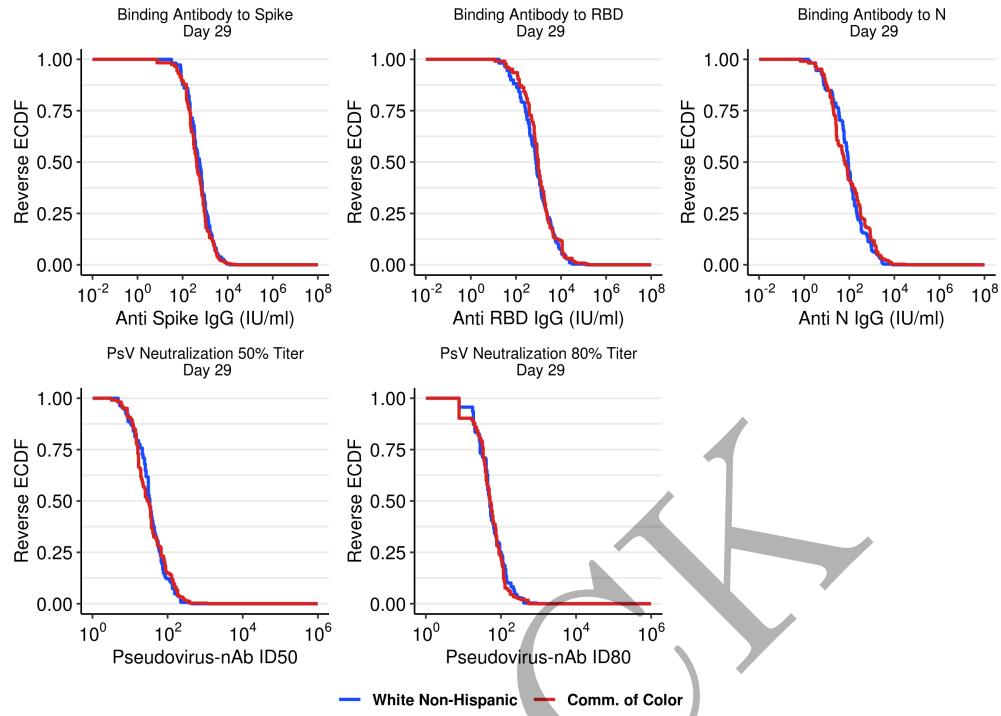


Figure 3.133: RCDF plots for D29 Ab markers: baseline positive vaccine arm by dichotomous classification of race and ethnic group.

3.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT613



Figure 3.134: RCDF plots for D57 Ab markers: baseline positive vaccine arm by dichotomous classification of race and ethnic group.



Figure 3.135: RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by dichotomous classification of race and ethnic group.

3.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT615

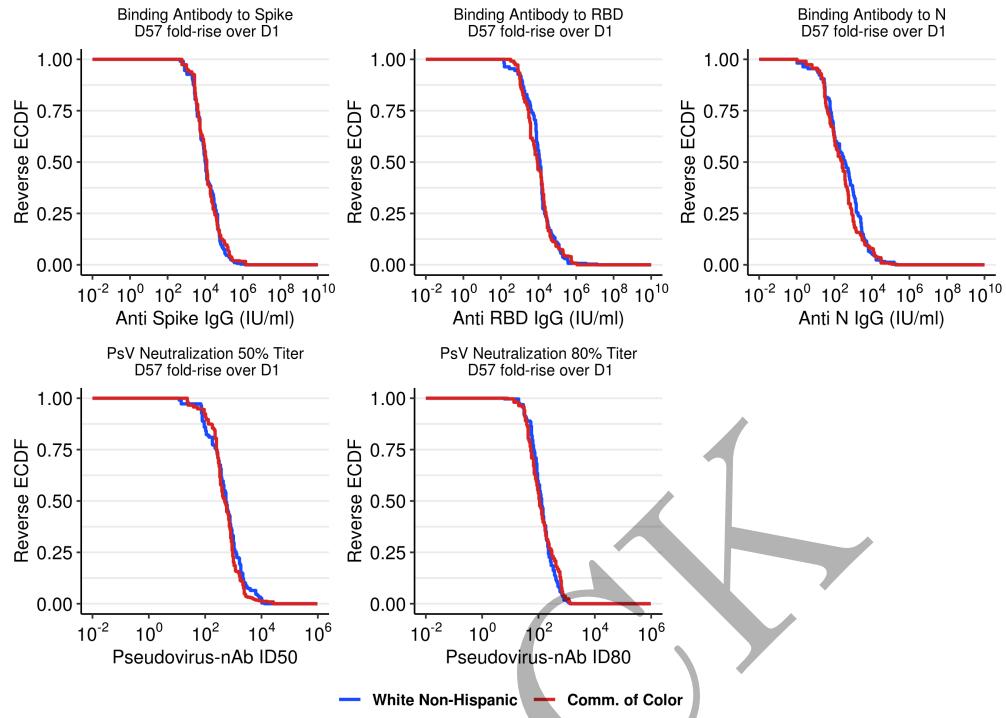


Figure 3.136: RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by dichotomous classification of race and ethnic group.



Figure 3.137: RCDF plots for D29 Ab markers: baseline positive vaccine arm by age and dichotomous classification of race and ethnic group.

3.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT617



Figure 3.138: RCDF plots for D57 Ab markers: baseline positive vaccine arm by age and dichotomous classification of race and ethnic group.



Figure 3.139: RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and dichotomous classification of race and ethnic group.

3.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT619



Figure 3.140: RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and dichotomous classification of race and ethnic group.

3.7 Boxplots of antibody markers by demographics for per-protocol cohort

3.7.1 Baseline SARS-CoV-2 negative

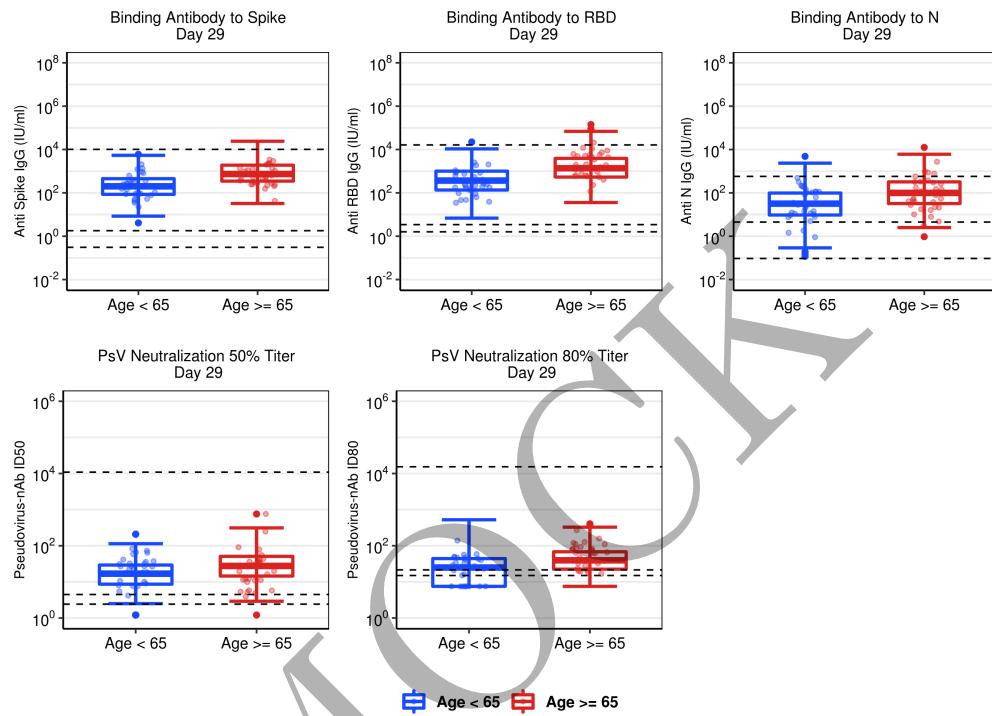


Figure 3.141: Boxplots of D29 Ab markers: Baseline negative vaccine arm by age group. The three dashed lines in each figure are ULOQ, LLOQ, and LLOD, from top to bottom respectively.

3.7. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT621

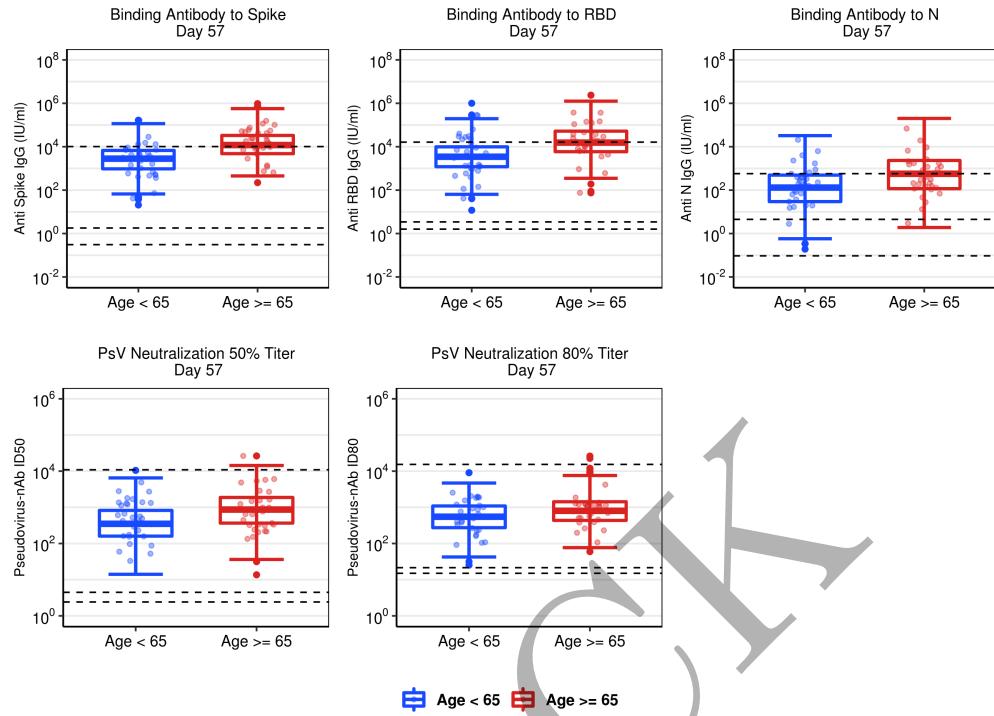


Figure 3.142: Boxplots of D57 Ab markers: Baseline negative vaccine arm by age group. The three dashed lines in each figure are ULOQ, LLOQ, and LLOD, from top to bottom respectively.



Figure 3.143: Boxplots of D29 fold-rise over D1 Ab markers: Baseline negative vaccine arm by age and sex assigned at birth.

3.7. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT623



Figure 3.144: Boxplots of D57 fold-rise over D1 Ab markers: Baseline negative vaccine arm by age and sex assigned at birth.



Figure 3.145: Boxplots of D29 fold-rise over D1 Ab markers: Baseline negative vaccine arm by ethnicity.

3.7. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT625



Figure 3.146: Boxplots of D57 fold-rise over D1 Ab markers: Baseline negative vaccine arm by ethnicity.



Figure 3.147: Boxplots of D29 fold-rise over D1 Ab markers: Baseline negative vaccine arm by race.

3.7. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT627



Figure 3.148: Boxplots of D57 fold-rise over D1 Ab markers: Baseline negative vaccine arm by race.

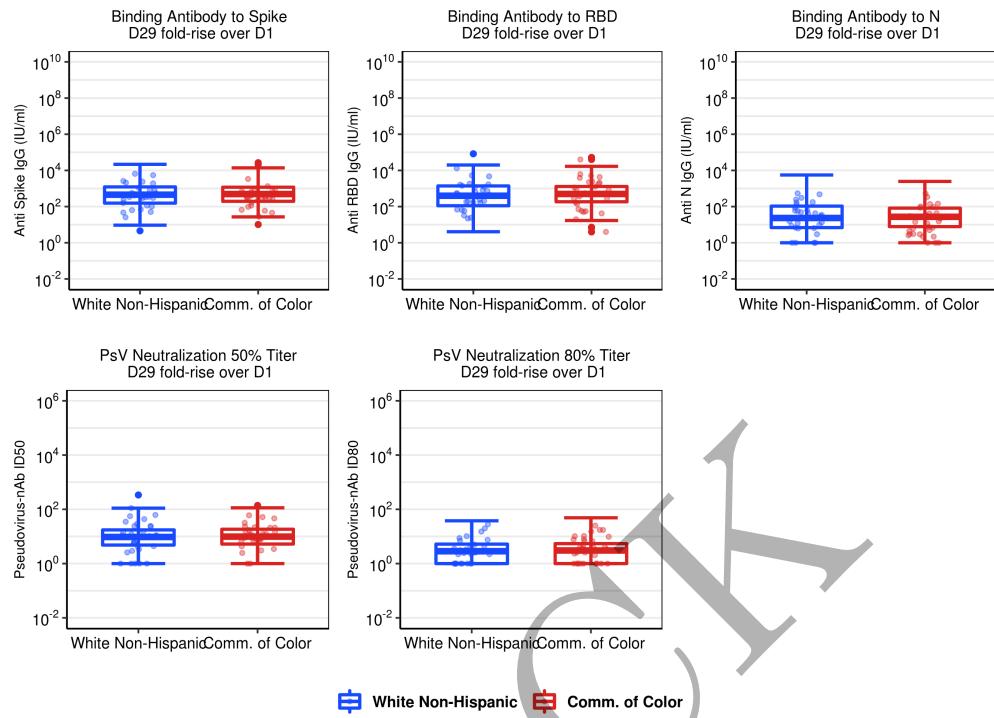


Figure 3.149: Boxplots of D29 fold-rise over D1 Ab markers: Baseline negative vaccine arm by dichotomous classification of race and ethnic group.

3.7. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT629



Figure 3.150: Boxplots of D57 fold-rise over D1 Ab markers: Baseline negative vaccine arm by dichotomous classification of race and ethnic group.



Figure 3.151: Boxplots of D29 fold-rise over D1 Ab markers: Baseline negative vaccine arm by age and dichotomous classification of race and ethnic group.

3.7. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT631



Figure 3.152: Boxplots of D57 fold-rise over D1 Ab markers: Baseline negative vaccine arm by age and dichotomous classification of race and ethnic group.

3.7.2 Baseline SARS-CoV-2 positive

MOCK

3.7. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT633

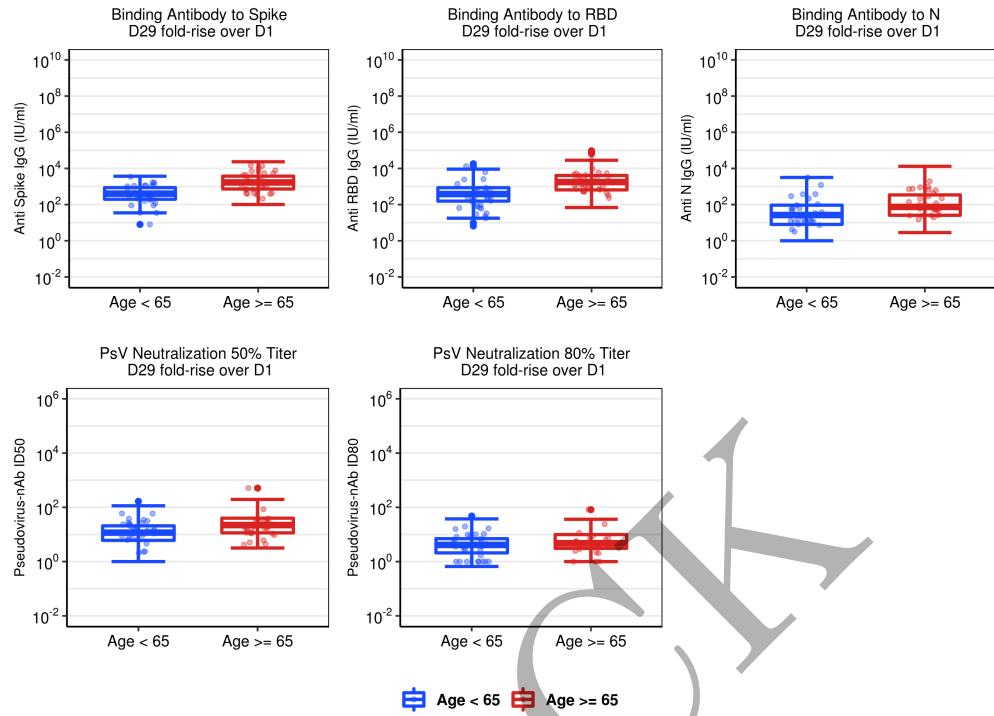


Figure 3.153: Boxplots of D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by age group.



Figure 3.154: Boxplots of D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by age group.

3.7. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT635



Figure 3.155: Boxplots of D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by high-risk condition.

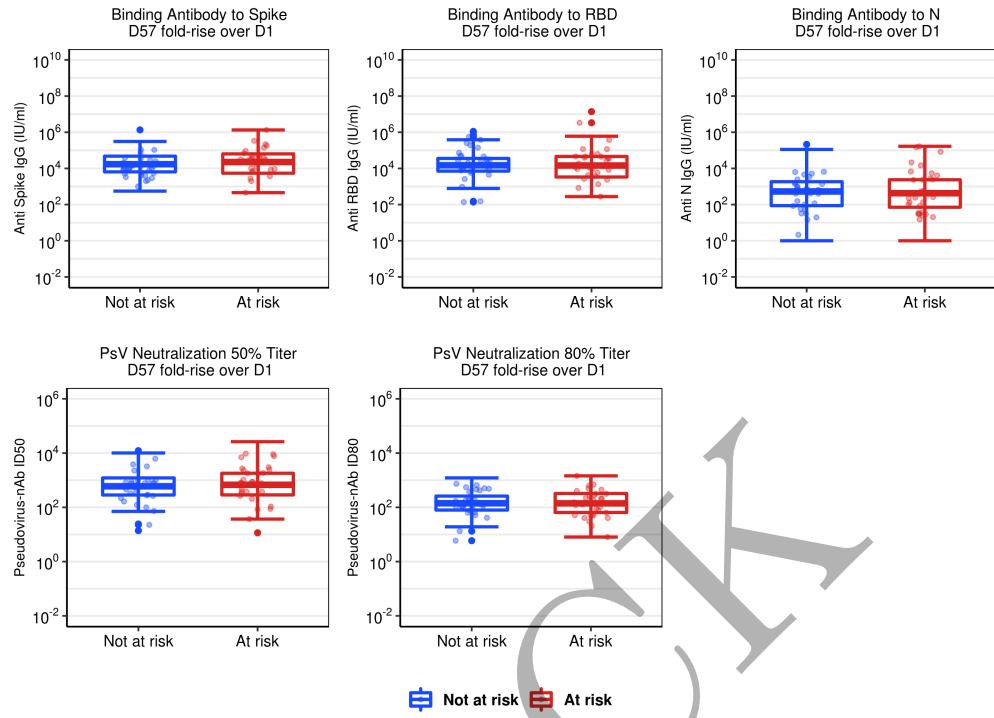


Figure 3.156: Boxplots of D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by high-risk condition.

3.7. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT637



Figure 3.157: Boxplots of D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and high-risk condition.



Figure 3.158: Boxplots of D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and high-risk condition.

3.7. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT639



Figure 3.159: Boxplots of D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by sex assigned at birth.



Figure 3.160: Boxplots of D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by sex assigned at birth.

3.7. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT641

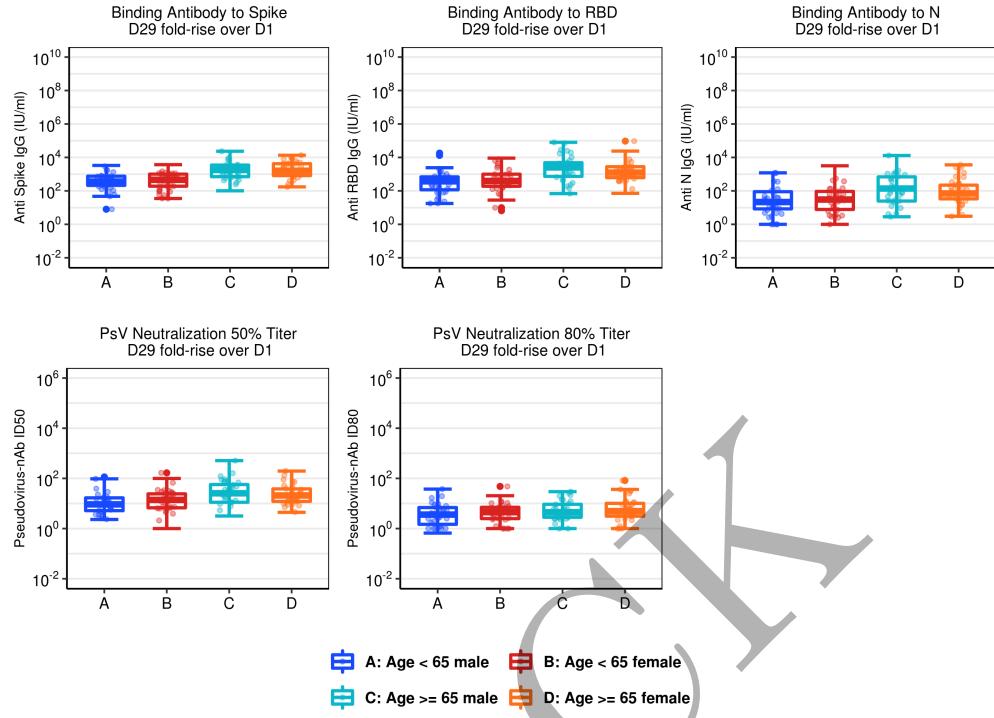


Figure 3.161: Boxplots of D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and sex assigned at birth.



Figure 3.162: Boxplots of D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and sex assigned at birth.

3.7. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT643



Figure 3.163: Boxplots of D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by ethnicity.



Figure 3.164: Boxplots of D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by ethnicity.

3.7. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT645



Figure 3.165: Boxplots of D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by race.



Figure 3.166: Boxplots of D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by race.

3.7. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT647



Figure 3.167: Boxplots of D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by dichotomous classification of race and ethnic group.



Figure 3.168: Boxplots of D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by dichotomous classification of race and ethnic group.

3.7. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT649



Figure 3.169: Boxplots of D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and dichotomous classification of race and ethnic group.



Figure 3.170: Boxplots of D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and dichotomous classification of race and ethnic group.

Chapter 4

Appendix

- This report was built from the [CoVPN/correlates_reporting](#) repository with commit hash f5aeb86b55fddadd1b950bd3db1f28a1823ac9d4. A diff of the changes introduced by that commit may be viewed at https://github.com/CoVPN/correlates_reporting/commit/f5aeb86b55fddadd1b950bd3db1f28a1823ac9d4
- The sha256 hash sum of the raw input file, “COVID_VEtiral_practicedata_primarystage1.csv”: 83d0f55d1745ffd42be124d8f9ec9a9903abcc13cd22f95e537542a08b41300a
- The sha256 hash sum of the processed file, “moderna_mock_data_processed.csv”: 28964ce20cfcd70a621aff9df412c42b11