

COVID-19 Immunogenicity Analysis Report
MockCOVE Study

USG COVID-19 Response Biostatistics Team

July 09, 2021

Contents

1	Disclaimers	17
2	Tabular Description of Immunogenicity Data	19
2.1	Demographic and Clinical Characteristics at Baseline in the Baseline SARS-CoV-2 Negative Per-Protocol Cohort	19
2.2	Demographic and Clinical Characteristics at Baseline in the Baseline SARS-CoV-2 Positive Per-Protocol Cohort	21
2.3	Sample Sizes of Random Subcohort Strata for Measuring Antibody Markers	22
2.4	Percentage of responders, and participants with concentrations $\geq 2\times$ LLOQ or $\geq 4\times$ LLOQ for binding antibody markers	23
2.5	Percentage of responders, and participants with 2-fold rise, and participants with 4-fold rise for binding antibody markers	94
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	165
2.7	Geometric mean titers (GMTs) and geometric mean concentrations (GMCs)	193
2.8	Geometric mean titer ratios (GMTRs) or geometric mean concentration ratios (GMCRs) between post-vaccinations/pre-vaccination	321
2.9	The ratios of GMTs/GMCs between groups	417
2.10	Differences in the responder rates, 2FRs, 4FRs between the groups	454
2.11	Antibody levels in the baseline SARS-CoV-2 negative per-protocol cohort (vaccine vs. placebo)	483
2.12	Antibody levels in the baseline SARS-CoV-2 positive per-protocol cohort (vaccine vs. placebo)	485
2.13	Antibody levels in the per-protocol cohort (vaccine recipients)	487
2.14	Antibody levels in the per-protocol cohort (placebo recipients)	489
3	Graphical Description of Immunogenicity Data	491
3.1	Pairs plots of antibody markers for overall per-protocol cohort	492
3.2	RCDF plots of antibody markers for overall per-protocol cohort	519
3.3	Scatter plots of antibody markers versus age for overall per-protocol cohort	535
3.4	Box plots of antibody markers for overall per-protocol cohort	541
3.5	Spaghetti plots of antibody markers over time for the overall per-protocol cohort	557
3.6	RCDF plots of antibody markers by demographics for per-protocol cohort	559
3.7	Boxplots of antibody markers by demographics for per-protocol cohort	667

List of Tables

2.1	Table 1. Demographic and Clinical Characteristics at Baseline in the Baseline SARS-CoV-2 Negative Per-Protocol Cohort	19
2.2	Table 2. Demographic and Clinical Characteristics at Baseline in the Baseline SARS-CoV-2 Positive Per-Protocol Cohort	21
2.3	Table 3. Sample Sizes of Random Subcohort Strata for Measuring Antibody Markers	22
2.4	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	23
2.5	Table 4b. Percentage of responders, and participants with concentrations $\geq 2\times$ LLOQ or $\geq 4\times$ LLOQ for binding antibody markers by Age	25
2.6	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	29
2.7	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	33
2.8	Table 4e. Percentage of responders, and participants with concentrations $\geq 2\times$ LLOQ or $\geq 4\times$ LLOQ for binding antibody markers by Sex	42
2.9	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	46
2.10	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	54
2.11	Table 4h. Percentage of responders, and participants with concentrations $\geq 2\times$ LLOQ or $\geq 4\times$ LLOQ for binding antibody markers by Race	61
2.12	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	78
2.13	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	83
2.14	Table 5a. Percentage of responders, and participants with 2-fold rise, and participants with 4-fold rise for binding antibody markers by All participants	94
2.15	Table 5b. Percentage of responders, and participants with 2-fold rise, and participants with 4-fold rise for binding antibody markers by Age	96
2.16	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	100
2.17	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	104

2.18 Table 5e. Percentage of responders, and participants with 2-fold rise, and participants with 4-fold rise for binding antibody markers by Sex	113
2.19 Table 5f. Percentage of responders, and participants with 2-fold rise, and participants with 4-fold rise for binding antibody markers by Age, sex	117
2.20 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	125
2.21 Table 5h. Percentage of responders, and participants with 2-fold rise, and participants with 4-fold rise for binding antibody markers by Race	132
2.22 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	149
2.23 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	154
2.24 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	165
2.25 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 . . .	166
2.26 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	168
2.27 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	170
2.28 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	173
2.29 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 . .	175
2.30 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	178
2.31 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 . . .	181
2.32 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	187
2.33 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	189
2.34 Table 7a. Geometric mean titers (GMTs) and geometric mean concentrations (GMCs) by All participants	193
2.35 Table 7b. Geometric mean titers (GMTs) and geometric mean concentrations (GMCs) by Age	198
2.36 Table 7c. Geometric mean titers (GMTs) and geometric mean concentrations (GMCs) by Risk for Severe Covid-19	206
2.37 Table 7d. Geometric mean titers (GMTs) and geometric mean concentrations (GMCs) by Age, Risk for Severe Covid-19	214

2.38 Table 7e. Geometric mean titers (GMTs) and geometric mean concentrations (GMCs) by Sex	230
2.39 Table 7f. Geometric mean titers (GMTs) and geometric mean concentrations (GMCs) by Age, sex	238
2.40 Table 7g. Geometric mean titers (GMTs) and geometric mean concentrations (GMCs) by Hispanic or Latino ethnicity	254
2.41 Table 7h. Geometric mean titers (GMTs) and geometric mean concentrations (GMCs) by Race	266
2.42 Table 7i. Geometric mean titers (GMTs) and geometric mean concentrations (GMCs) by Communities of color	297
2.43 Table 7j. Geometric mean titers (GMTs) and geometric mean concentrations (GMCs) by Age, Communities of color	305
2.44 Table 8a. Geometric mean titer ratios (GMTRs) or geometric mean concentration ratios (GMCRs) between post-vaccinations/pre-vaccination by All participants	321
2.45 Table 8b. Geometric mean titer ratios (GMTRs) or geometric mean concentration ratios (GMCRs) between post-vaccinations/pre-vaccination by Age	324
2.46 Table 8c. Geometric mean titer ratios (GMTRs) or geometric mean concentration ratios (GMCRs) between post-vaccinations/pre-vaccination by Risk for Severe Covid-19	330
2.47 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	336
2.48 Table 8e. Geometric mean titer ratios (GMTRs) or geometric mean concentration ratios (GMCRs) between post-vaccinations/pre-vaccination by Sex	347
2.49 Table 8f. Geometric mean titer ratios (GMTRs) or geometric mean concentration ratios (GMCRs) between post-vaccinations/pre-vaccination by Age, sex	353
2.50 Table 8g. Geometric mean titer ratios (GMTRs) or geometric mean concentration ratios (GMCRs) between post-vaccinations/pre-vaccination by Hispanic or Latino ethnicity	364
2.51 Table 8h. Geometric mean titer ratios (GMTRs) or geometric mean concentration ratios (GMCRs) between post-vaccinations/pre-vaccination by Race	373
2.52 Table 8i. Geometric mean titer ratios (GMTRs) or geometric mean concentration ratios (GMCRs) between post-vaccinations/pre-vaccination by Communities of color	397
2.53 Table 8j. Geometric mean titer ratios (GMTRs) or geometric mean concentration ratios (GMCRs) between post-vaccinations/pre-vaccination by Age, Communities of color	403
2.54 Table 9a. The ratios of GMTs/GMCs between groups by Age	417
2.55 Table 9b. The ratios of GMTs/GMCs between groups by Risk for Severe Covid-19	422
2.56 Table 9c. The ratios of GMTs/GMCs between groups by Age < 65, Risk for Severe Covid-19	426
2.57 Table 9d. The ratios of GMTs/GMCs between groups by Age >= 65, Risk for Severe Covid-19	432
2.58 Table 9e. The ratios of GMTs/GMCs between groups by Sex	438
2.59 Table 9f. The ratios of GMTs/GMCs between groups by Hispanic or Latino ethnicity	442
2.60 Table 9g. The ratios of GMTs/GMCs between groups by Communities of color	448
2.61 Table 10a. Differences in the responder rates, 2FRs, 4FRs between the groups by Arm	454
2.62 Table 10b. Differences in the responder rates, 2FRs, 4FRs between the groups by Baseline SARS-CoV-2	456
2.63 Table 10c. Differences in the responder rates, 2FRs, 4FRs between the groups by Age	458

2.64 Table 10d. Differences in the responder rates, 2FRs, 4FRs between the groups by Risk for Severe Covid-19	461
2.65 Table 10e. Differences in the responder rates, 2FRs, 4FRs between the groups by Age < 65, Risk for Severe Covid-19	464
2.66 Table 10f. Differences in the responder rates, 2FRs, 4FRs between the groups by Age >= 65, Risk for Severe Covid-19	468
2.67 Table 10g. Differences in the responder rates, 2FRs, 4FRs between the groups by Sex	472
2.68 Table 10h. Differences in the responder rates, 2FRs, 4FRs between the groups by Hispanic or Latino ethnicity	475
2.69 Table 10i. Differences in the responder rates, 2FRs, 4FRs between the groups by Communities of color	479
2.70 Table 11. Antibody levels in the baseline SARS-CoV-2 negative per-protocol cohort (vaccine vs. placebo)	483
2.71 Table 12. Antibody levels in the baseline SARS-CoV-2 positive per-protocol cohort (vaccine vs. placebo)	485
2.72 Table 13. Antibody levels in the per-protocol cohort (vaccine recipients)	487
2.73 Table 14. Antibody levels in the per-protocol cohort (placebo recipients)	489

List of Figures

3.1	Pair plots of D29 Ab markers: baseline negative vaccine arm	492
3.2	Pair plots of D57 Ab markers: baseline negative vaccine arm	493
3.3	Pair plots of D29 fold-rise over D1 Ab markers: baseline negative vaccine arm	494
3.4	Pair plots of D57 fold-rise over D1 Ab markers: baseline negative vaccine arm	495
3.5	Pair plots of D1, D29 and D57 Binding Antibody to Spike: baseline negative vaccine arm	496
3.6	Pair plots of D1, D29 and D57 Binding Antibody to RBD: baseline negative vaccine arm	497
3.7	Pair plots of D1, D29 and D57 Binding Antibody to RBD: baseline negative vaccine arm	498
3.8	Pair plots of D1, D29 and D57 nAb Neutralization 50% Titer: baseline negative vaccine arm	499
3.9	Pair plots of D1, D29 and D57 nAb Neutralization 80% Titer: Baseline negative vaccine arm	500
3.10	Pair plots of D29 Ab markers: baseline positive vaccine arm	501
3.11	Pair plots of D57 Ab markers: baseline positive vaccine arm	502
3.12	Pair plots of D29 fold-rise over D1 Ab markers: baseline positive vaccine arm	503
3.13	Pair plots of D57 fold-rise over D1 Ab markers: baseline positive vaccine arm	504
3.14	Pair plots of D1, D29 and D57 Binding Antibody to Spike: baseline positive vaccine arm	505
3.15	Pair plots of D1, D29 and D57 Binding Antibody to RBD: baseline positive vaccine arm	506
3.16	Pair plots of D1, D29 and D57 Binding Antibody to N: baseline positive vaccine arm	507
3.17	Pair plots of D1, D29 and D57 nAb Neutralization 50% Titer: baseline positive vaccine arm	508
3.18	Pair plots of D1, D29 and D57 nAb Neutralization 80% Titer: Baseline positive vaccine arm	509
3.19	Pair plots of D29 Ab markers: baseline positive placebo arm	510
3.20	Pair plots of D57 Ab markers: baseline positive placebo arm	511
3.21	Pair plots of D29 fold-rise over D1 Ab markers: baseline positive placebo arm	512
3.22	Pair plots of D57 fold-rise over D1 Ab markers: baseline positive placebo arm	513
3.23	Pair plots of D1, D29 and D57 Binding Antibody to Spike: baseline positive placebo arm	514
3.24	Pair plots of D1, D29 and D57 Binding Antibody to RBD: baseline positive placebo arm	515
3.25	Pair plots of D1, D29 and D57 Binding Antibody to N: baseline positive placebo arm	516
3.26	Pair plots of D1, D29 and D57 nAb Neutralization 50% Titer: baseline positive placebo arm	517
3.27	Pair plots of D1, D29 and D57 nAb Neutralization 80% Titer: Baseline positive placebo arm	518
3.28	RCDF plots for D29 Ab markers: by baseline status x randomization arm	519

3.29 RCDF plots for D57 Ab markers: by baseline status x randomization arm	520
3.30 RCDF plots for D29 fold-rise over D1 Ab markers: by baseline status x randomization arm	521
3.31 RCDF plots for D57 fold-rise over D1 Ab markers: by baseline status x randomization arm	522
3.32 RCDF plots for D29 bAb markers: by baseline status for the vaccine arm	523
3.33 RCDF plots for D29 nAb markers: by baseline status for the vaccine arm	523
3.34 RCDF plots for D57 bAb markers: by baseline status for the vaccine arm	524
3.35 RCDF plots for D57 nAb markers: by baseline status for the vaccine arm	524
3.36 RCDF plots for D29 over D1 fold-rise bAb markers: by baseline status for the vaccine arm	525
3.37 RCDF plots for D29 over D1 fold-rise nAb markers: by baseline status for the vaccine arm	525
3.38 RCDF plots for D57 fold-rise over D1 bAb markers: by baseline status for the vaccine arm	526
3.39 RCDF plots for D57 fold-rise over D1 nAb markers: by baseline status for the vaccine arm	526
3.40 RCDF plots for D29 bAb markers: baseline negative vaccine arm	527
3.41 RCDF plots for D29 nAb markers: baseline negative vaccine arm	527
3.42 RCDF plots for D57 bAb markers: baseline negative vaccine arm	528
3.43 RCDF plots for D57 nAb markers: baseline negative vaccine arm	528
3.44 RCDF plots for D29 fold-rise over D1 bAb markers: baseline negative vaccine arm	529
3.45 RCDF plots for D29 fold-rise over D1 nAb markers: baseline negative vaccine arm	529
3.46 RCDF plots for D57 fold-rise over D1 bAb markers: baseline negative vaccine arm	530
3.47 RCDF plots for D57 fold-rise over D1 nAb markers: baseline negative vaccine arm	530
3.48 RCDF plots for D29 bAb markers: baseline positive vaccine arm	531
3.49 RCDF plots for D29 nAb markers: baseline positive vaccine arm	531
3.50 RCDF plots for D57 bAb markers: baseline positive vaccine arm	532
3.51 RCDF plots for D57 nAb markers: baseline positive vaccine arm	532
3.52 RCDF plots for D29 fold-rise over D1 bAb markers: baseline positive vaccine arm	533
3.53 RCDF plots for D29 fold-rise over D1 nAb markers: baseline positive vaccine arm	533
3.54 RCDF plots for D57 fold-rise over D1 bAb markers: baseline positive vaccine arm	534
3.55 RCDF plots for D57 fold-rise over D1 nAb markers: baseline positive vaccine arm	534
3.56 Scatter plots for D29 Ab markers vs. age: baseline negative vaccine arm	535
3.57 Scatter plots for D57 Ab markers vs. age: baseline negative vaccine arm	536
3.58 Scatter plots for D29 Ab markers vs. age: baseline positive vaccine arm	537
3.59 Scatter plots for D57 Ab markers vs. age: baseline positive vaccine arm	538
3.60 Scatter plots for D29 Ab markers vs. age: baseline positive placebo arm	539
3.61 Scatter plots for D57 Ab markers vs. age: baseline positive placebo arm	540
3.62 Boxplots of D29 Ab markers: baseline negative vaccine + placebo arms. The three dashed lines in each figure are ULOQ, LLOQ, and positivity cutoffs for binding antibody assays, or ULOQ, LLOQ, and LLQD for neutralizing antibody assays, from top to bottom respectively.	541

3.63 Boxplots of D57 Ab markers: baseline negative vaccine + placebo arms. The three dashed lines in each figure are ULOQ, LLOQ, and positivity cutoffs for binding antibody assays, or ULOQ, LLOQ, and LLOD for neutralizing antibody assays, from top to bottom respectively.	542
3.64 Boxplots of D29 fold-rise over D1 Ab markers: baseline negative vaccine + placebo arms . . .	543
3.65 Boxplots of D57 fold-rise over D1 Ab markers: baseline negative vaccine + placebo arms . . .	544
3.66 Boxplots of D29 Ab markers: baseline positive vaccine + placebo arms. The three dashed lines in each figure are ULOQ, LLOQ, and positivity cutoffs for binding antibody assays, or ULOQ, LLOQ, and LLOD for neutralizing antibody assays, from top to bottom respectively.	545
3.67 Boxplots of D57 Ab markers: baseline positive vaccine + placebo arms. The three dashed lines in each figure are ULOQ, LLOQ, and positivity cutoffs for binding antibody assays, or ULOQ, LLOQ, and LLOD for neutralizing antibody assays, from top to bottom respectively.	546
3.68 Boxplots of D29 fold-rise over D1 Ab markers: baseline positive vaccine + placebo arms . . .	547
3.69 Boxplots of D57 fold-rise over D1 Ab markers: baseline positive vaccine + placebo arms . . .	548
3.70 Boxplots of D29 Ab markers: baseline positive + negative vaccine arm. The three dashed lines in each figure are ULOQ, LLOQ, and positivity cutoffs for binding antibody assays, or ULOQ, LLOQ, and LLOD for neutralizing antibody assays, from top to bottom respectively.	549
3.71 Boxplots of D57 Ab markers: baseline positive + negative vaccine arm. The three dashed lines in each figure are ULOQ, LLOQ, and positivity cutoffs for binding antibody assays, or ULOQ, LLOQ, and LLOD for neutralizing antibody assays, from top to bottom respectively.	550
3.72 Boxplots of D29 fold-rise over D1 Ab markers: baseline positive + negative vaccine arm . . .	551
3.73 Boxplots of D57 fold-rise over D1 Ab markers: baseline positive + negative vaccine arm . . .	552
3.74 Boxplots of D29 Ab markers: baseline positive + negative placebo arm. The three dashed lines in each figure are ULOQ, LLOQ, and positivity cutoffs for binding antibody assays, or ULOQ, LLOQ, and LLOD for neutralizing antibody assays, from top to bottom respectively.	553
3.75 Boxplots of D57 Ab markers: baseline positive + negative placebo arm. The three dashed lines in each figure are ULOQ, LLOQ, and positivity cutoffs for binding antibody assays, or ULOQ, LLOQ, and LLOD for neutralizing antibody assays, from top to bottom respectively.	554
3.76 Boxplots of D29 fold-rise over D1 Ab markers: baseline positive + negative placebo arm . . .	555
3.77 Boxplots of D57 fold-rise over D1 Ab markers: baseline positive + negative placebo arm . . .	556
3.78 Spaghetti plots of Ab markers over time: baseline negative vaccine + placebo arm	557
3.79 Spaghetti plots of Ab markers over time: baseline positive vaccine + placebo arm	558
3.80 RCDF plots for D29 Ab markers: baseline negative vaccine arm by age groups.	559
3.81 RCDF plots for D57 Ab markers: baseline negative vaccine arm by age groups.	560
3.82 RCDF plots for D29 fold-rise over D1 Ab markers: baseline negative vaccine arm by age groups.	561
3.83 RCDF plots for D57 fold-rise over D1 Ab markers: baseline negative vaccine arm by age groups.	562
3.84 RCDF plots for D29 Ab markers: baseline negative vaccine arm by high-risk condition.	563
3.85 RCDF plots for D57 Ab markers: baseline negative vaccine arm by high-risk condition.	564
3.86 RCDF plots for D29 fold-rise over D1 Ab markers: baseline negative vaccine arm by high-risk condition.	565
3.87 RCDF plots for D57 fold-rise over D1 Ab markers: baseline negative vaccine arm by high-risk condition.	566
3.88 RCDF plots for D29 Ab markers: baseline negative vaccine arm by age and high-risk condition.	567

3.89 RCDF plots for D57 Ab markers: baseline negative vaccine arm by age and high-risk condition.	568
3.90 RCDF plots for D29 fold-rise over D1 Ab markers: baseline negative vaccine arm by age and high-risk condition.	569
3.91 RCDF plots for D57 fold-rise over D1 Ab markers: baseline negative vaccine arm by age and high-risk condition.	570
3.92 RCDF plots for D29 Ab markers: baseline negative vaccine arm by sex assigned at birth.	571
3.93 RCDF plots for D57 Ab markers: baseline negative vaccine arm by sex assigned at birth.	572
3.94 RCDF plots for D29 fold-rise over D1 Ab markers: baseline negative vaccine arm by sex assigned at birth.	573
3.95 RCDF plots for D57 fold-rise over D1 Ab markers: baseline negative vaccine arm by sex assigned at birth.	574
3.96 RCDF plots for D29 Ab markers: baseline negative vaccine arm by age and sex assigned at birth.	575
3.97 RCDF plots for D57 Ab markers: baseline negative vaccine arm by age and sex assigned at birth.	576
3.98 RCDF plots for D29 fold-rise over D1 Ab markers: baseline negative vaccine arm by age and sex assigned at birth.	577
3.99 RCDF plots for D57 fold-rise over D1 Ab markers: baseline negative vaccine arm by age and sex at birth.	578
3.100RCDF plots for D29 Ab markers: baseline negative vaccine arm by ethnicity.	579
3.101RCDF plots for D57 Ab markers: baseline negative vaccine arm by ethnicity.	580
3.102RCDF plots for D29 fold-rise over D1 Ab markers: baseline negative vaccine arm by ethnicity.	581
3.103RCDF plots for D57 fold-rise over D1 Ab markers: baseline negative vaccine arm by ethnicity.	582
3.104RCDF plots for D29 Ab markers: baseline negative vaccine arm by race.	583
3.105RCDF plots for D57 Ab markers: baseline negative vaccine arm by race.	584
3.106RCDF plots for D29 fold-rise over D1 Ab markers: baseline negative vaccine arm by race.	585
3.107RCDF plots for D57 fold-rise over D1 Ab markers: baseline negative vaccine arm by race.	586
3.108RCDF plots for D29 Ab markers: baseline negative vaccine arm by dichotomous classification of race and ethnic group.	587
3.109RCDF plots for D57 Ab markers: baseline negative vaccine arm by dichotomous classification of race and ethnic group.	588
3.110RCDF plots for D29 fold-rise over D1 Ab markers: baseline negative vaccine arm by dichotomous classification of race and ethnic group.	589
3.111RCDF plots for D57 fold-rise over D1 Ab markers: baseline negative vaccine arm by dichotomous classification of race and ethnic group.	590
3.112RCDF plots for D29 Ab markers: baseline negative vaccine arm by age and dichotomous classification of race and ethnic group.	591
3.113RCDF plots for D57 Ab markers: baseline negative vaccine arm by age and dichotomous classification of race and ethnic group.	592
3.114RCDF plots for D29 fold-rise over D1 Ab markers: baseline negative vaccine arm by age and dichotomous classification of race and ethnic group.	593

3.115RCDF plots for D57 fold-rise over D1 Ab markers: baseline negative vaccine arm by age and dichotomous classification of race and ethnic group.	594
3.116RCDF plots for D29 Ab markers: baseline positive vaccine arm by age groups.	595
3.117RCDF plots for D57 Ab markers: baseline positive vaccine arm by age groups.	596
3.118RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by age groups.	597
3.119RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by age groups.	598
3.120RCDF plots for D29 Ab markers: baseline positive vaccine arm by high-risk condition.	599
3.121RCDF plots for D57 Ab markers: baseline positive vaccine arm by high-risk condition.	600
3.122RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by high-risk condition.	601
3.123RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by high-risk condition.	602
3.124RCDF plots for D29 Ab markers: baseline positive vaccine arm by age and high-risk condition.	603
3.125RCDF plots for D57 Ab markers: baseline positive vaccine arm by age and high-risk condition.	604
3.126RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and high-risk condition.	605
3.127RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and high-risk condition.	606
3.128RCDF plots for D29 Ab markers: baseline positive vaccine arm by sex assigned at birth.	607
3.129RCDF plots for D57 Ab markers: baseline positive vaccine arm by sex assigned at birth.	608
3.130RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by sex assigned at birth.	609
3.131RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by sex assigned at birth.	610
3.132RCDF plots for D29 Ab markers: baseline positive vaccine arm by age and sex assigned at birth.	611
3.133RCDF plots for D57 Ab markers: baseline positive vaccine arm by age and sex assigned at birth.	612
3.134RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and sex assigned at birth.	613
3.135RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and sex assigned at birth.	614
3.136RCDF plots for D29 Ab markers: baseline positive vaccine arm by ethnicity.	615
3.137RCDF plots for D57 Ab markers: baseline positive vaccine arm by ethnicity.	616
3.138RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by ethnicity.	617
3.139RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by ethnicity.	618
3.140RCDF plots for D29 Ab markers: baseline positive vaccine arm by race.	619
3.141RCDF plots for D57 Ab markers: baseline positive vaccine arm by race.	620
3.142RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by race.	621
3.143RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by race.	622

3.144RCDF plots for D29 Ab markers: baseline positive vaccine arm by dichotomous classification of race and ethnic group.	623
3.145RCDF plots for D57 Ab markers: baseline positive vaccine arm by dichotomous classification of race and ethnic group.	624
3.146RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by dichotomous classification of race and ethnic group.	625
3.147RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by dichotomous classification of race and ethnic group.	626
3.148RCDF plots for D29 Ab markers: baseline positive vaccine arm by age and dichotomous classification of race and ethnic group.	627
3.149RCDF plots for D57 Ab markers: baseline positive vaccine arm by age and dichotomous classification of race and ethnic group.	628
3.150RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and dichotomous classification of race and ethnic group.	629
3.151RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and dichotomous classification of race and ethnic group.	630
3.152RCDF plots for D29 Ab markers: baseline positive placebo arm by age groups.	631
3.153RCDF plots for D57 Ab markers: baseline positive placebo arm by age groups.	632
3.154RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive placebo arm by age groups.	633
3.155RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive placebo arm by age groups.	634
3.156RCDF plots for D29 Ab markers: baseline positive placebo arm by high-risk condition.	635
3.157RCDF plots for D57 Ab markers: baseline positive placebo arm by high-risk condition.	636
3.158RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive placebo arm by high-risk condition.	637
3.159RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive placebo arm by high-risk condition.	638
3.160RCDF plots for D29 Ab markers: baseline positive placebo arm by age and high-risk condition.	639
3.161RCDF plots for D57 Ab markers: baseline positive placebo arm by age and high-risk condition.	640
3.162RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive placebo arm by age and high-risk condition.	641
3.163RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive placebo arm by age and high-risk condition.	642
3.164RCDF plots for D29 Ab markers: baseline positive placebo arm by sex assigned at birth.	643
3.165RCDF plots for D57 Ab markers: baseline positive placebo arm by sex assigned at birth.	644
3.166RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive placebo arm by sex assigned at birth.	645
3.167RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive placebo arm by sex assigned at birth.	646
3.168RCDF plots for D29 Ab markers: baseline positive placebo arm by age and sex assigned at birth.	647
3.169RCDF plots for D57 Ab markers: baseline positive placebo arm by age and sex assigned at birth.	648

3.170RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive placebo arm by age and sex assigned at birth.	649
3.171RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive placebo arm by age and sex assigned at birth.	650
3.172RCDF plots for D29 Ab markers: baseline positive placebo arm by ethnicity.	651
3.173RCDF plots for D57 Ab markers: baseline positive placebo arm by ethnicity.	652
3.174RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive placebo arm by ethnicity.	653
3.175RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive placebo arm by ethnicity.	654
3.176RCDF plots for D29 Ab markers: baseline positive placebo arm by race.	655
3.177RCDF plots for D57 Ab markers: baseline positive placebo arm by race.	656
3.178RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive placebo arm by race.	657
3.179RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive placebo arm by race.	658
3.180RCDF plots for D29 Ab markers: baseline positive placebo arm by dichotomous classification of race and ethnic group.	659
3.181RCDF plots for D57 Ab markers: baseline positive placebo arm by dichotomous classification of race and ethnic group.	660
3.182RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive placebo arm by dichotomous classification of race and ethnic group.	661
3.183RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive placebo arm by dichotomous classification of race and ethnic group.	662
3.184RCDF plots for D29 Ab markers: baseline positive placebo arm by age and dichotomous classification of race and ethnic group.	663
3.185RCDF plots for D57 Ab markers: baseline positive placebo arm by age and dichotomous classification of race and ethnic group.	664
3.186RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive placebo arm by age and dichotomous classification of race and ethnic group.	665
3.187RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive placebo arm by age and dichotomous classification of race and ethnic group.	666
3.188Boxplots of D29 Ab markers: Baseline negative vaccine arm by age group. The three dashed lines in each figure are ULOQ, LLOQ, and positivity cutoffs for binding antibody assays, or ULOQ, LLOQ, and LLOD for neutralizing antibody assays, from top to bottom respectively.	667
3.189Boxplots of D57 Ab markers: Baseline negative vaccine arm by age group. The three dashed lines in each figure are ULOQ, LLOQ, and positivity cutoffs for binding antibody assays, or ULOQ, LLOQ, and LLOD for neutralizing antibody assays, from top to bottom respectively.	668
3.190Boxplots of D29 fold-rise over D1 Ab markers: Baseline negative vaccine arm by age and sex assigned at birth.	669
3.191Boxplots of D57 fold-rise over D1 Ab markers: Baseline negative vaccine arm by age and sex assigned at birth.	670
3.192Boxplots of D29 fold-rise over D1 Ab markers: Baseline negative vaccine arm by ethnicity.	671
3.193Boxplots of D57 fold-rise over D1 Ab markers: Baseline negative vaccine arm by ethnicity.	672
3.194Boxplots of D29 fold-rise over D1 Ab markers: Baseline negative vaccine arm by race.	673
3.195Boxplots of D57 fold-rise over D1 Ab markers: Baseline negative vaccine arm by race.	674

3.196Boxplots of D29 fold-rise over D1 Ab markers: Baseline negative vaccine arm by dichotomous classification of race and ethnic group.	675
3.197Boxplots of D57 fold-rise over D1 Ab markers: Baseline negative vaccine arm by dichotomous classification of race and ethnic group.	676
3.198Boxplots of D29 fold-rise over D1 Ab markers: Baseline negative vaccine arm by age and dichotomous classification of race and ethnic group.	677
3.199Boxplots of D57 fold-rise over D1 Ab markers: Baseline negative vaccine arm by age and dichotomous classification of race and ethnic group.	678
3.200Boxplots of D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by age group. . .	680
3.201Boxplots of D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by age group. . .	681
3.202Boxplots of D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by high-risk condition.	682
3.203Boxplots of D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by high-risk condition.	683
3.204Boxplots of D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and high-risk condition.	684
3.205Boxplots of D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and high-risk condition.	685
3.206Boxplots of D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by sex assigned at birth.	686
3.207Boxplots of D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by sex assigned at birth.	687
3.208Boxplots of D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and sex assigned at birth.	688
3.209Boxplots of D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and sex assigned at birth.	689
3.210Boxplots of D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by ethnicity. . .	690
3.211Boxplots of D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by ethnicity. . .	691
3.212Boxplots of D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by race.	692
3.213Boxplots of D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by race.	693
3.214Boxplots of D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by dichotomous classification of race and ethnic group.	694
3.215Boxplots of D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by dichotomous classification of race and ethnic group.	695
3.216Boxplots of D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and dichotomous classification of race and ethnic group.	696
3.217Boxplots of D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and dichotomous classification of race and ethnic group.	697

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.

MOCK

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 ≥ 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 ≥ 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 ≥ 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 ≥ 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 ≥ 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 ≥ 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 ≥ 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 ≥ 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 ≥ 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 ≥ 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 ≥ 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 ≥ 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 ≥ 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 ≥ 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 ≥ 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)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Age ≥ 65 Female	D29 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	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)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
American Indian or Alaska Native	D29 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	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)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
American Indian or Alaska Native	D57 fold-rise over D1	Vaccine	Positive	Pseudovirus-nAb ID50	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)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Native Hawaiian or Other Pacific Islander	D29 fold-rise over D1	Placebo	Negative	Anti Spike IgG (IU/ml)	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)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Native Hawaiian or Other Pacific Islander	D57 fold-rise over D1	Vaccine	Negative	Pseudovirus-nAb ID80	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)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Native Hawaiian or Other Pacific Islander	D57 fold-rise over D1	Placebo	Positive	Anti RBD IgG (IU/ml)	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)

(continued)

Group	Visit	Arm	Baseline SARS-CoV-2	Marker	N	Baseline GMT/GMC	Post Baseline GMT/GMC	GMTR/GMCR
Other	D29 fold-rise over D1	Vaccine	Negative	Anti N IgG (IU/ml)	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 \geq 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 \geq 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 \geq 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 \geq 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 \geq 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)

MOCK

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)

MOCK

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)

MOCK

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)

MOCK

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)

MOCK

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)

(continued)

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)

(continued)

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

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

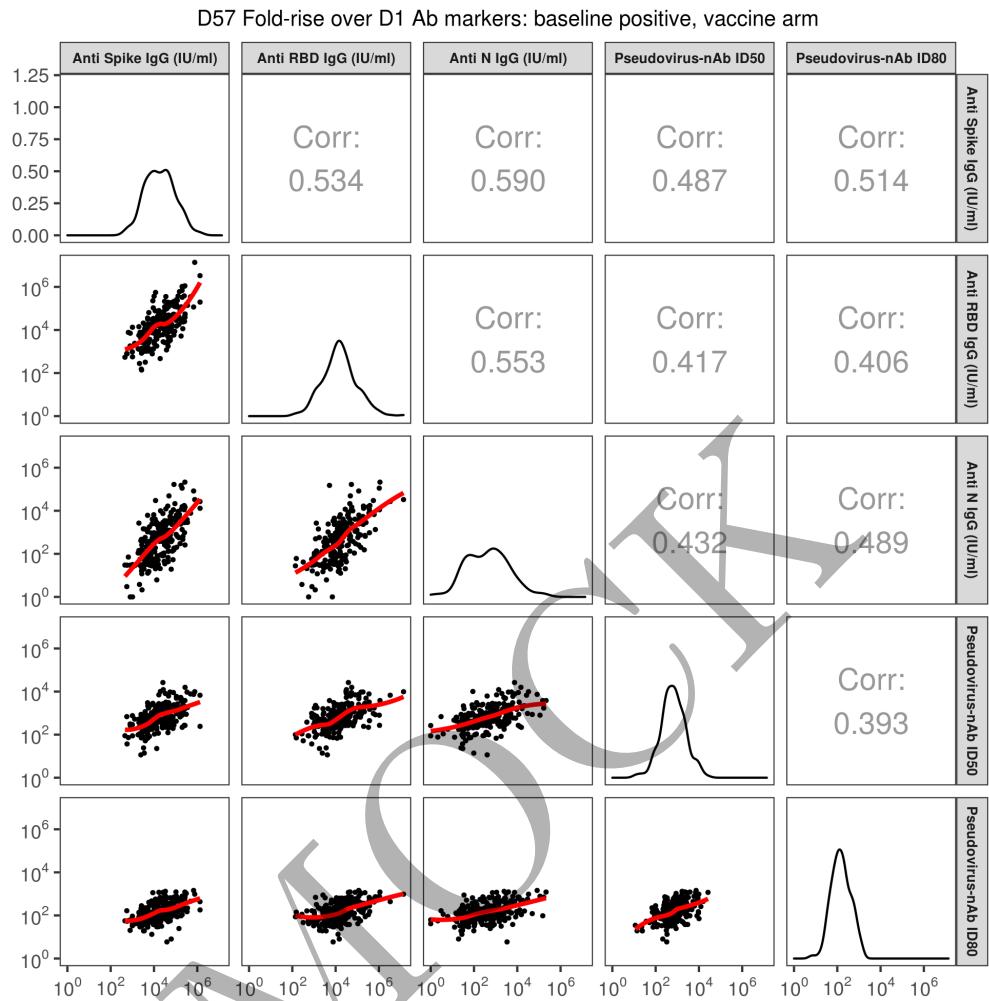


Figure 3.13: Pair plots of D57 fold-rise over D1 Ab markers: baseline positive vaccine arm



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

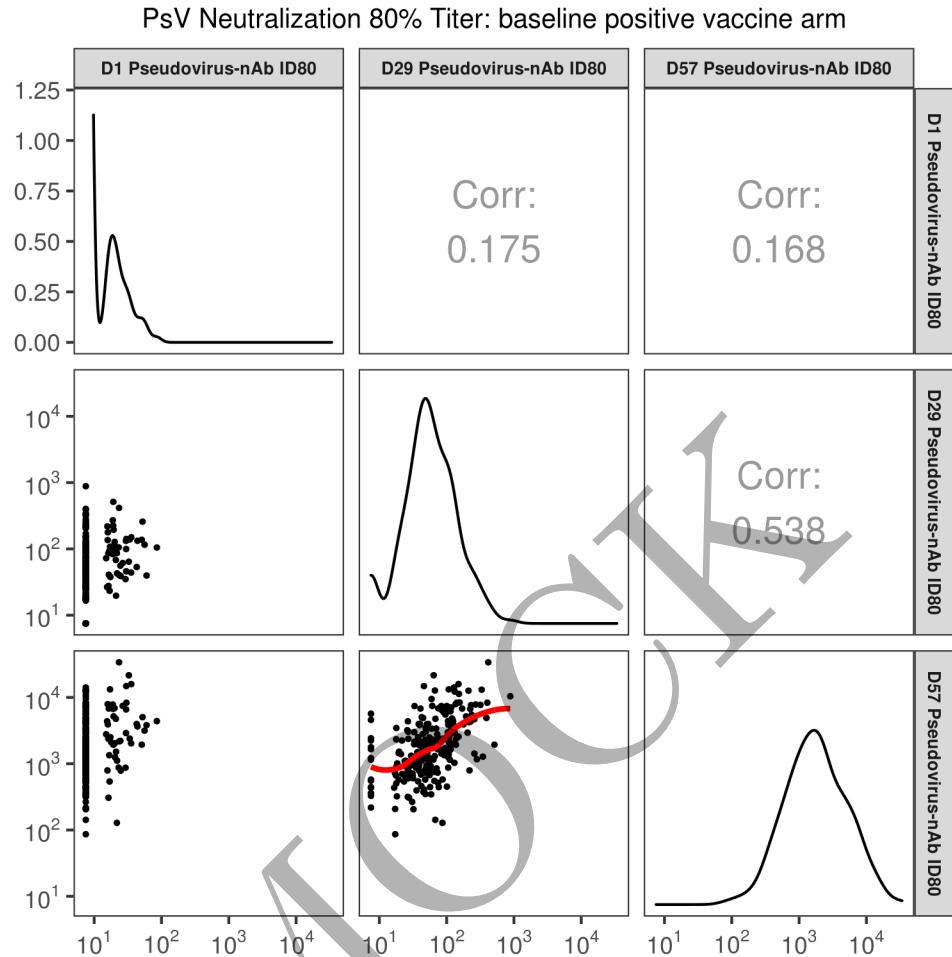


Figure 3.18: Pair plots of D1, D29 and D57 nAb Neutralization 80% Titer: Baseline positive vaccine arm

3.1.3 Baseline SARS-CoV-2 Positive Placebo Arm

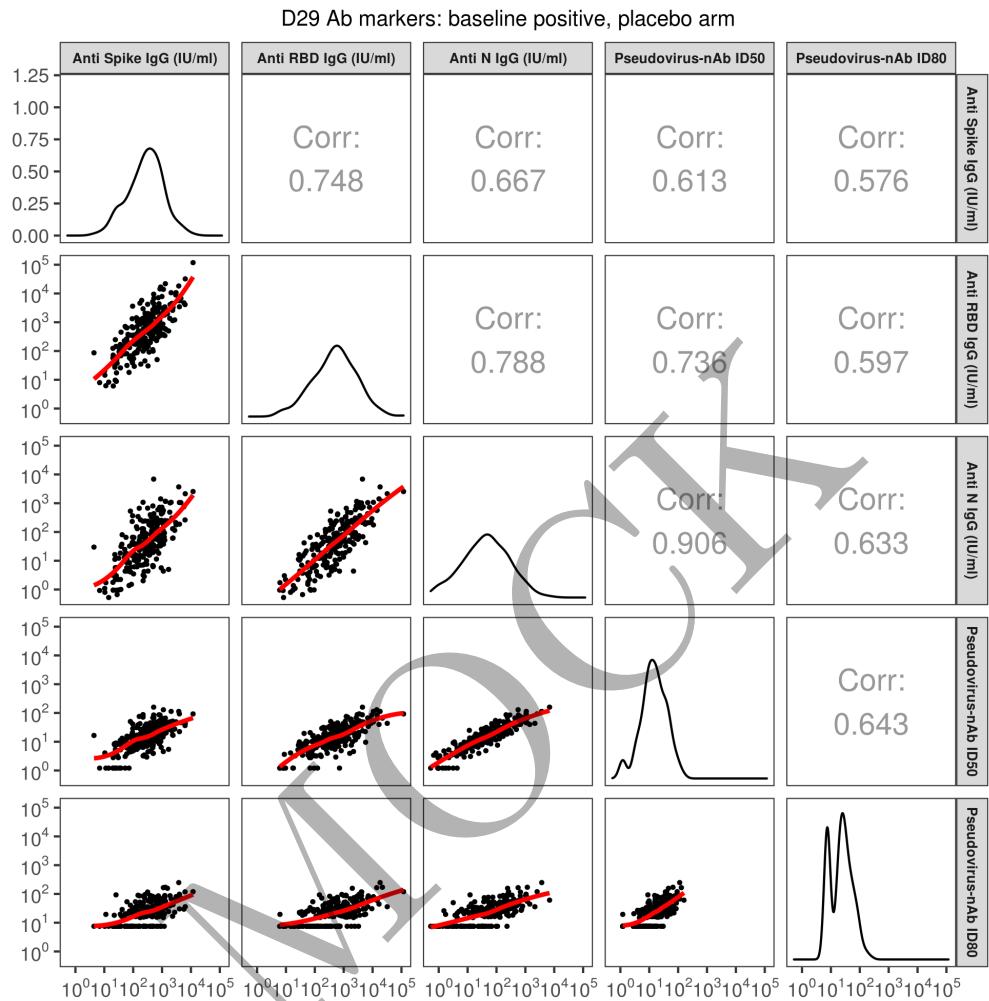


Figure 3.19: Pair plots of D29 Ab markers: baseline positive placebo arm

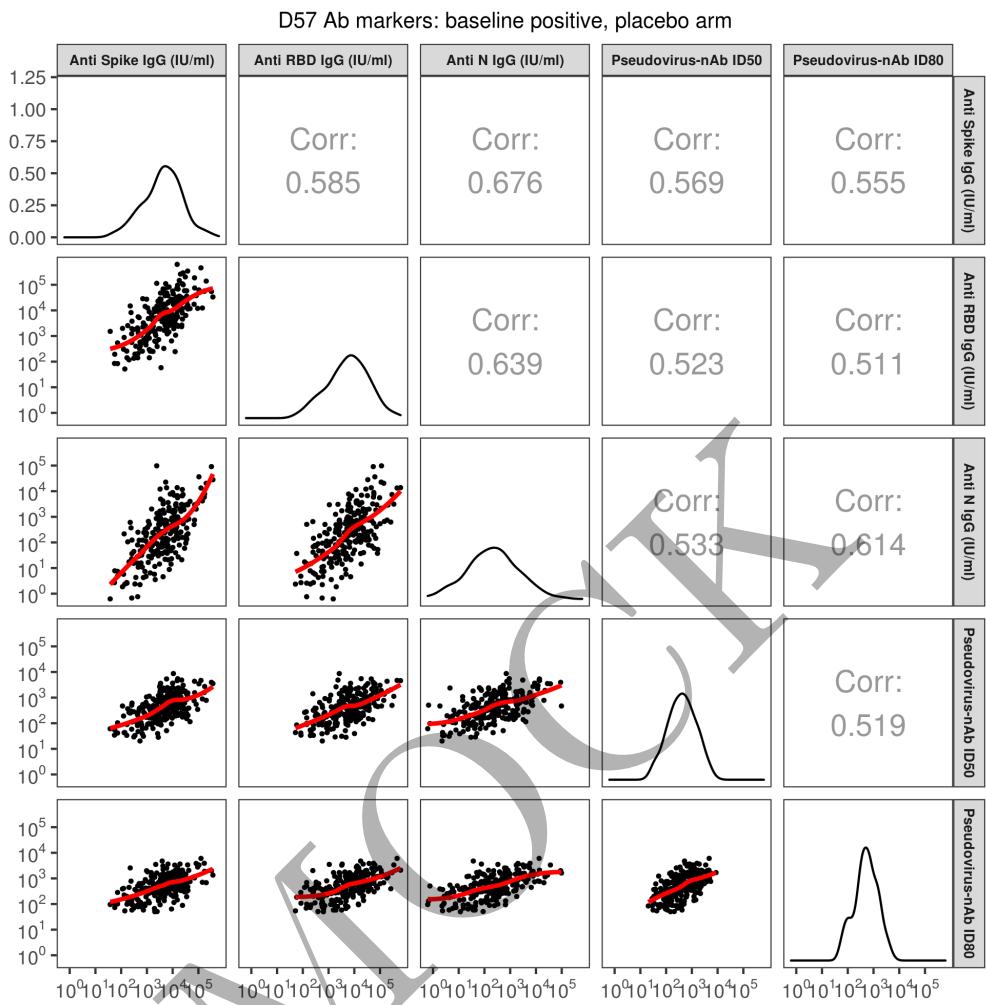


Figure 3.20: Pair plots of D57 Ab markers: baseline positive placebo arm

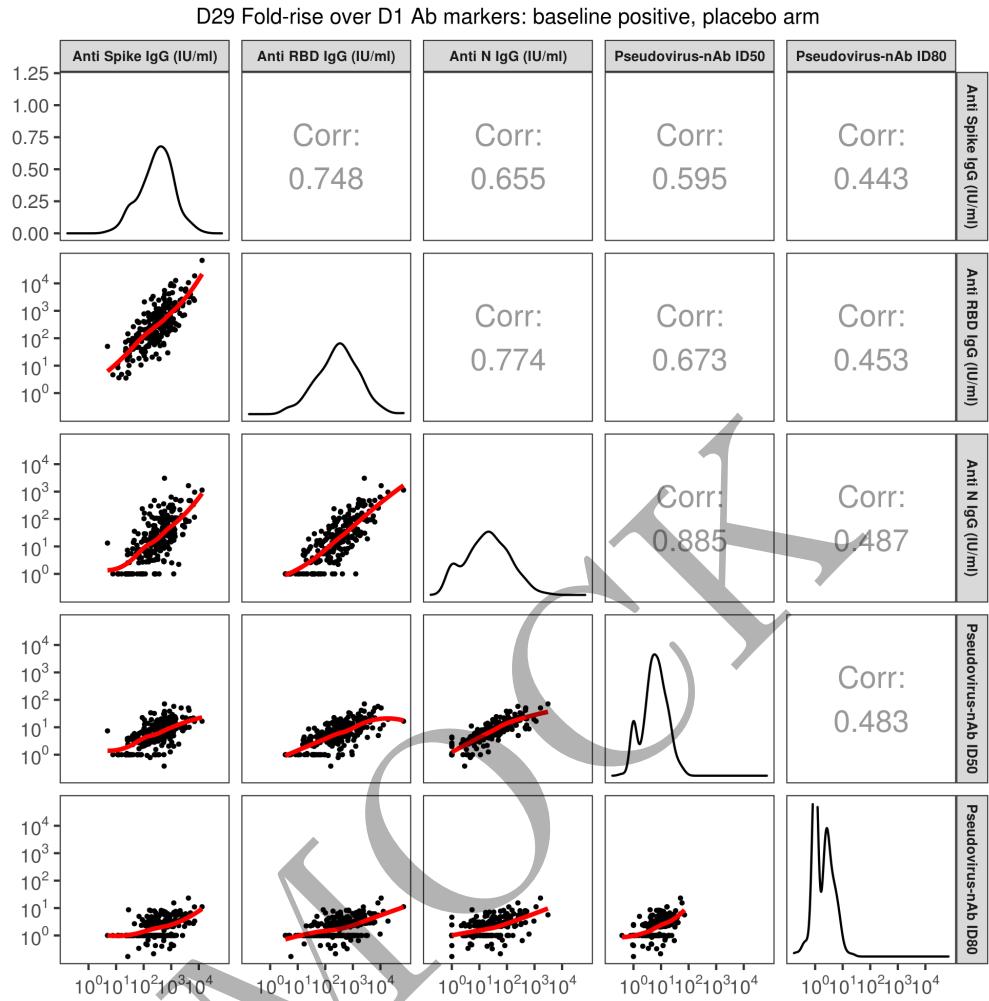


Figure 3.21: Pair plots of D29 fold-rise over D1 Ab markers: baseline positive placebo arm

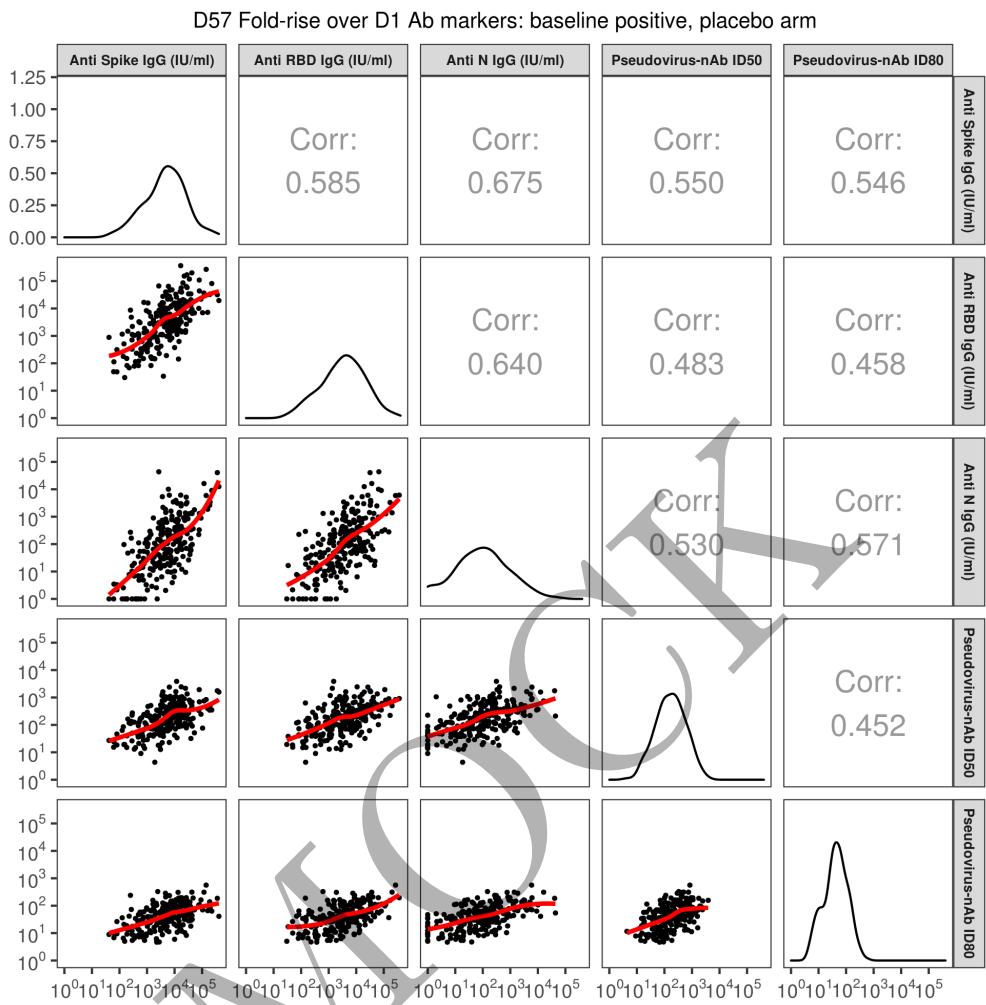


Figure 3.22: Pair plots of D57 fold-rise over D1 Ab markers: baseline positive placebo arm

Binding Antibody to Spike: baseline positive placebo arm

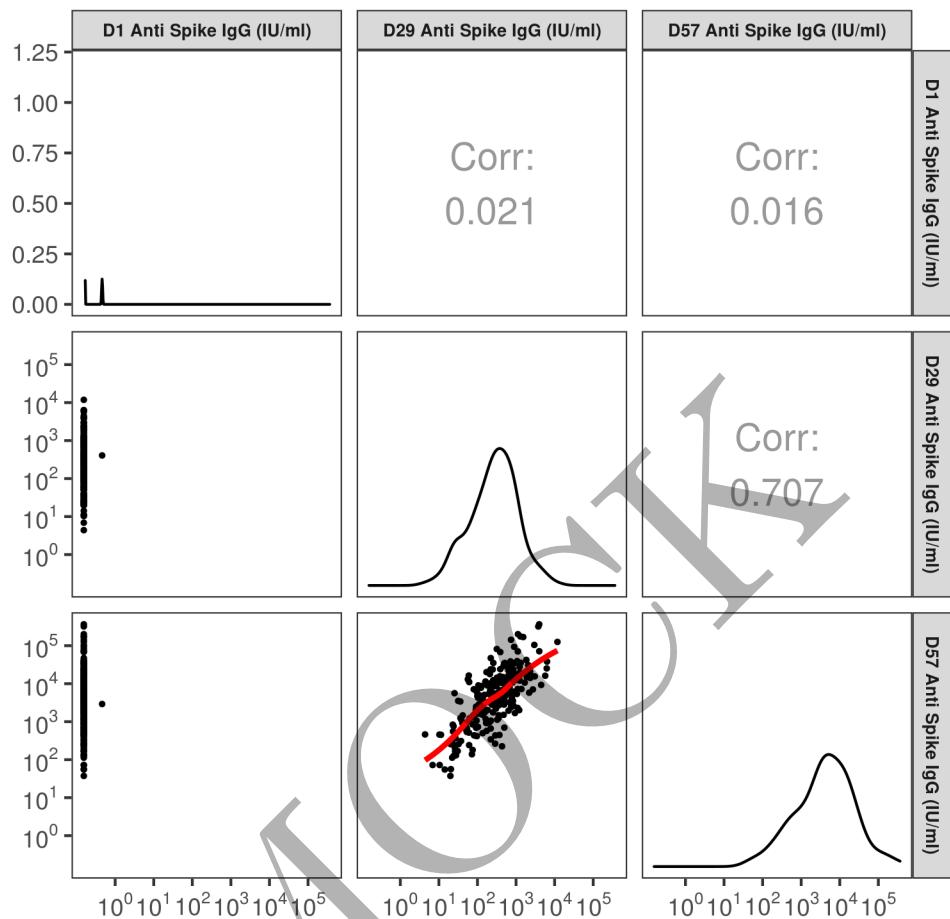


Figure 3.23: Pair plots of D1, D29 and D57 Binding Antibody to Spike: baseline positive placebo arm

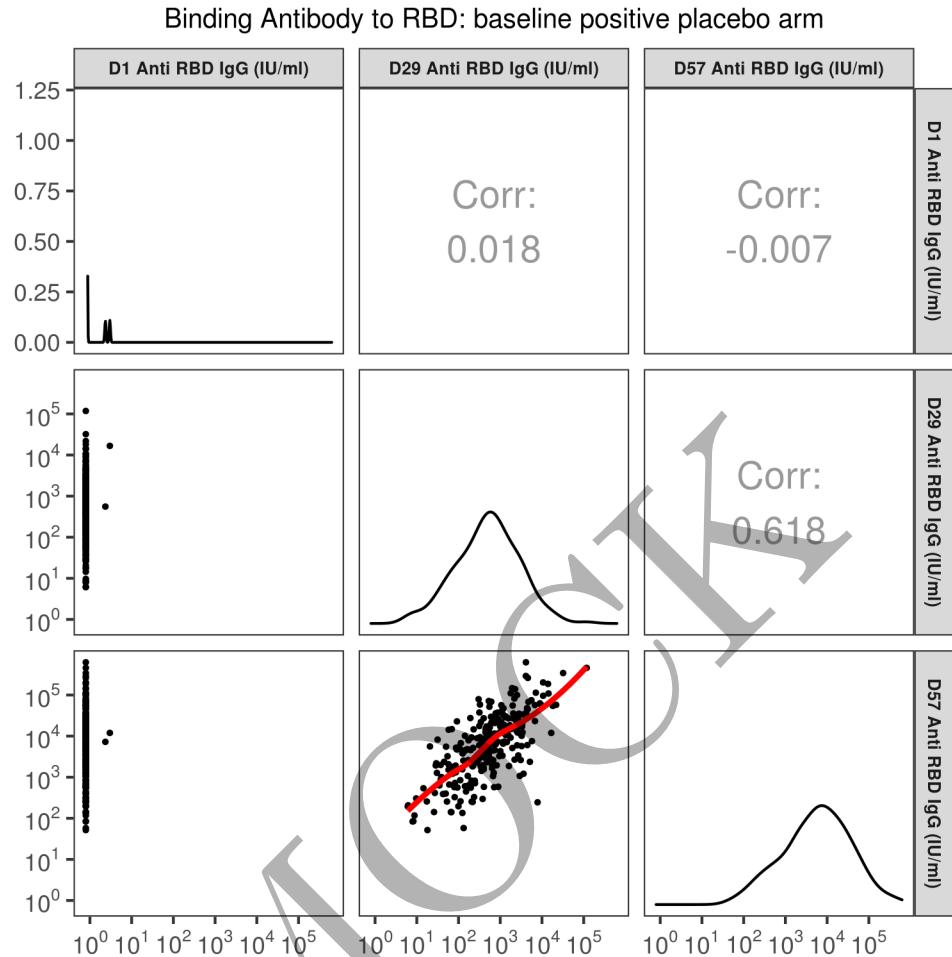


Figure 3.24: Pair plots of D1, D29 and D57 Binding Antibody to RBD: baseline positive placebo arm

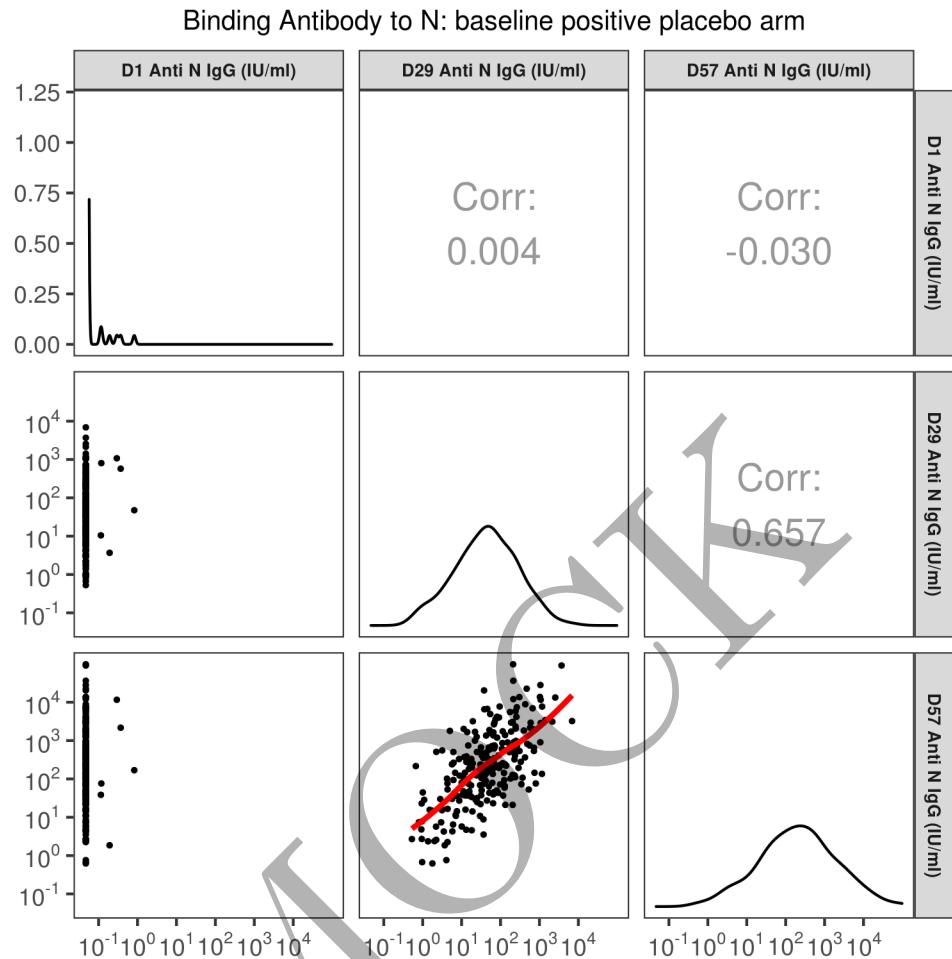


Figure 3.25: Pair plots of D1, D29 and D57 Binding Antibody to N: baseline positive placebo arm

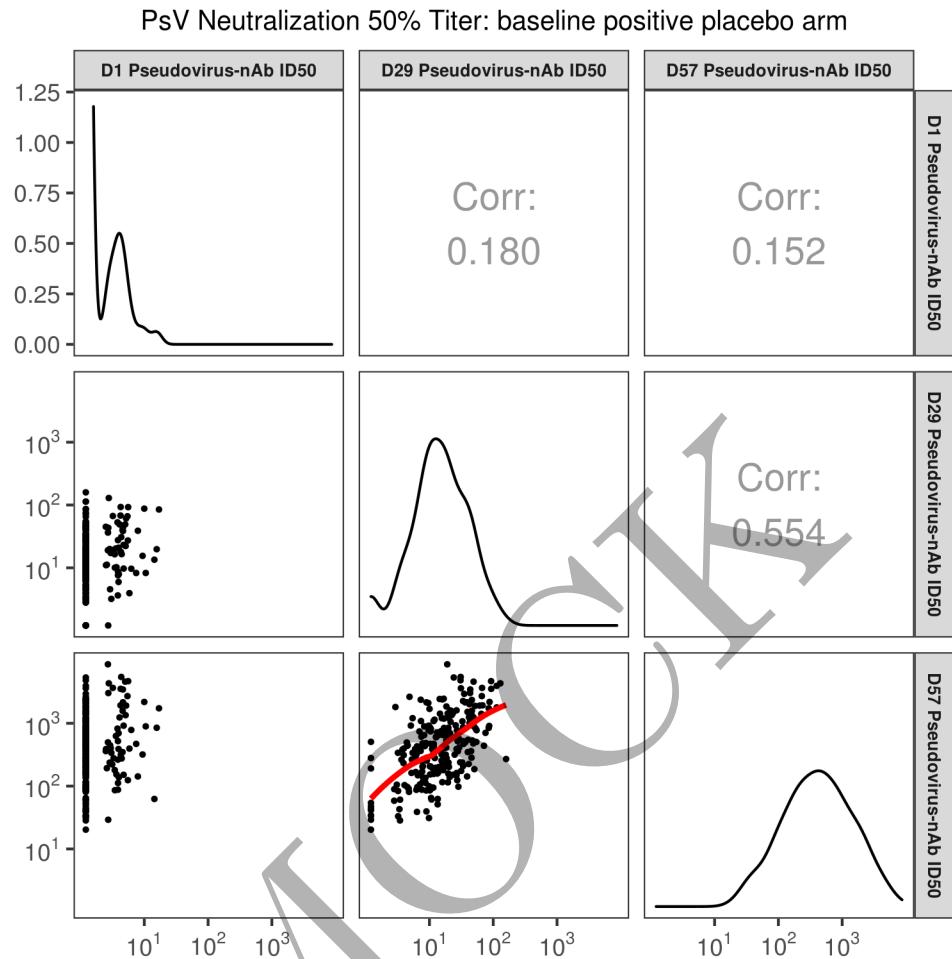


Figure 3.26: Pair plots of D1, D29 and D57 nAb Neutralization 50% Titer: baseline positive placebo arm

PsV Neutralization 80% Titer: baseline positive placebo arm

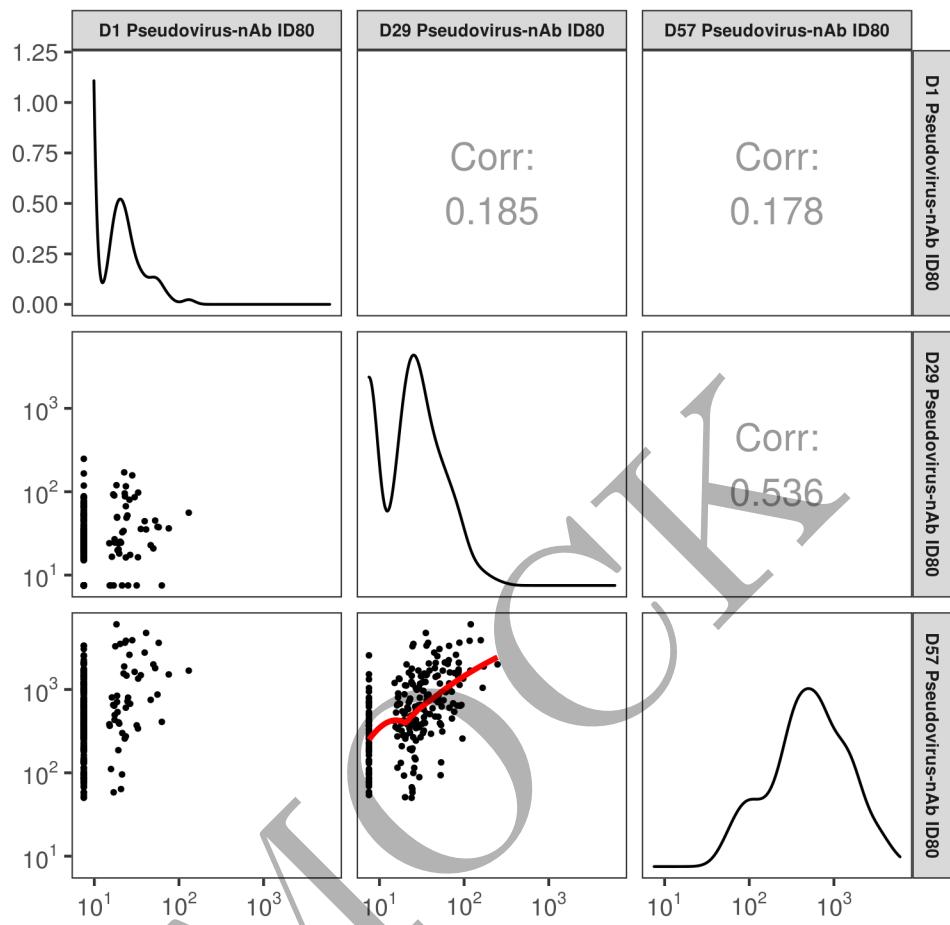


Figure 3.27: Pair plots of D1, D29 and D57 nAb Neutralization 80% Titer: Baseline positive placebo arm

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

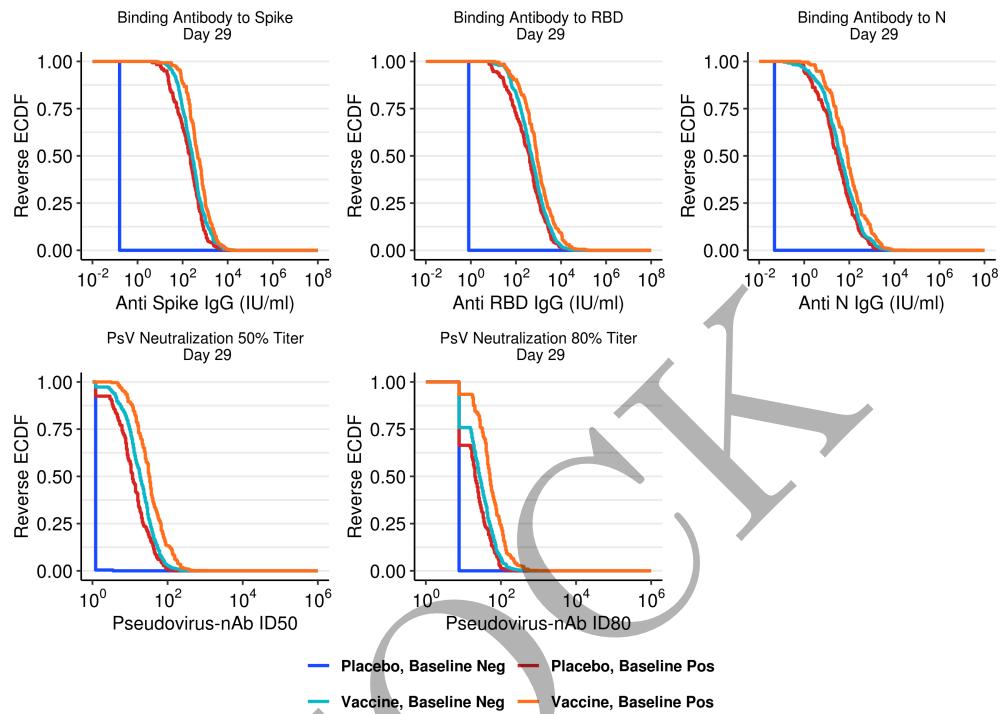


Figure 3.28: RCDF plots for D29 Ab markers: by baseline status x randomization arm

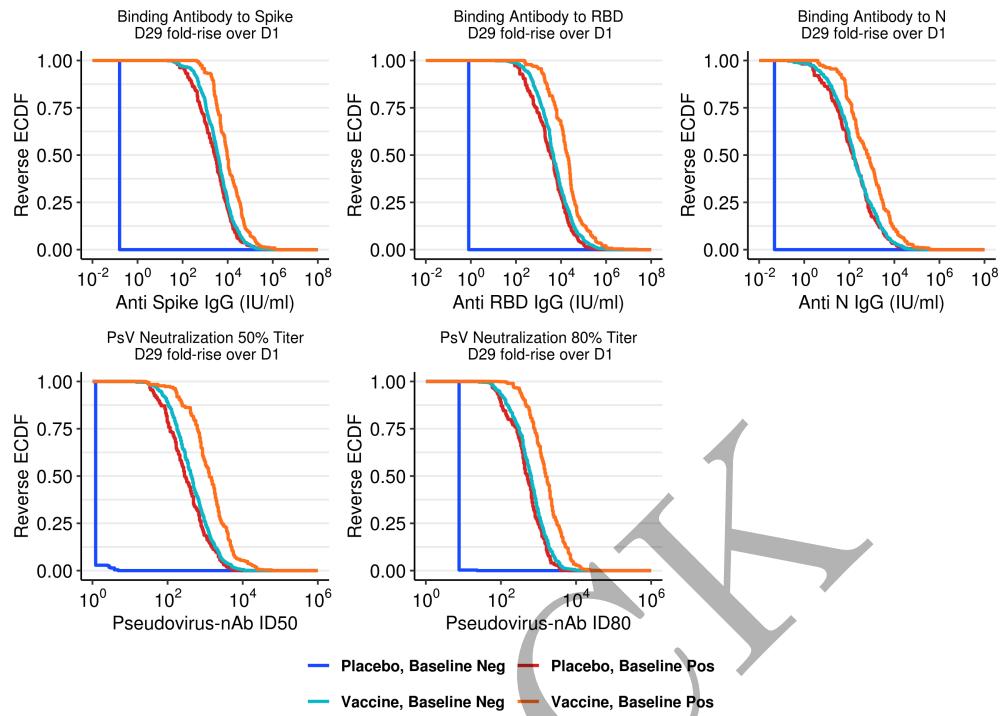


Figure 3.29: RCDF plots for D57 Ab markers: by baseline status x randomization arm

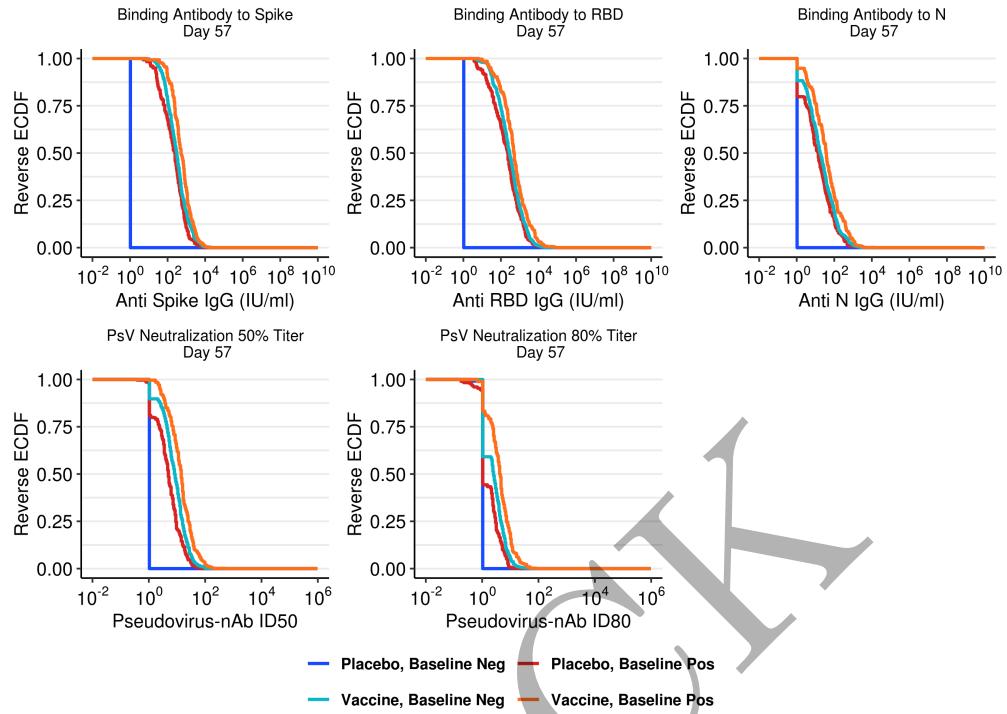


Figure 3.30: RCDF plots for D29 fold-rise over D1 Ab markers: by baseline status x randomization arm

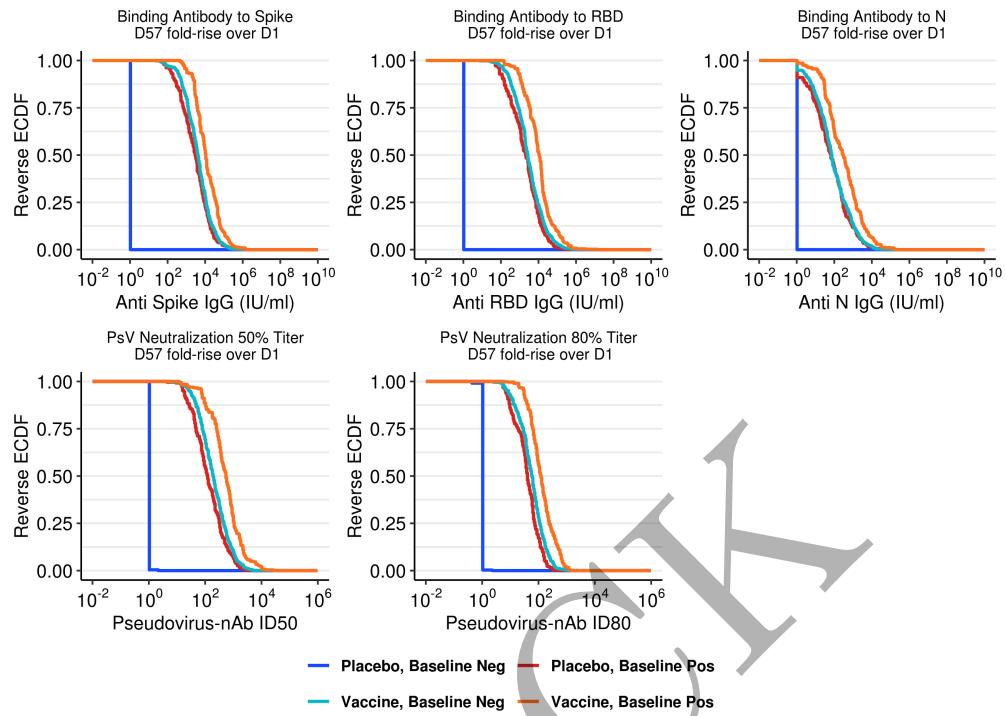


Figure 3.31: RCDF plots for D57 fold-rise over D1 Ab markers: by baseline status x randomization arm

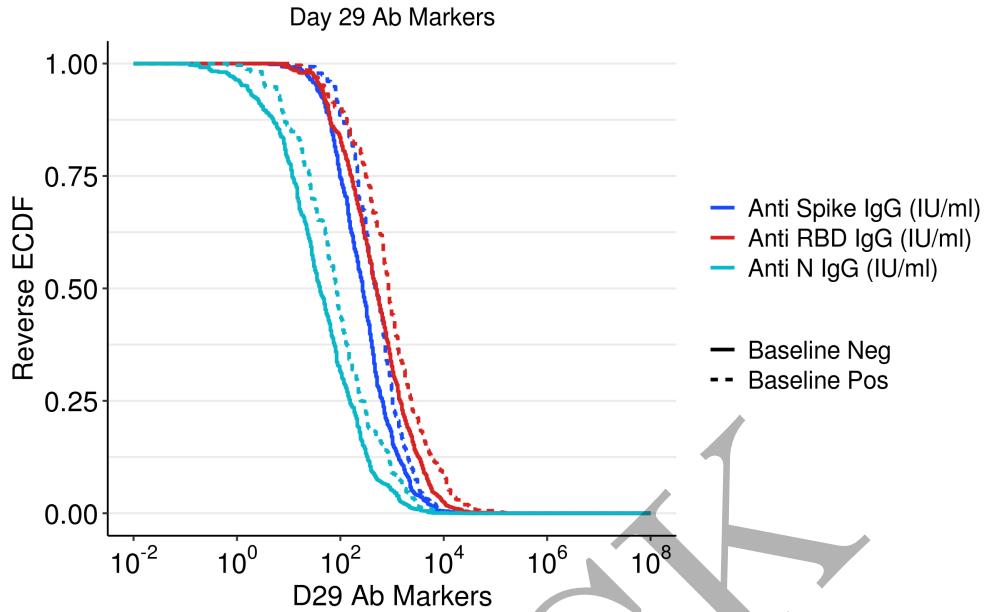


Figure 3.32: RCDF plots for D29 bAb markers: by baseline status for the vaccine arm

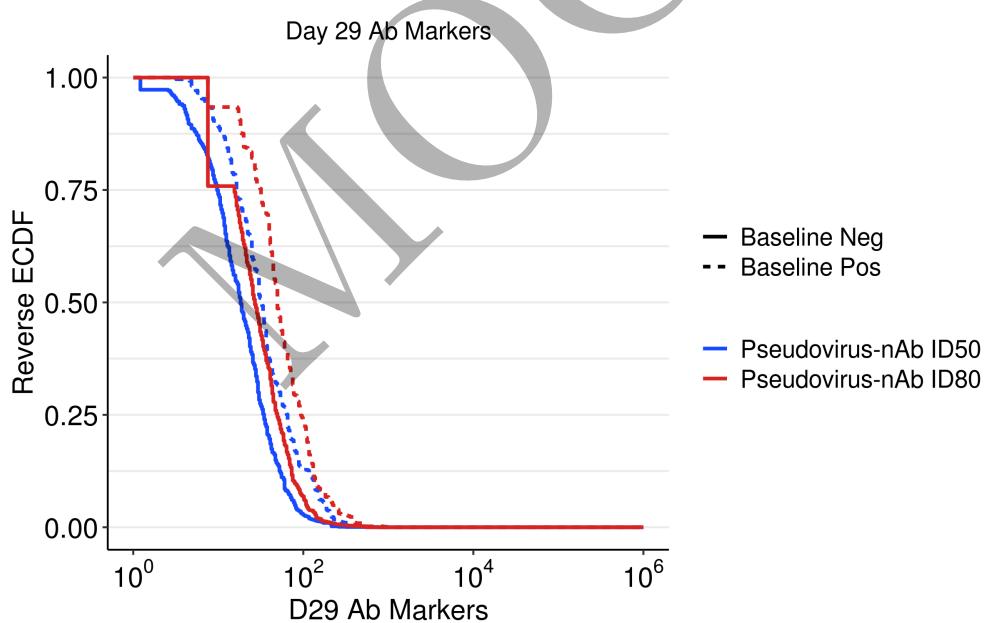


Figure 3.33: RCDF plots for D29 nAb markers: by baseline status for the vaccine arm

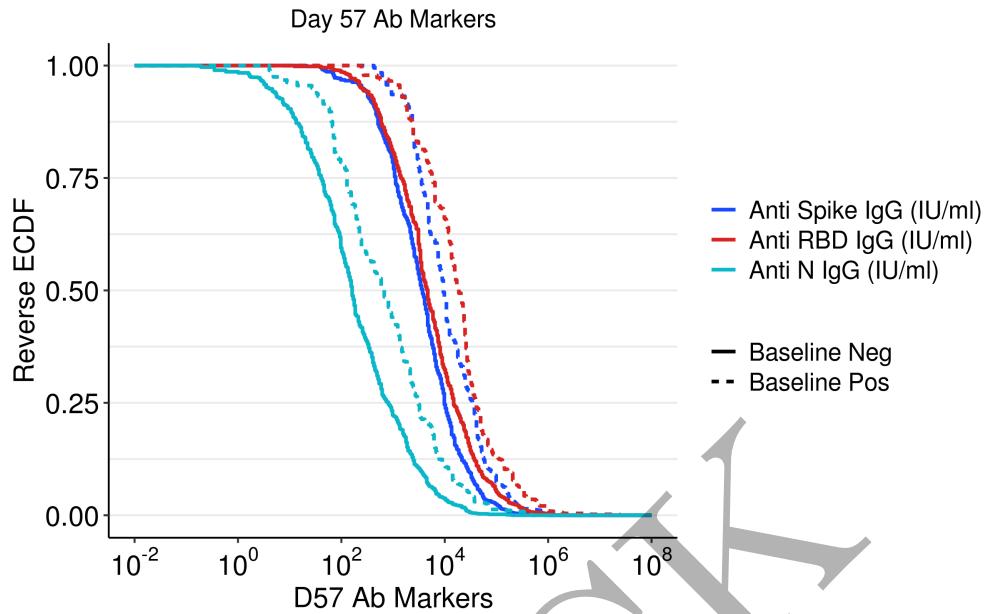


Figure 3.34: RCDF plots for D57 bAb markers: by baseline status for the vaccine arm

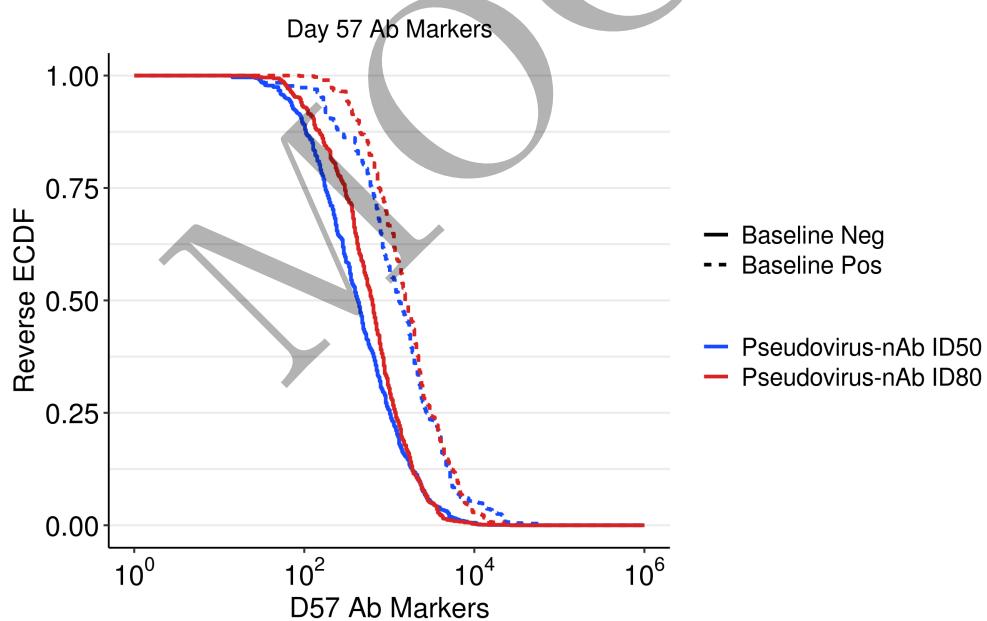


Figure 3.35: RCDF plots for D57 nAb markers: by baseline status for the vaccine arm

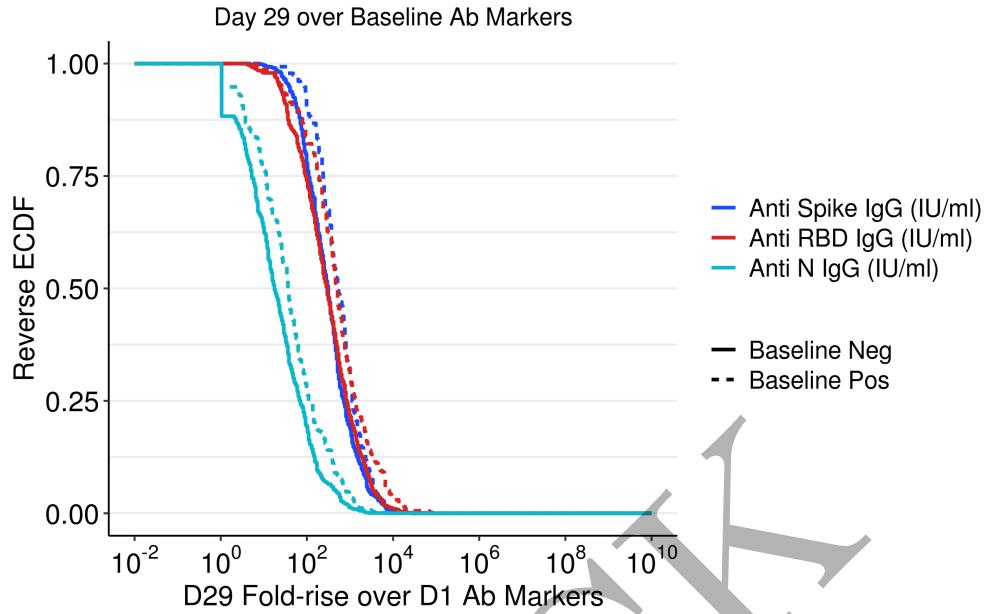


Figure 3.36: RCDF plots for D29 over D1 fold-rise bAb markers: by baseline status for the vaccine arm

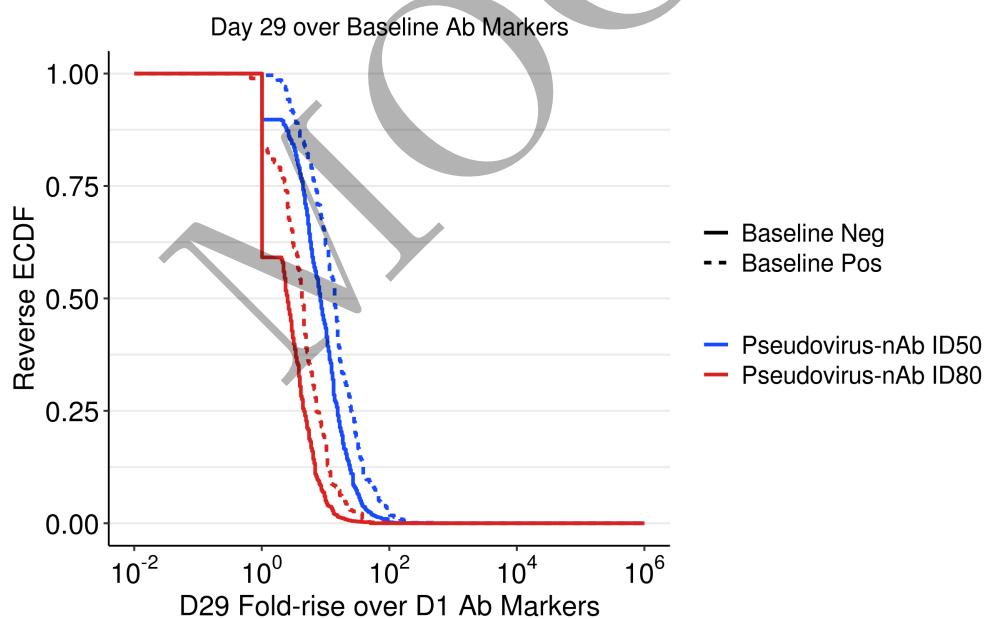


Figure 3.37: RCDF plots for D29 over D1 fold-rise nAb markers: by baseline status for the vaccine arm

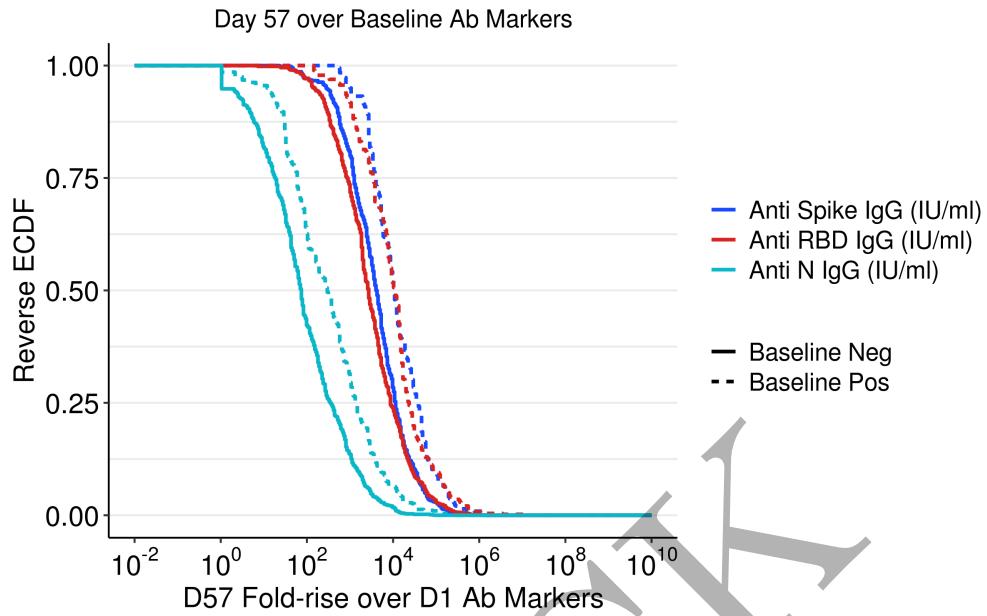


Figure 3.38: RCDF plots for D57 fold-rise over D1 bAb markers: by baseline status for the vaccine arm

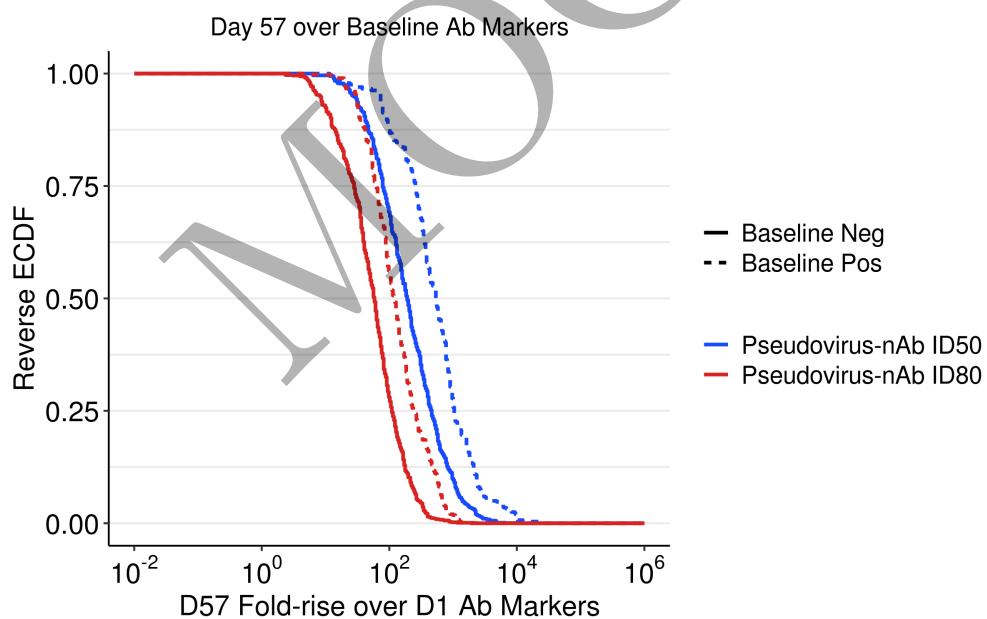


Figure 3.39: RCDF plots for D57 fold-rise over D1 nAb markers: by baseline status for the vaccine arm

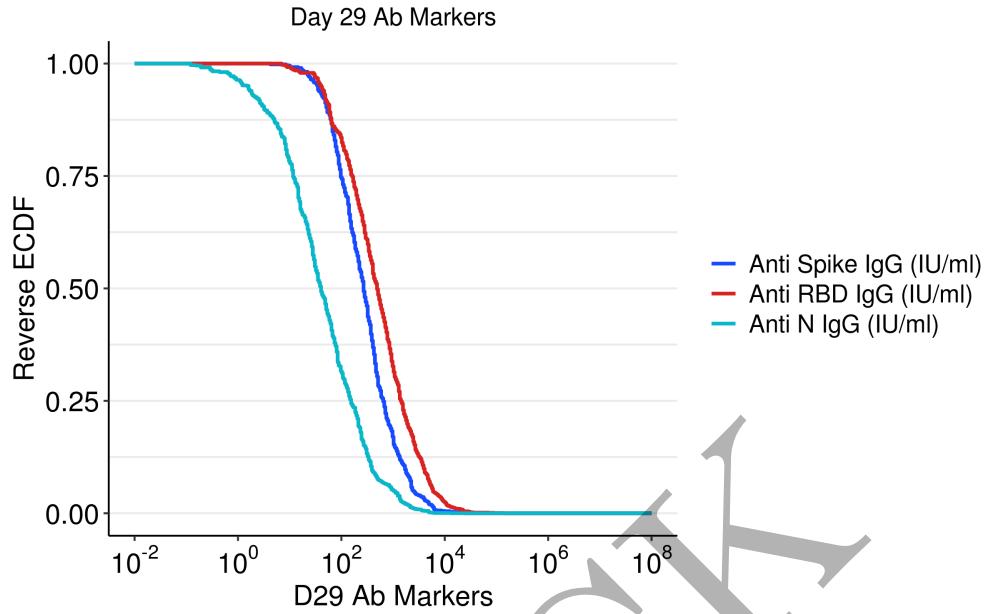


Figure 3.40: RCDF plots for D29 bAb markers: baseline negative vaccine arm

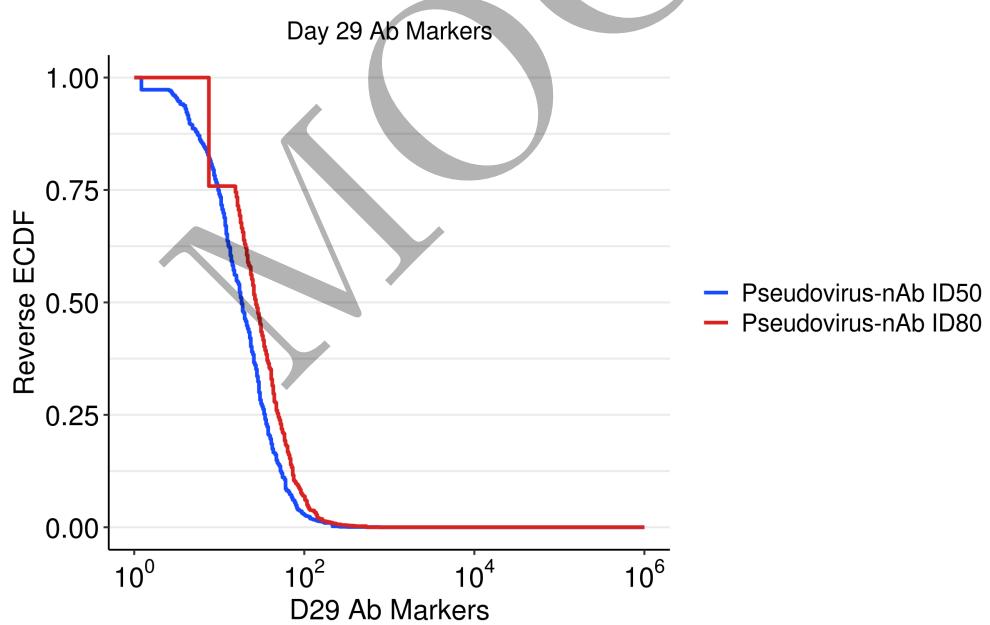


Figure 3.41: RCDF plots for D29 nAb markers: baseline negative vaccine arm

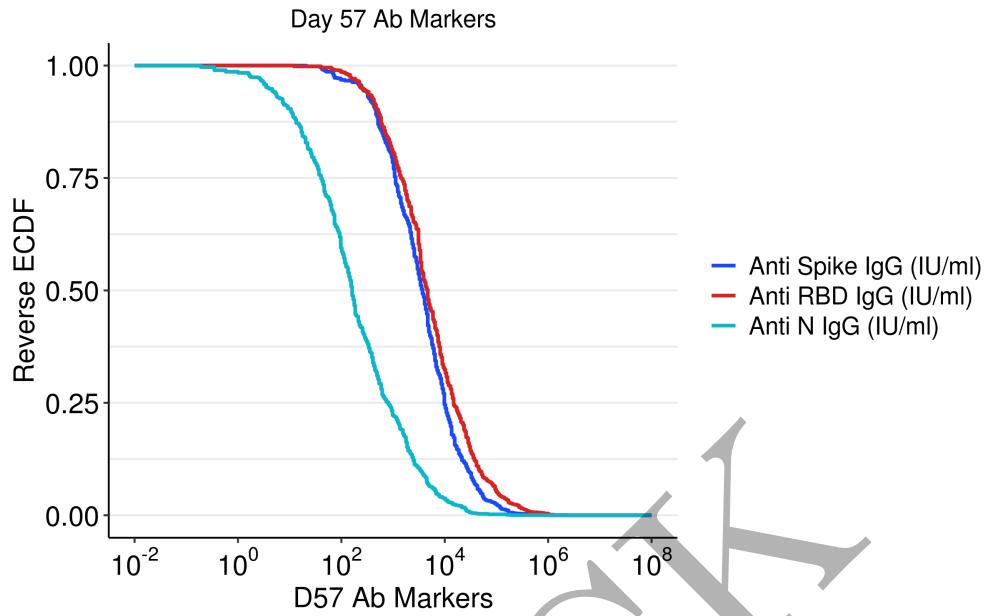


Figure 3.42: RCDF plots for D57 bAb markers: baseline negative vaccine arm

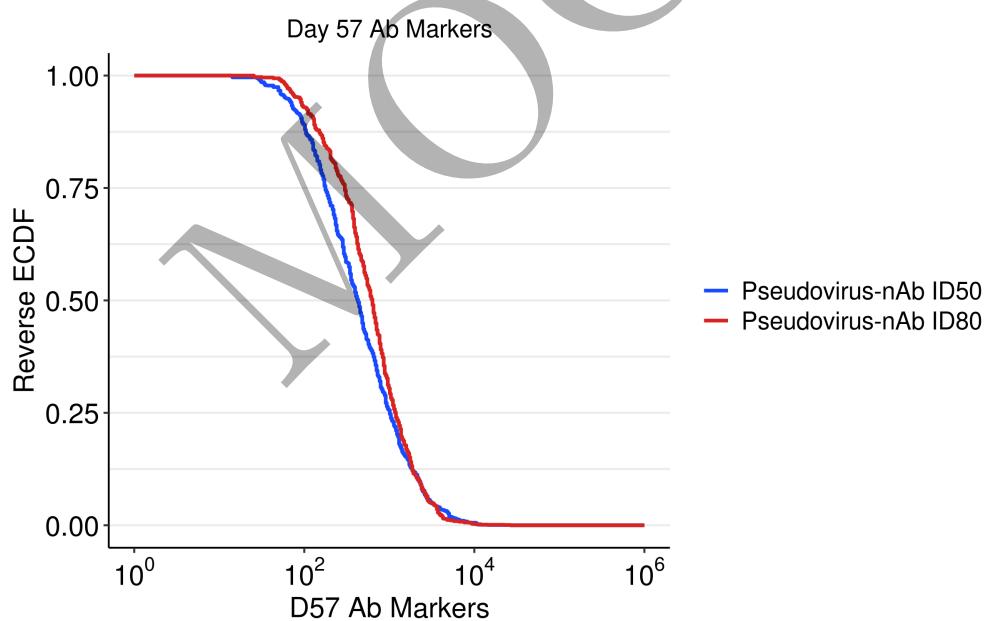


Figure 3.43: RCDF plots for D57 nAb markers: baseline negative vaccine arm

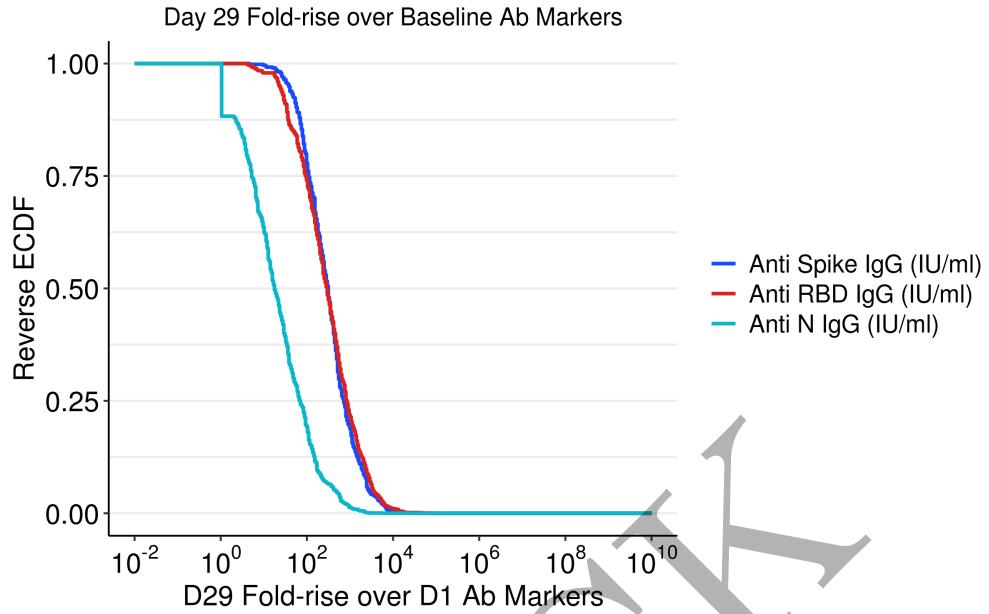


Figure 3.44: RCDF plots for D29 fold-rise over D1 bAb markers: baseline negative vaccine arm

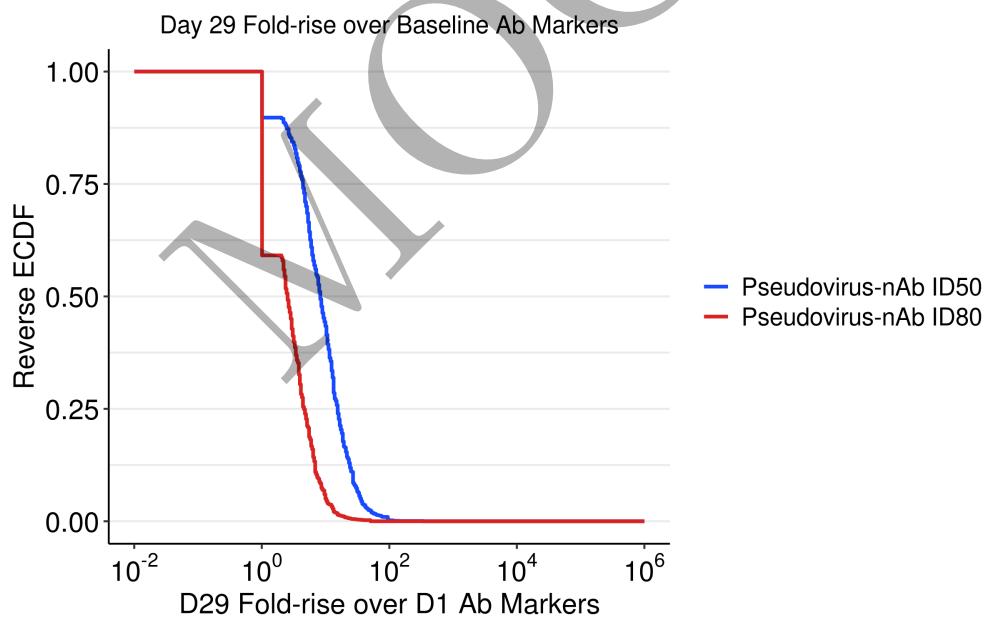


Figure 3.45: RCDF plots for D29 fold-rise over D1 nAb markers: baseline negative vaccine arm

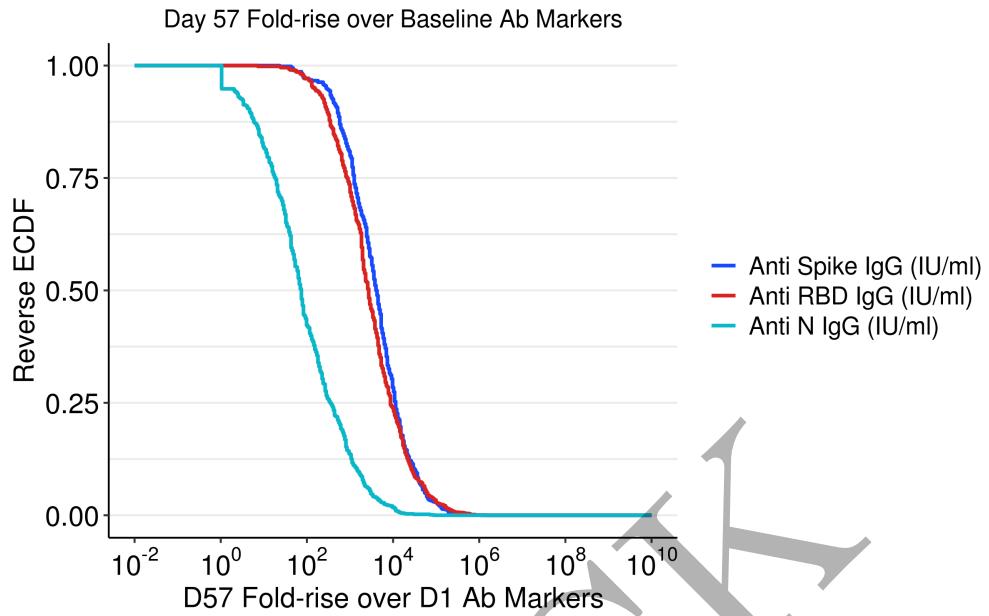


Figure 3.46: RCDF plots for D57 fold-rise over D1 bAb markers: baseline-negative vaccine arm

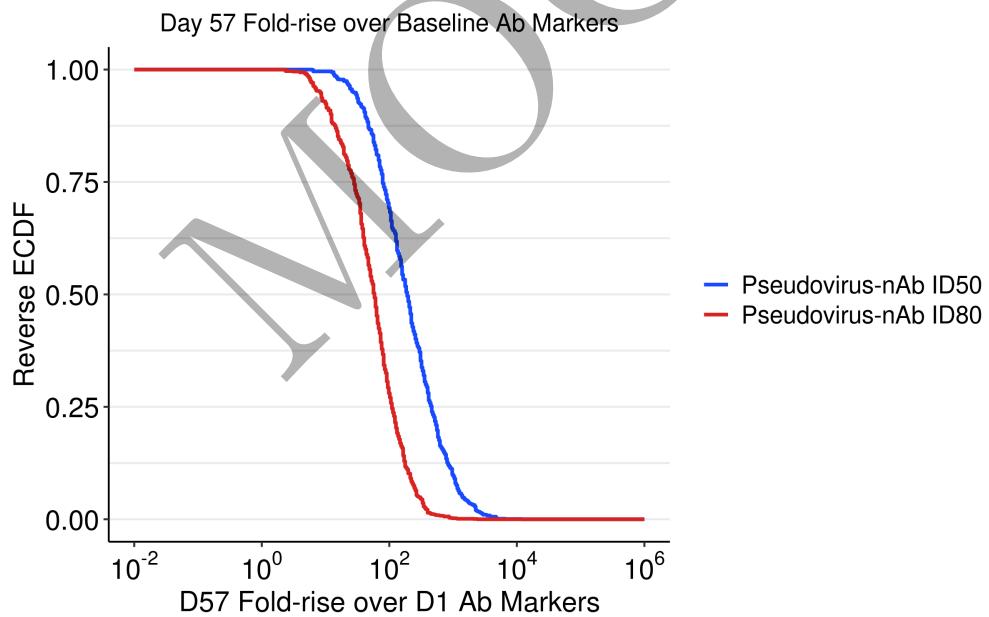


Figure 3.47: RCDF plots for D57 fold-rise over D1 nAb markers: baseline negative vaccine arm

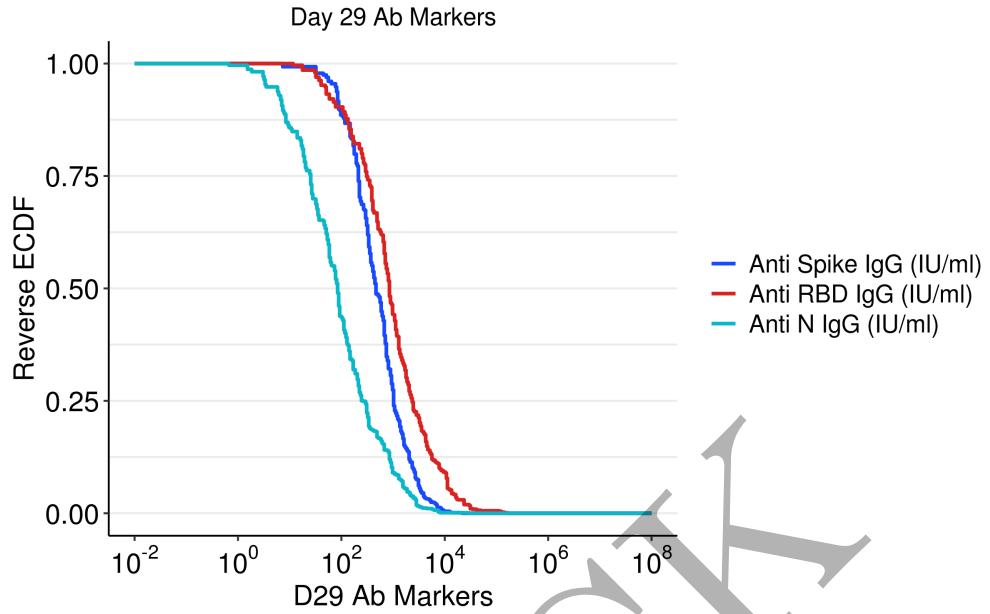


Figure 3.48: RCDF plots for D29 bAb markers: baseline positive vaccine arm

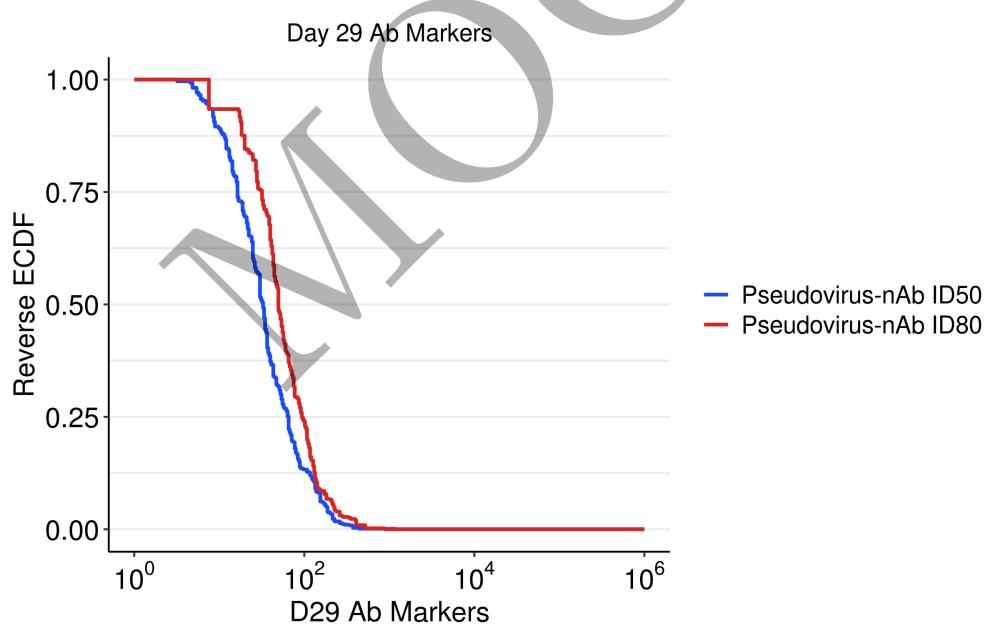


Figure 3.49: RCDF plots for D29 nAb markers: baseline positive vaccine arm

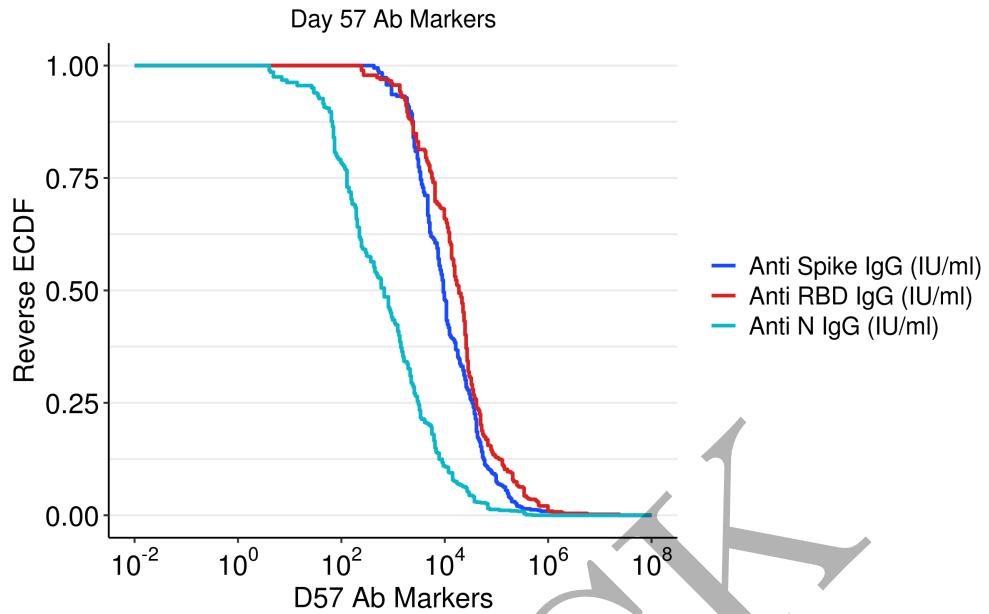


Figure 3.50: RCDF plots for D57 bAb markers: baseline positive vaccine arm

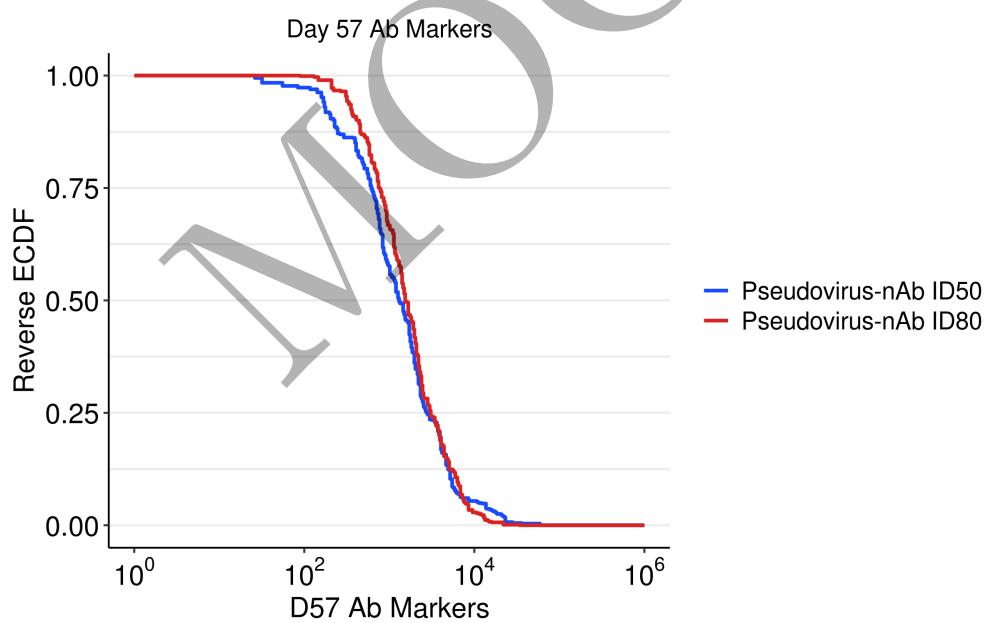


Figure 3.51: RCDF plots for D57 nAb markers: baseline positive vaccine arm

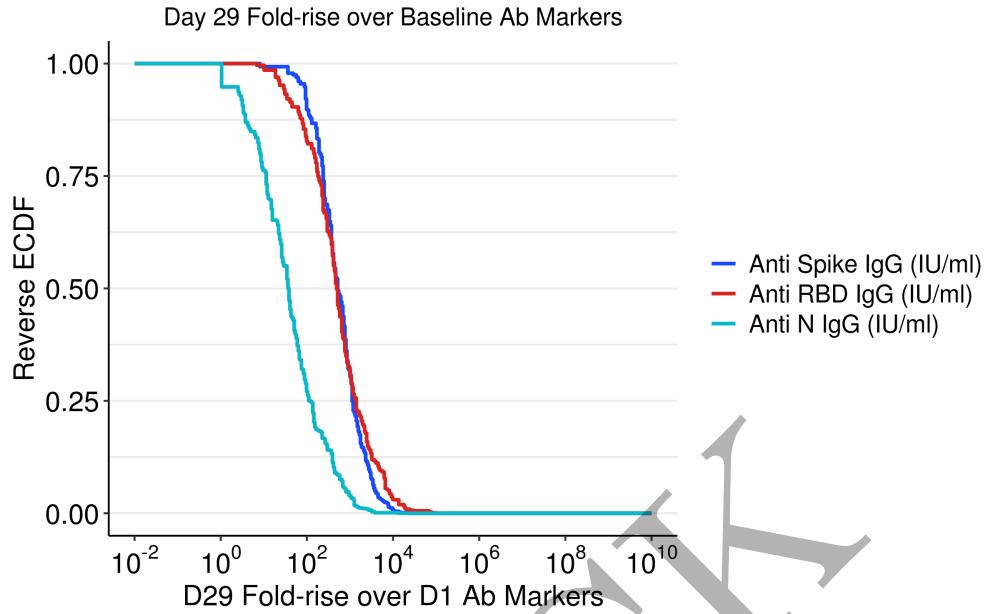


Figure 3.52: RCDF plots for D29 fold-rise over D1 bAb markers: baseline positive vaccine arm

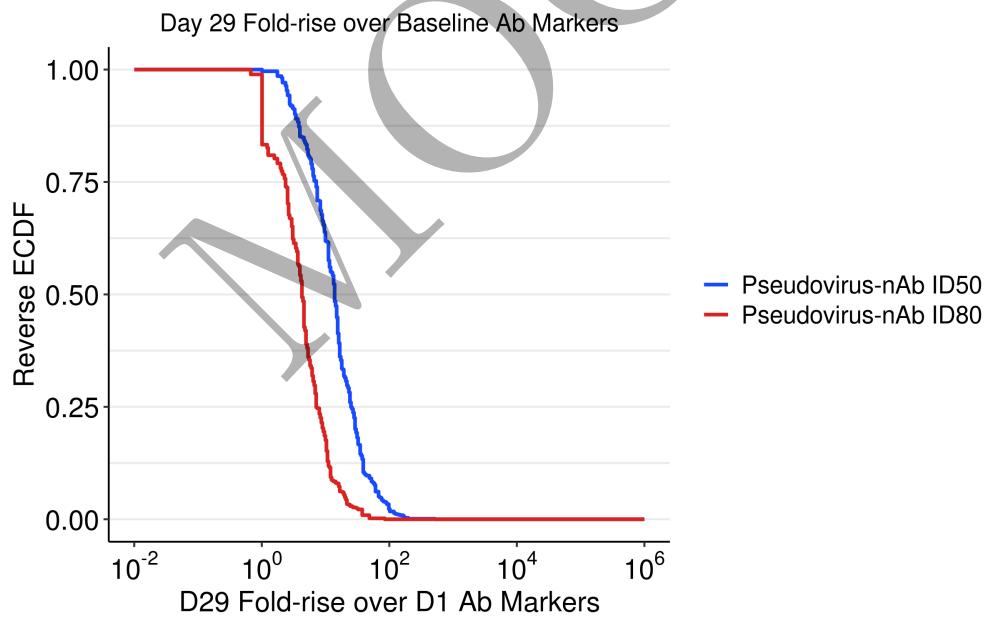


Figure 3.53: RCDF plots for D29 fold-rise over D1 nAb markers: baseline positive vaccine arm

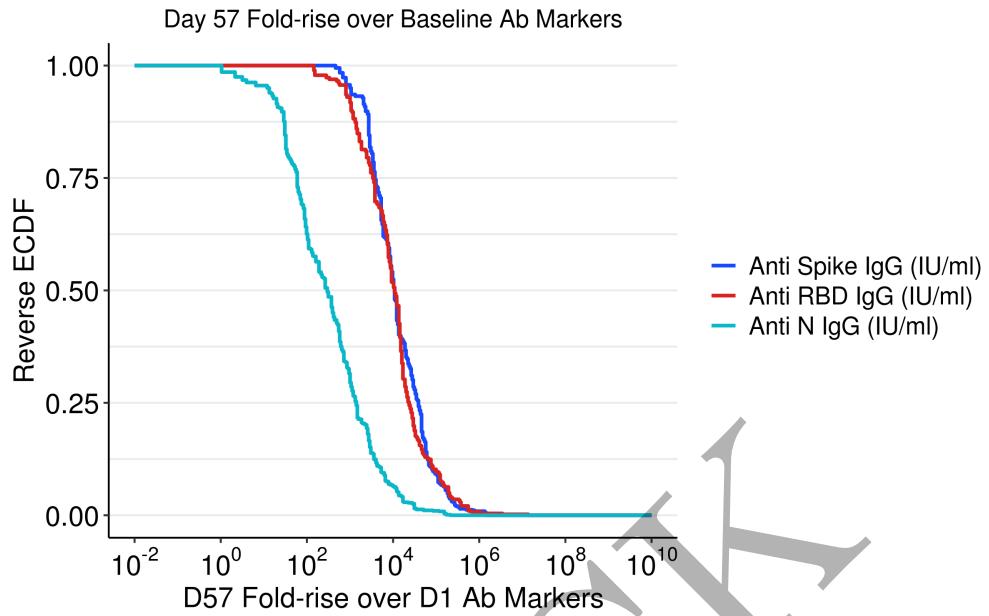


Figure 3.54: RCDF plots for D57 fold-rise over D1 bAb markers: baseline positive vaccine arm

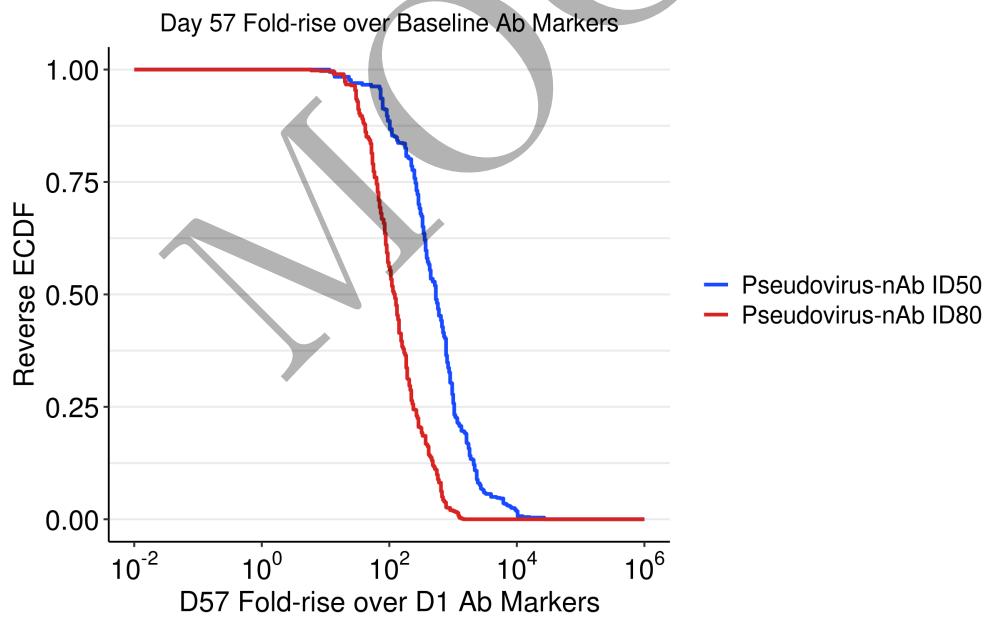


Figure 3.55: RCDF plots for D57 fold-rise over D1 nAb markers: baseline positive vaccine arm

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

3.3.1 Baseline SARS-CoV-2 Negative

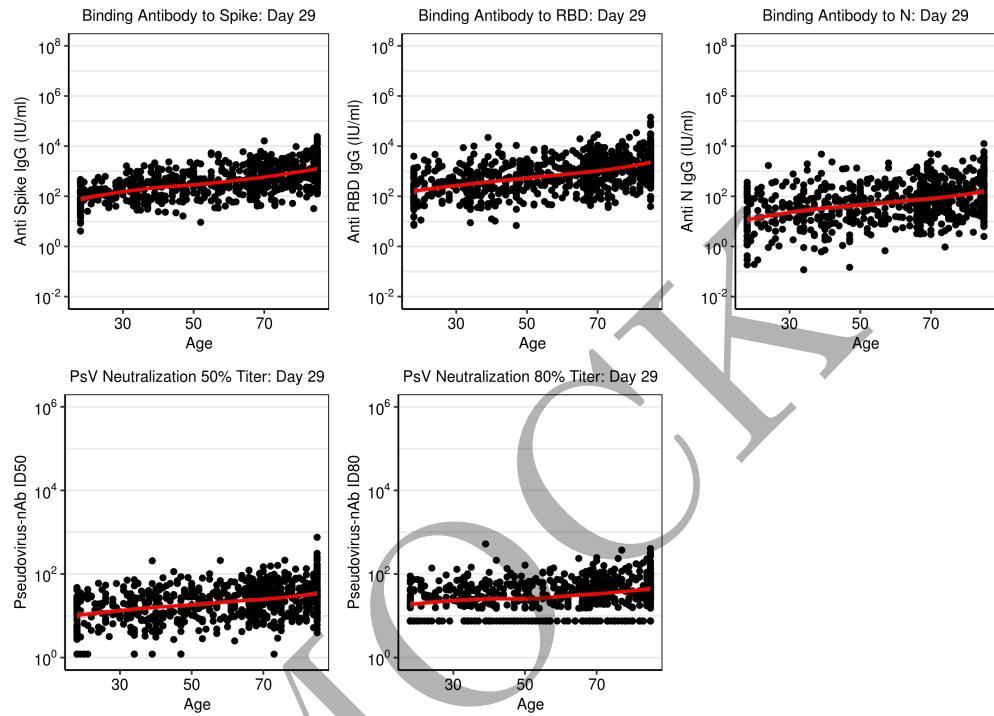


Figure 3.56: Scatter plots for D29 Ab markers vs. age: baseline negative vaccine arm

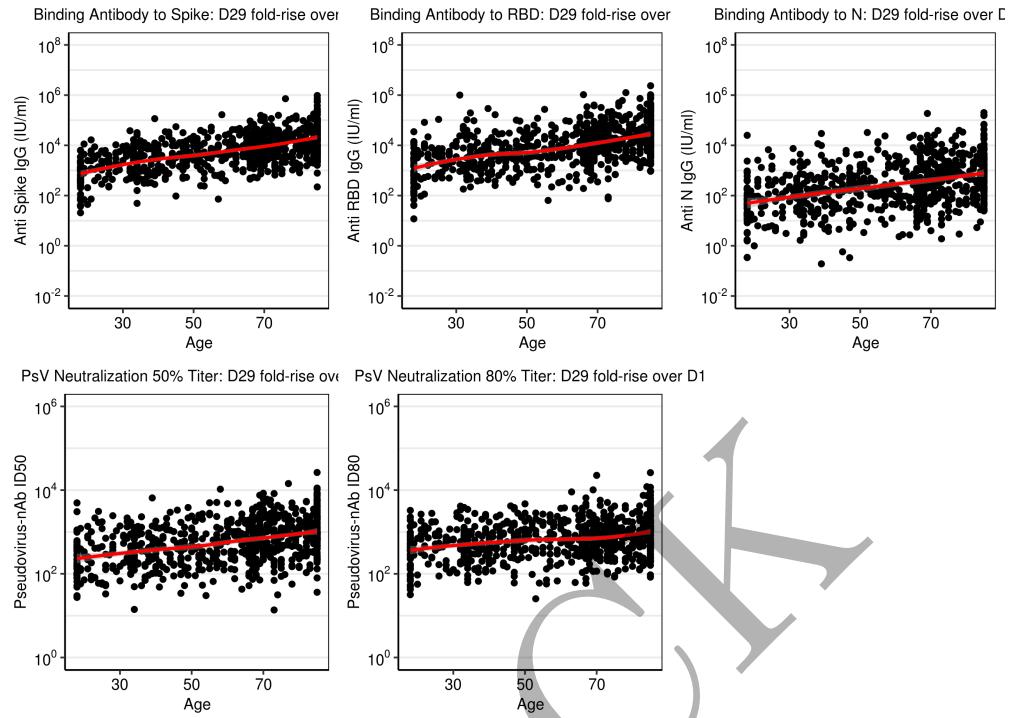


Figure 3.57: Scatter plots for D57 Ab markers vs. age: baseline negative vaccine arm

3.3.2 Baseline SARS-CoV-2 Positive

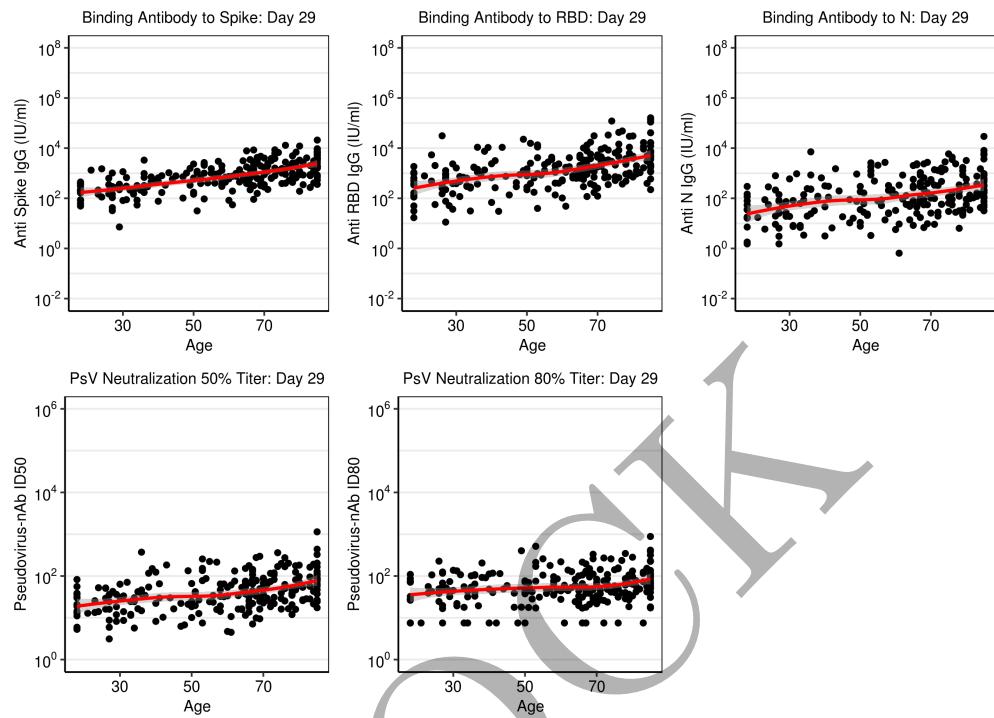


Figure 3.58: Scatter plots for D29 Ab markers vs. age: baseline positive vaccine arm

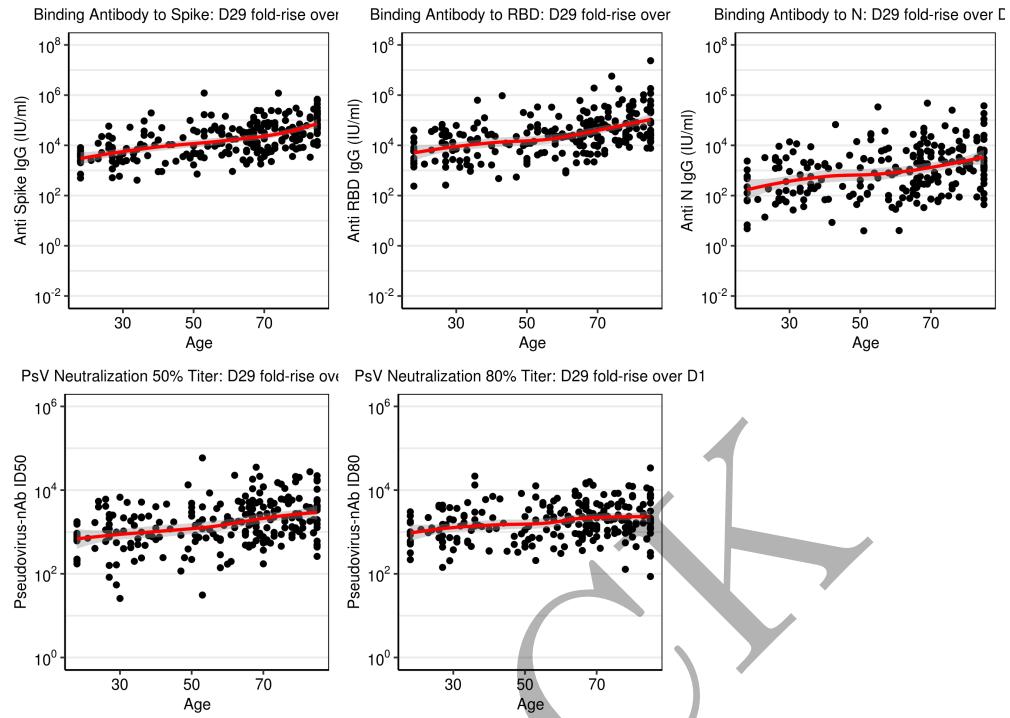


Figure 3.59: Scatter plots for D57 Ab markers vs. age: baseline positive vaccine arm

3.3.3 Baseline SARS-CoV-2 Positive Placebo Arm

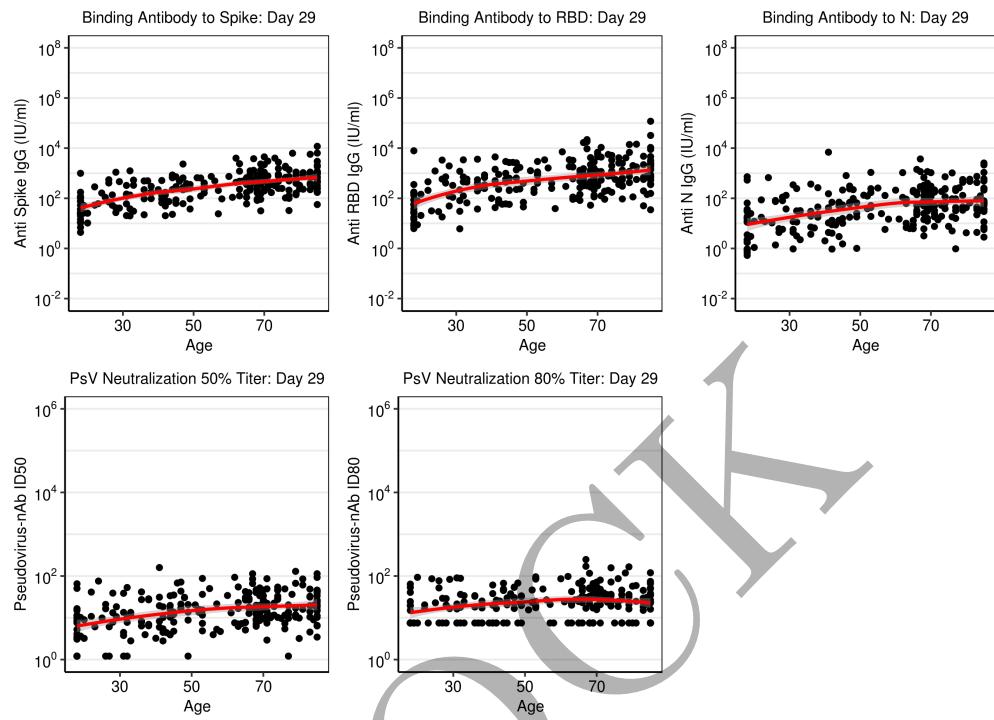


Figure 3.60: Scatter plots for D29 Ab markers vs. age: baseline positive placebo arm

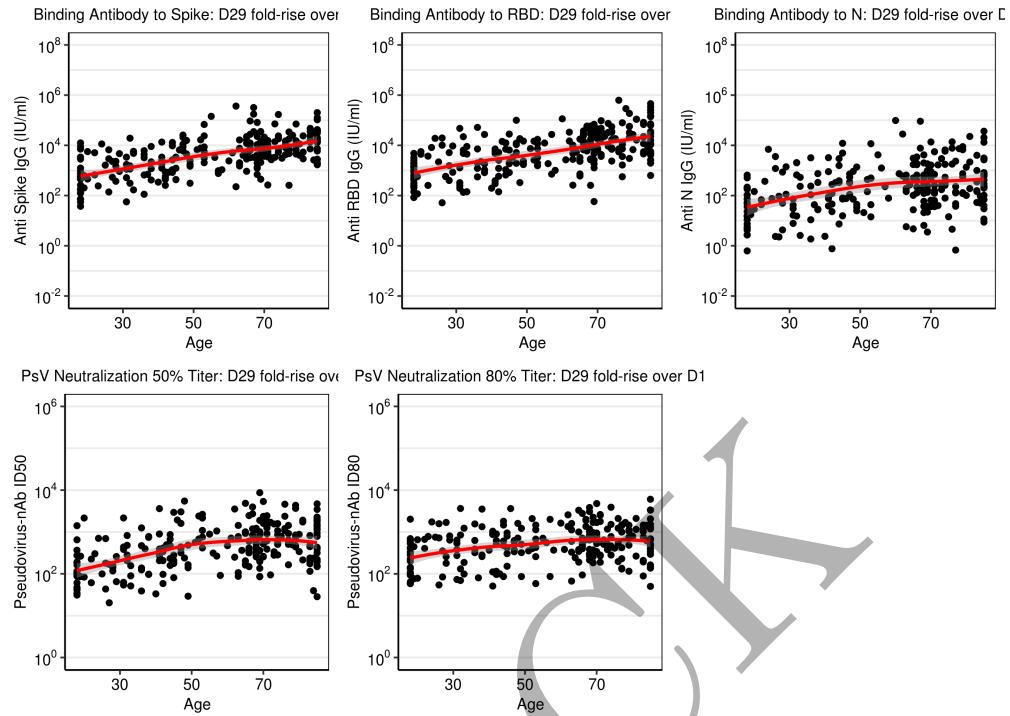


Figure 3.61: Scatter plots for D57 Ab markers vs. age: baseline positive placebo arm

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

3.4.1 Baseline SARS-CoV-2 Negative

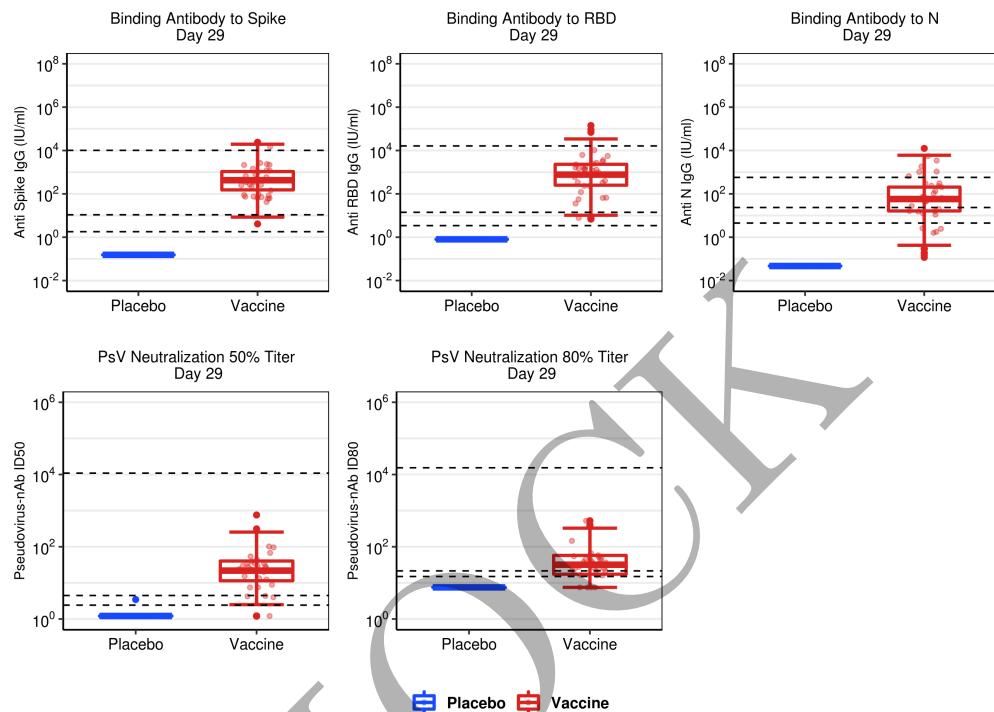


Figure 3.62: Boxplots of D29 Ab markers: baseline negative vaccine + placebo arms. The three dashed lines in each figure are ULOQ, LLOQ, and positivity cutoffs for binding antibody assays, or ULOQ, LLOQ, and LLOD for neutralizing antibody assays, from top to bottom respectively.

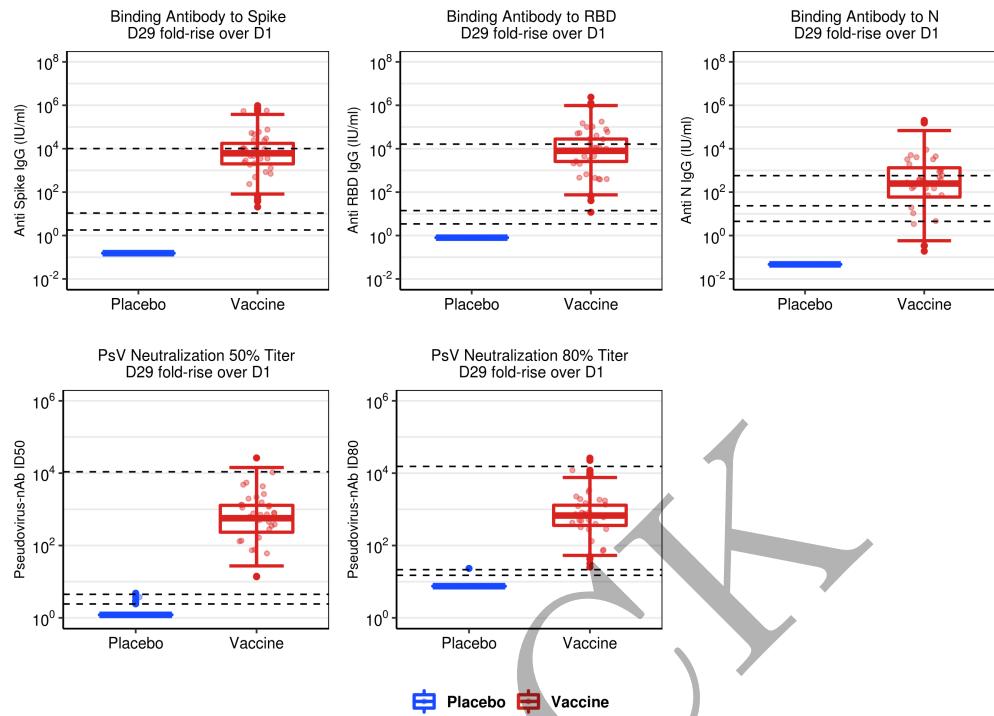


Figure 3.63: Boxplots of D57 Ab markers: baseline negative vaccine + placebo arms. The three dashed lines in each figure are ULOQ, LLOQ, and positivity cutoffs for binding antibody assays, or ULOQ, LLOQ, and LLOD for neutralizing antibody assays, from top to bottom respectively.

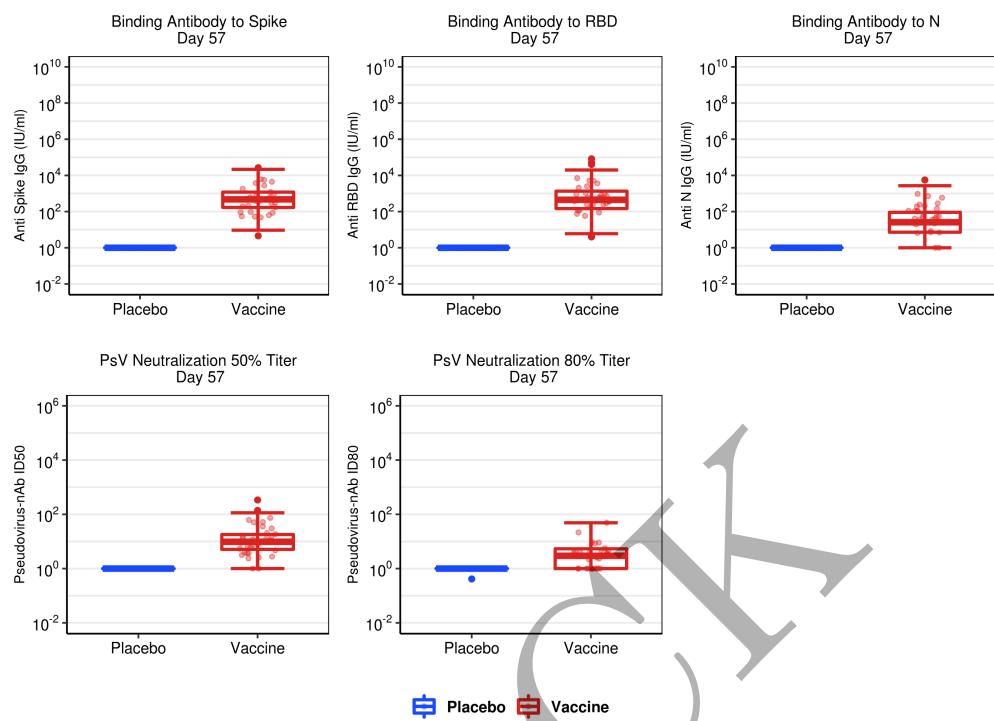


Figure 3.64: Boxplots of D29 fold-rise over D1 Ab markers: baseline negative vaccine + placebo arms

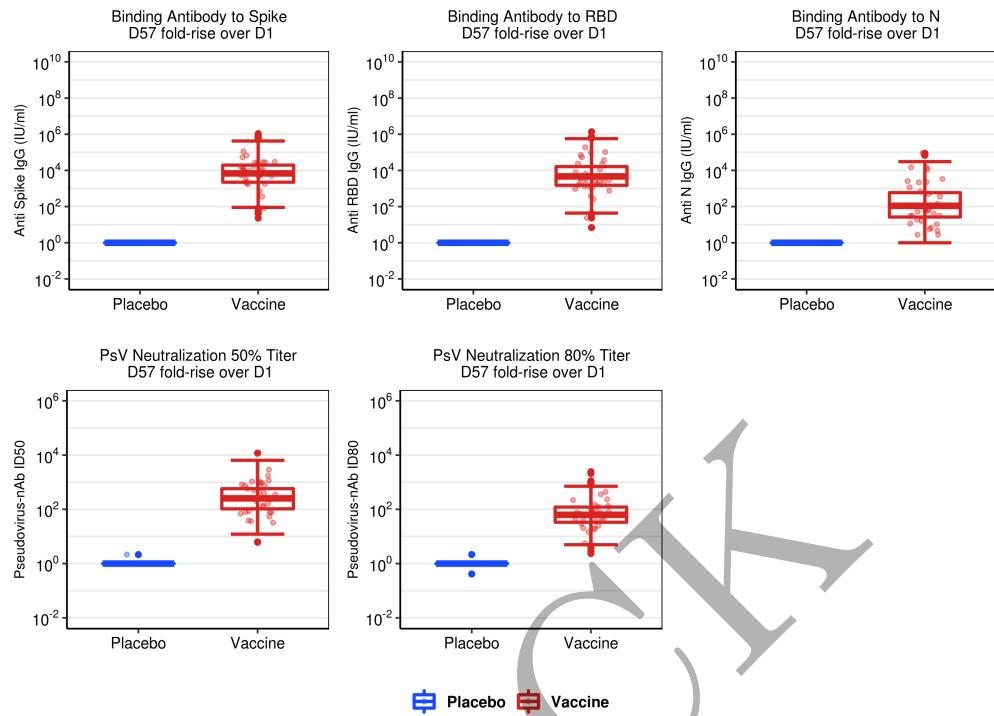


Figure 3.65: Boxplots of D57 fold-rise over D1 Ab markers: baseline negative vaccine + placebo arms

3.4.2 Baseline SARS-CoV-2 Positive

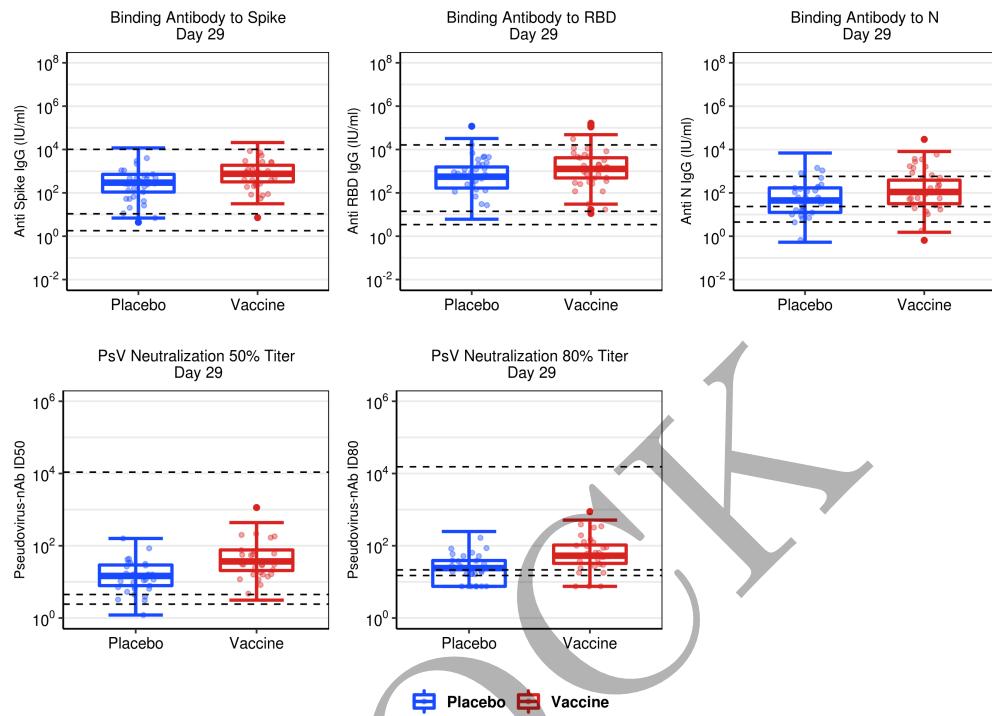


Figure 3.66: Boxplots of D29 Ab markers: baseline positive vaccine + placebo arms. The three dashed lines in each figure are ULOQ, LLOQ, and positivity cutoffs for binding antibody assays, or ULOQ, LLOQ, and LLOD for neutralizing antibody assays, from top to bottom respectively.

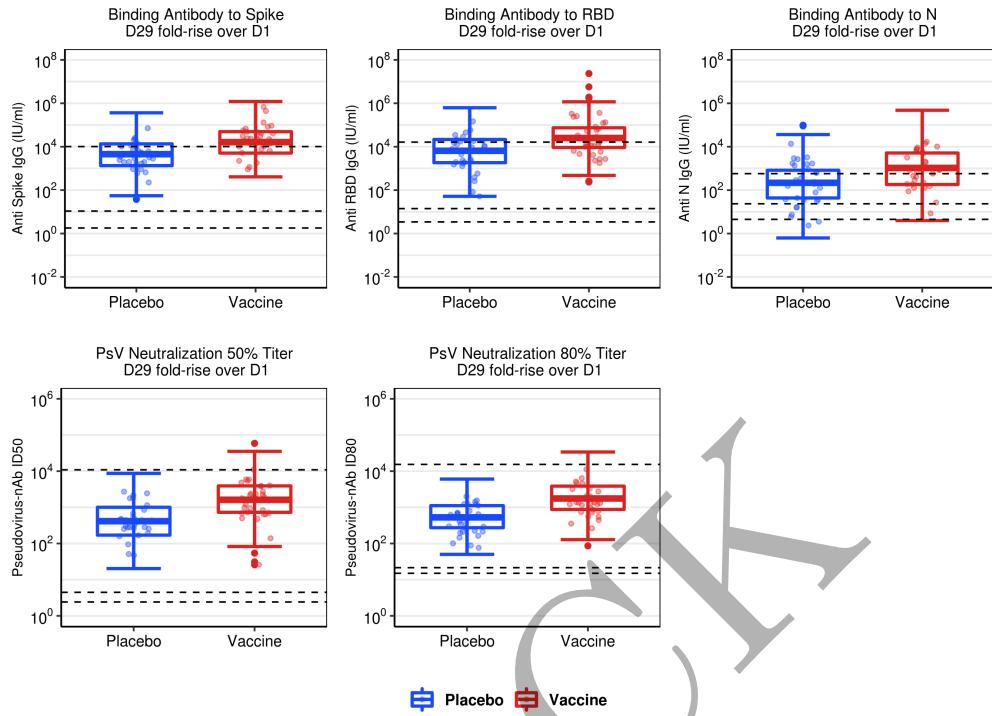


Figure 3.67: Boxplots of D57 Ab markers: baseline positive vaccine + placebo arms. The three dashed lines in each figure are ULOQ, LLOQ, and positivity cutoffs for binding antibody assays, or ULOQ, LLOQ, and LLOD for neutralizing antibody assays, from top to bottom respectively.

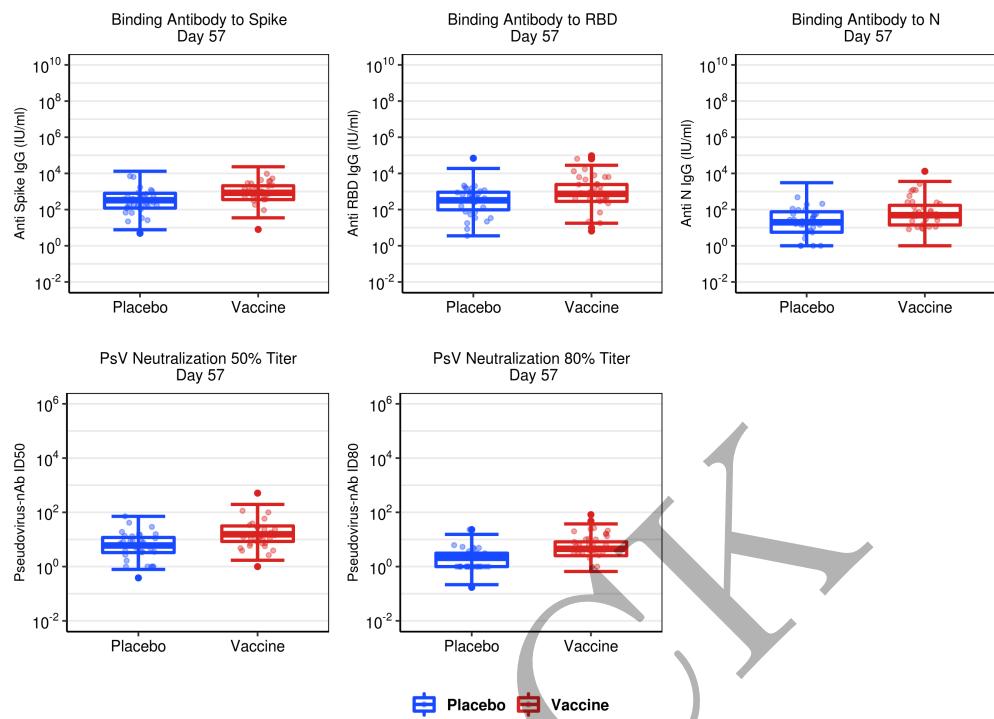


Figure 3.68: Boxplots of D29 fold-rise over D1 Ab markers: baseline positive vaccine + placebo arms

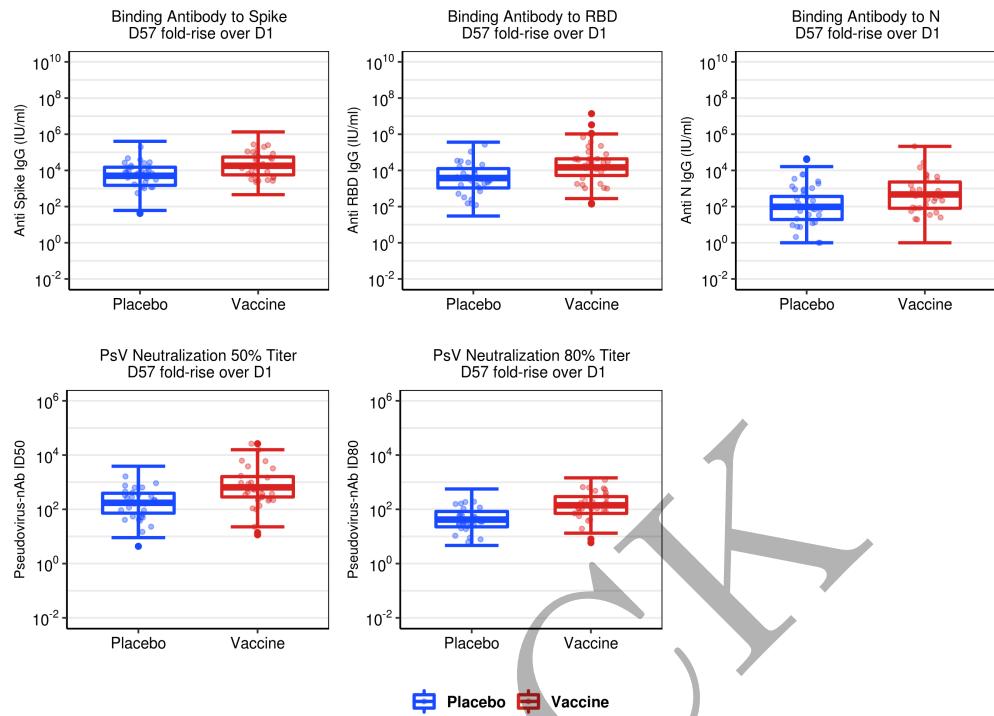


Figure 3.69: Boxplots of D57 fold-rise over D1 Ab markers: baseline positive vaccine + placebo arms

3.4.3 Baseline negative vs. positive vaccine recipients

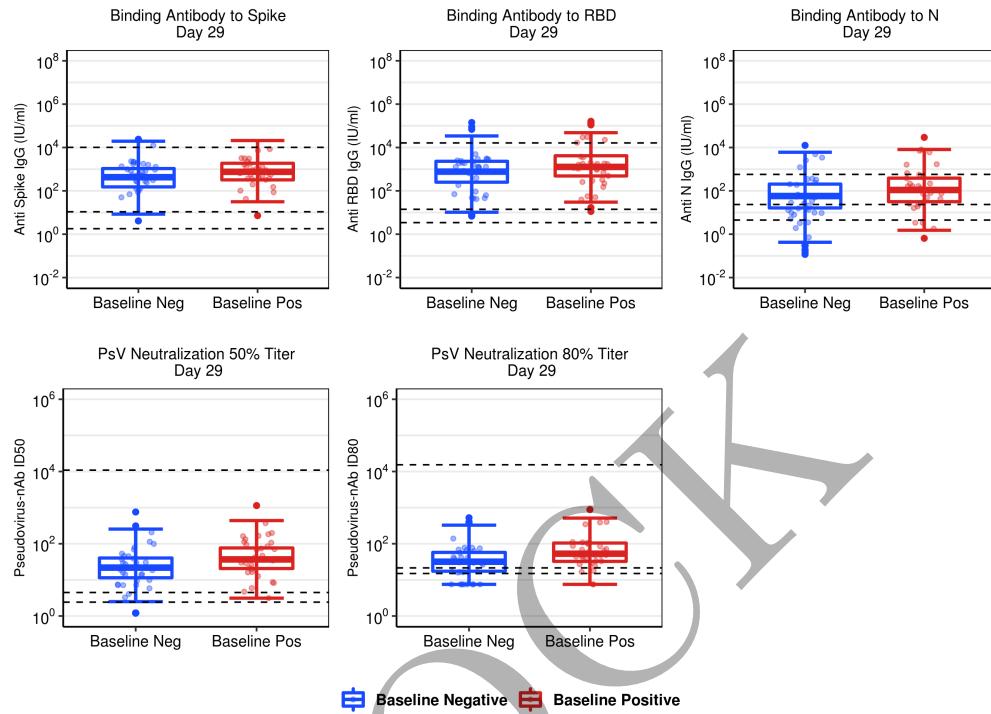


Figure 3.70: Boxplots of D29 Ab markers: baseline positive + negative vaccine arm. The three dashed lines in each figure are ULOQ, LLOQ, and positivity cutoffs for binding antibody assays, or ULOQ, LLOQ, and LLOD for neutralizing antibody assays, from top to bottom respectively.

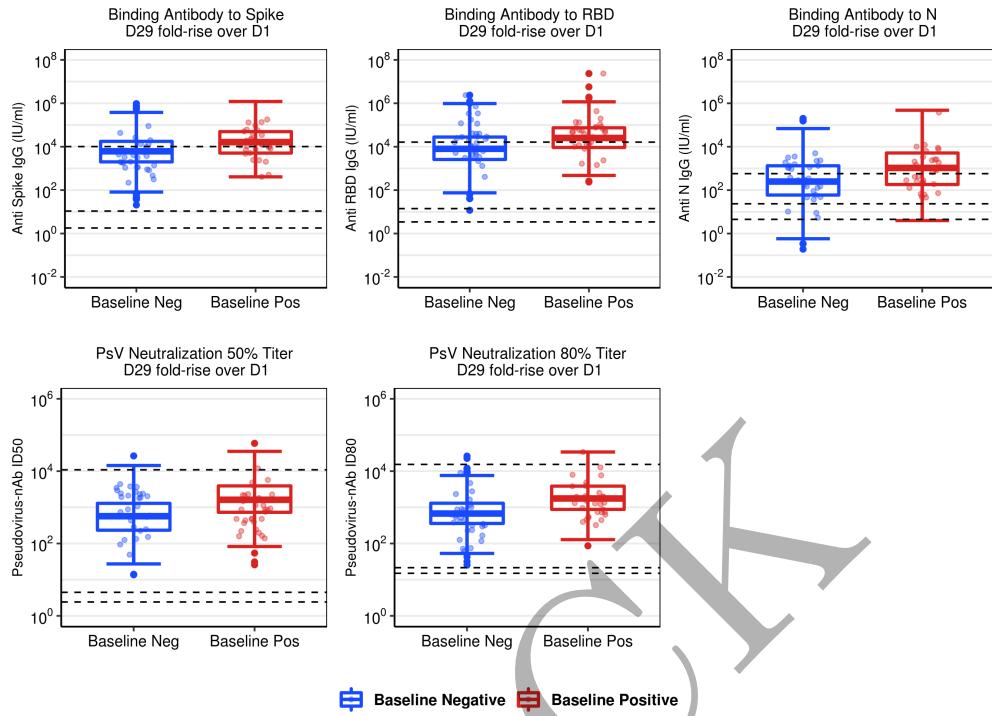


Figure 3.71: Boxplots of D57 Ab markers: baseline positive + negative vaccine arm. The three dashed lines in each figure are ULOQ, LLOQ, and positivity cutoffs for binding antibody assays, or ULOQ, LLOQ, and LLOD for neutralizing antibody assays, from top to bottom respectively.

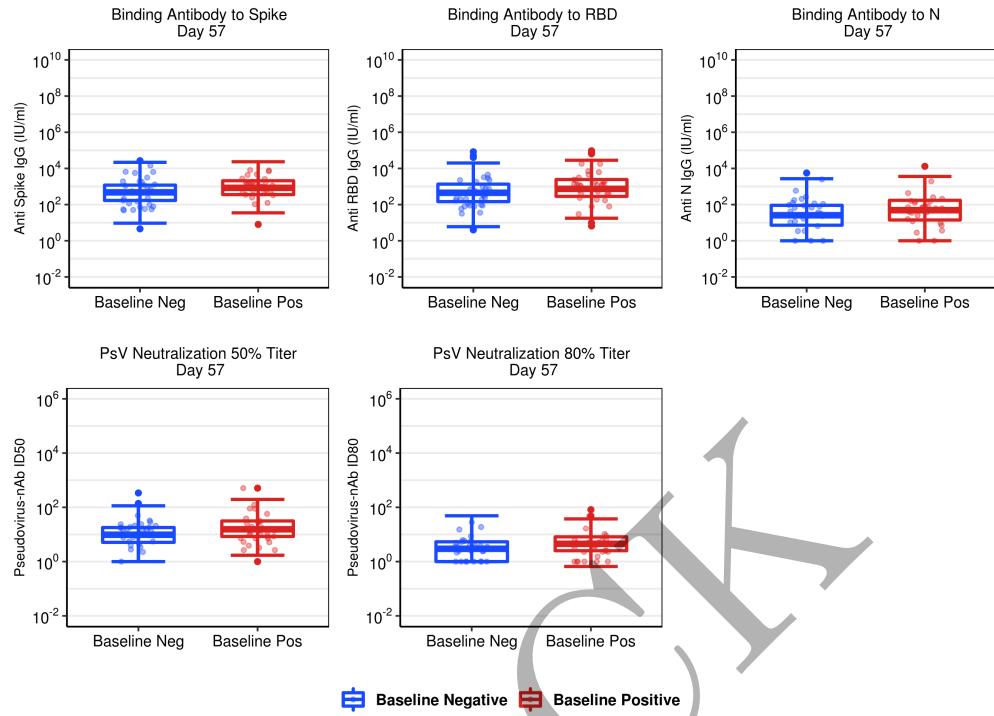


Figure 3.72: Boxplots of D29 fold-rise over D1 Ab markers: baseline positive + negative vaccine arm

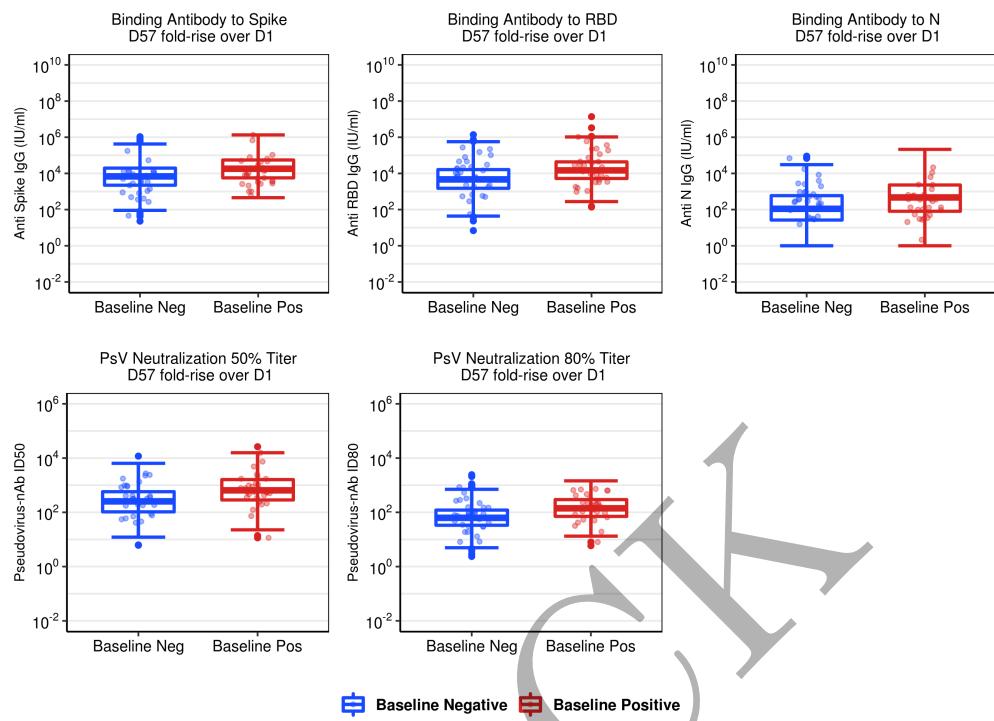


Figure 3.73: Boxplots of D57 fold-rise over D1 Ab markers: baseline positive + negative vaccine arm

3.4.4 Baseline negative vs. positive placebo recipients

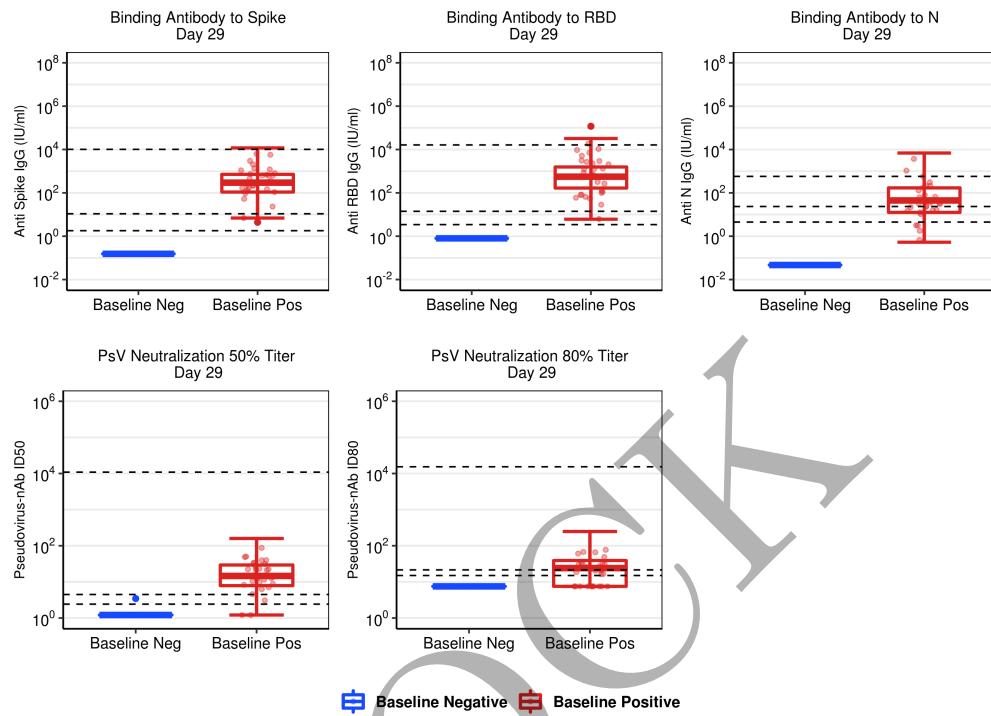


Figure 3.74: Boxplots of D29 Ab markers: baseline positive + negative placebo arm. The three dashed lines in each figure are ULOQ, LLOQ, and positivity cutoffs for binding antibody assays, or ULOQ, LLOQ, and LLOD for neutralizing antibody assays, from top to bottom respectively.

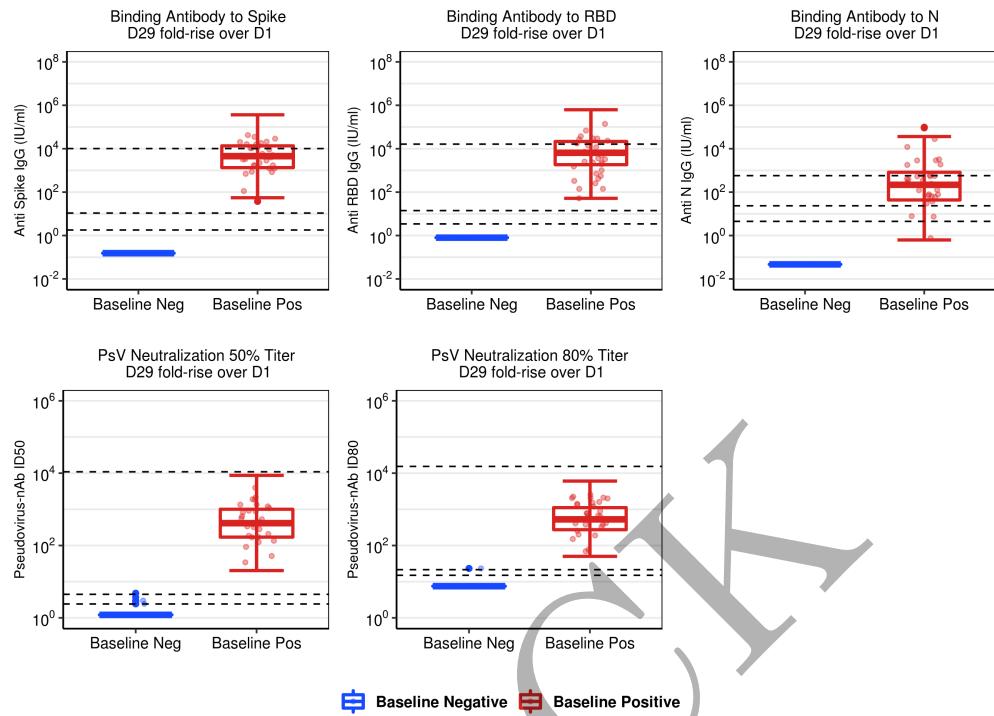


Figure 3.75: Boxplots of D57 Ab markers: baseline positive + negative placebo arm. The three dashed lines in each figure are ULOQ, LLOQ, and positivity cutoffs for binding antibody assays, or ULOQ, LLOQ, and LLOD for neutralizing antibody assays, from top to bottom respectively.

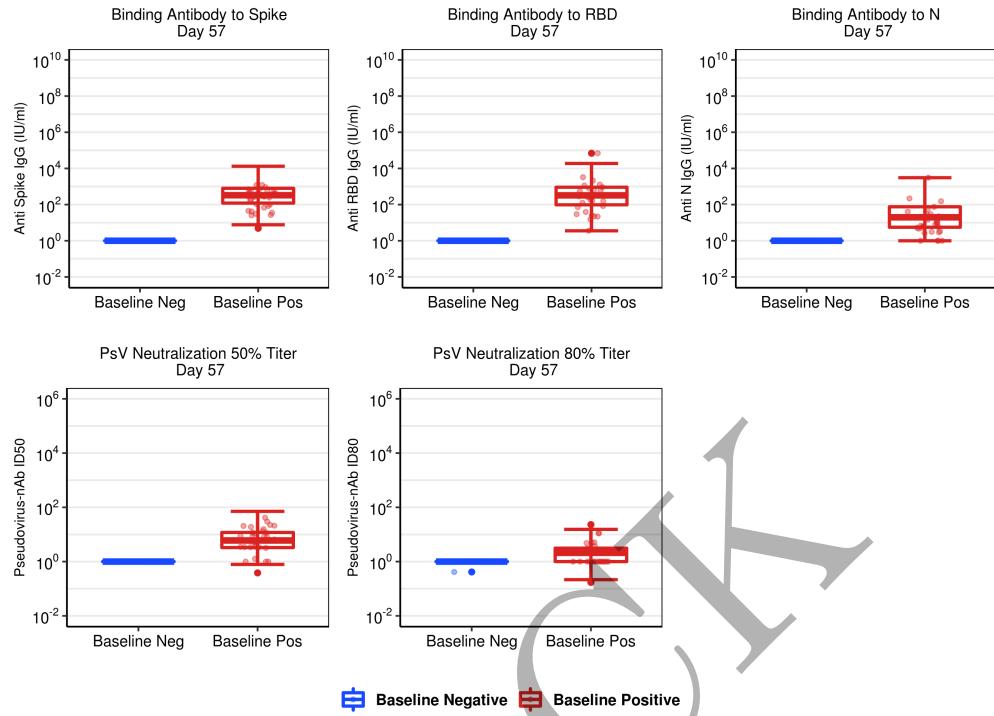


Figure 3.76: Boxplots of D29 fold-rise over D1 Ab markers: baseline positive + negative placebo arm

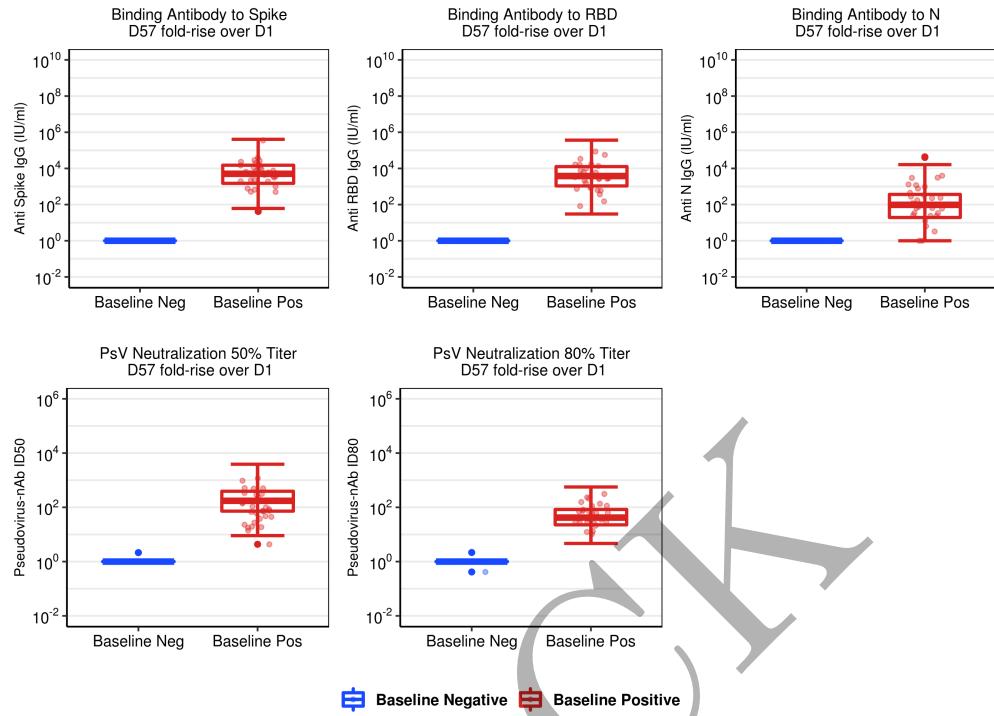


Figure 3.77: Boxplots of D57 fold-rise over D1 Ab markers: baseline positive + negative placebo arm

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

3.5.1 Baseline SARS-CoV-2 Negative

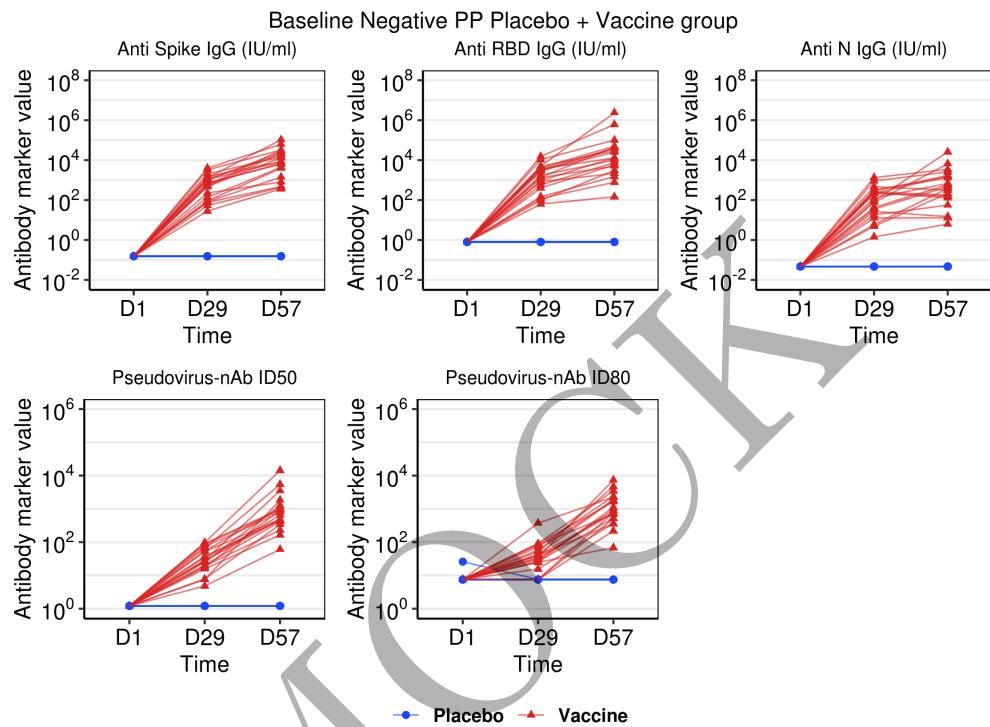


Figure 3.78: Spaghetti plots of Ab markers over time: baseline negative vaccine + placebo arm

3.5.2 Baseline SARS-CoV-2 Positive

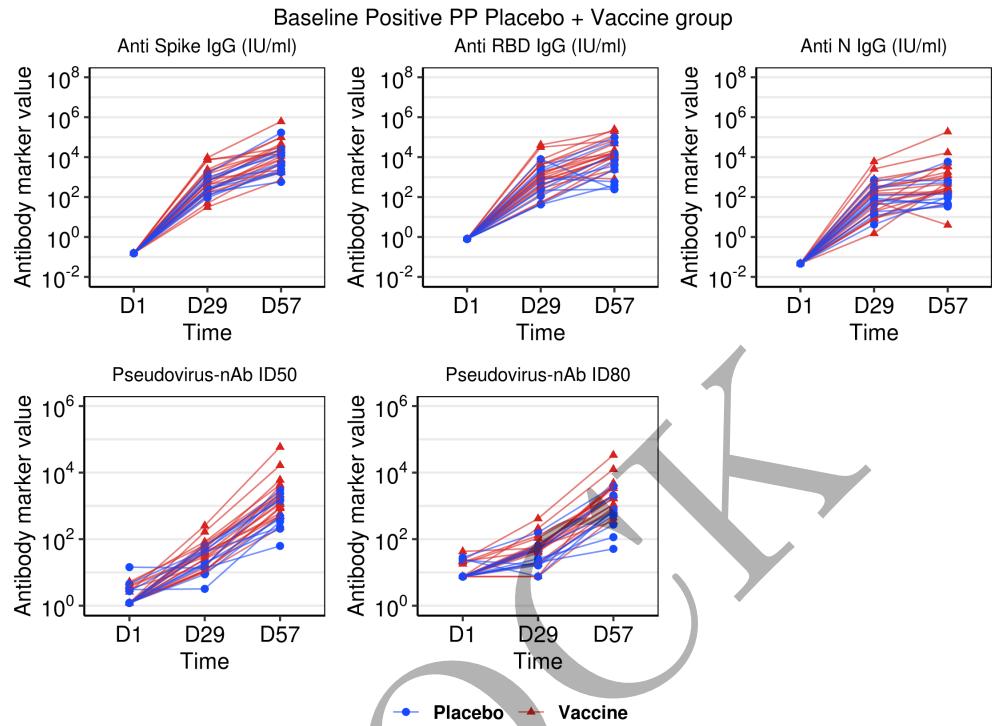


Figure 3.79: Spaghetti plots of Ab markers over time: baseline positive vaccine + placebo arm

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

3.6.1 Baseline SARS-CoV-2 Negative

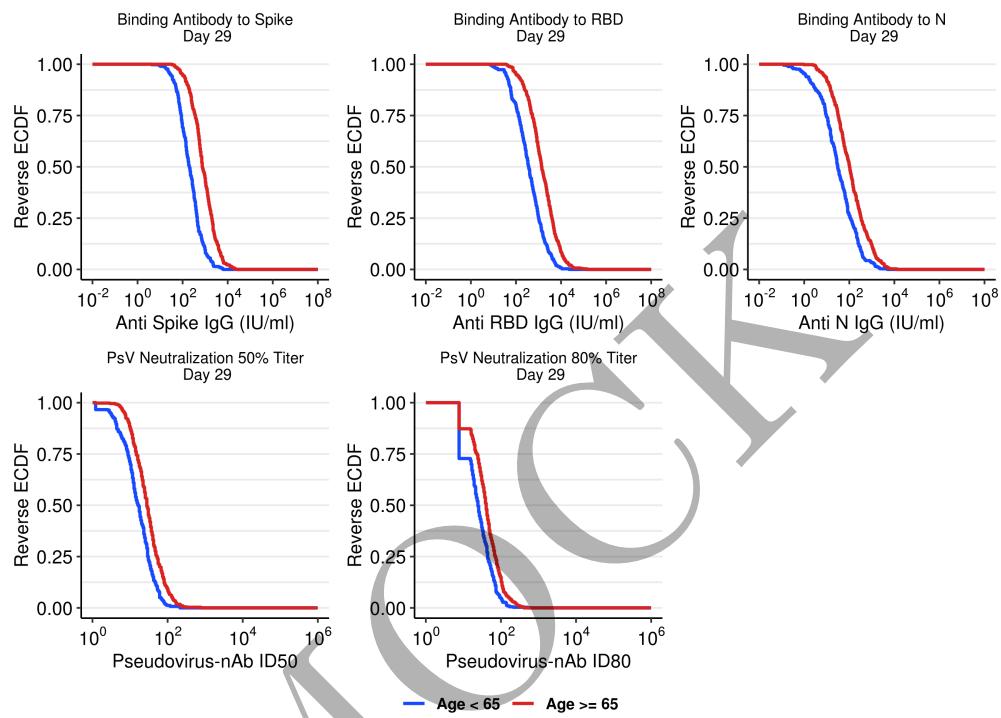


Figure 3.80: RCDF plots for D29 Ab markers: baseline negative vaccine arm by age groups.

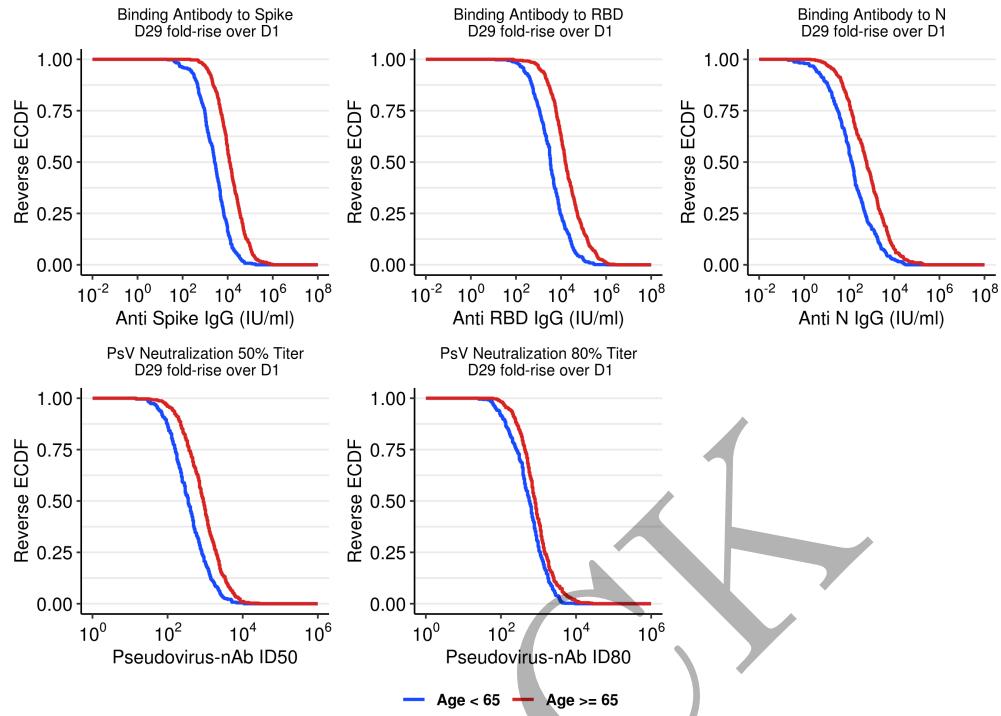


Figure 3.81: RCDF plots for D57 Ab markers: baseline negative vaccine arm by age groups.

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

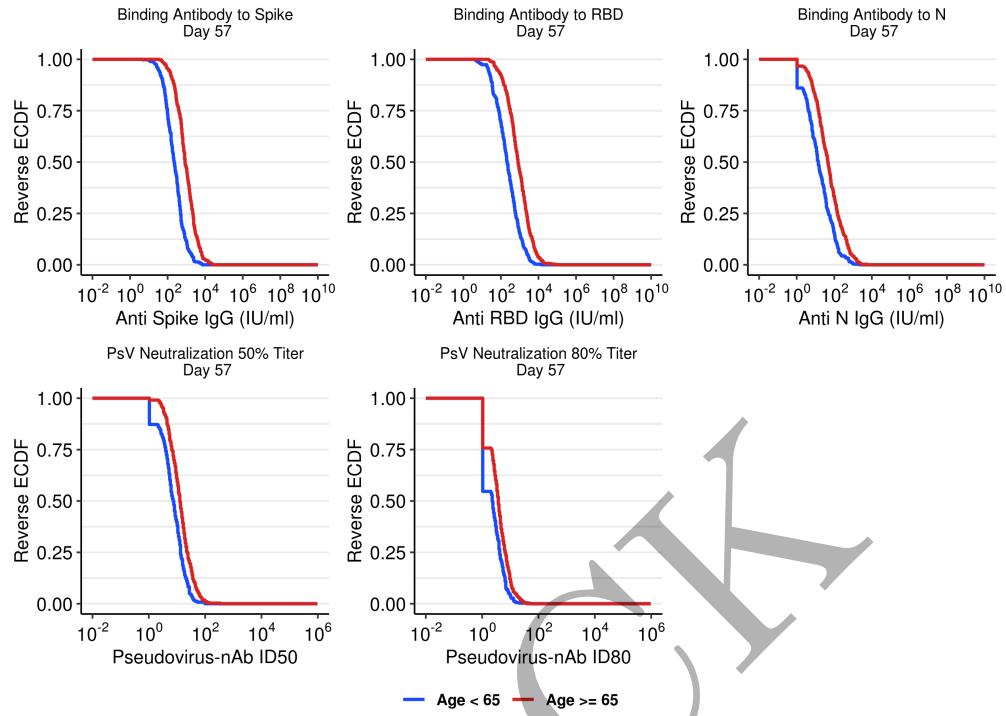


Figure 3.82: RCDF plots for D29 fold-rise over D1 Ab markers: baseline negative vaccine arm by age groups.

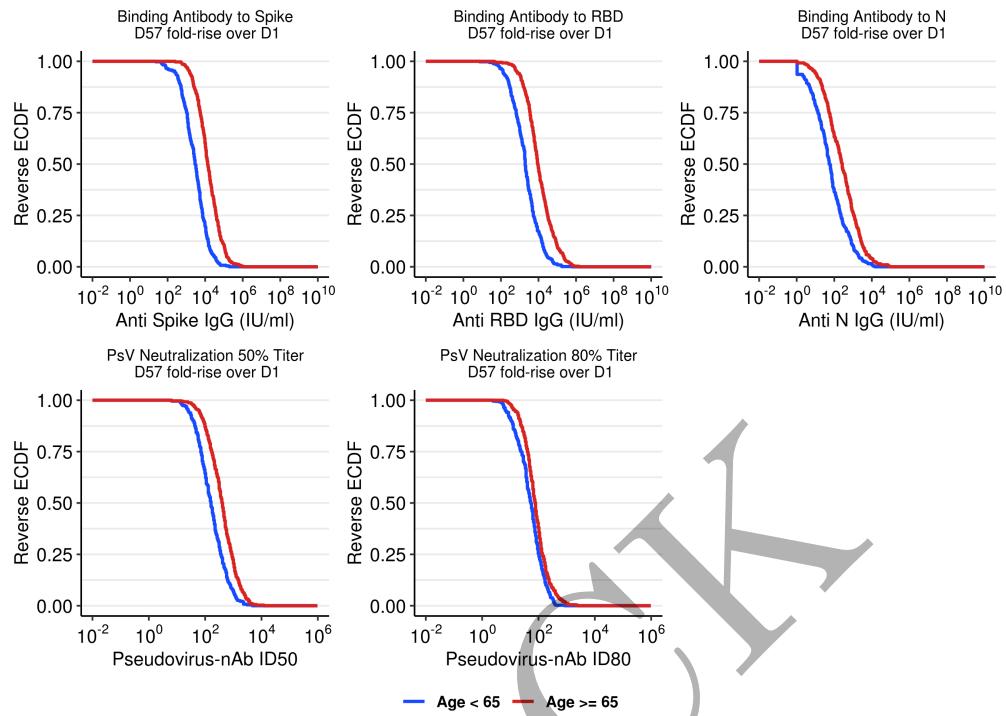


Figure 3.83: RCDF plots for D57 fold-rise over D1 Ab markers: baseline negative vaccine arm by age groups.

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

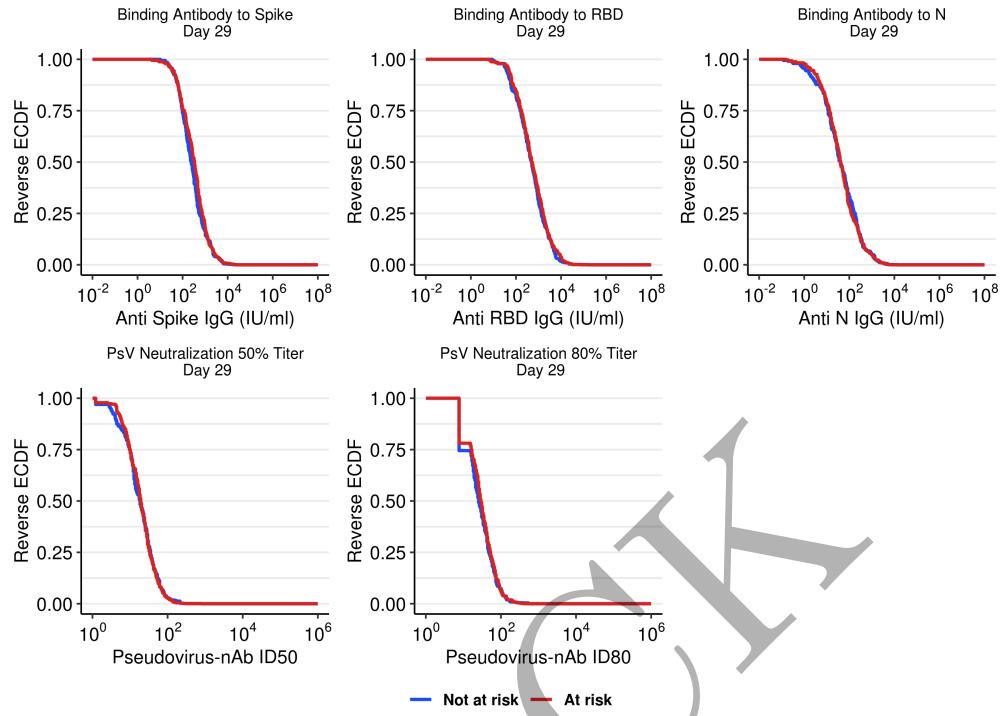


Figure 3.84: RCDF plots for D29 Ab markers: baseline negative vaccine arm by high-risk condition.

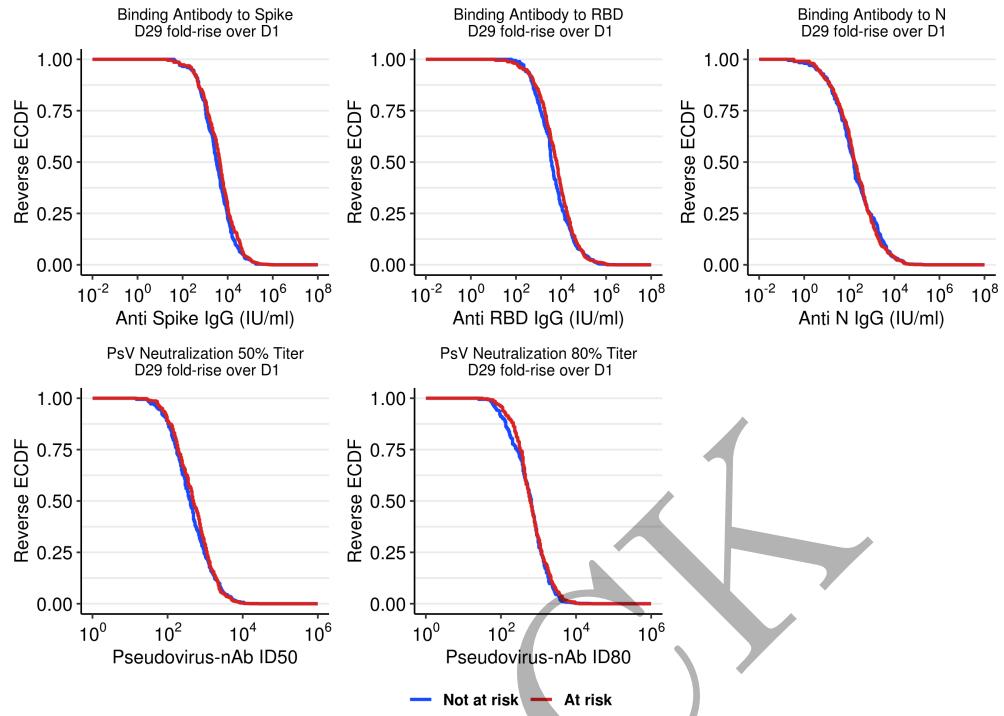


Figure 3.85: RCDF plots for D57 Ab markers: baseline negative vaccine arm by high-risk condition.

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

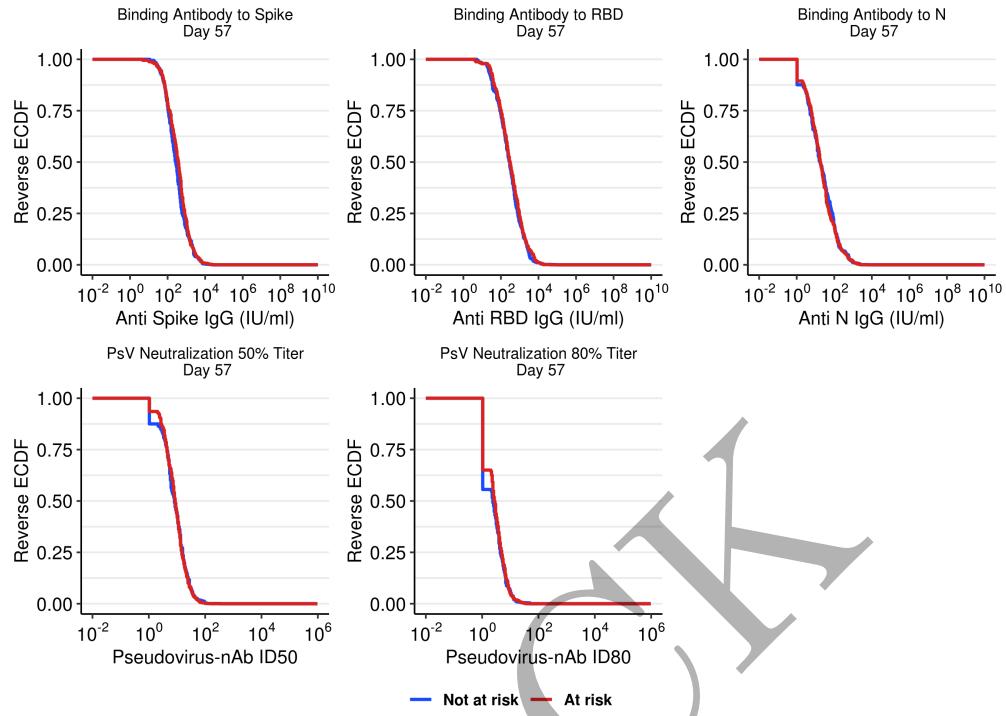


Figure 3.86: RCDF plots for D29 fold-rise over D1 Ab markers: baseline negative vaccine arm by high-risk condition.

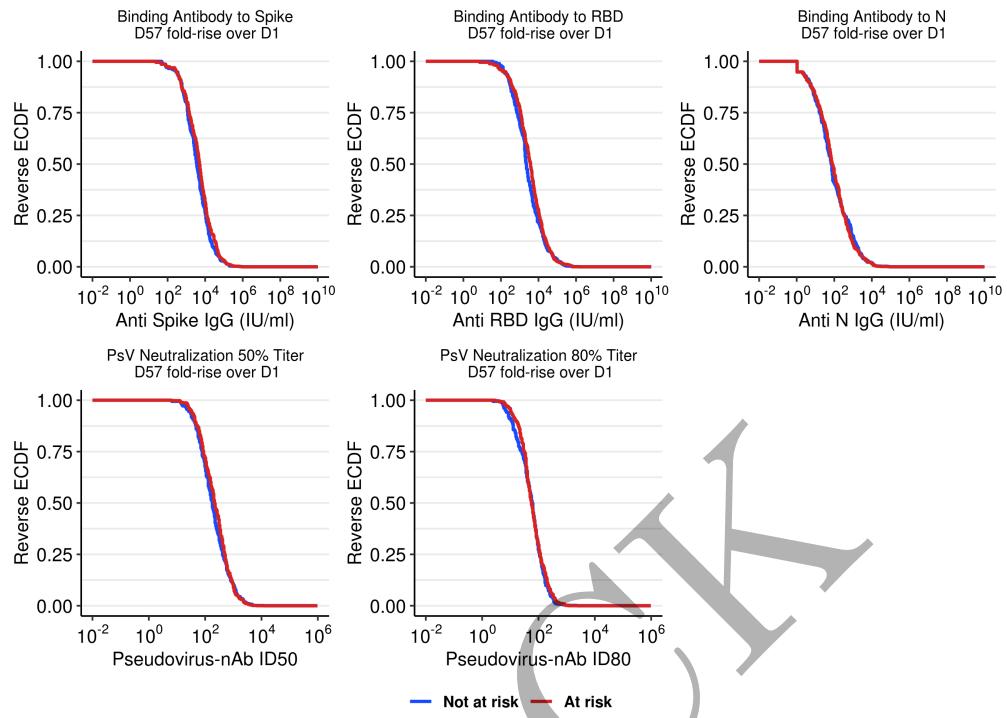


Figure 3.87: RCDF plots for D57 fold-rise over D1 Ab markers: baseline negative vaccine arm by high-risk condition.

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

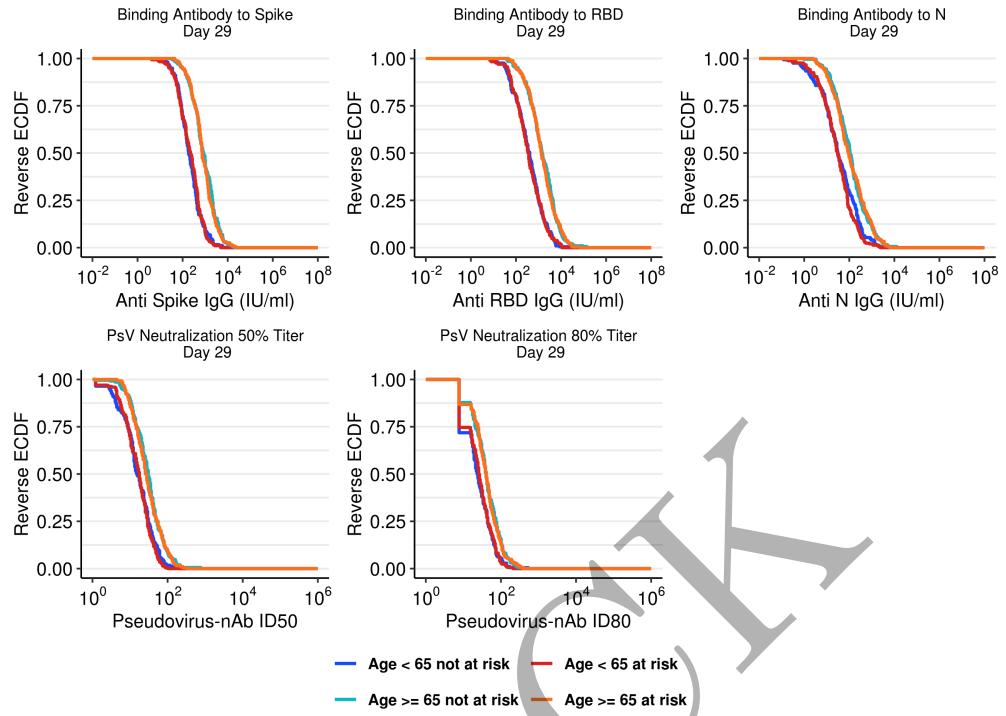


Figure 3.88: RCDF plots for D29 Ab markers: baseline negative vaccine arm by age and high-risk condition.

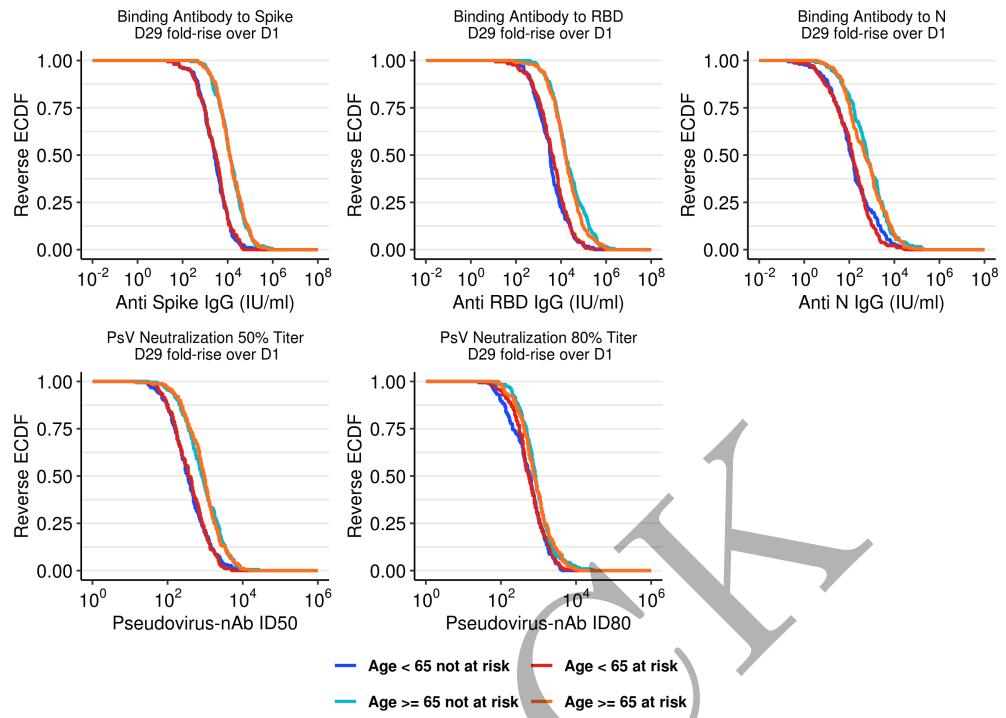


Figure 3.89: RCDF plots for D57 Ab markers: baseline negative vaccine arm by age and high-risk condition.

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

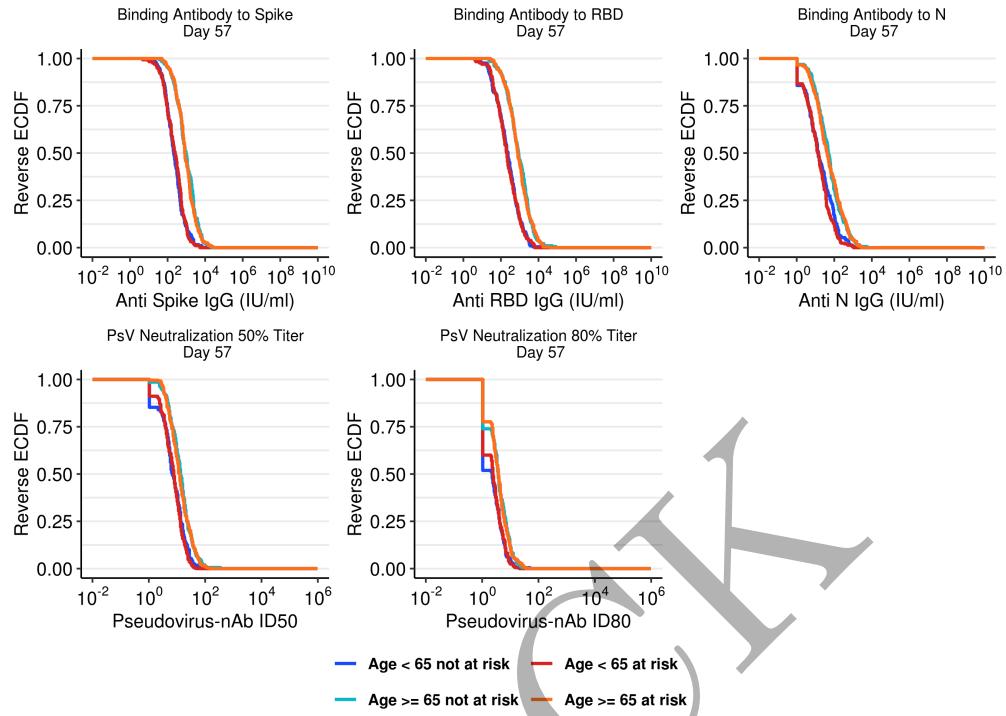


Figure 3.90: RCDF plots for D29 fold-rise over D1 Ab markers: baseline negative vaccine arm by age and high-risk condition.

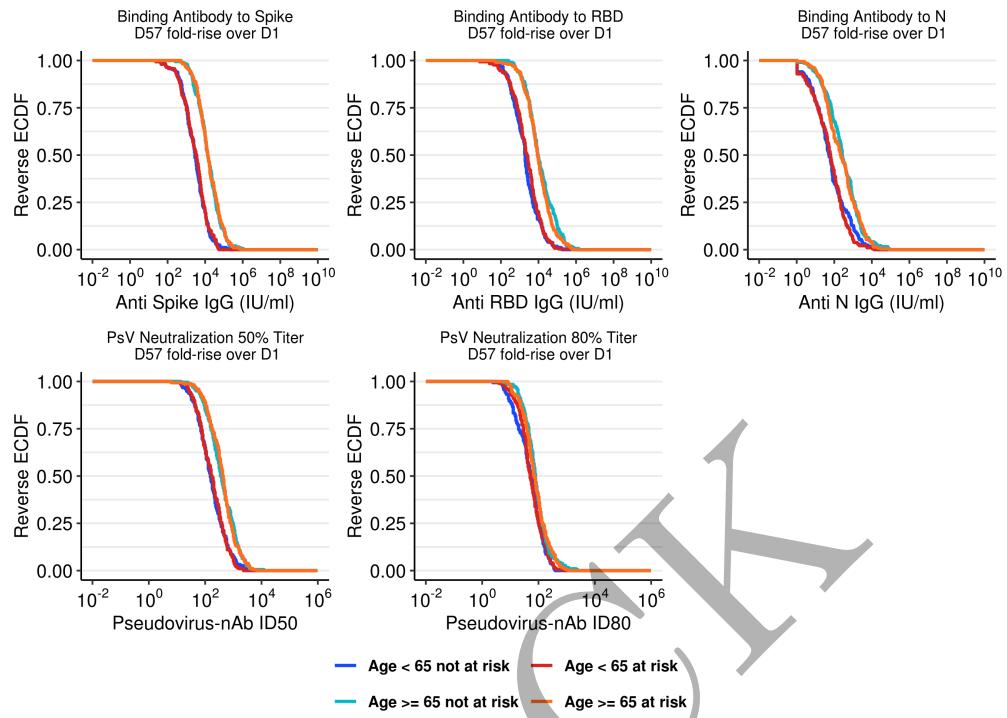


Figure 3.91: RCDF plots for D57 fold-rise over D1 Ab markers: baseline negative vaccine arm by age and high-risk condition.

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

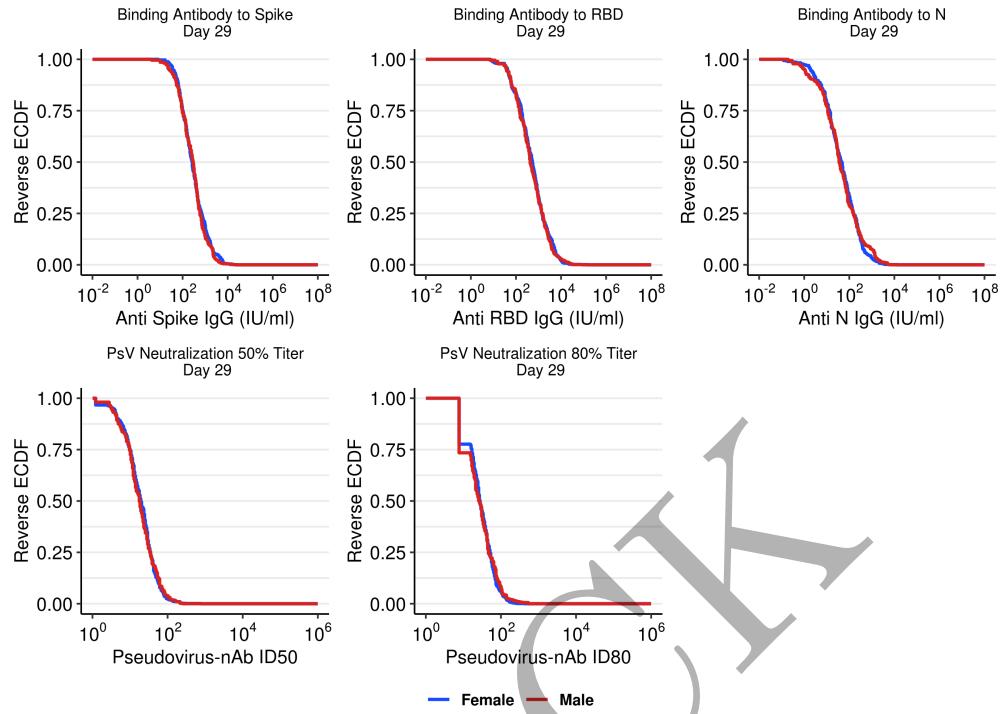


Figure 3.92: RCDF plots for D29 Ab markers: baseline negative vaccine arm by sex assigned at birth.

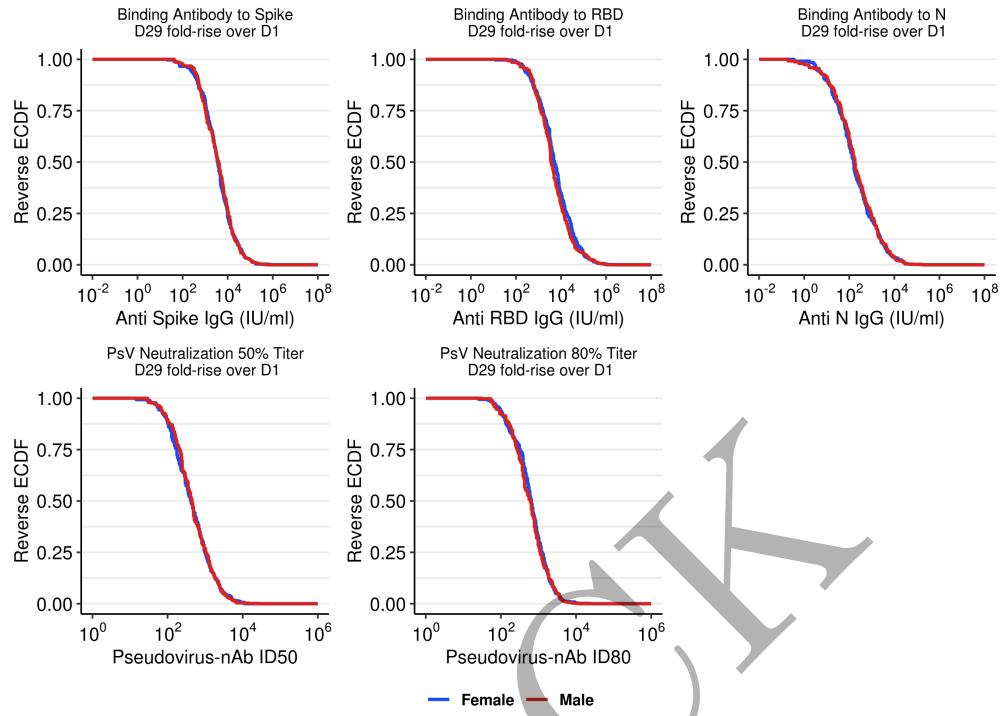


Figure 3.93: RCDF plots for D57 Ab markers: baseline negative vaccine arm by sex assigned at birth.

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

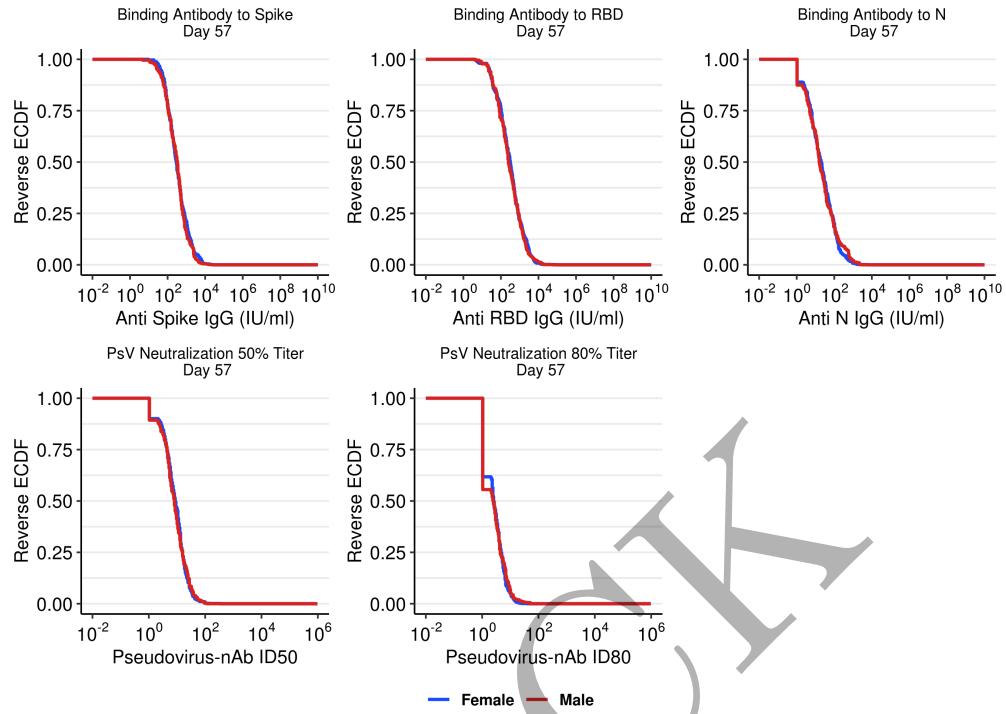


Figure 3.94: RCDF plots for D29 fold-rise over D1 Ab markers: baseline negative vaccine arm by sex assigned at birth.

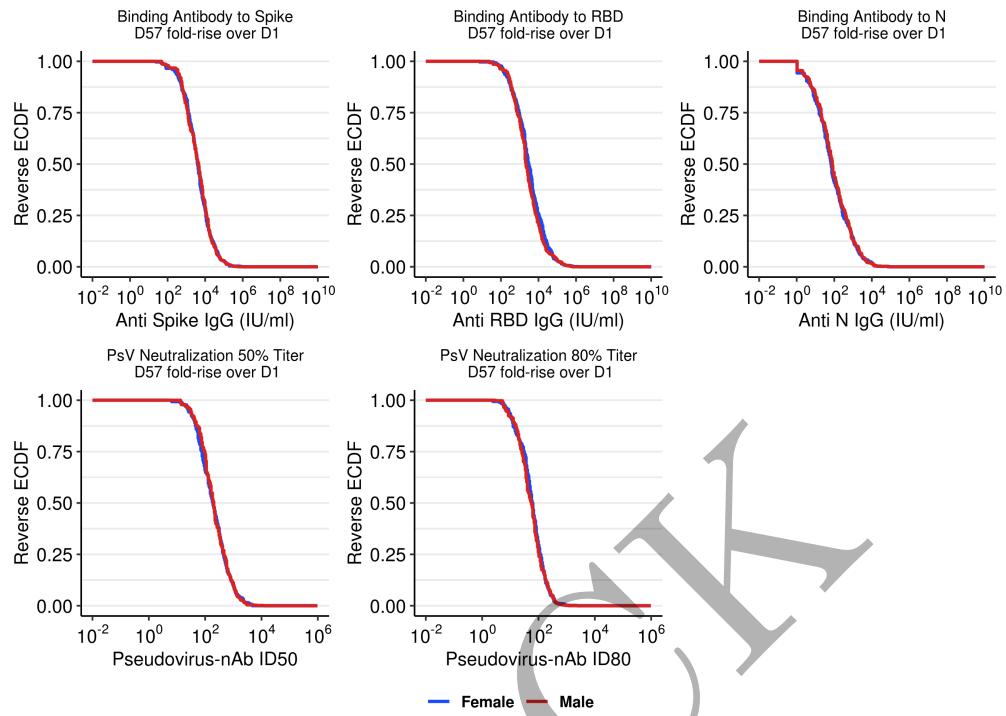


Figure 3.95: RCDF plots for D57 fold-rise over D1 Ab markers: baseline negative vaccine arm by sex assigned at birth.

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

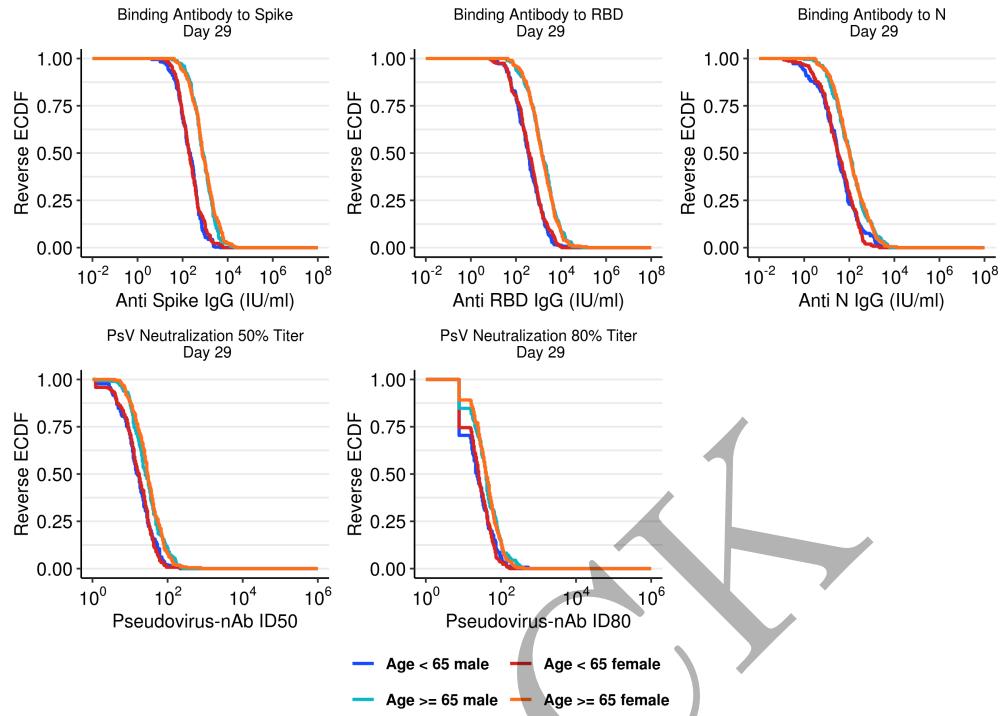


Figure 3.96: RCDF plots for D29 Ab markers: baseline negative vaccine arm by age and sex assigned at birth.

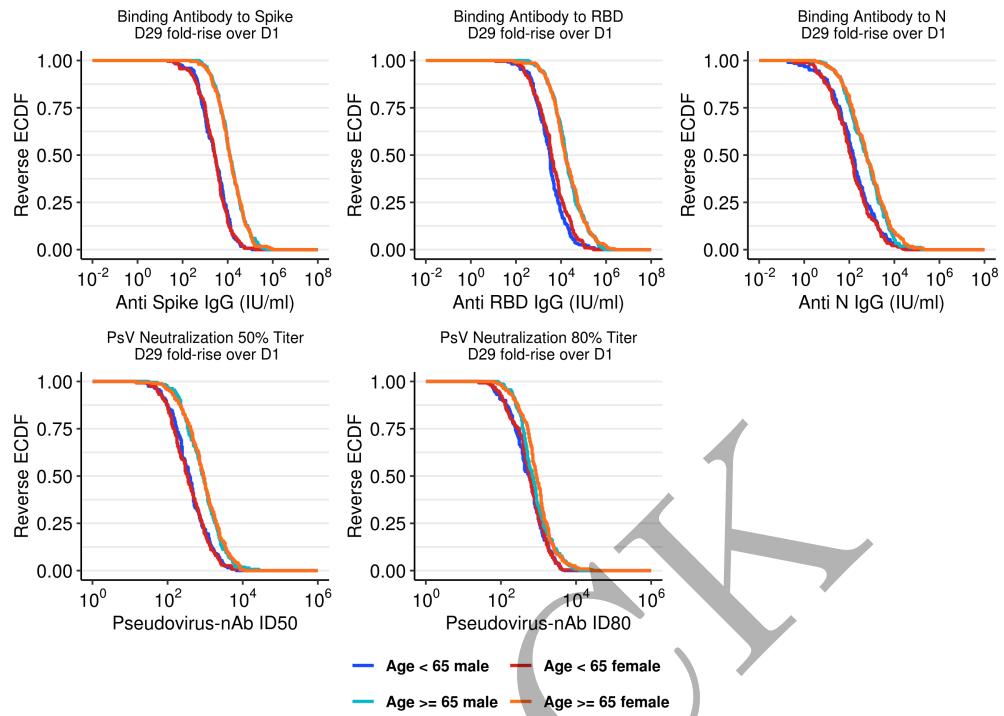


Figure 3.97: RCDF plots for D57 Ab markers: baseline negative vaccine arm by age and sex assigned at birth.

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

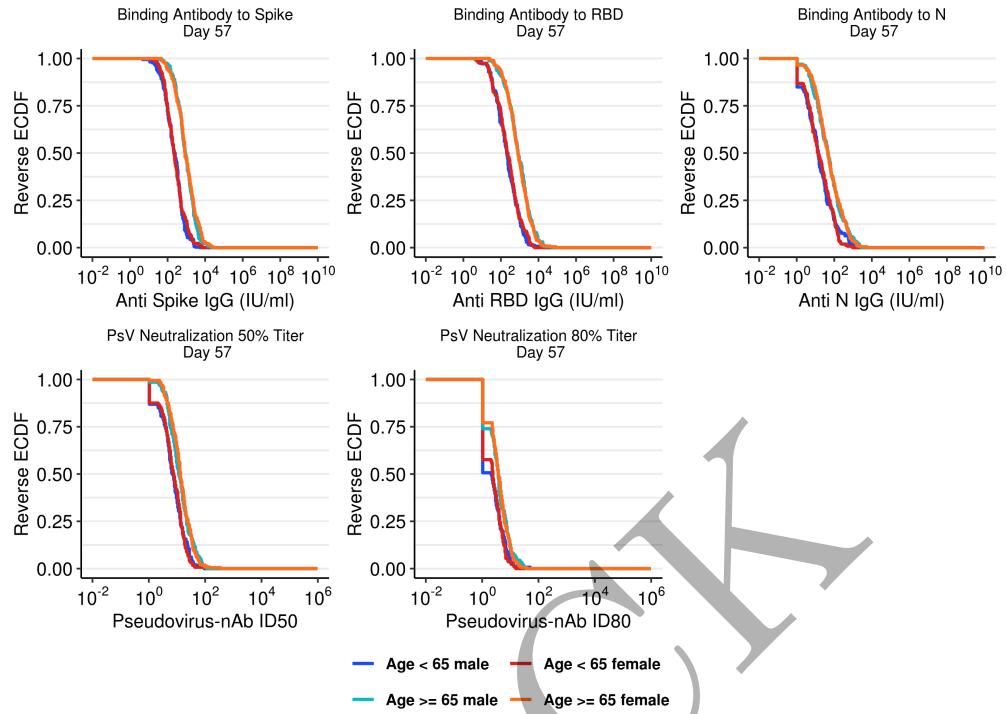


Figure 3.98: RCDF plots for D29 fold-rise over D1 Ab markers: baseline negative vaccine arm by age and sex assigned at birth.

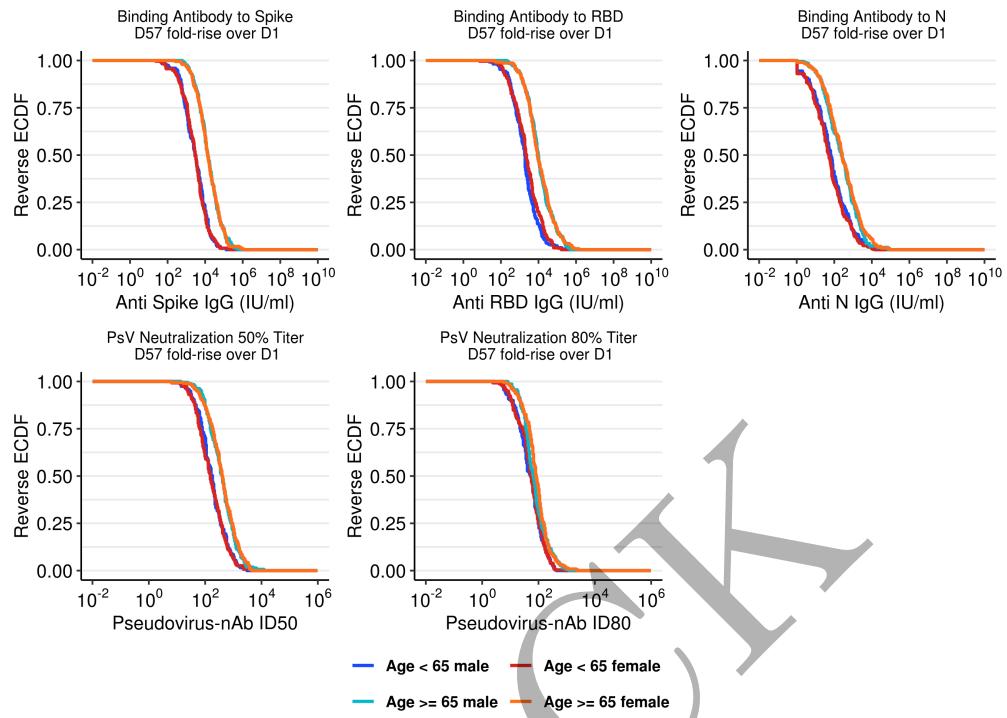


Figure 3.99: RCDF plots for D57 fold-rise over D1 Ab markers: baseline negative vaccine arm by age and sex at birth.

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

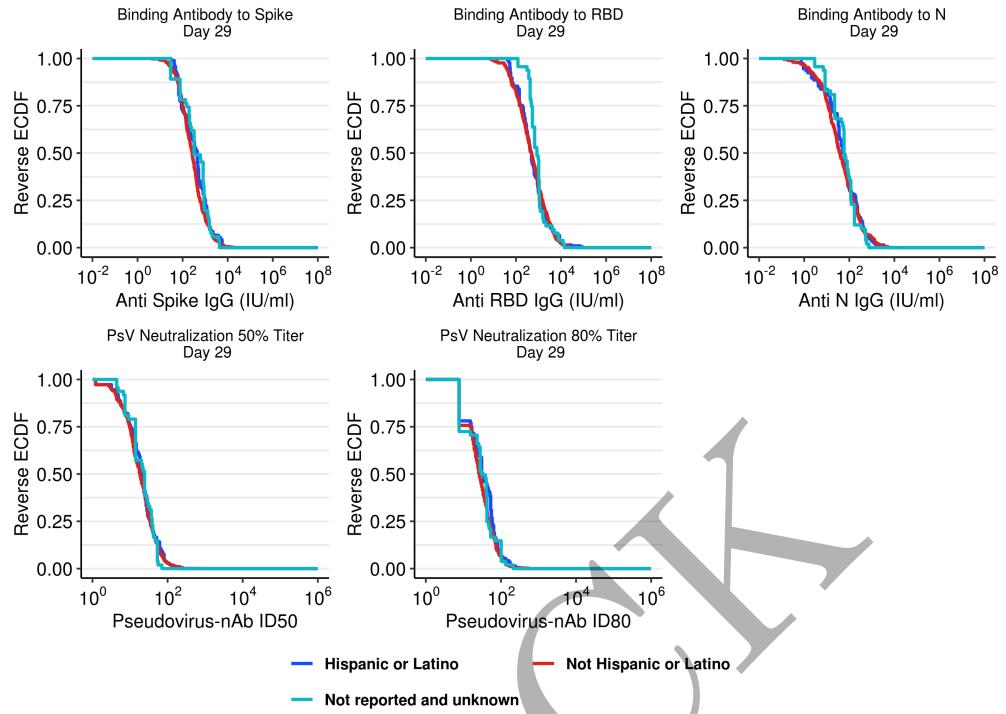


Figure 3.100: RCDF plots for D29 Ab markers: baseline negative vaccine arm by ethnicity.

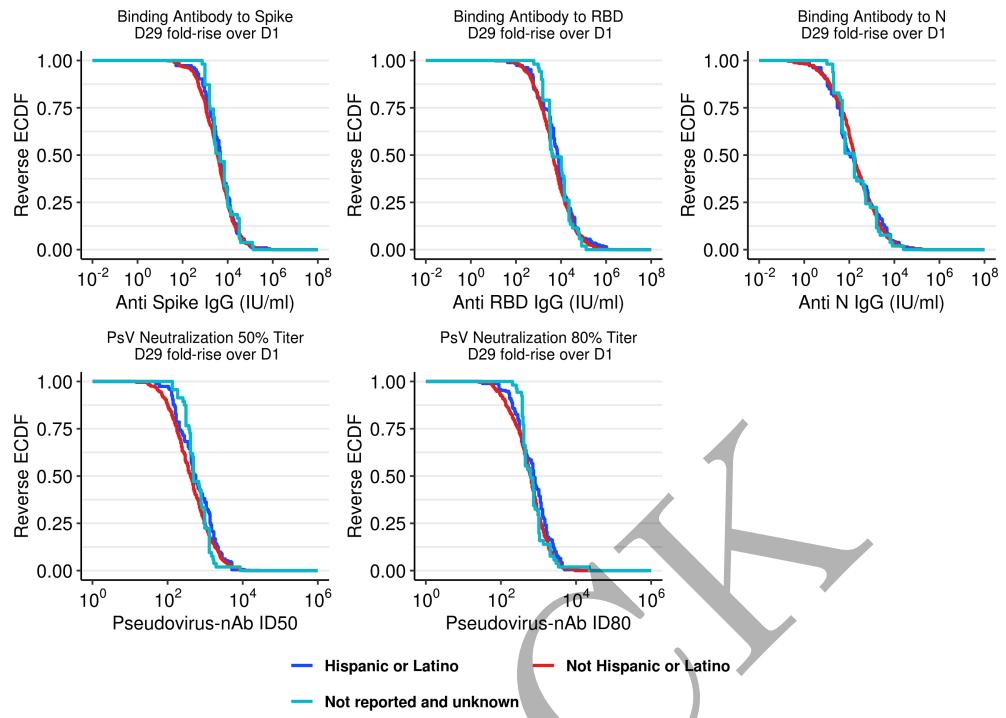


Figure 3.101: RCDF plots for D57 Ab markers: baseline negative vaccine arm by ethnicity.

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

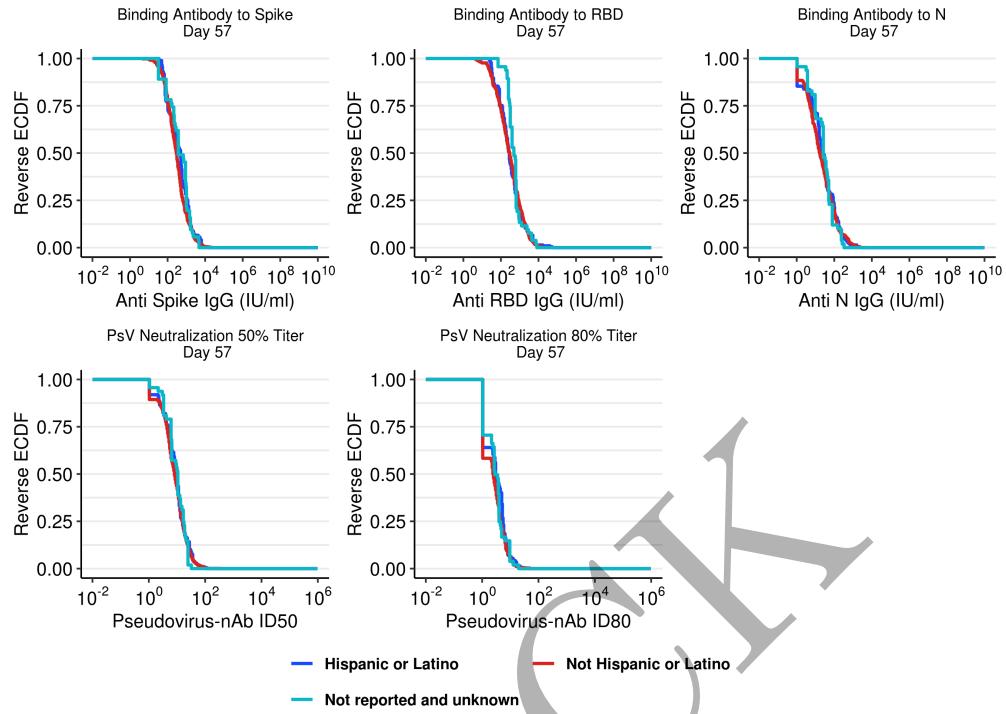


Figure 3.102: RCDF plots for D29 fold-rise over D1 Ab markers: baseline negative vaccine arm by ethnicity.

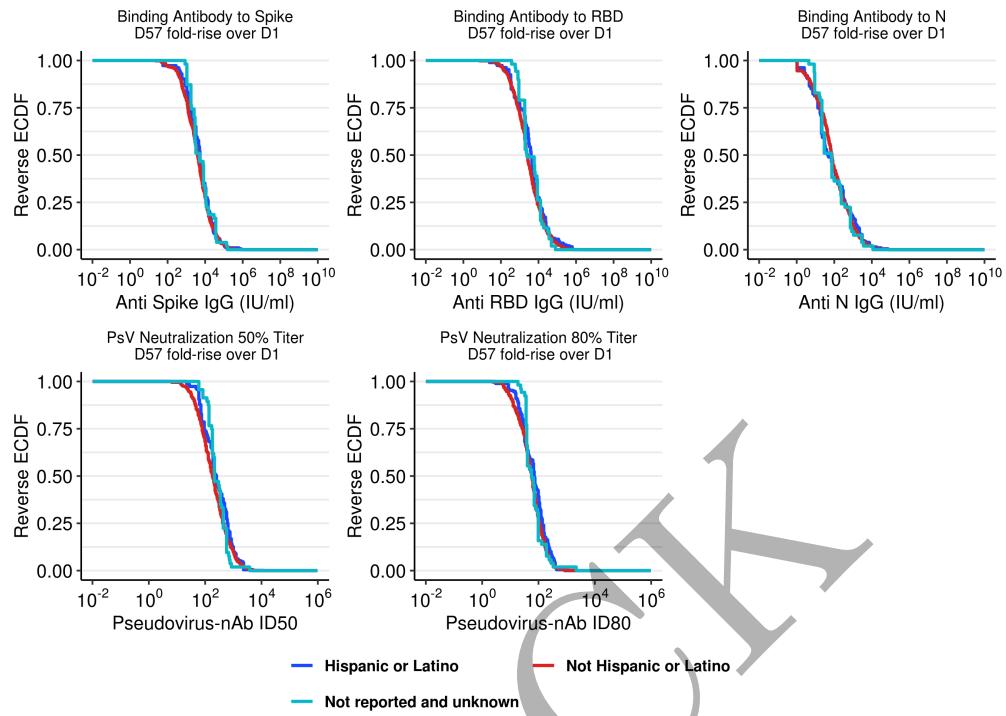


Figure 3.103: RCDF plots for D57 fold-rise over D1 Ab markers: baseline negative vaccine arm by ethnicity.

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

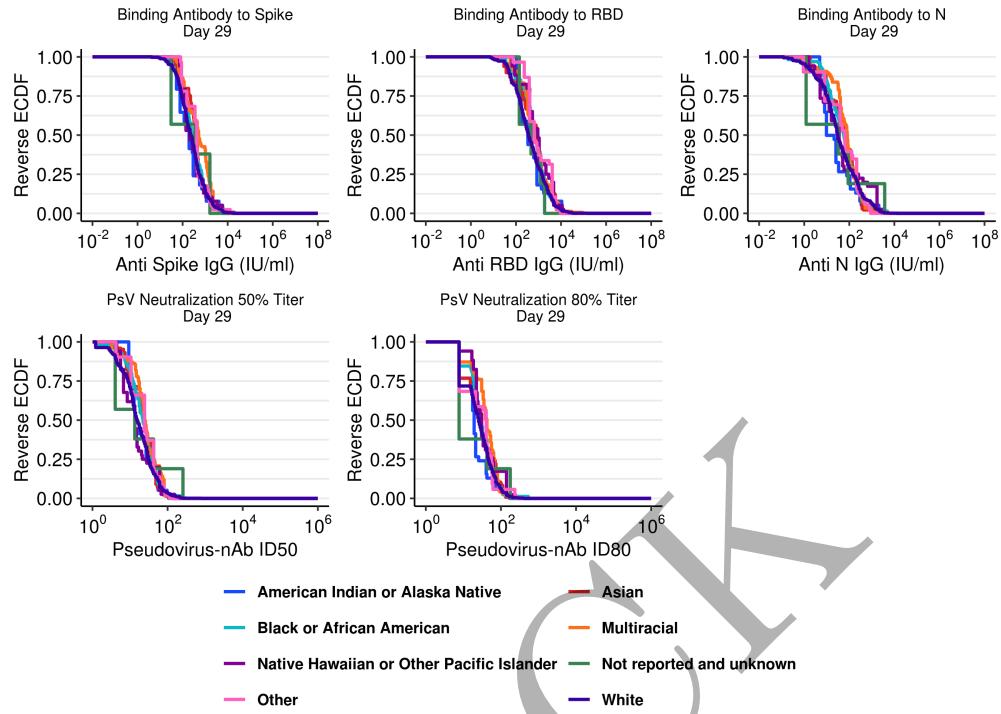


Figure 3.104: RCDF plots for D29 Ab markers: baseline negative vaccine arm by race.

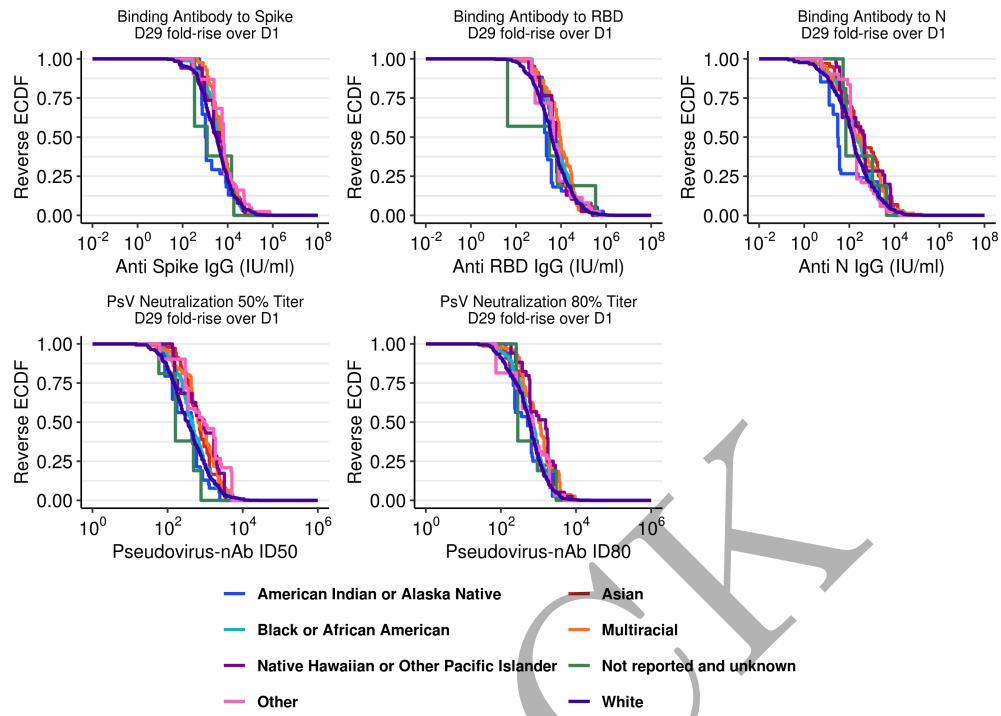


Figure 3.105: RCDF plots for D57 Ab markers: baseline negative vaccine arm by race.

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

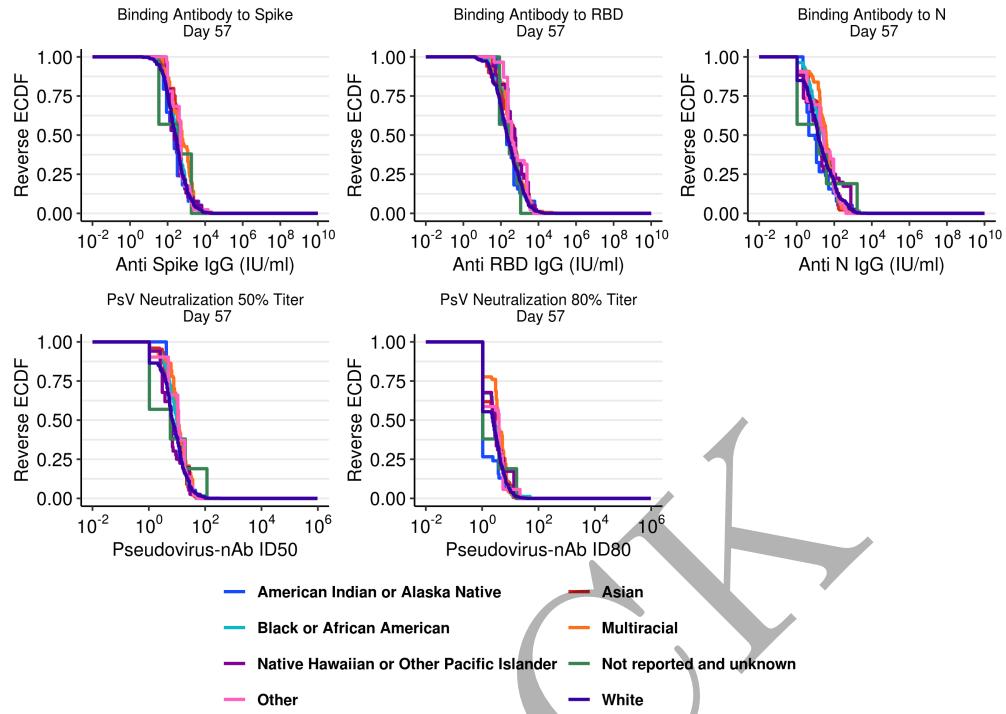


Figure 3.106: RCDF plots for D29 fold-rise over D1 Ab markers: baseline negative vaccine arm by race.

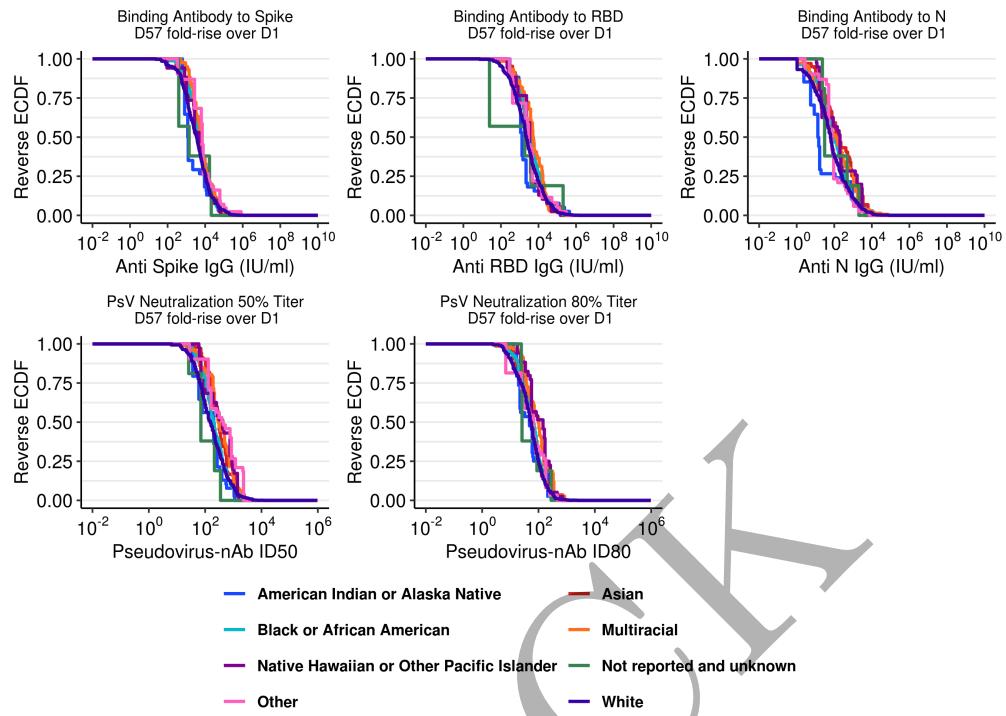


Figure 3.107: RCDF plots for D57 fold-rise over D1 Ab markers: baseline negative vaccine arm by race.

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

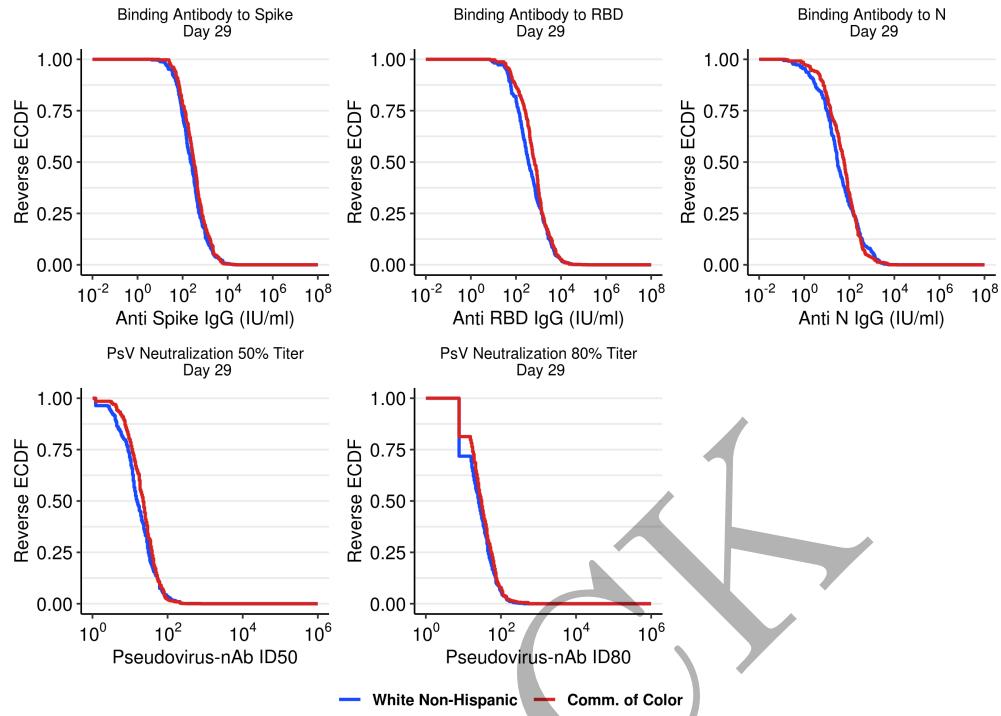


Figure 3.108: RCDF plots for D29 Ab markers: baseline negative vaccine arm by dichotomous classification of race and ethnic group.

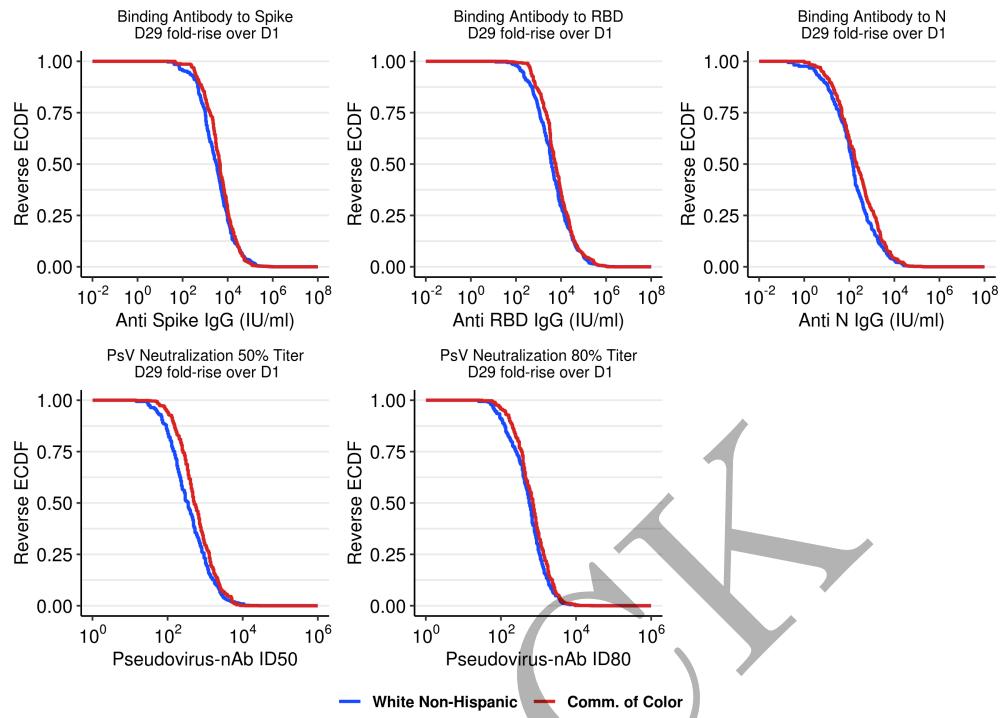


Figure 3.109: RCDF plots for D57 Ab markers: baseline negative vaccine arm by dichotomous classification of race and ethnic group.

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

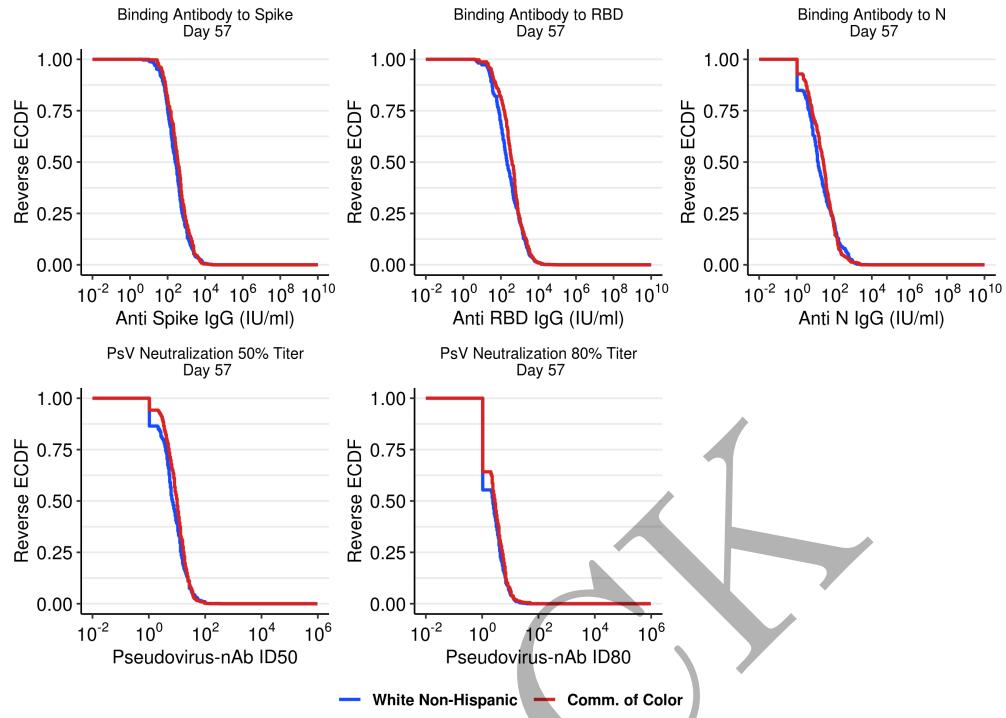


Figure 3.110: RCDF plots for D29 fold-rise over D1 Ab markers: baseline negative vaccine arm by dichotomous classification of race and ethnic group.

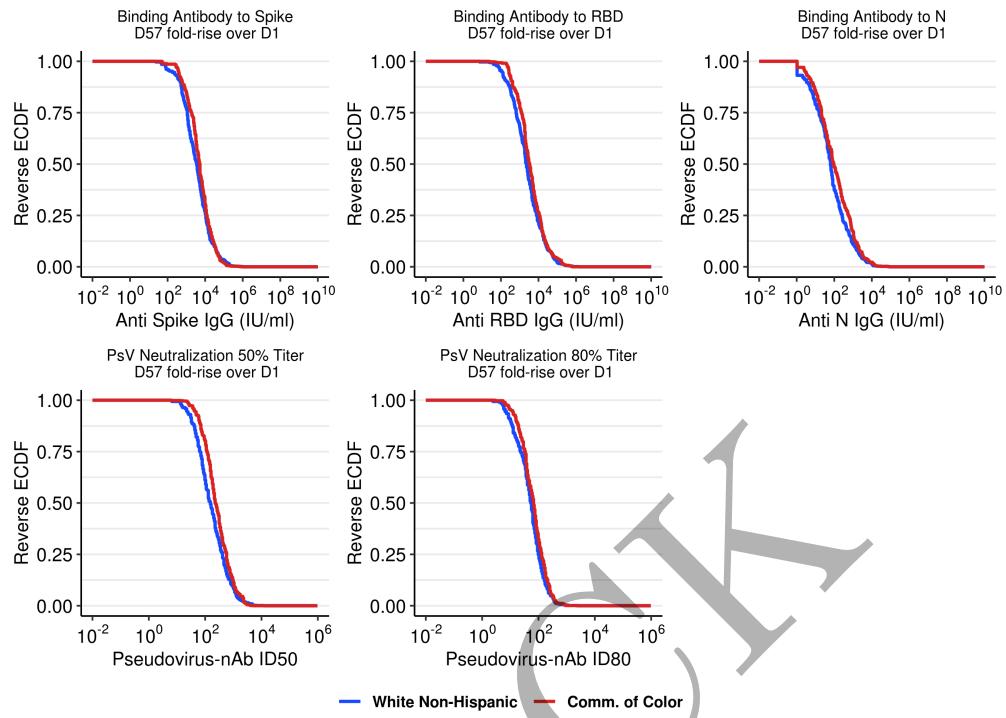


Figure 3.111: RCDF plots for D57 fold-rise over D1 Ab markers: baseline negative vaccine arm by dichotomous classification of race and ethnic group.

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

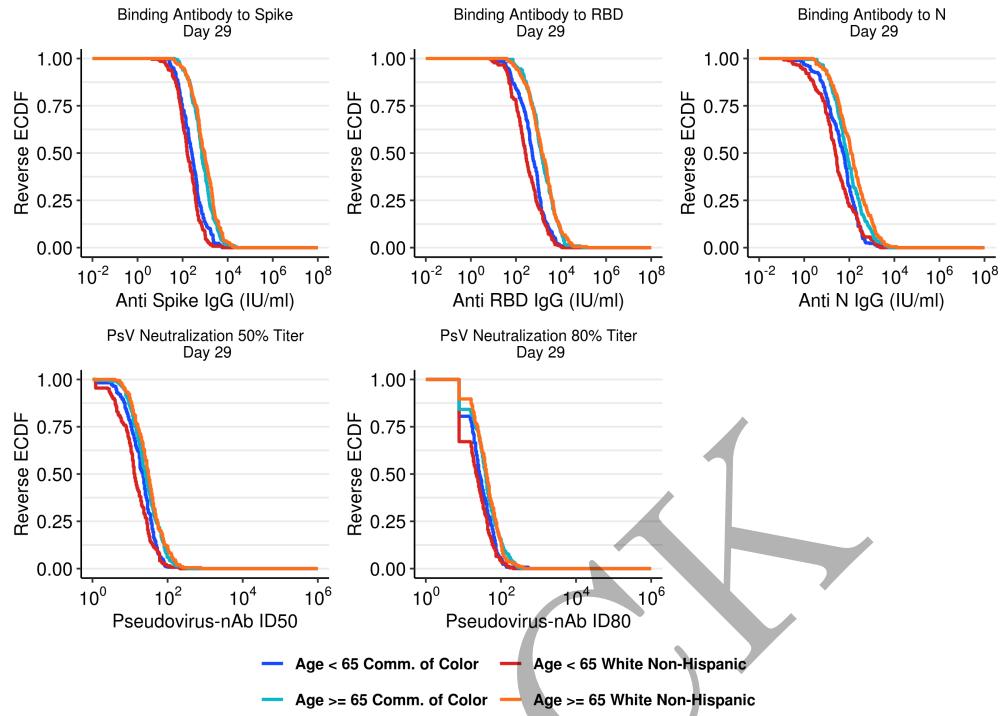


Figure 3.112: RCDF plots for D29 Ab markers: baseline negative vaccine arm by age and dichotomous classification of race and ethnic group.

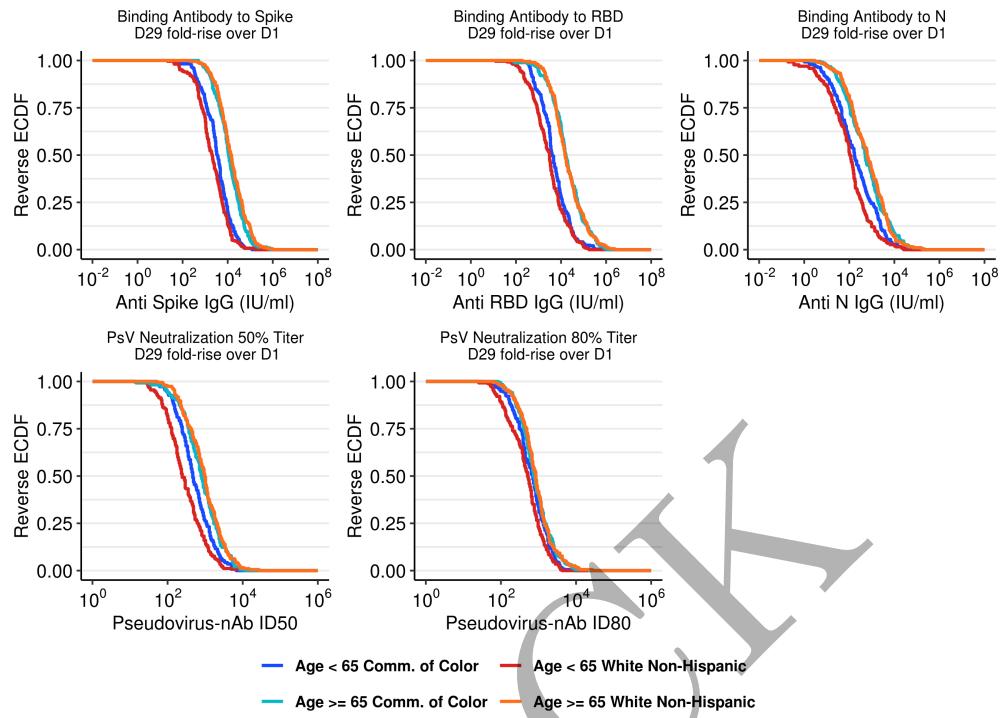


Figure 3.113: RCDF plots for D57 Ab markers: baseline negative vaccine arm by age and dichotomous classification of race and ethnic group.

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

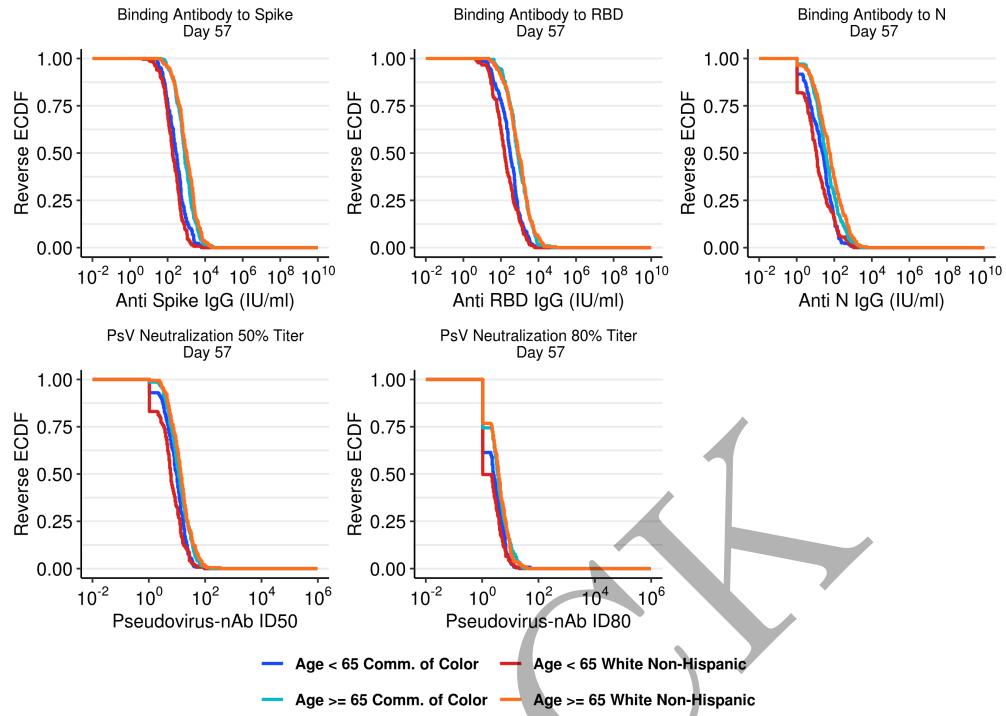


Figure 3.114: RCDF plots for D29 fold-rise over D1 Ab markers: baseline negative vaccine arm by age and dichotomous classification of race and ethnic group.

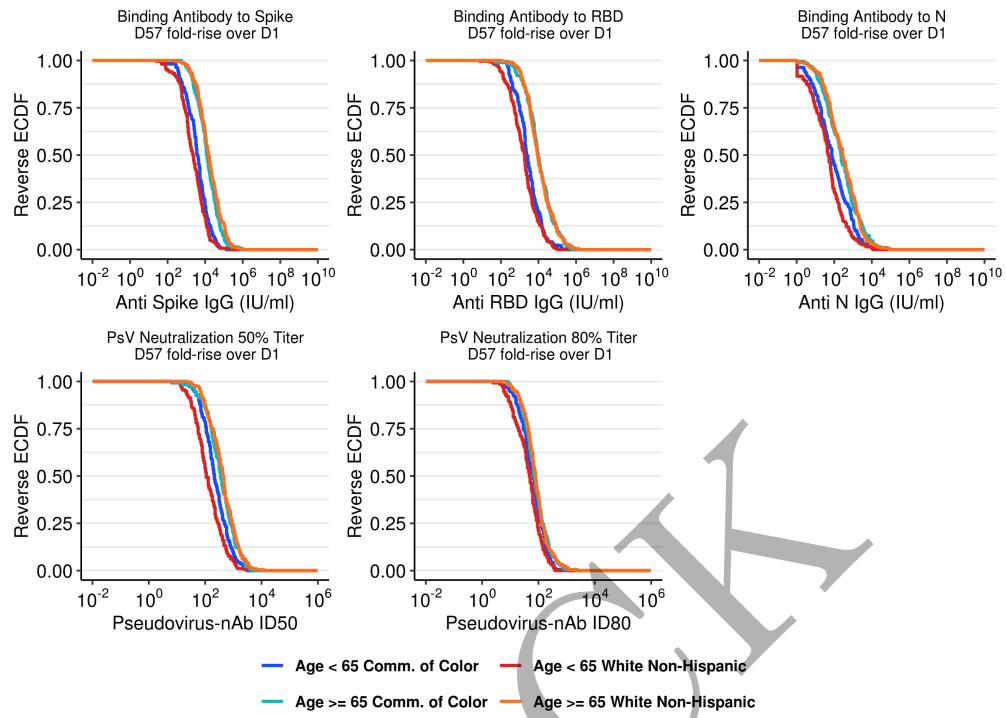


Figure 3.115: RCDF plots for D57 fold-rise over D1 Ab markers: baseline negative vaccine arm by age and dichotomous classification of race and ethnic group.

3.6.2 Baseline SARS-CoV-2 Positive

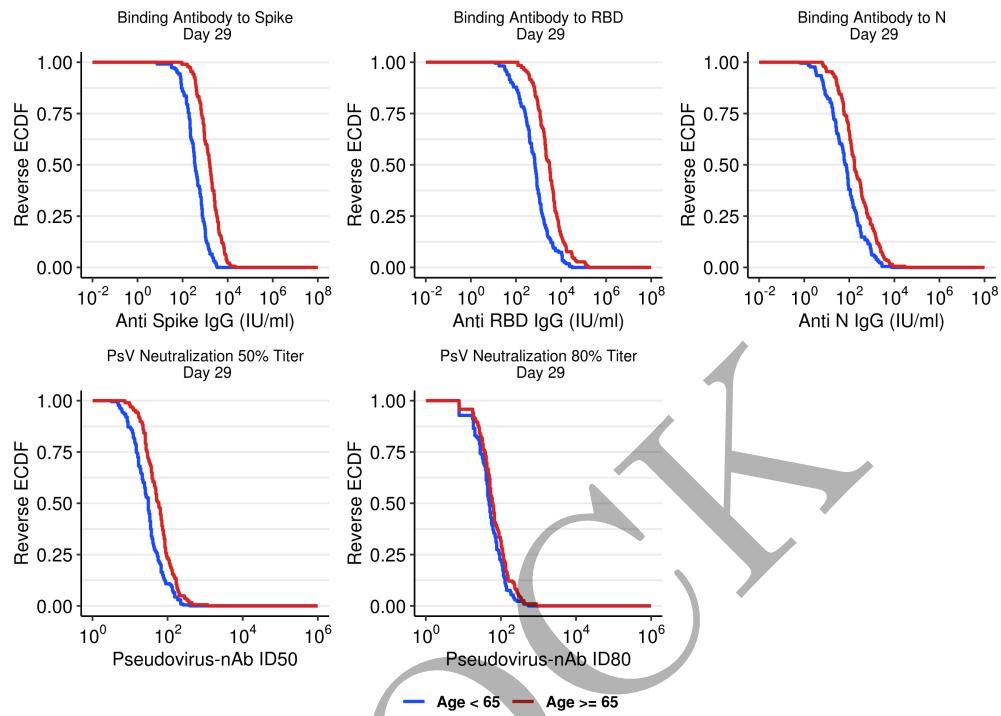


Figure 3.116: RCDF plots for D29 Ab markers: baseline positive vaccine arm by age groups.

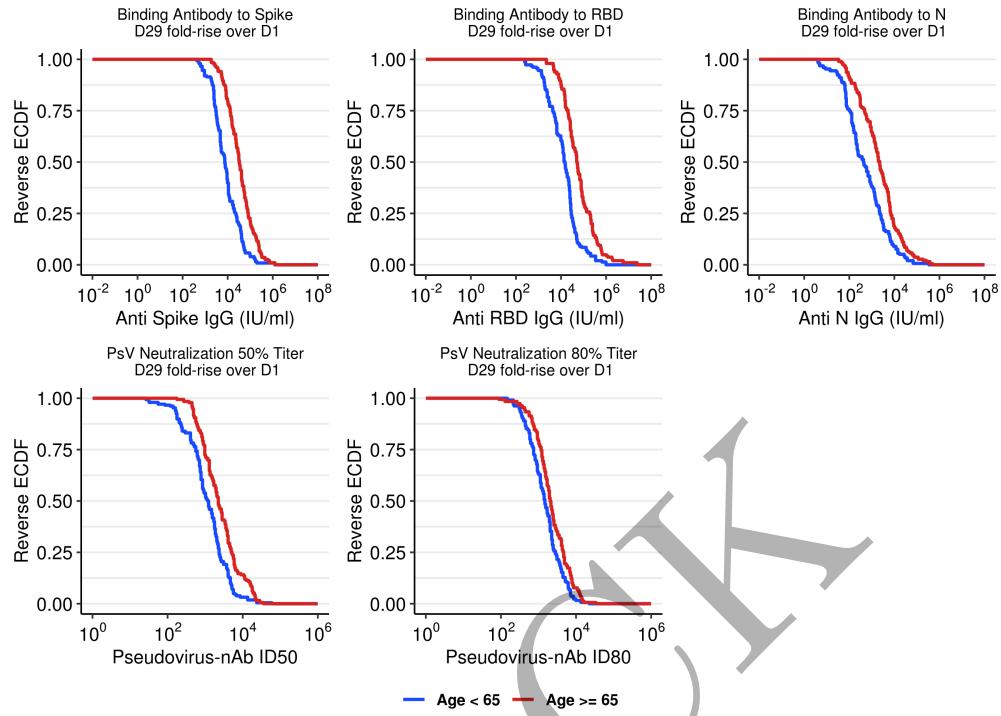


Figure 3.117: RCDF plots for D57 Ab markers: baseline positive vaccine arm by age groups.

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

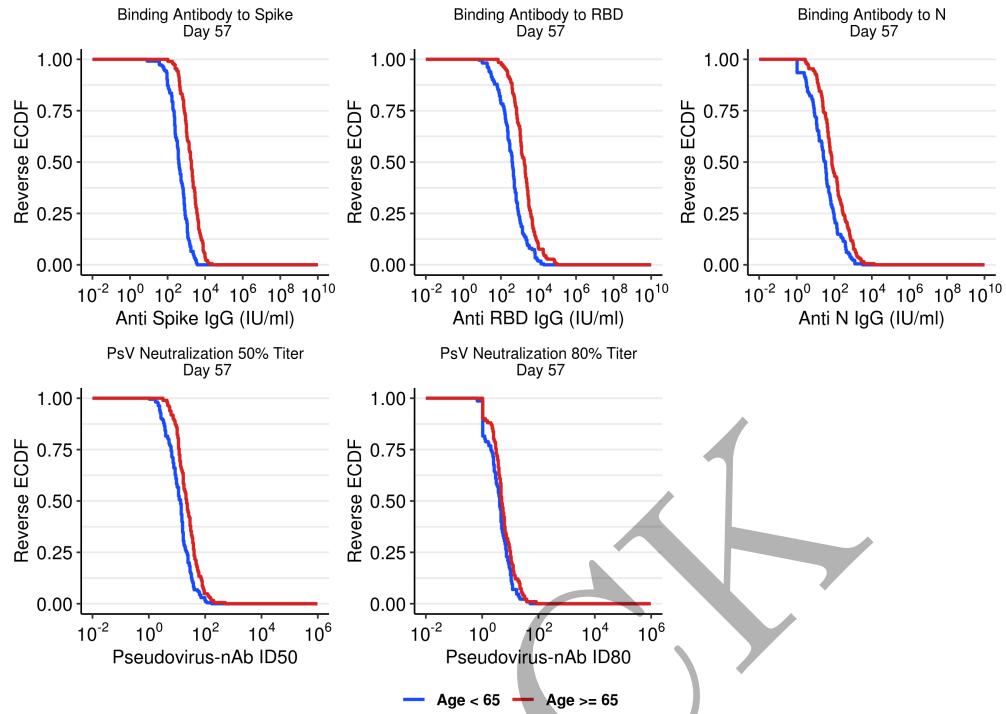


Figure 3.118: RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by age groups.

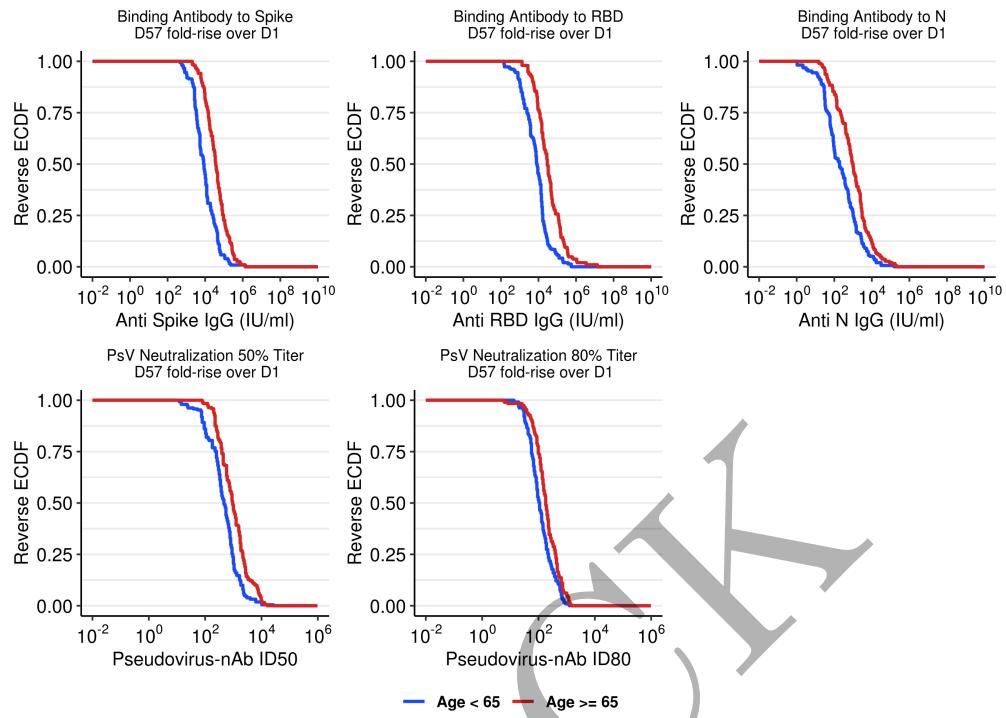


Figure 3.119: RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by age groups.

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

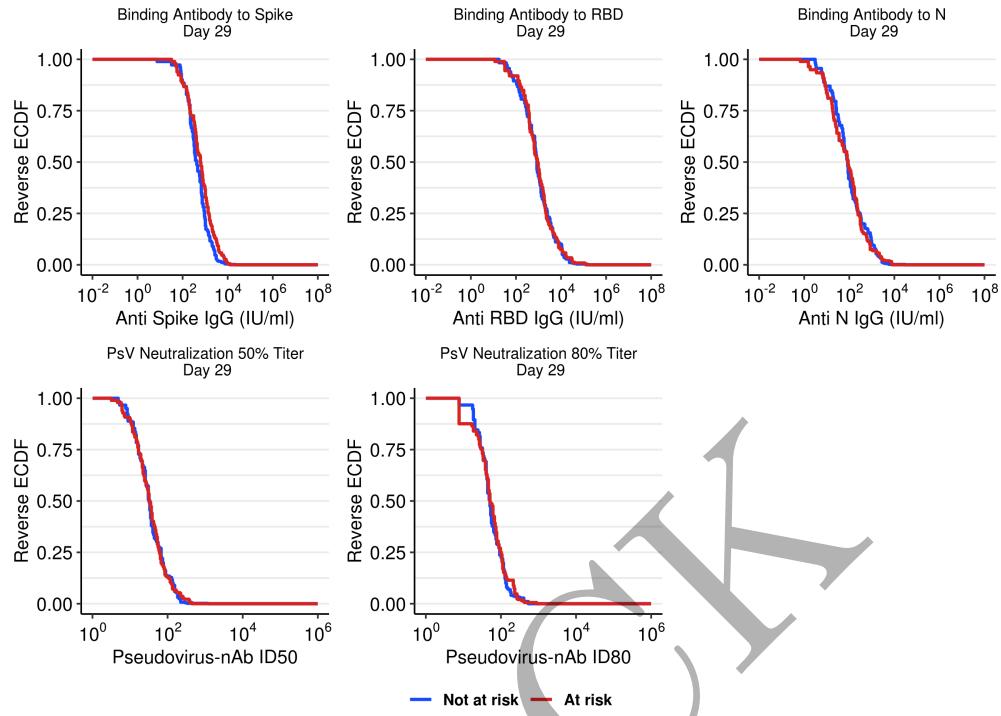


Figure 3.120: RCDF plots for D29 Ab markers: baseline positive vaccine arm by high-risk condition.

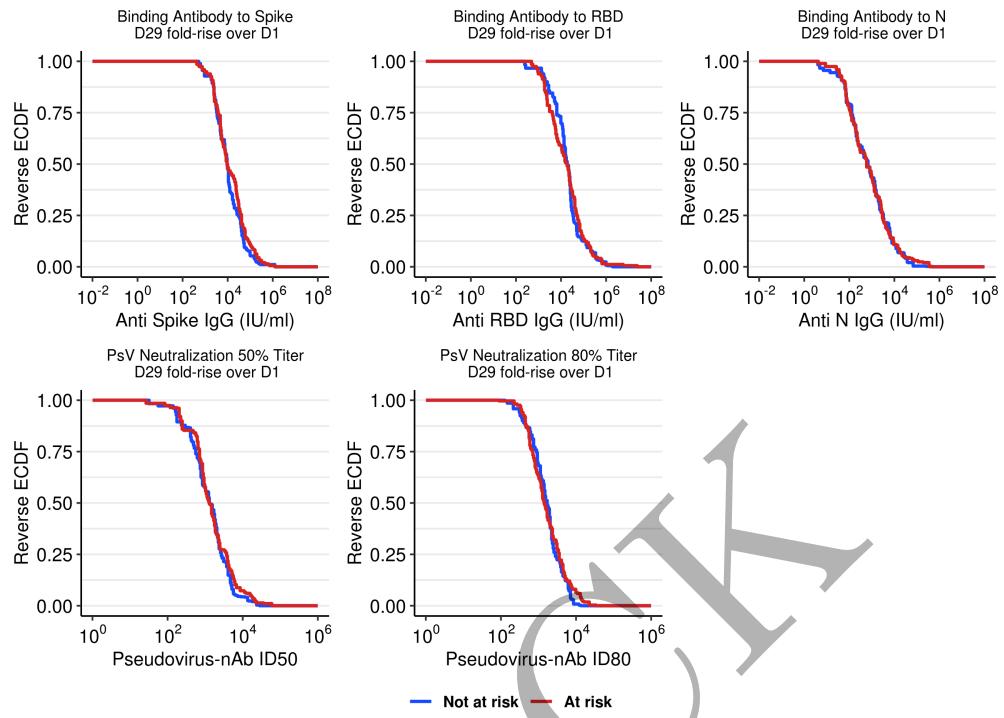


Figure 3.121: RCDF plots for D57 Ab markers: baseline positive vaccine arm by high-risk condition.

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

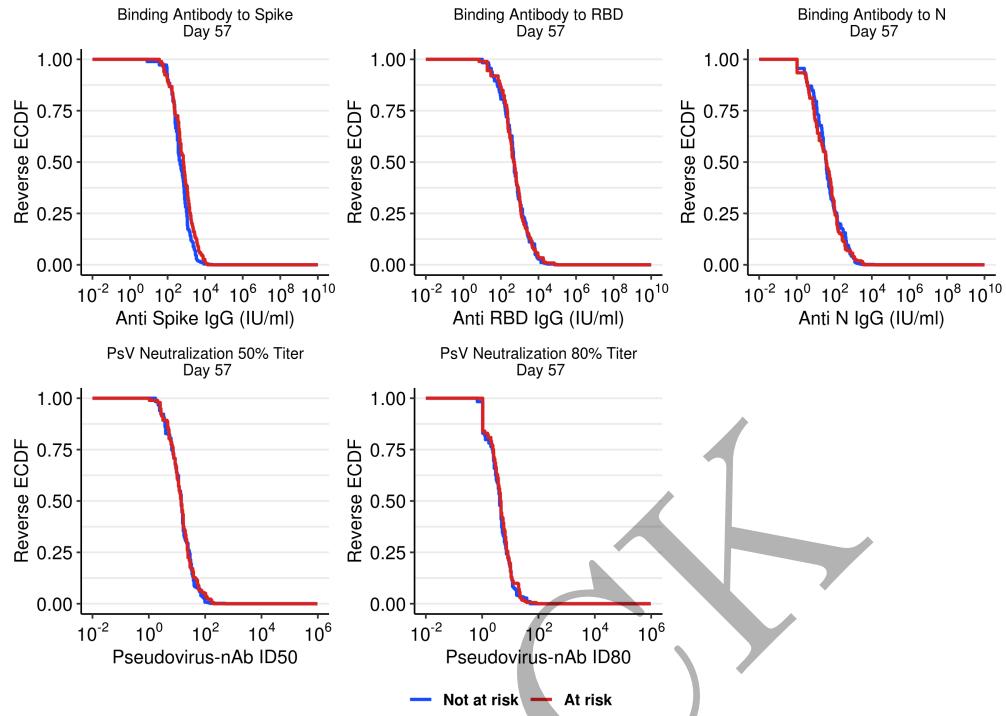


Figure 3.122: RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by high-risk condition.

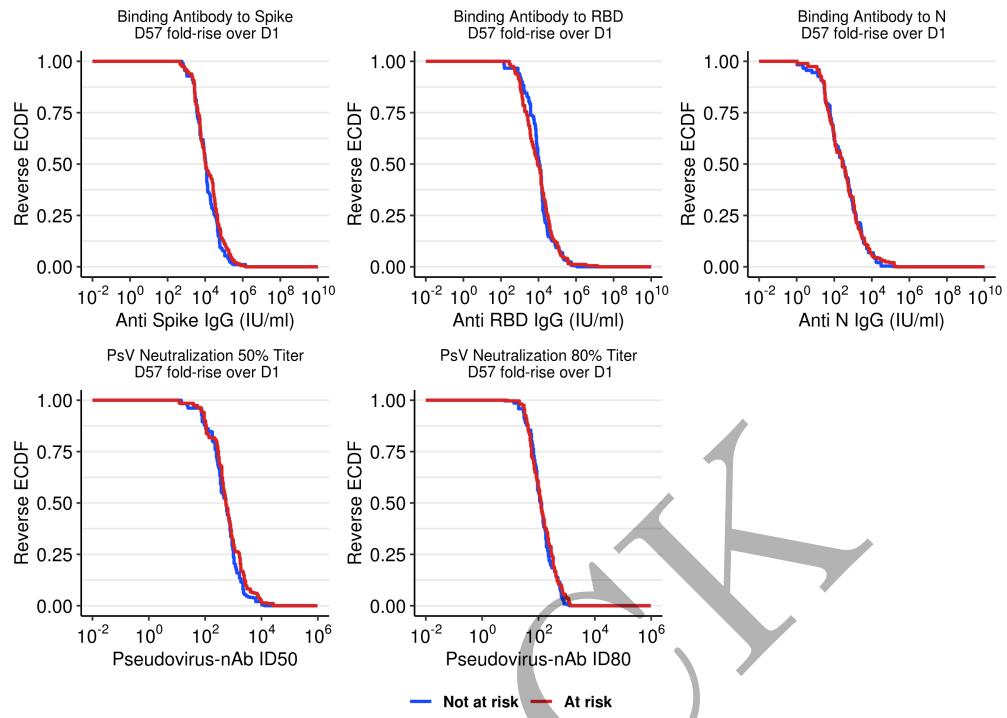


Figure 3.123: RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by high-risk condition.

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

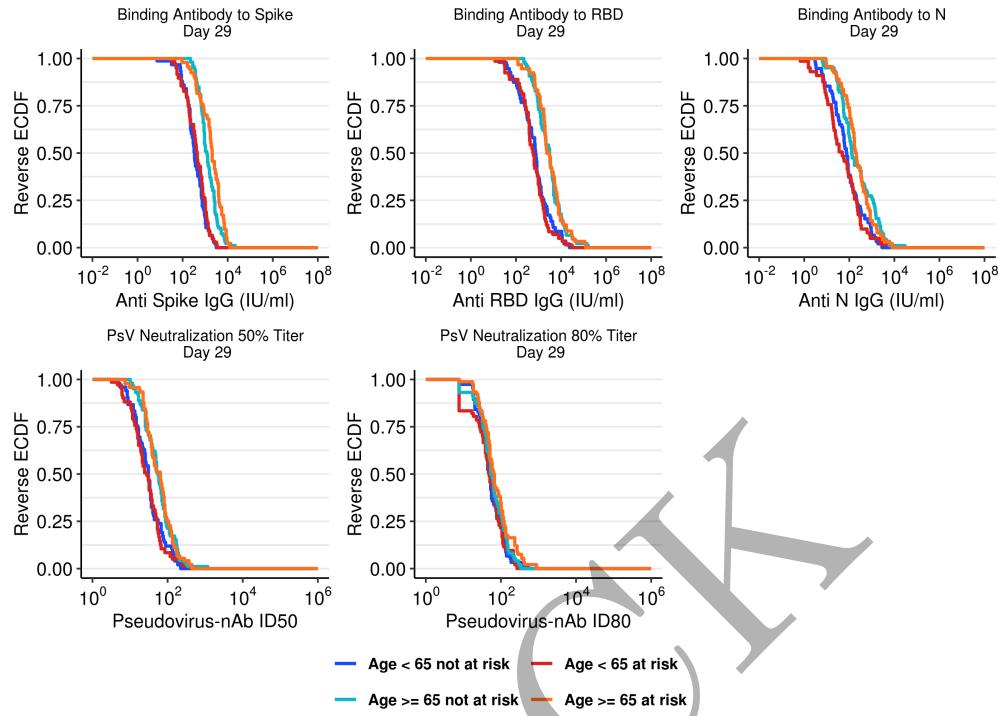


Figure 3.124: RCDF plots for D29 Ab markers: baseline positive vaccine arm by age and high-risk condition.

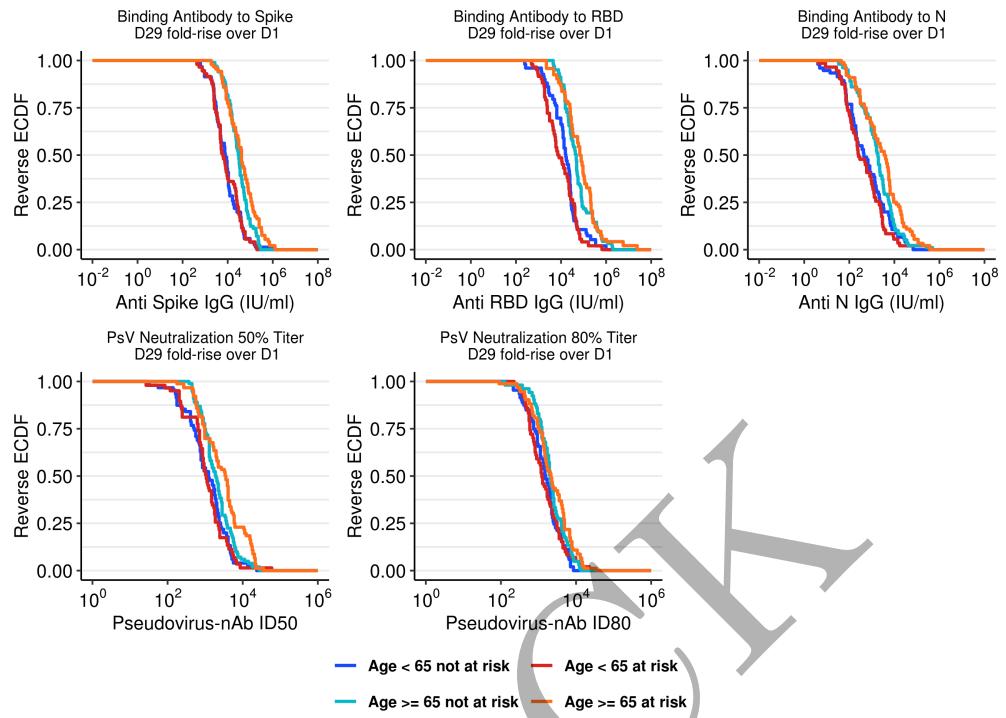


Figure 3.125: RCDF plots for D57 Ab markers: baseline positive vaccine arm by age and high-risk condition.

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

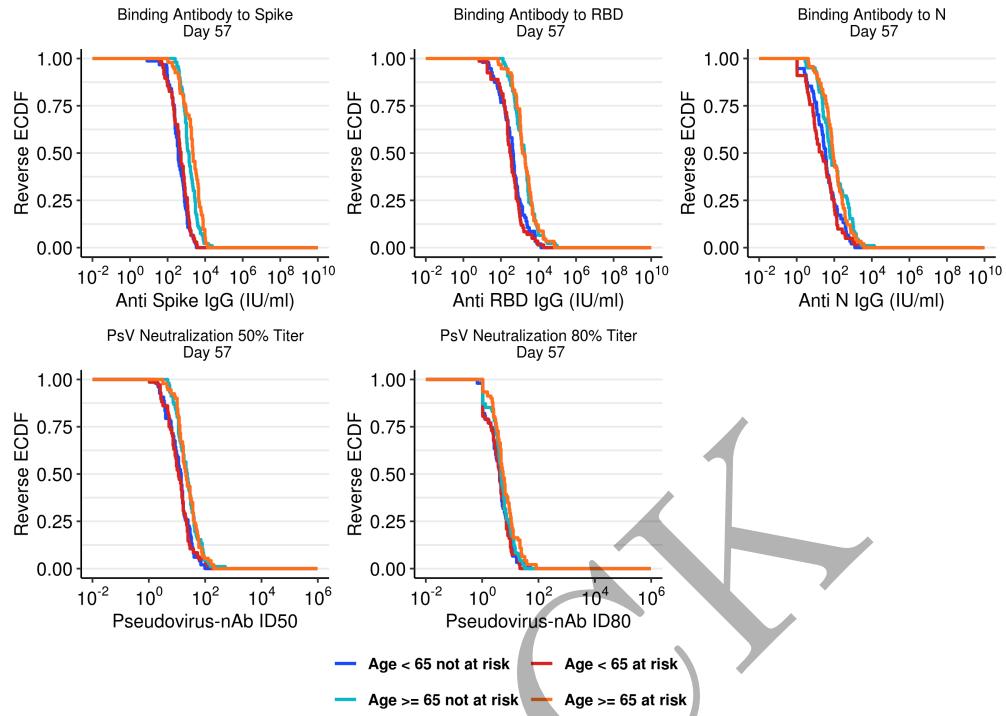


Figure 3.126: RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and high-risk condition.

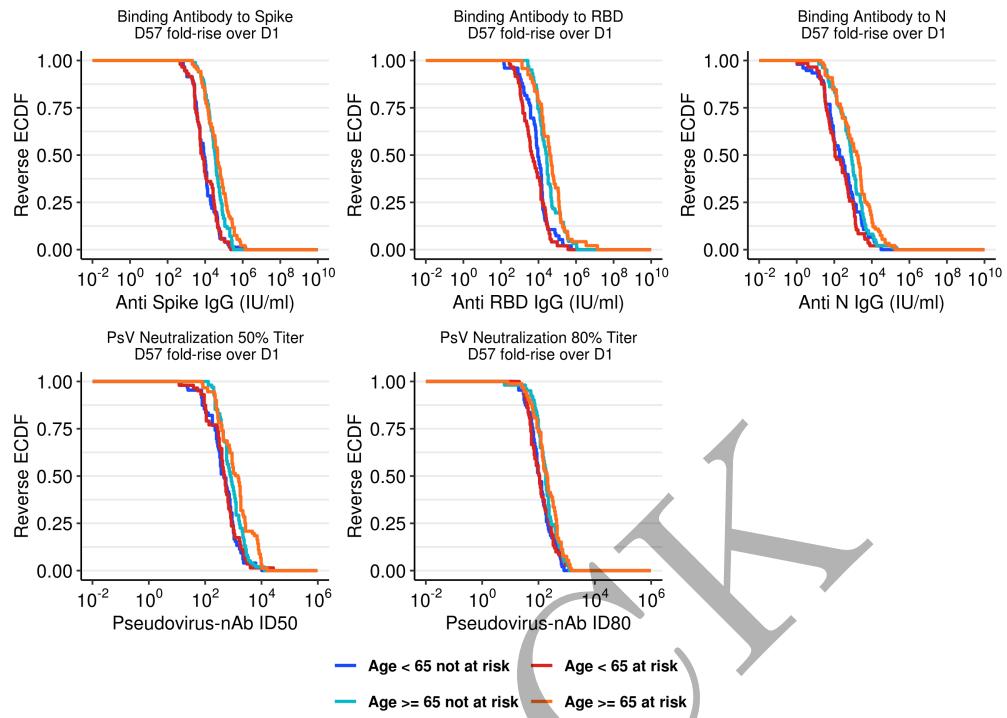


Figure 3.127: RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and high-risk condition.

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

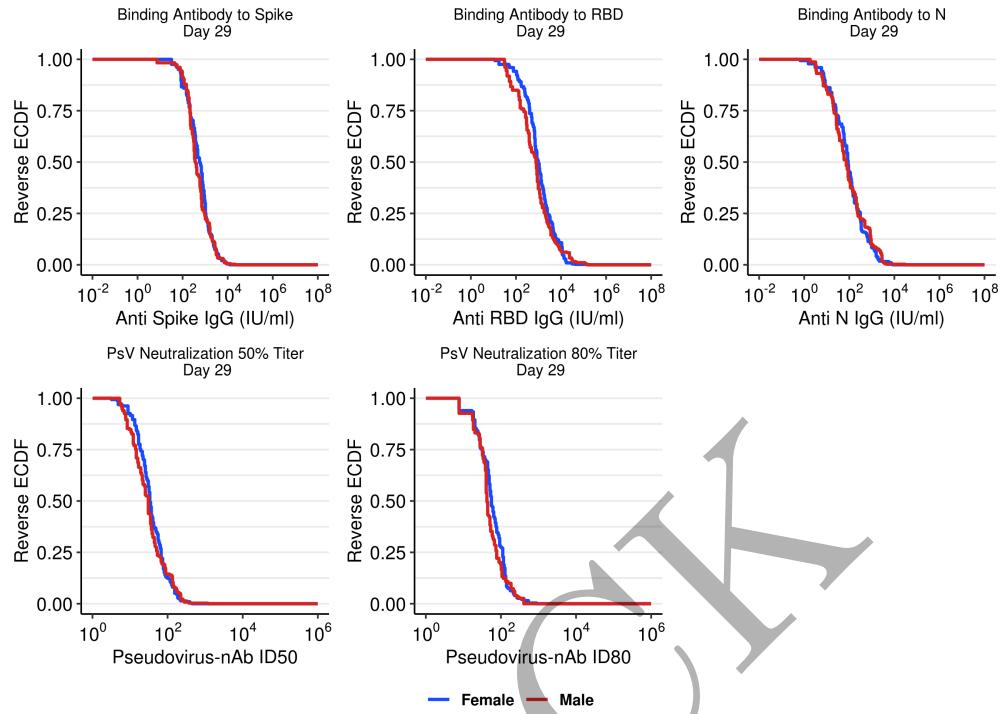


Figure 3.128: RCDF plots for D29 Ab markers: baseline positive vaccine arm by sex assigned at birth.

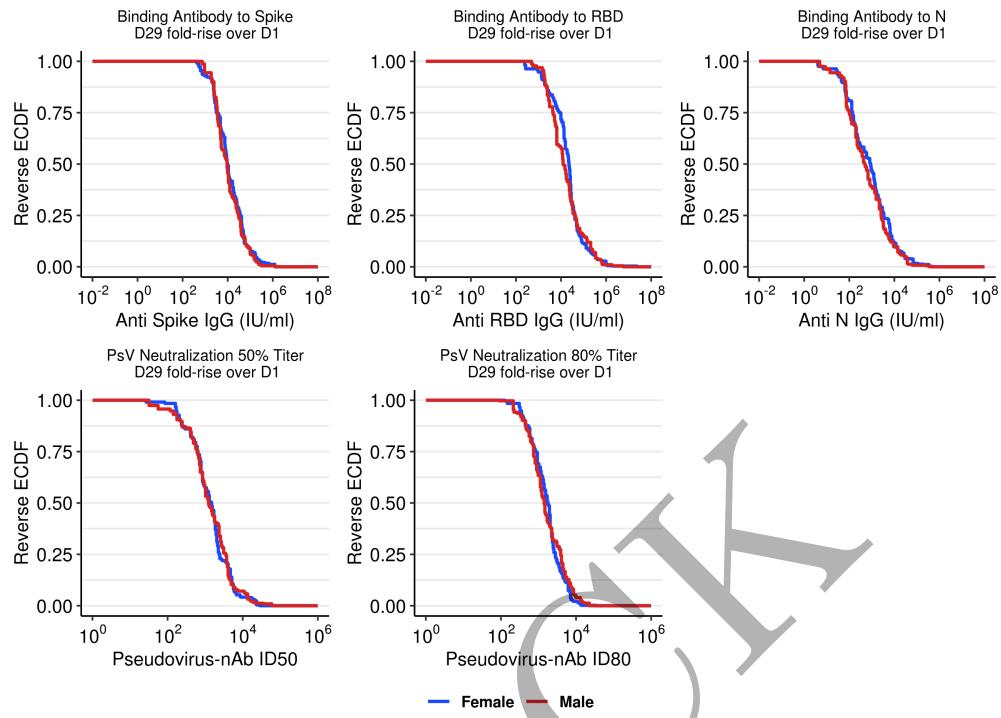


Figure 3.129: RCDF plots for D57 Ab markers: baseline positive vaccine arm by sex assigned at birth.

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

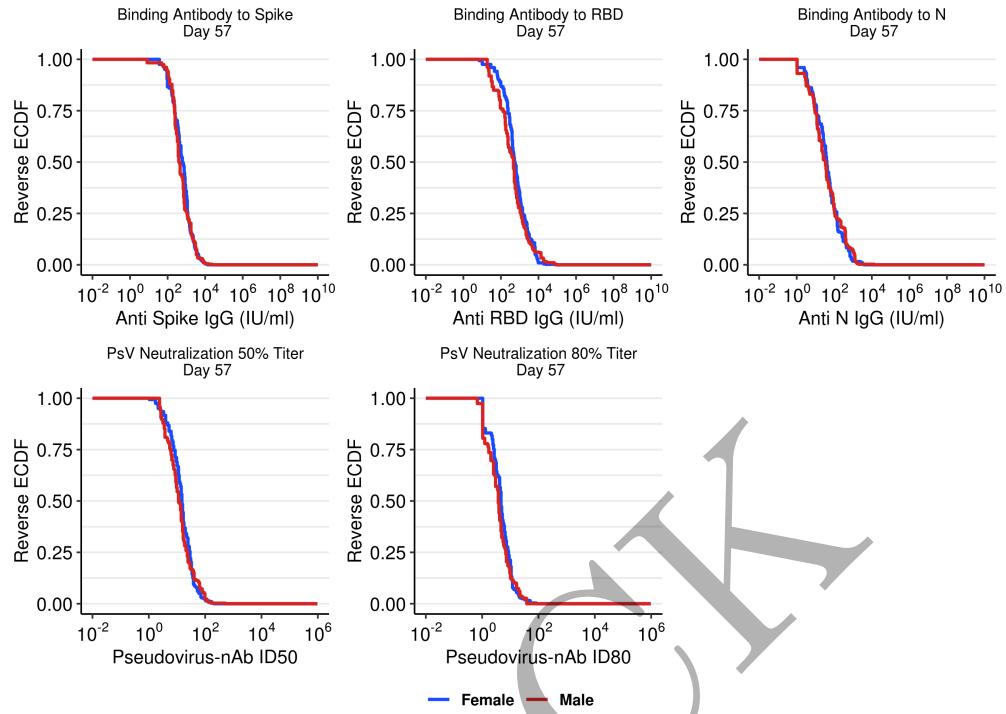


Figure 3.130: RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by sex assigned at birth.

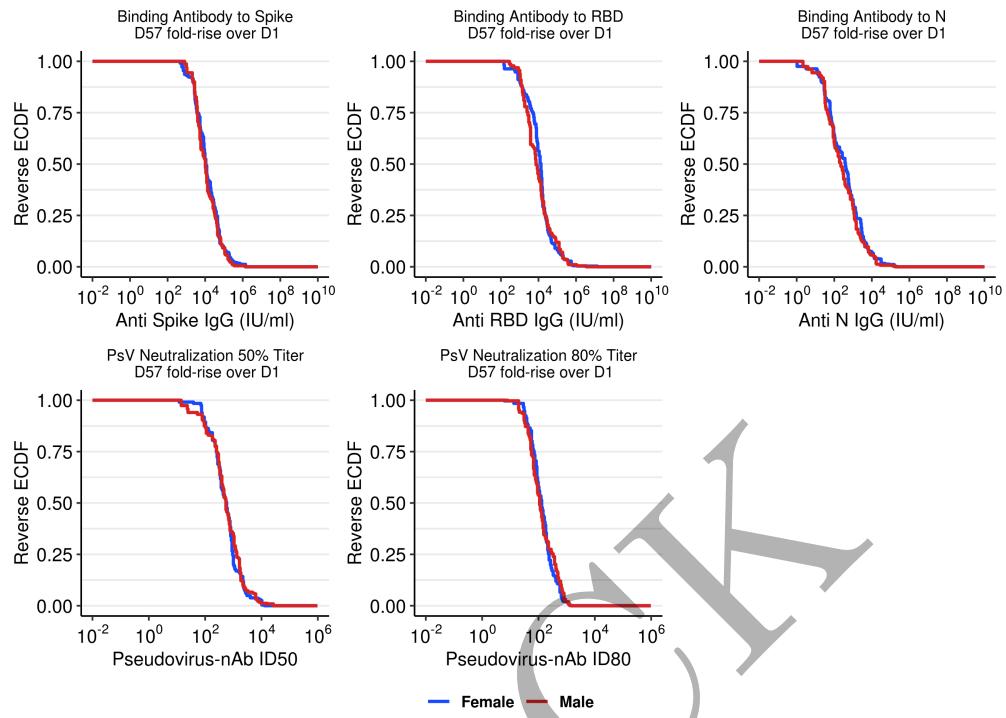


Figure 3.131: RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by sex assigned at birth.

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

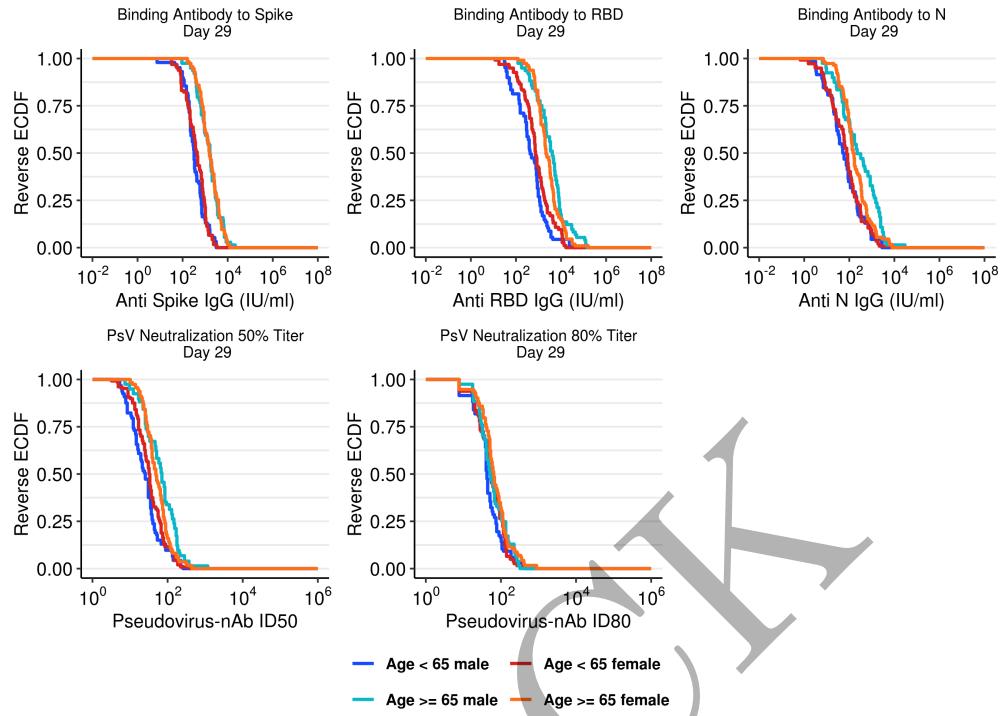


Figure 3.132: RCDF plots for D29 Ab markers: baseline positive vaccine arm by age and sex assigned at birth.

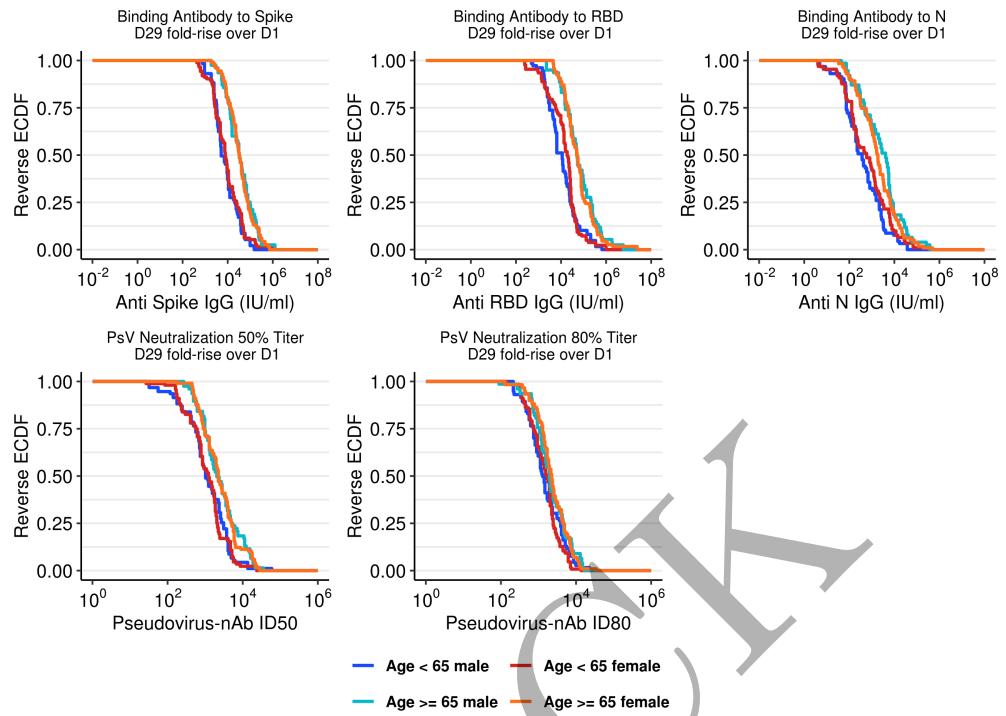


Figure 3.133: RCDF plots for D57 Ab markers: baseline positive vaccine arm by age and sex assigned at birth.

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

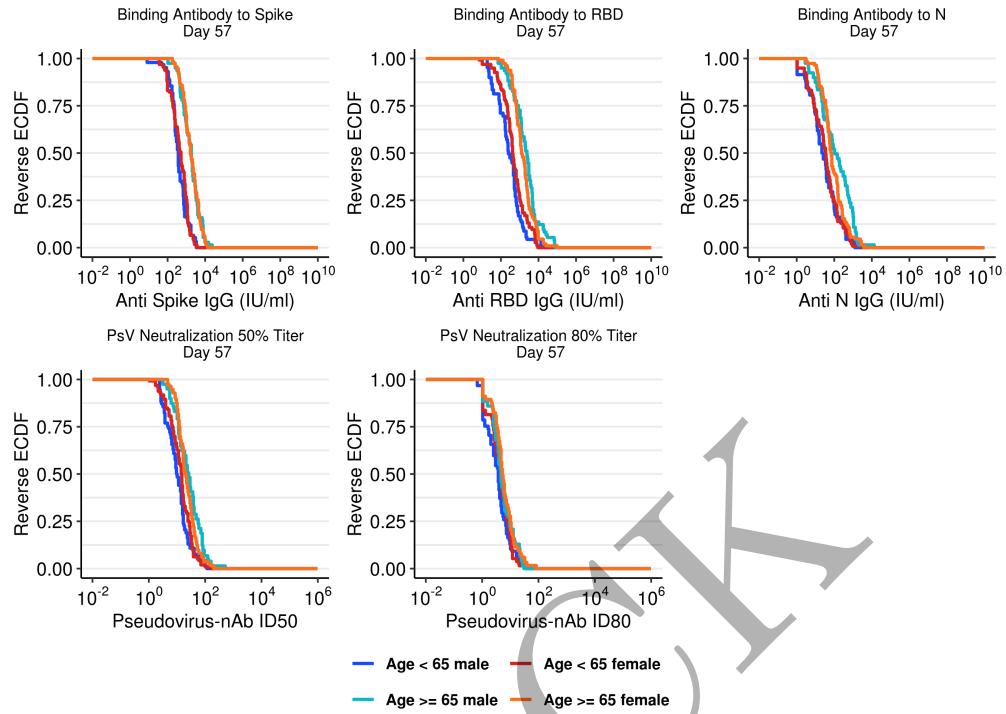


Figure 3.134: RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and sex assigned at birth.

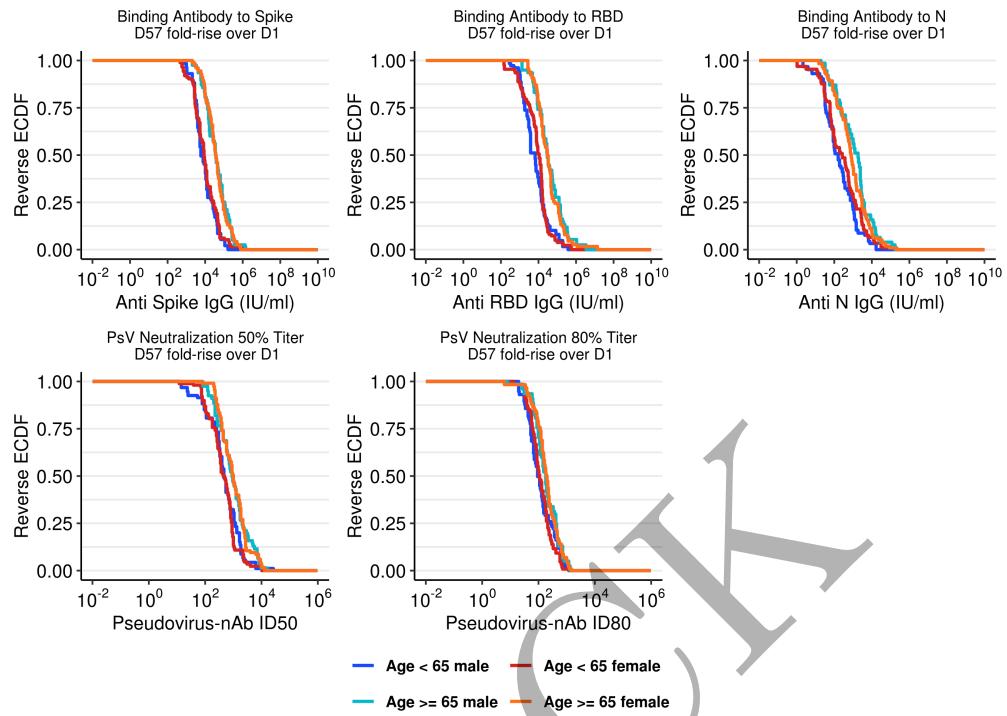


Figure 3.135: RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and sex assigned at birth.

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

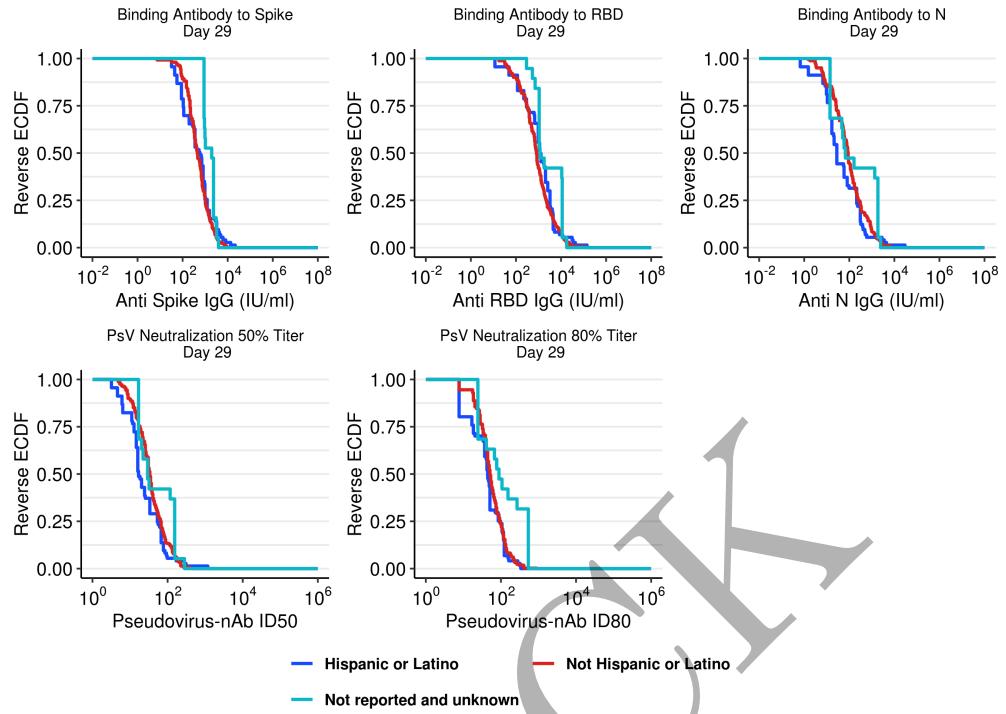


Figure 3.136: RCDF plots for D29 Ab markers: baseline positive vaccine arm by ethnicity.

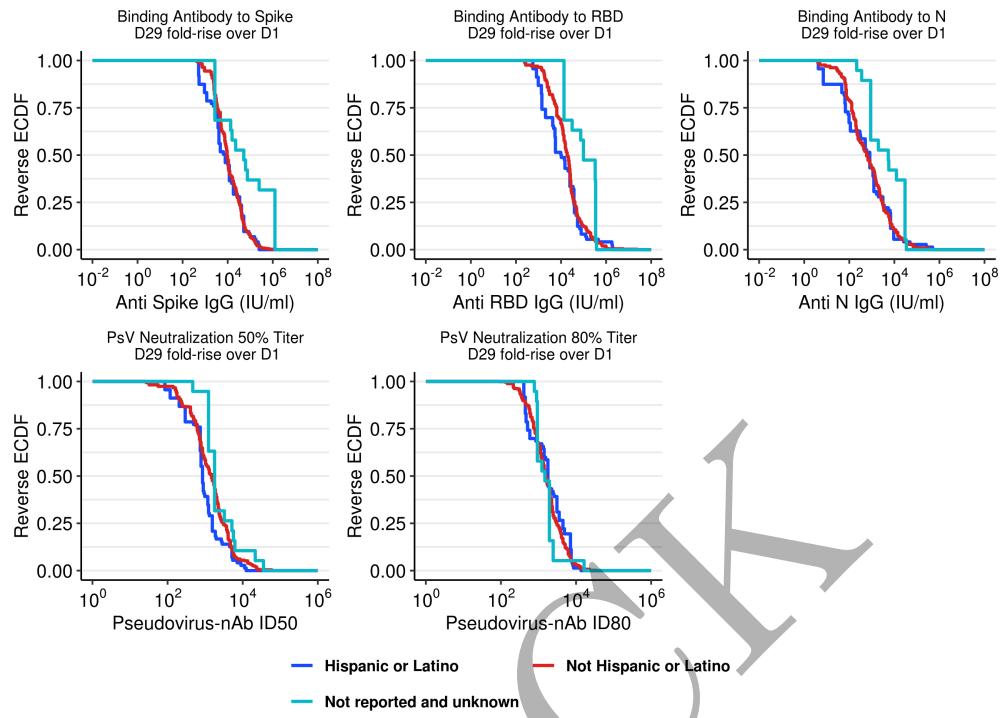


Figure 3.137: RCDF plots for D57 Ab markers: baseline positive vaccine arm by ethnicity.

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

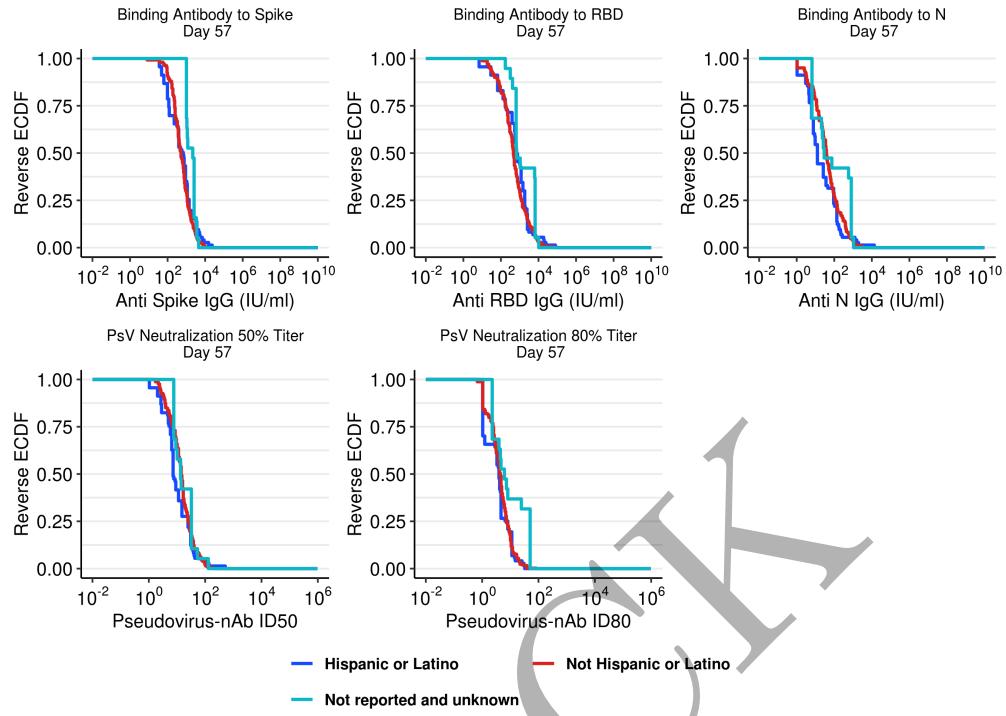


Figure 3.138: RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by ethnicity.

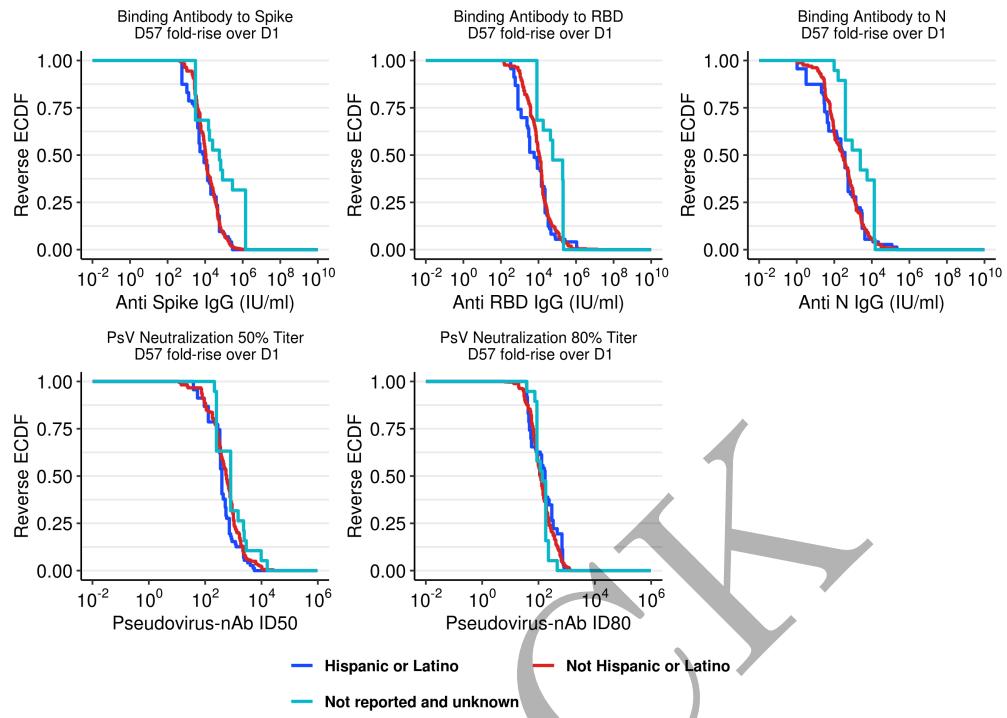


Figure 3.139: RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by ethnicity.

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

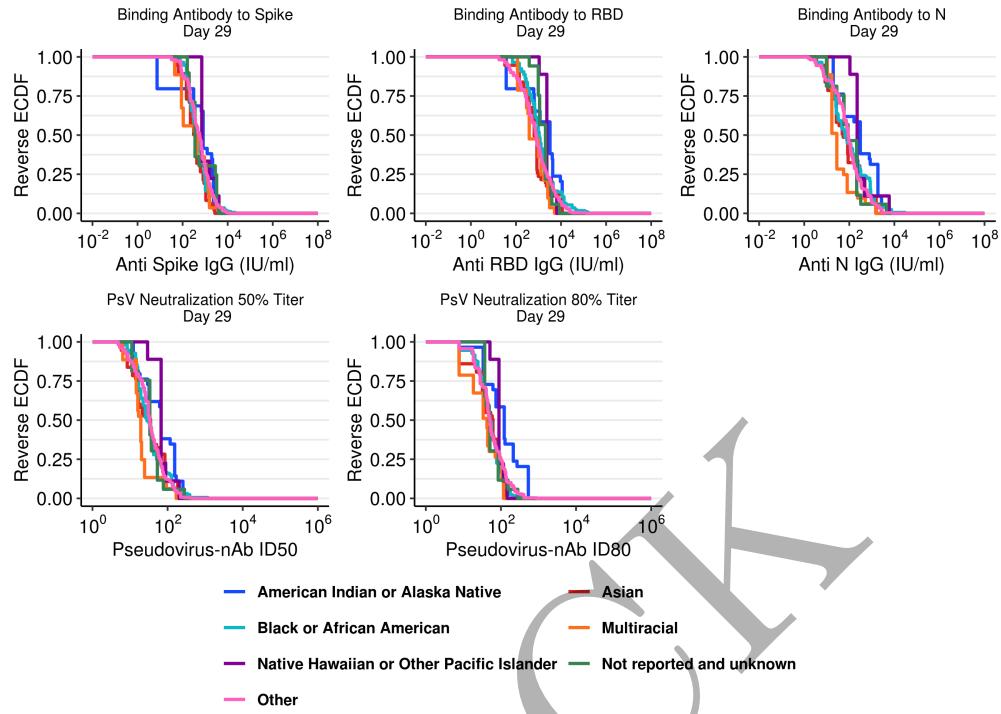


Figure 3.140: RCDF plots for D29 Ab markers: baseline positive vaccine arm by race.

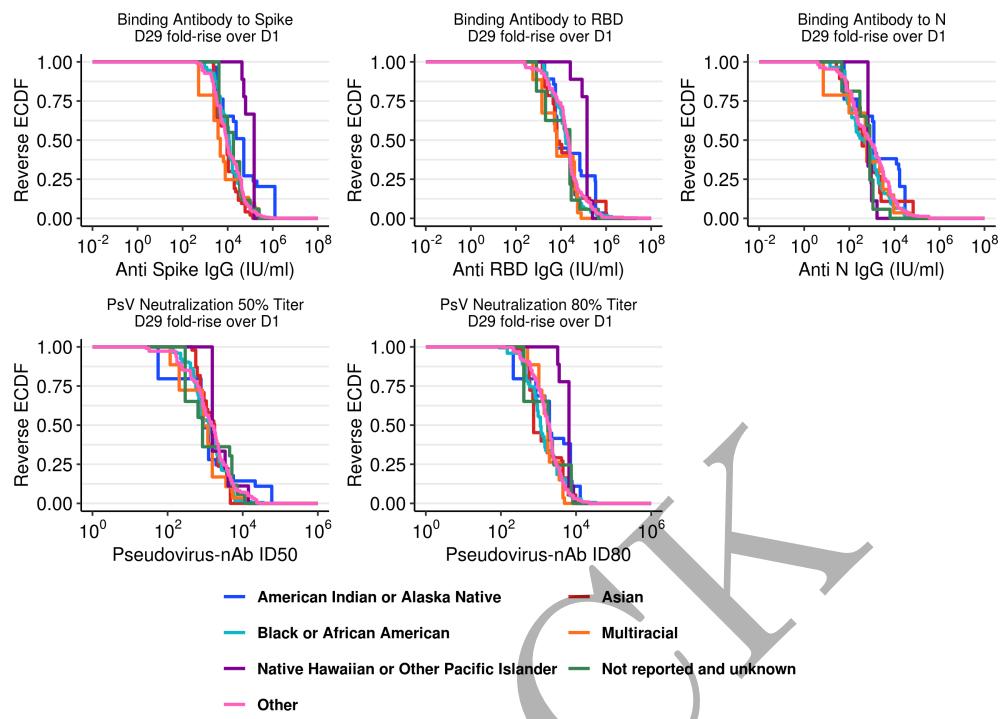


Figure 3.141: RCDF plots for D57 Ab markers: baseline positive vaccine arm by race.

3.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT621

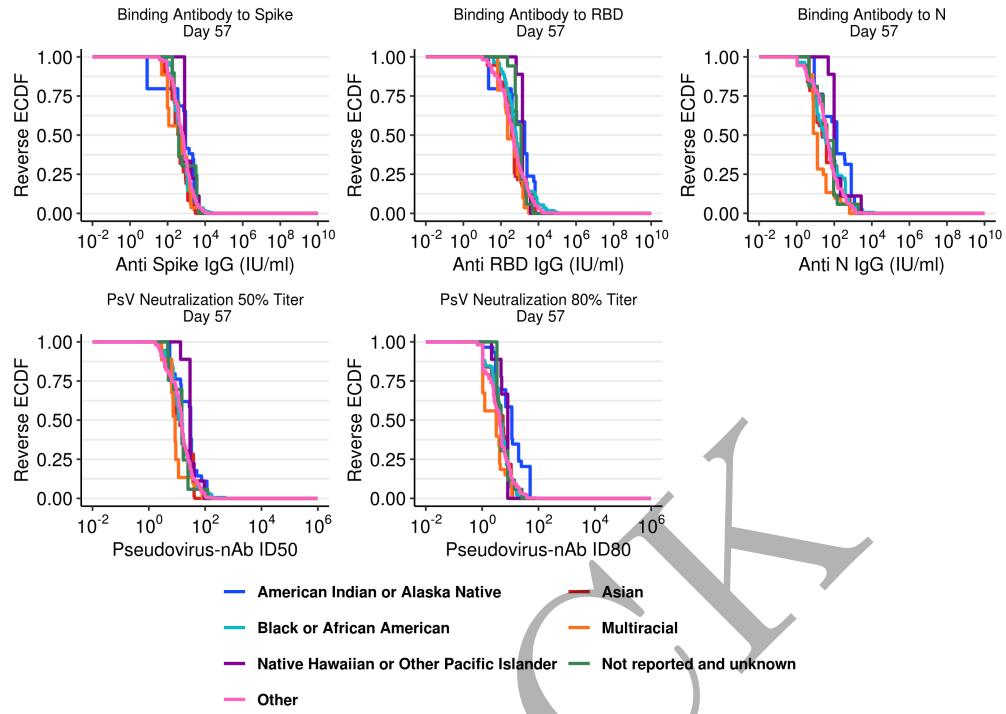


Figure 3.142: RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by race.

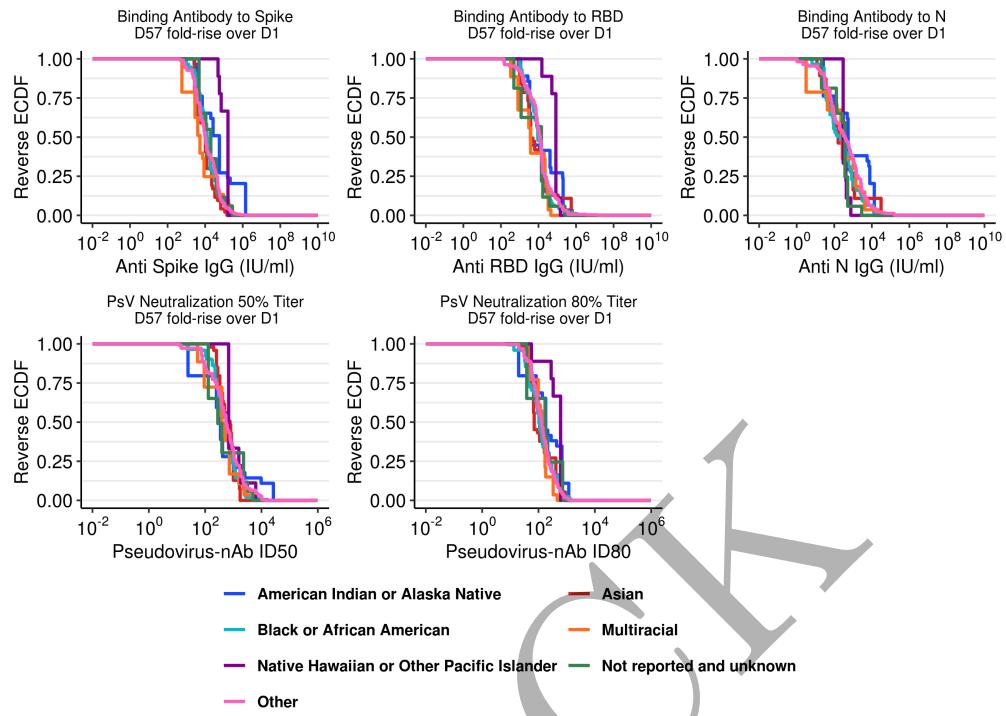


Figure 3.143: RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by race.

3.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT623

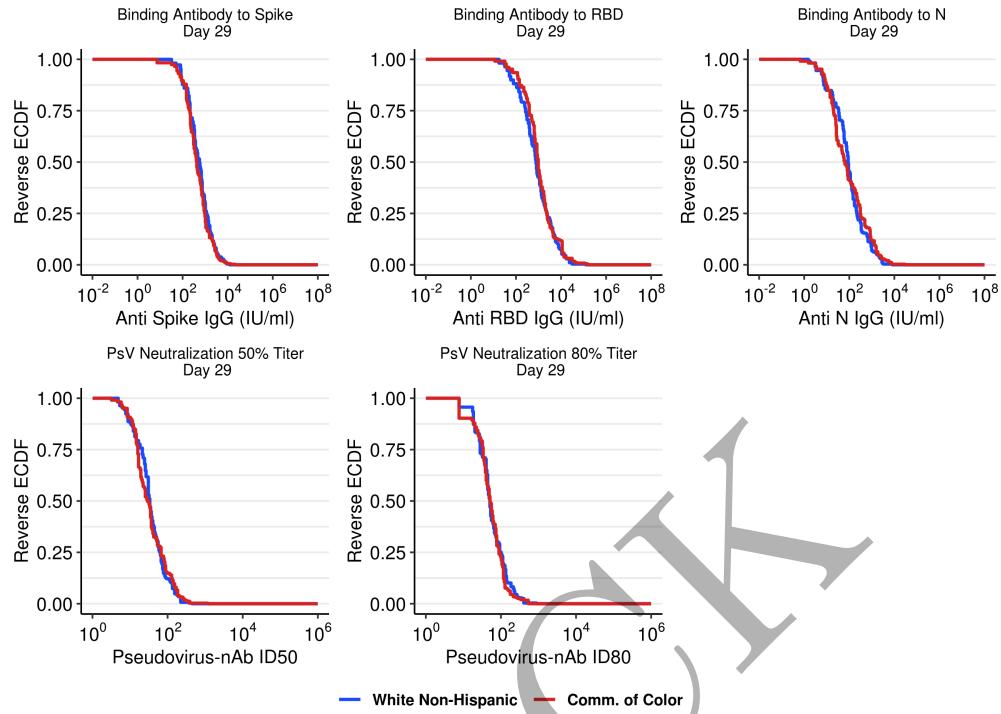


Figure 3.144: RCDF plots for D29 Ab markers: baseline positive vaccine arm by dichotomous classification of race and ethnic group.

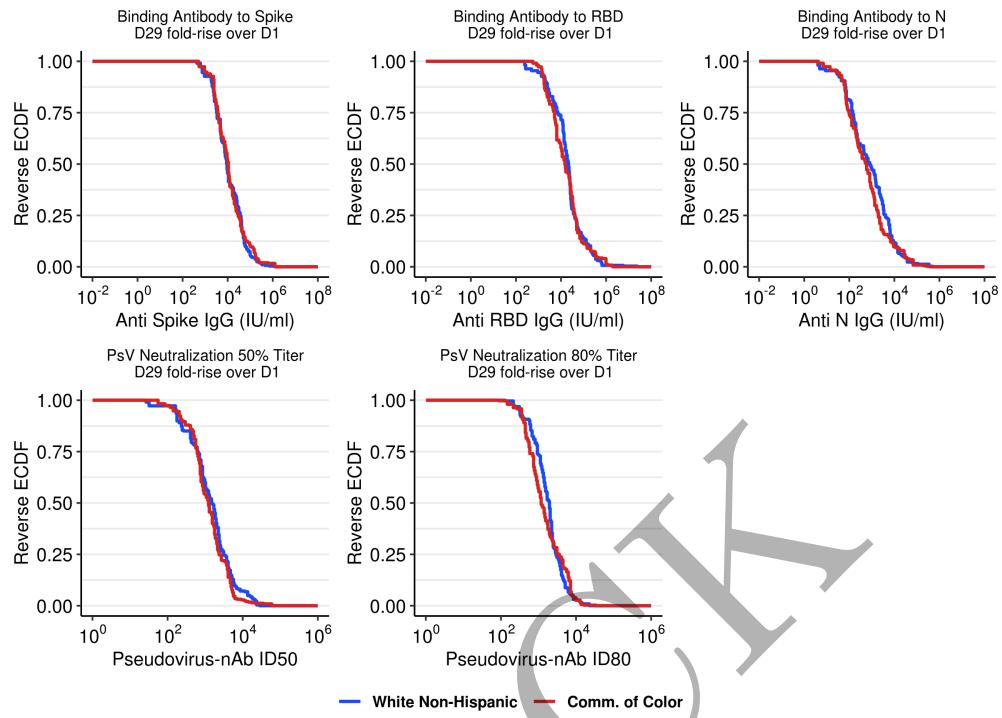


Figure 3.145: RCDF plots for D57 Ab markers: baseline positive vaccine arm by dichotomous classification of race and ethnic group.

3.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT625

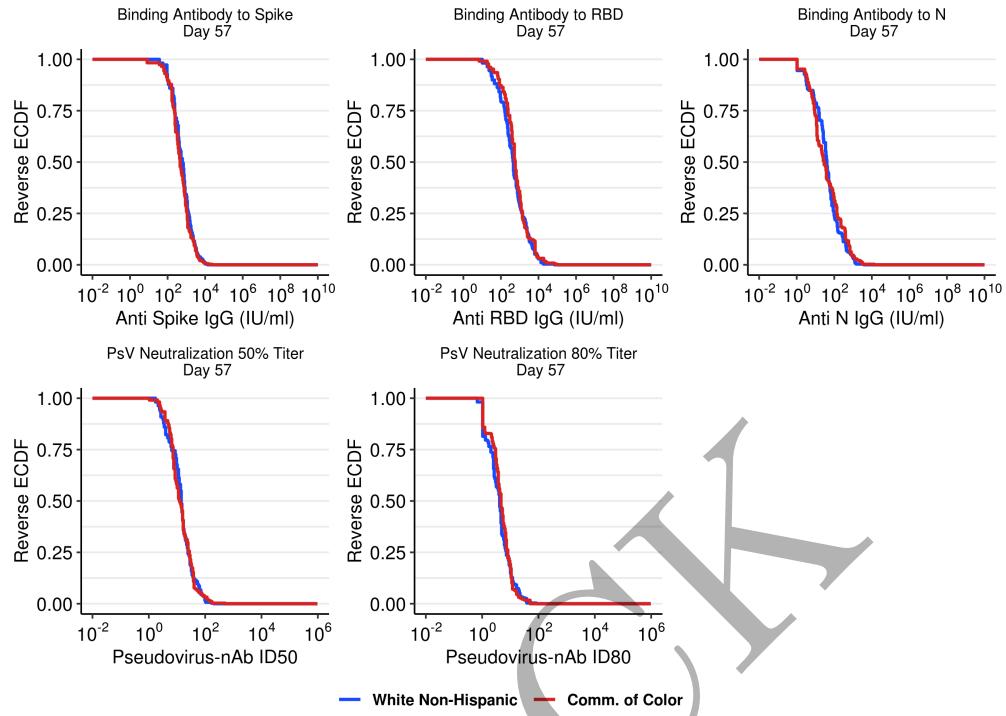


Figure 3.146: RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by dichotomous classification of race and ethnic group.

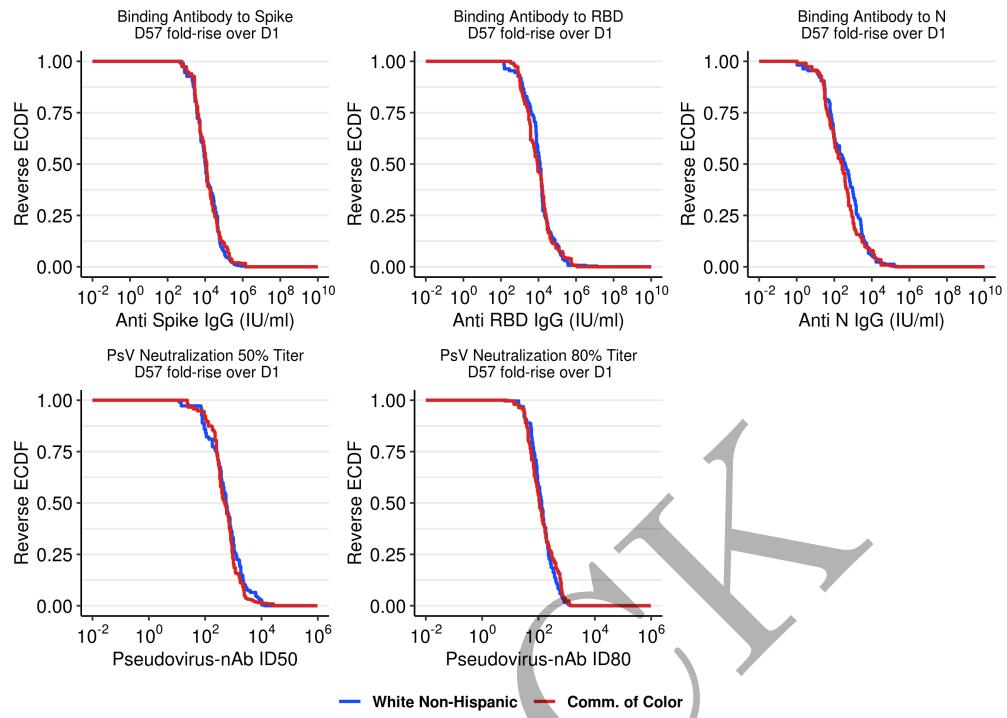


Figure 3.147: RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by dichotomous classification of race and ethnic group.

3.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT627

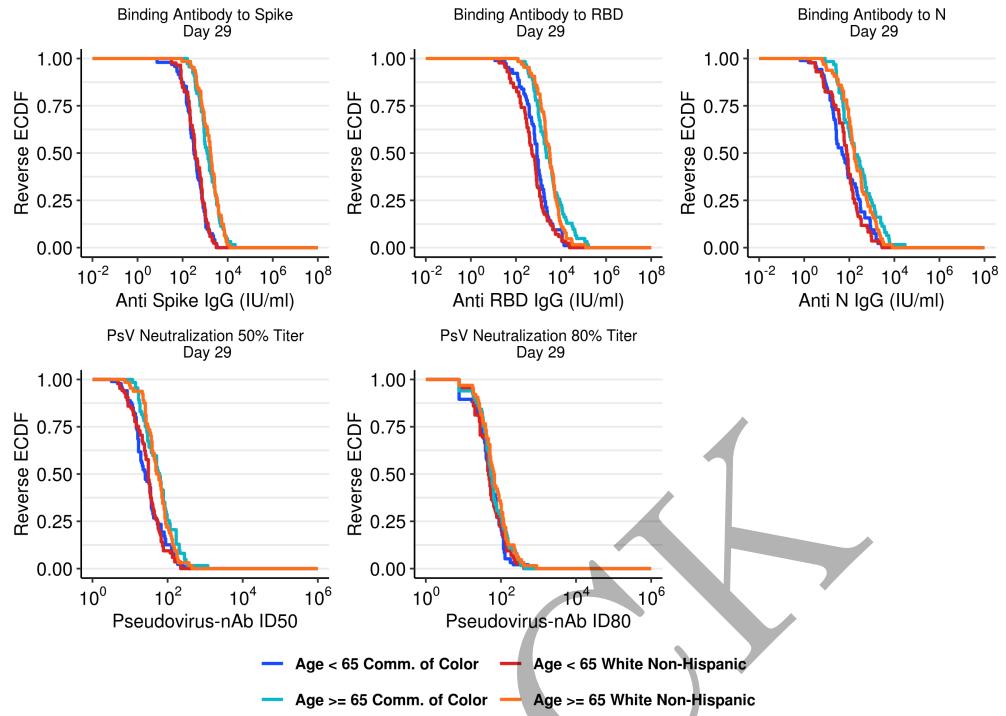


Figure 3.148: RCDF plots for D29 Ab markers: baseline positive vaccine arm by age and dichotomous classification of race and ethnic group.

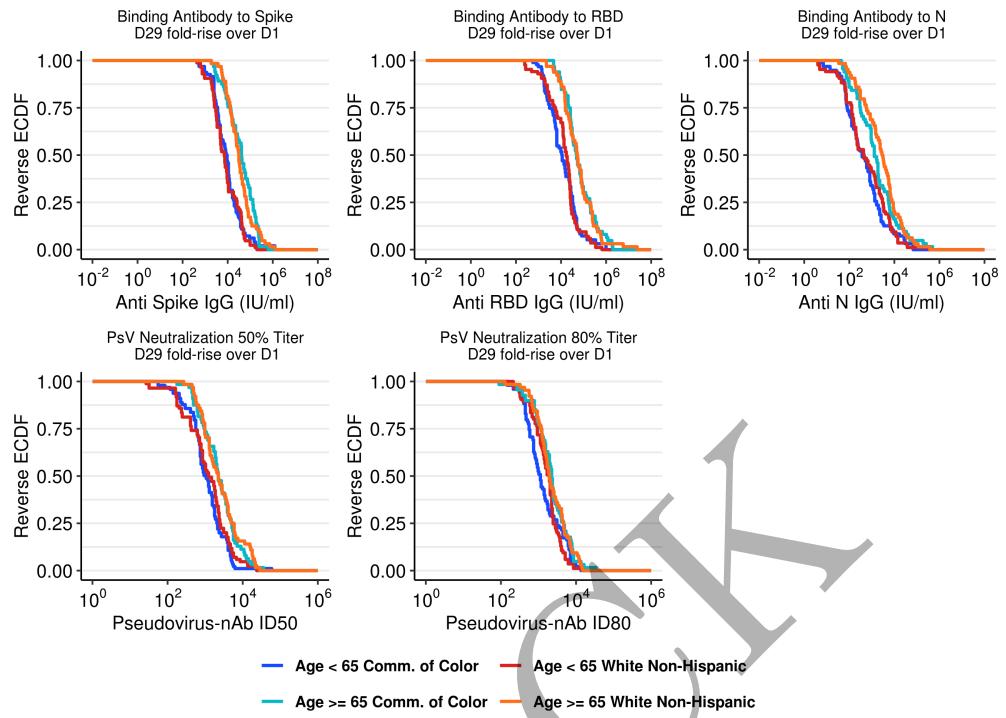


Figure 3.149: RCDF plots for D57 Ab markers: baseline positive vaccine arm by age and dichotomous classification of race and ethnic group.

3.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT629

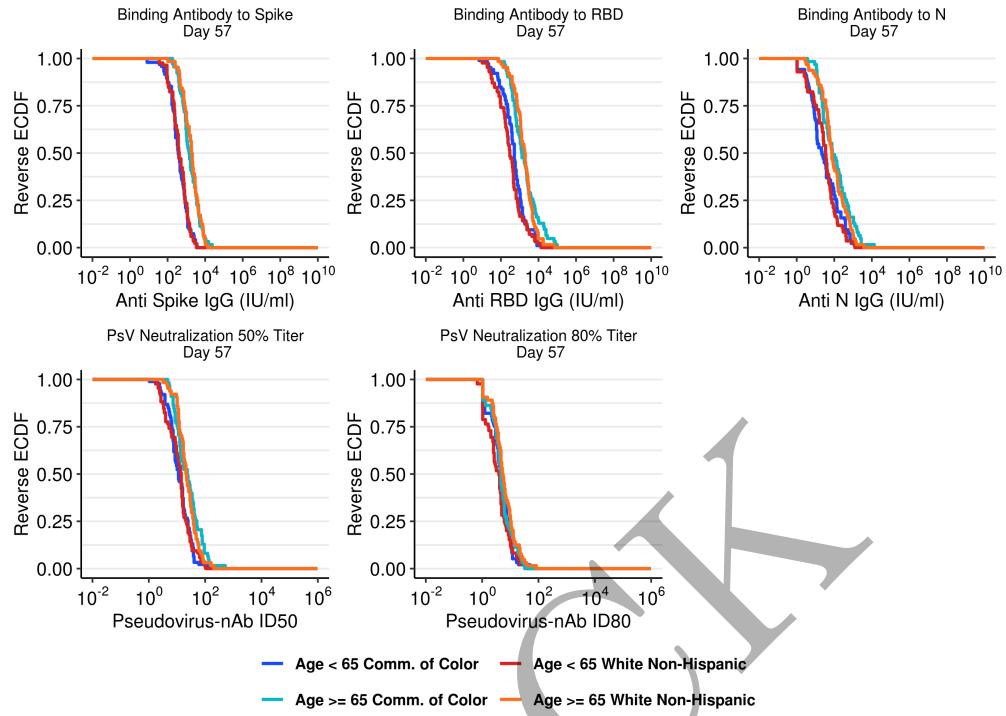


Figure 3.150: RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and dichotomous classification of race and ethnic group.

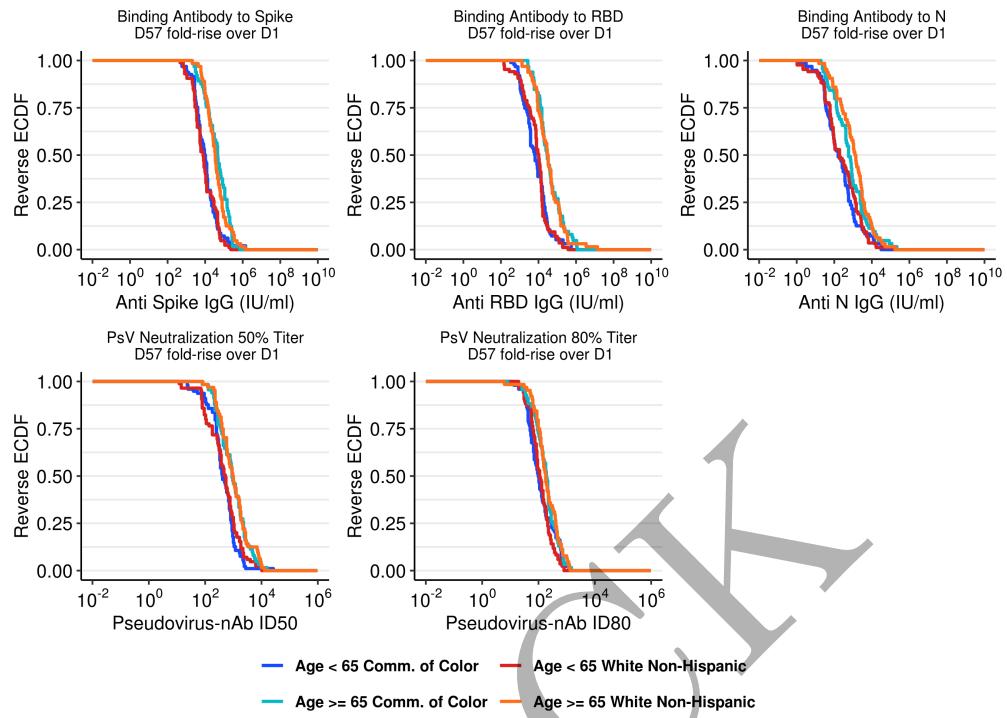


Figure 3.151: RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and dichotomous classification of race and ethnic group.

3.6.3 Baseline SARS-CoV-2 Positive Placebo Arm

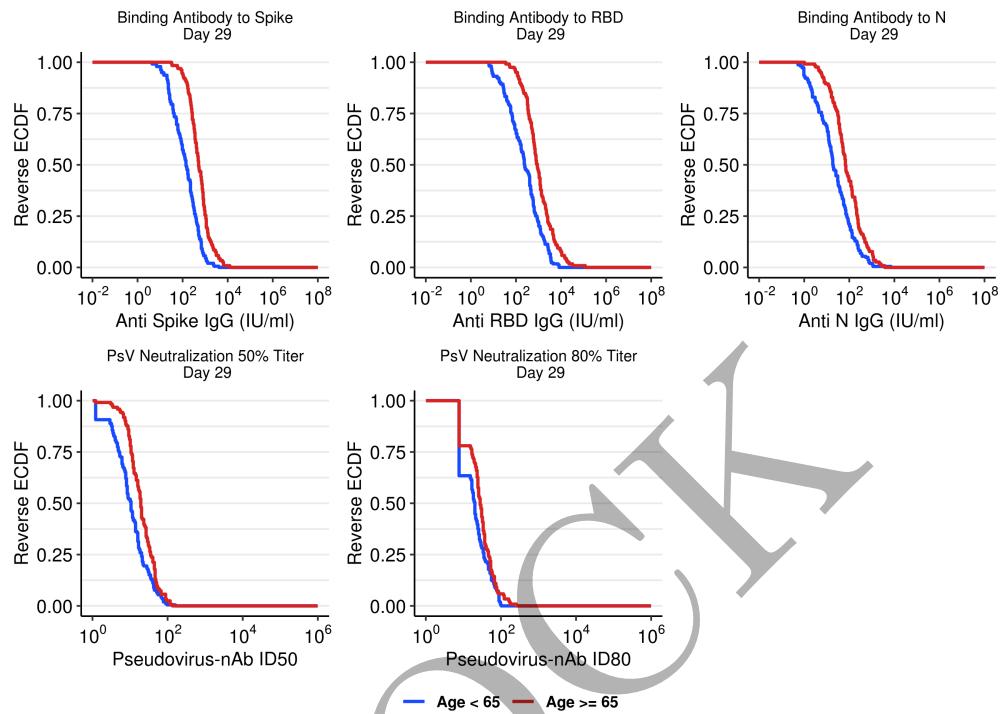


Figure 3.152: RCDF plots for D29 Ab markers: baseline positive placebo arm by age groups.

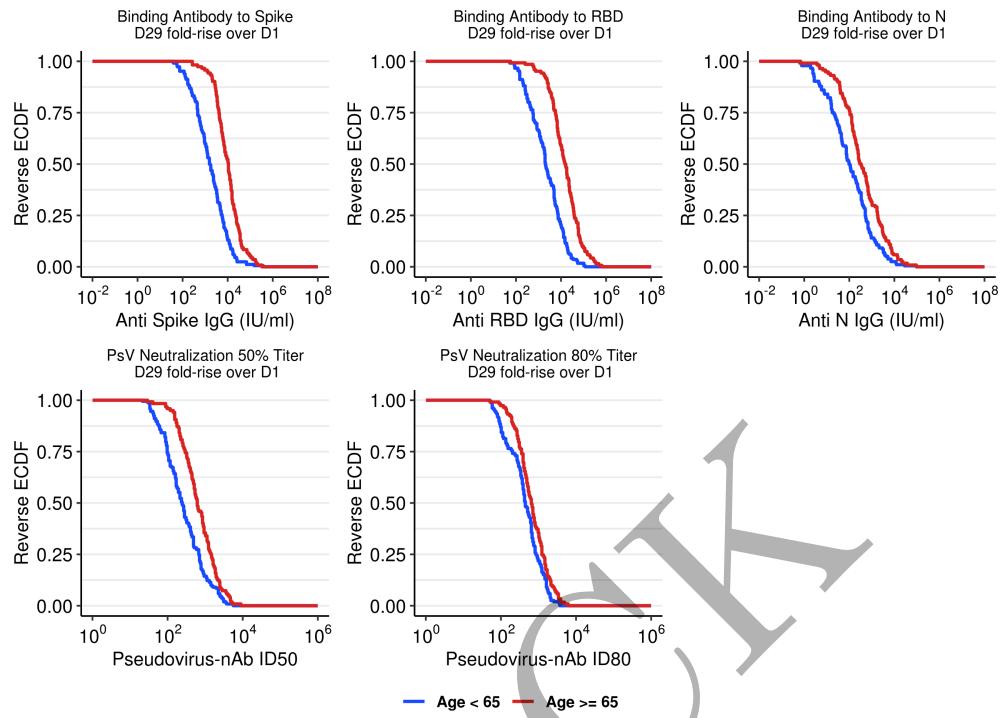


Figure 3.153: RCDF plots for D57 Ab markers: baseline positive placebo arm by age groups.

3.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT633

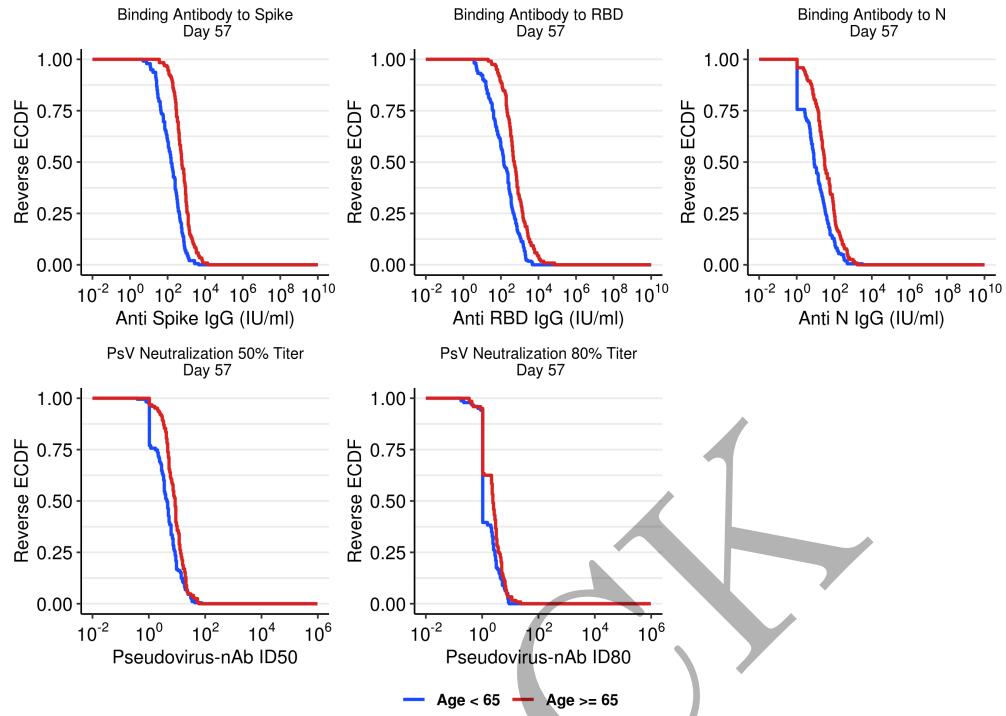


Figure 3.154: RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive placebo arm by age groups.

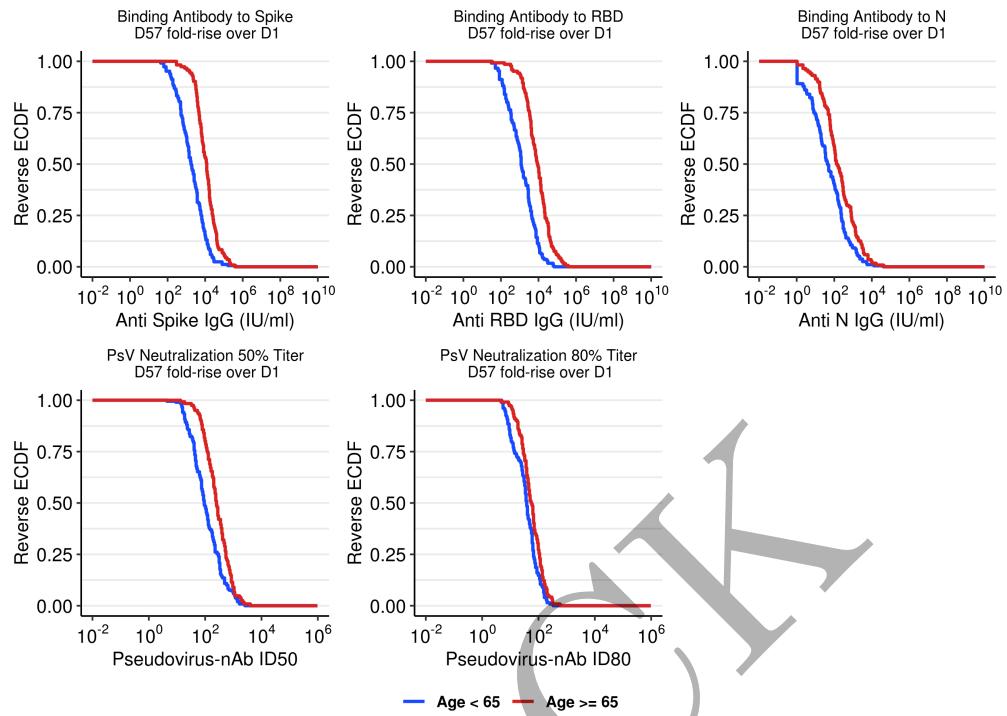


Figure 3.155: RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive placebo arm by age groups.

3.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT635

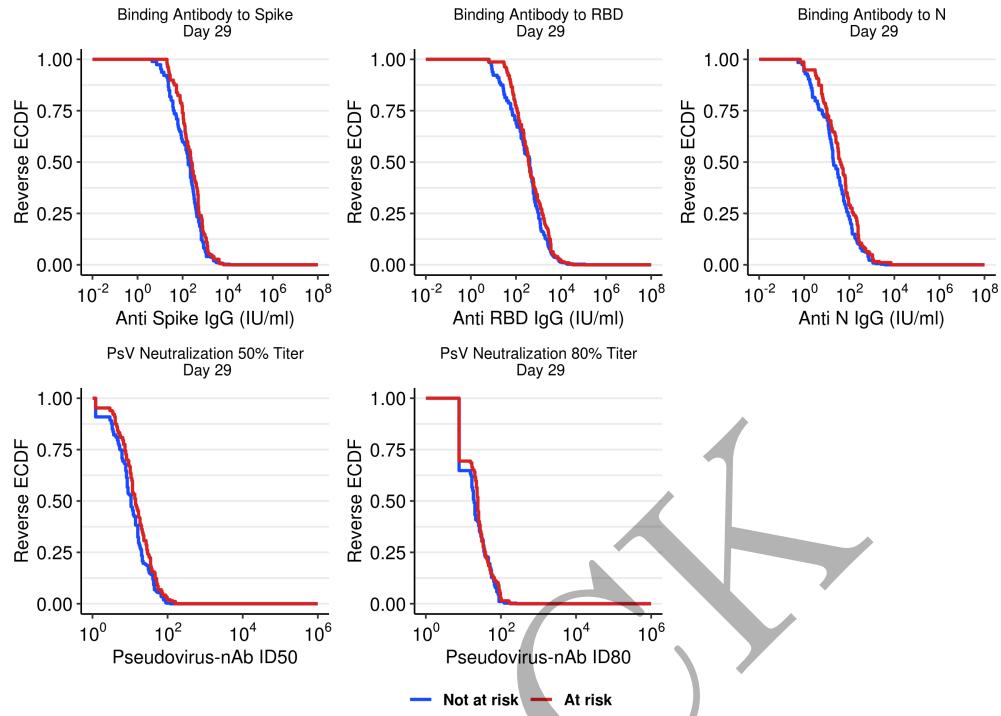


Figure 3.156: RCDF plots for D29 Ab markers: baseline positive placebo arm by high-risk condition.

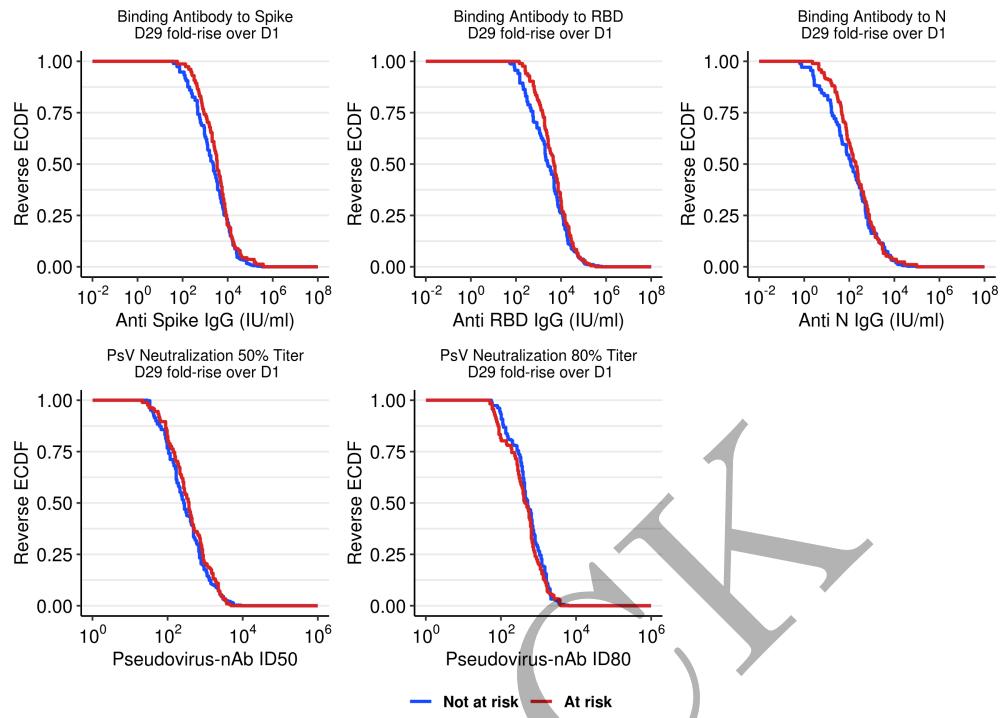


Figure 3.157: RCDF plots for D57 Ab markers: baseline positive placebo arm by high-risk condition.

3.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT637

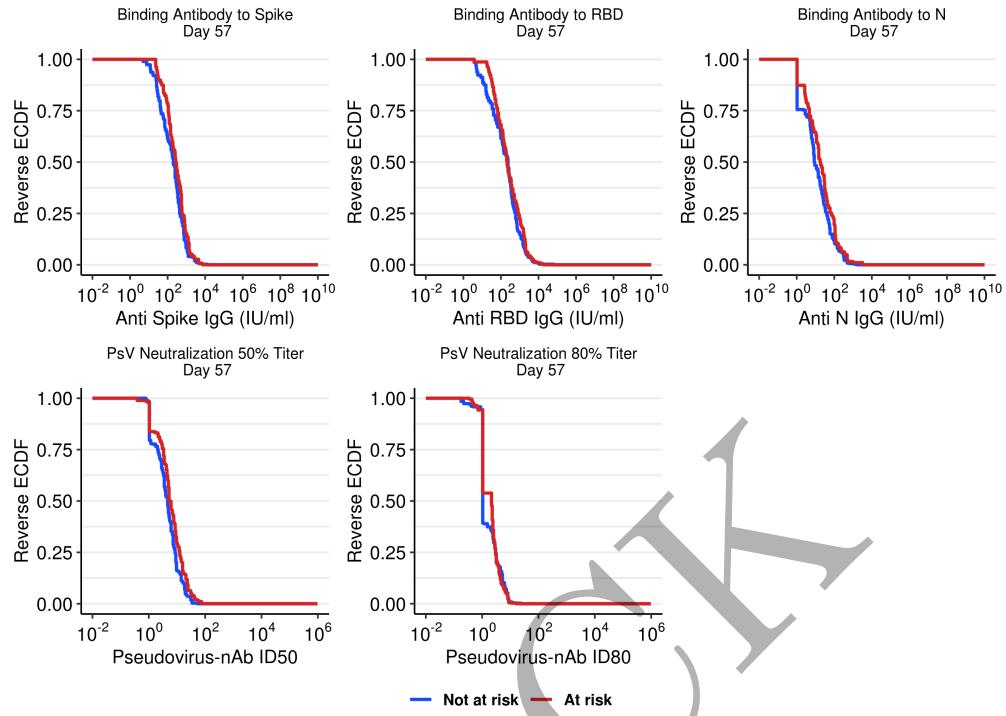


Figure 3.158: RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive placebo arm by high-risk condition.

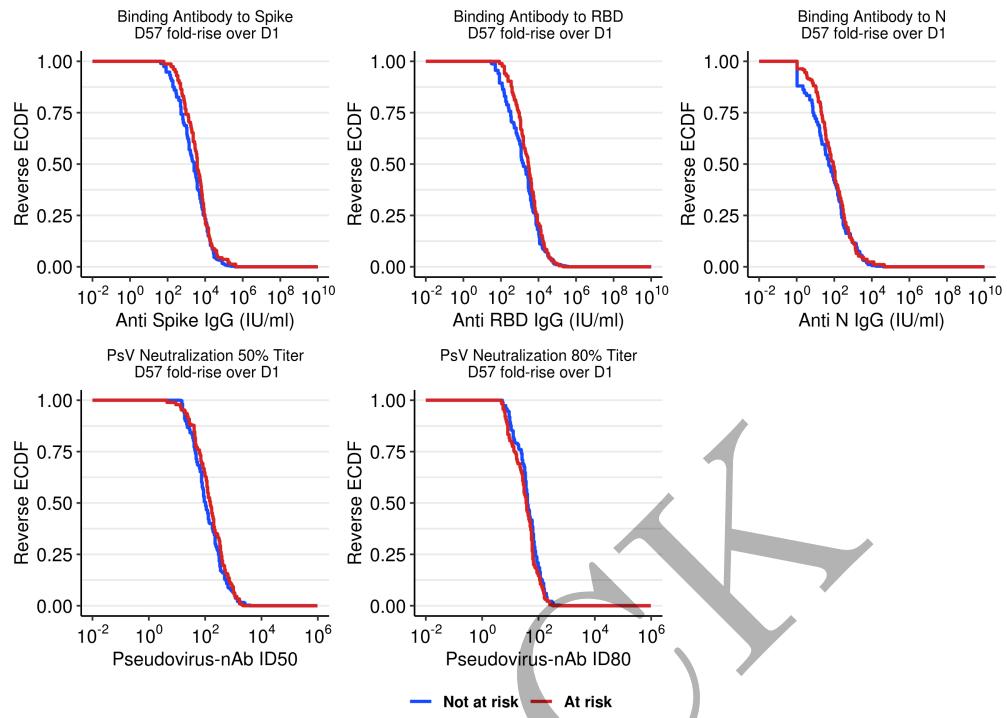


Figure 3.159: RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive placebo arm by high-risk condition.

3.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT639

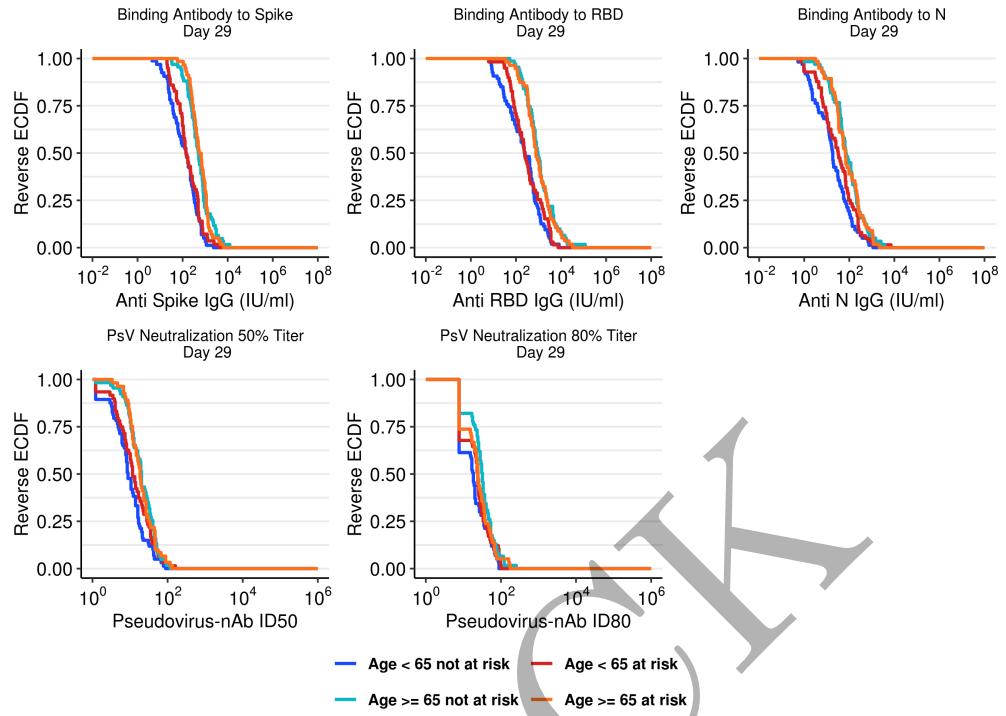


Figure 3.160: RCDF plots for D29 Ab markers: baseline positive placebo arm by age and high-risk condition.

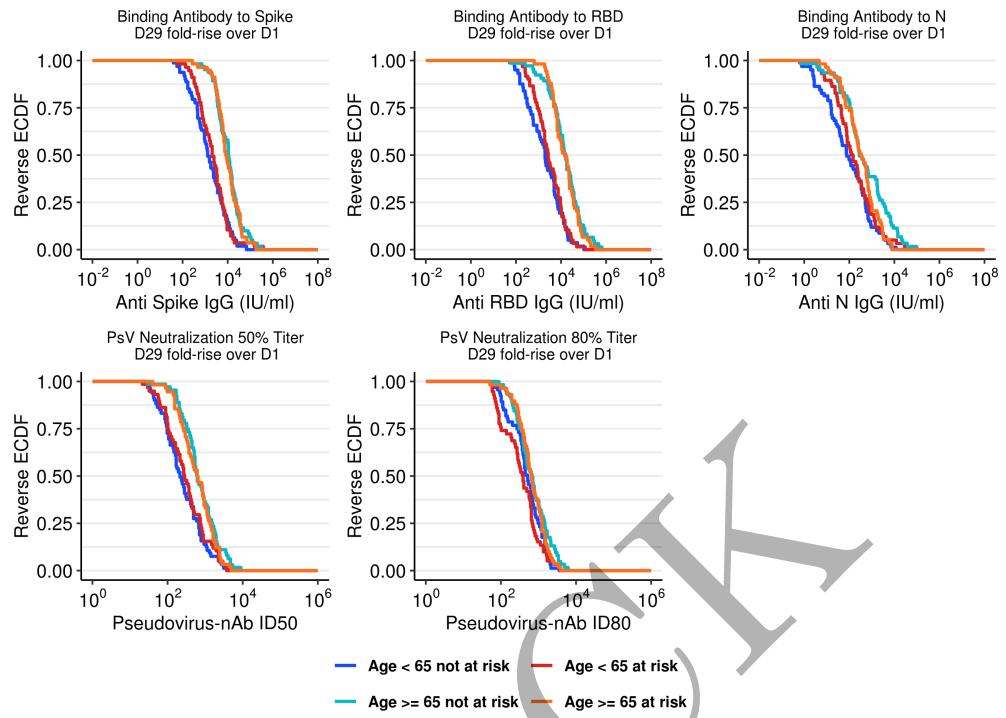


Figure 3.161: RCDF plots for D57 Ab markers: baseline positive placebo arm by age and high-risk condition.

3.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT641

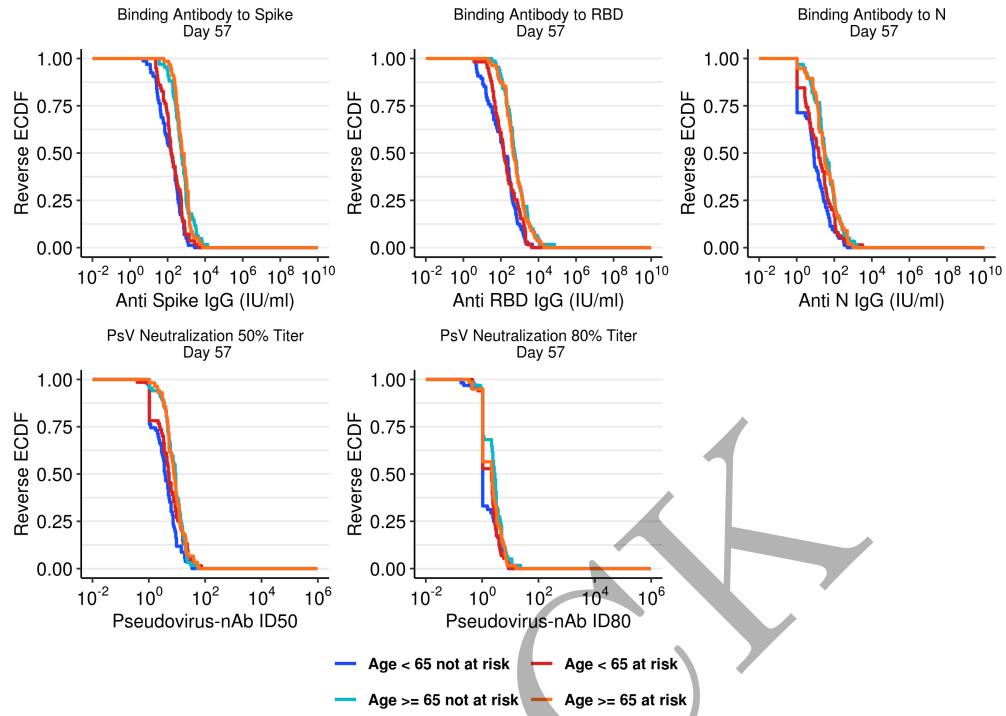


Figure 3.162: RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive placebo arm by age and high-risk condition.

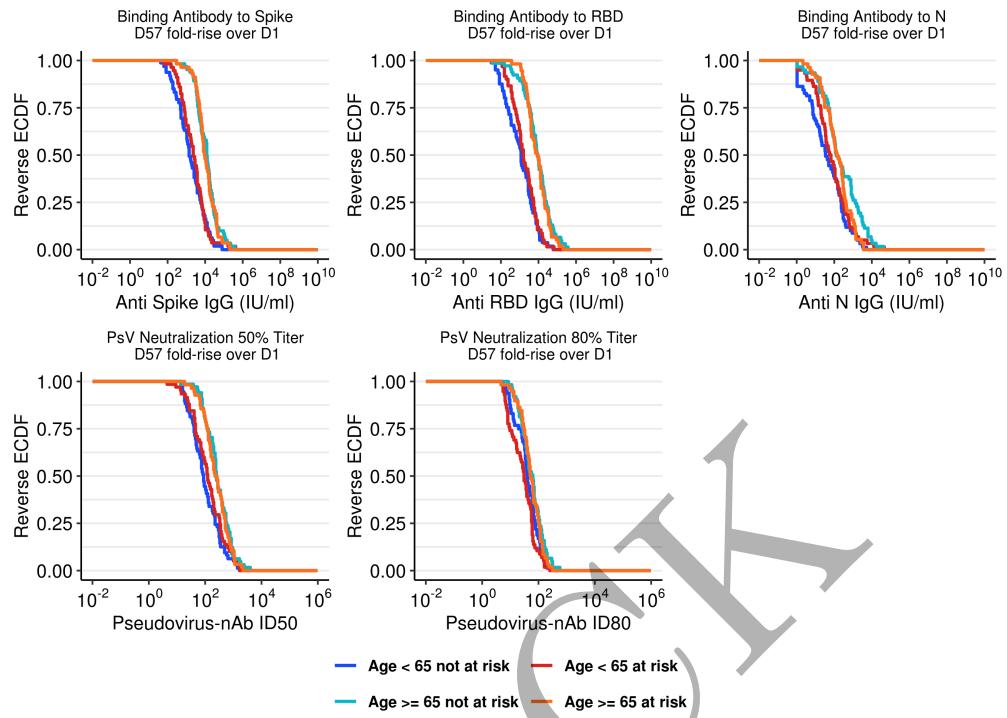


Figure 3.163: RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive placebo arm by age and high-risk condition.

3.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT643

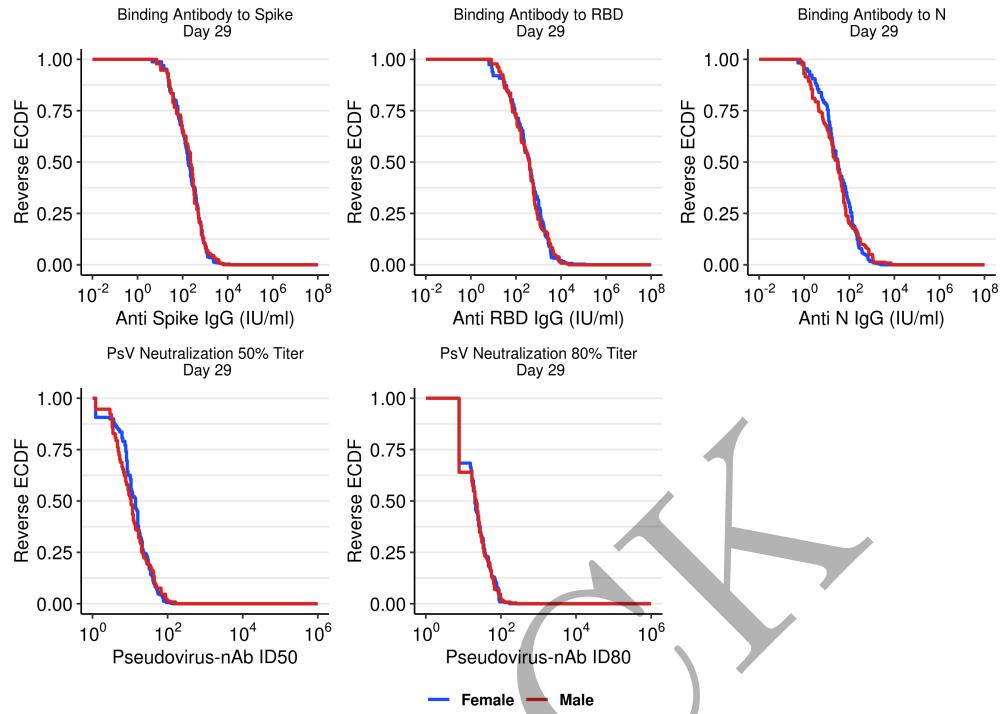


Figure 3.164: RCDF plots for D29 Ab markers: baseline positive placebo arm by sex assigned at birth.

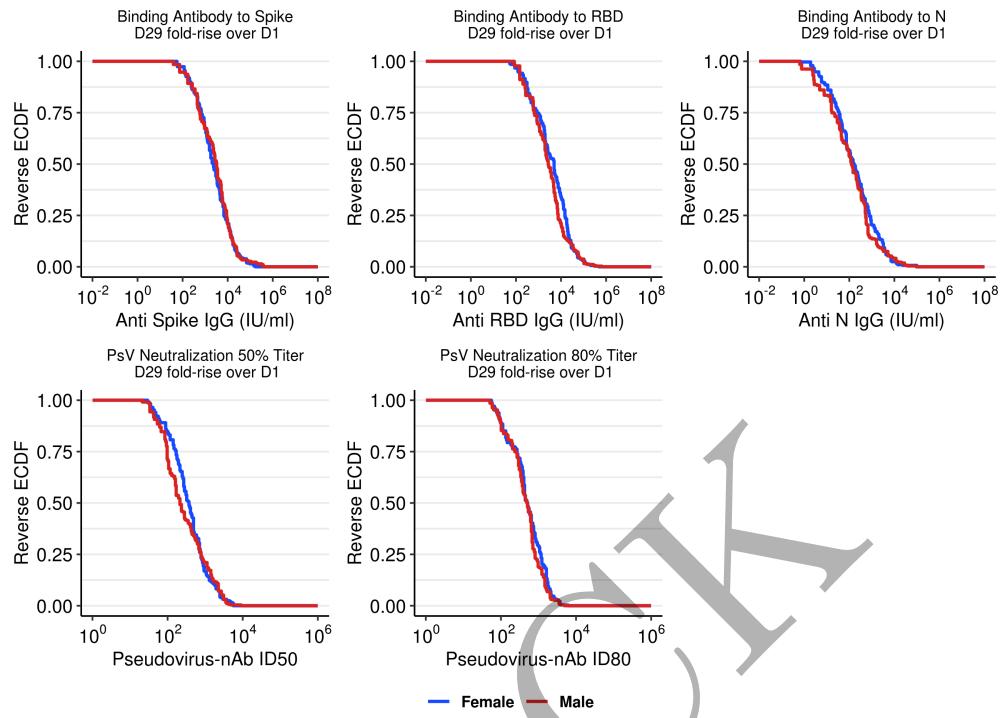


Figure 3.165: RCDF plots for D57 Ab markers: baseline positive placebo arm by sex assigned at birth.

3.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT645

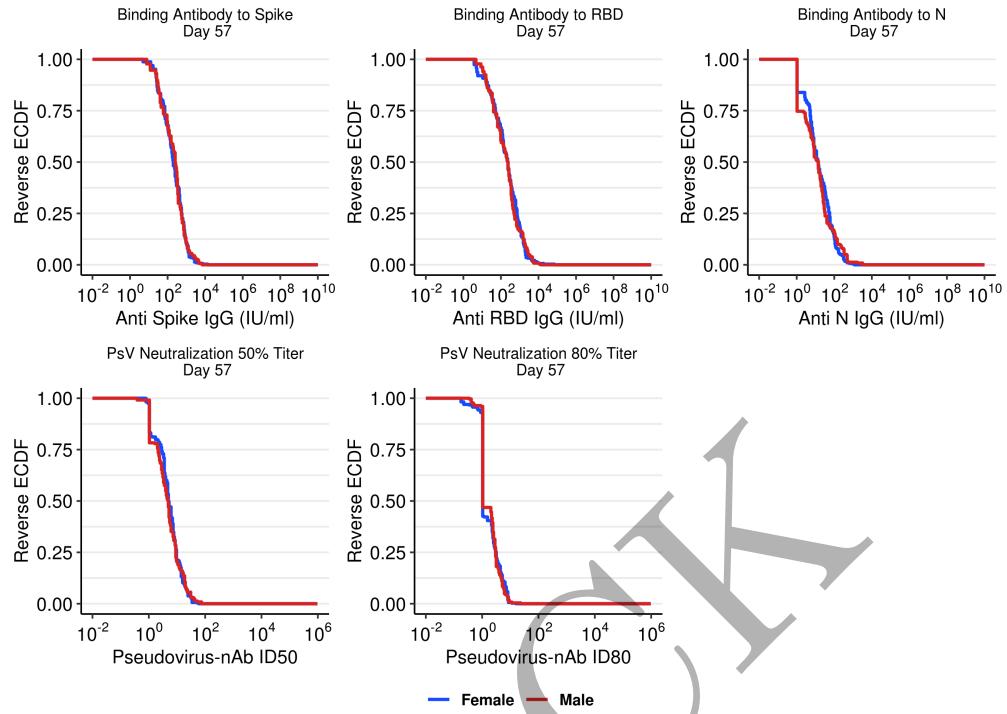


Figure 3.166: RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive placebo arm by sex assigned at birth.

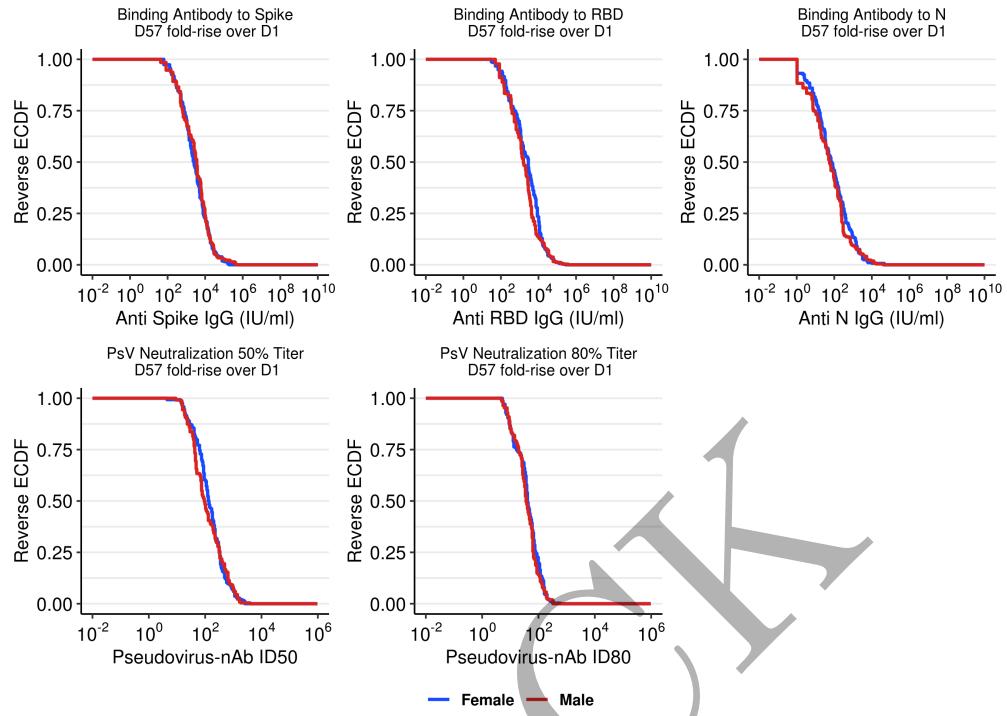


Figure 3.167: RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive placebo arm by sex assigned at birth.

3.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT647

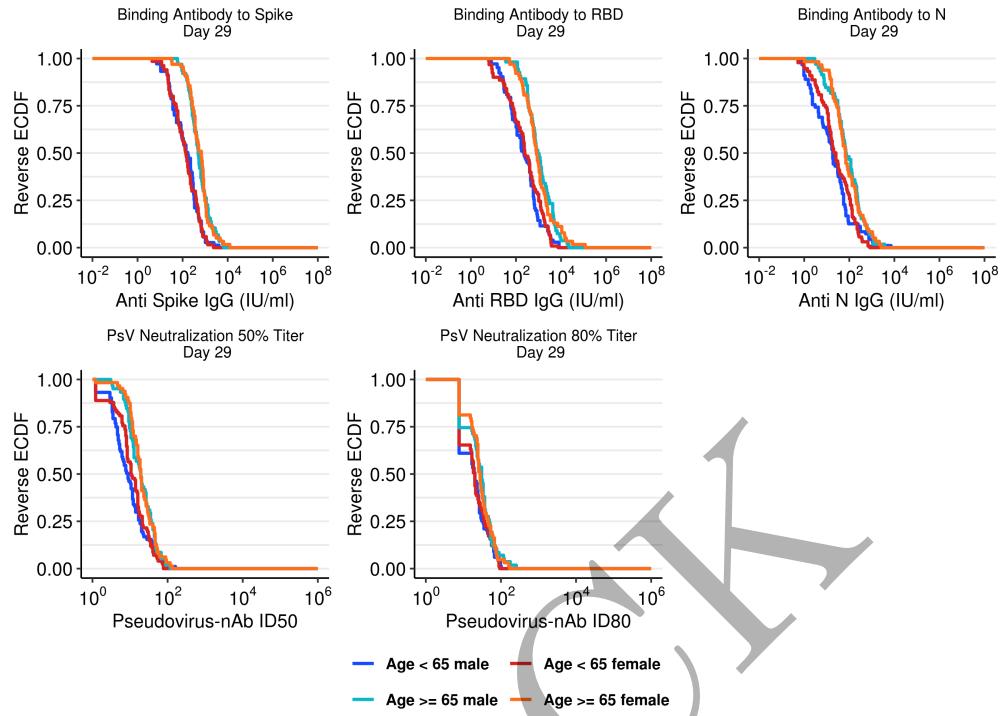


Figure 3.168: RCDF plots for D29 Ab markers: baseline positive placebo arm by age and sex assigned at birth.

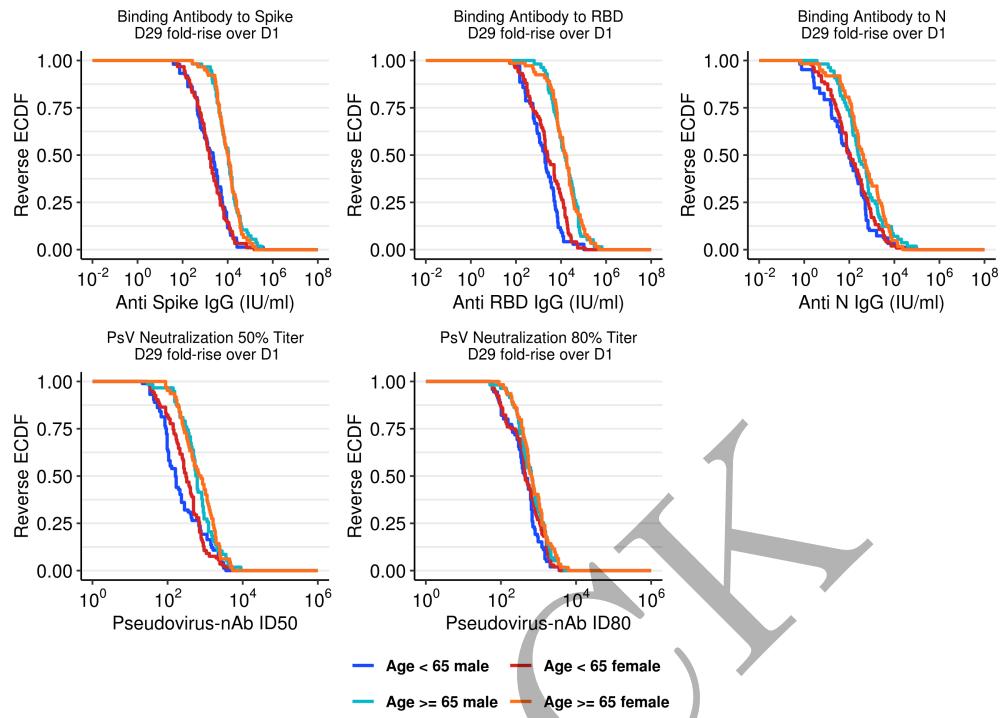


Figure 3.169: RCDF plots for D57 Ab markers: baseline positive placebo arm by age and sex assigned at birth.

3.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT649

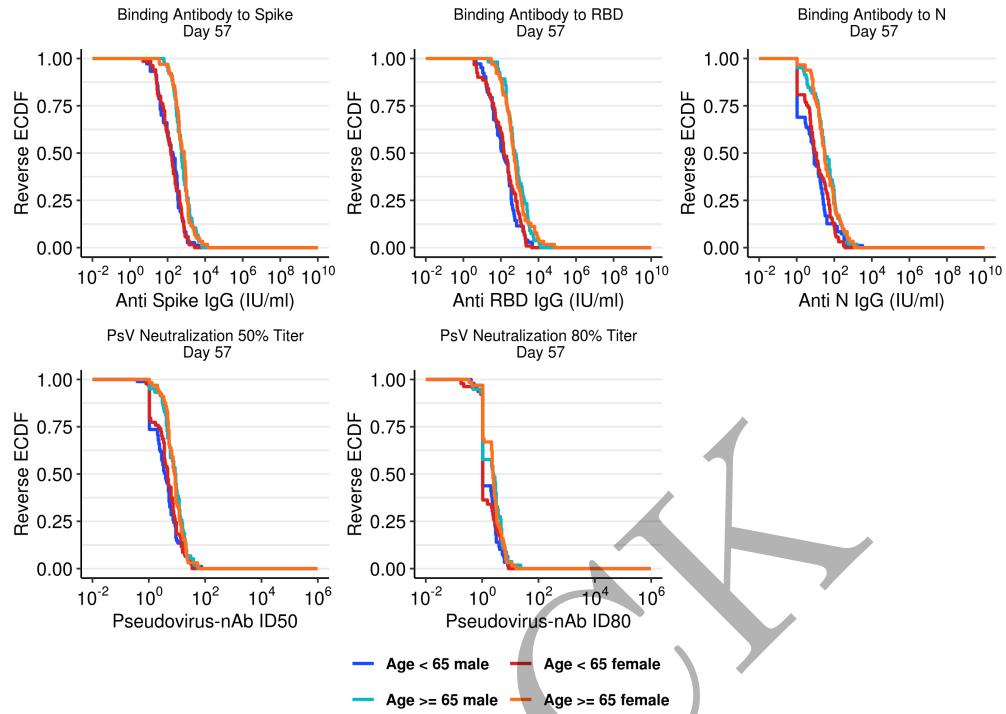


Figure 3.170: RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive placebo arm by age and sex assigned at birth.

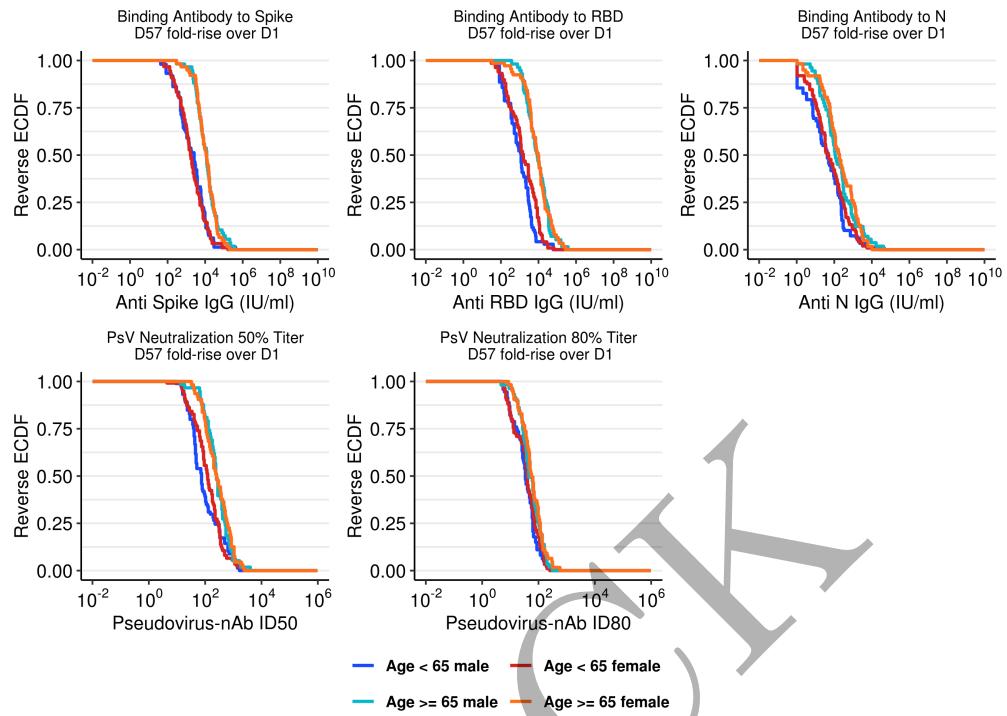


Figure 3.171: RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive placebo arm by age and sex assigned at birth.

3.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT651

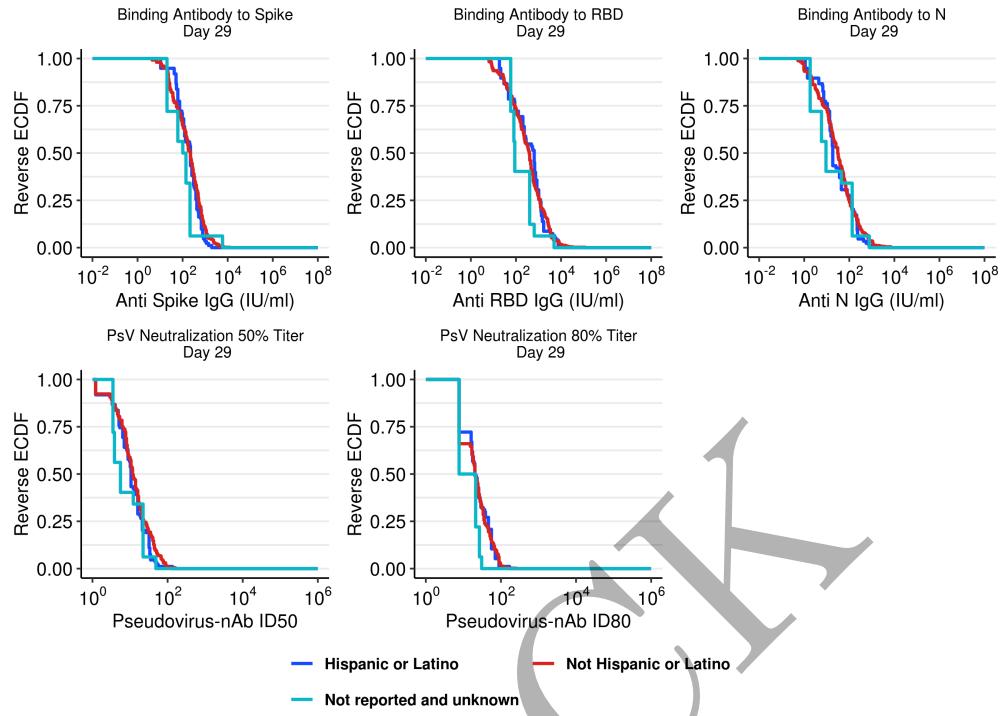


Figure 3.172: RCDF plots for D29 Ab markers: baseline positive placebo arm by ethnicity.

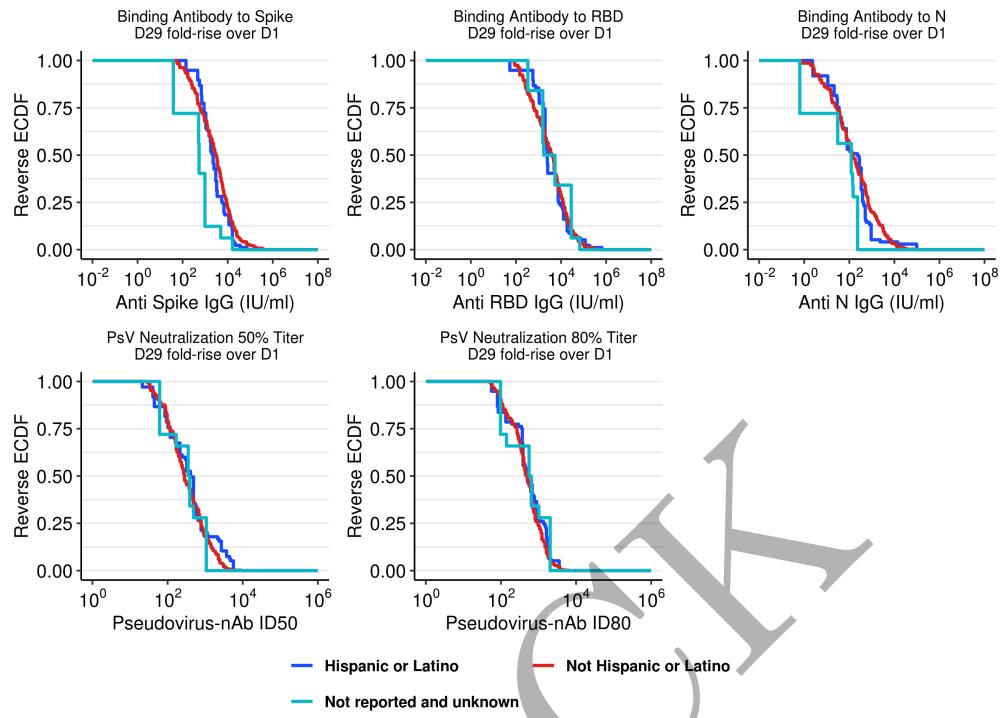


Figure 3.173: RCDF plots for D57 Ab markers: baseline positive placebo arm by ethnicity.

3.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT653

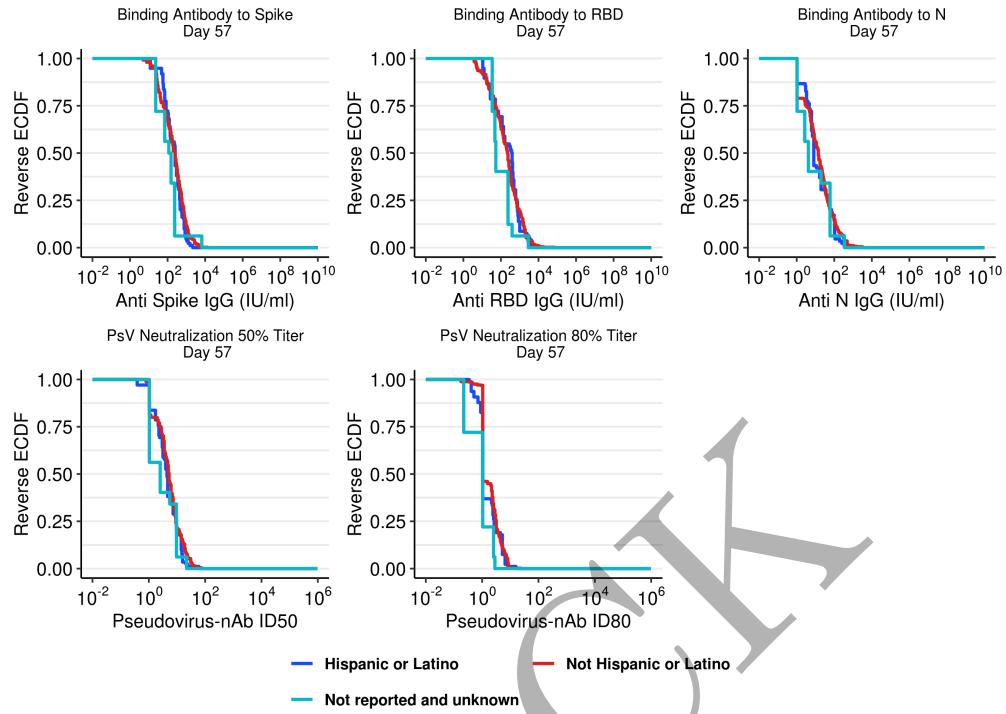


Figure 3.174: RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive placebo arm by ethnicity.

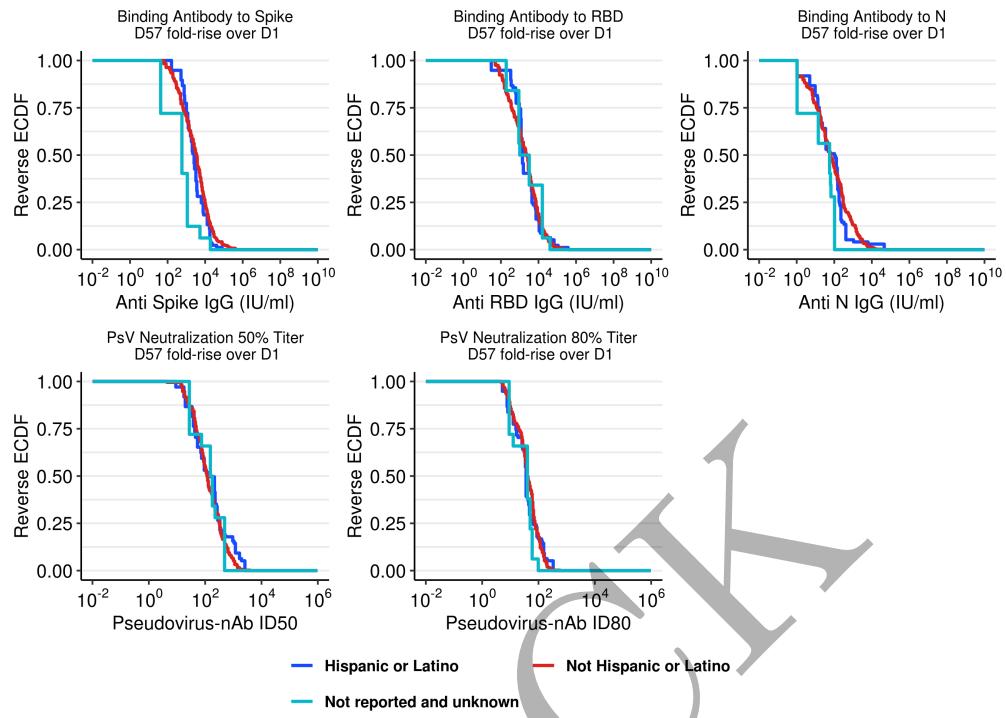


Figure 3.175: RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive placebo arm by ethnicity.

3.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT655

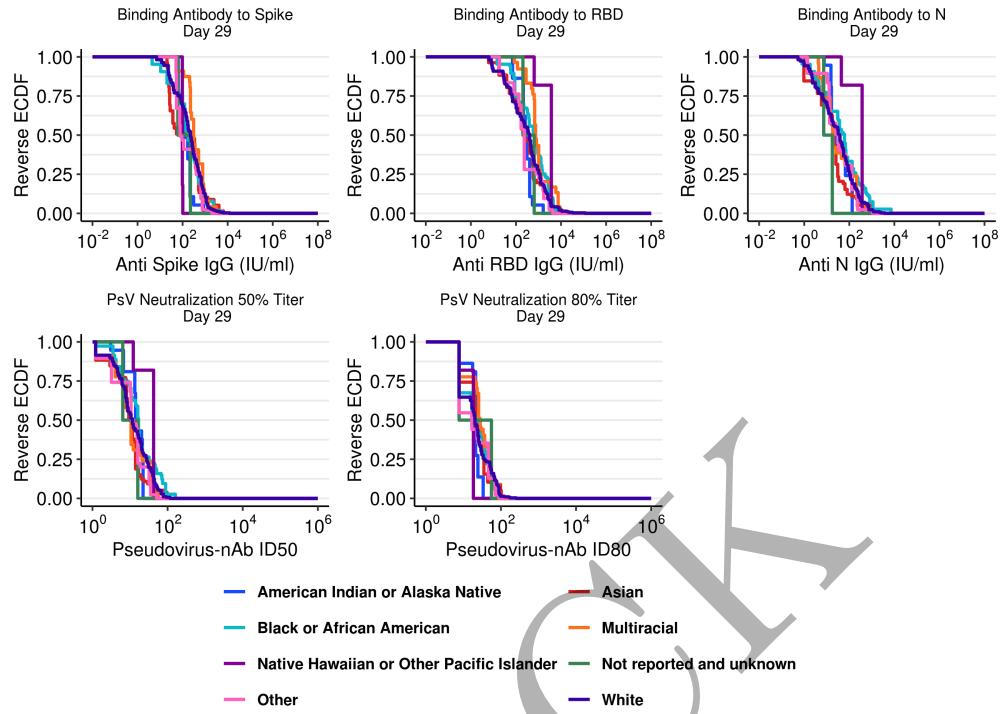


Figure 3.176: RCDF plots for D29 Ab markers: baseline positive placebo arm by race.

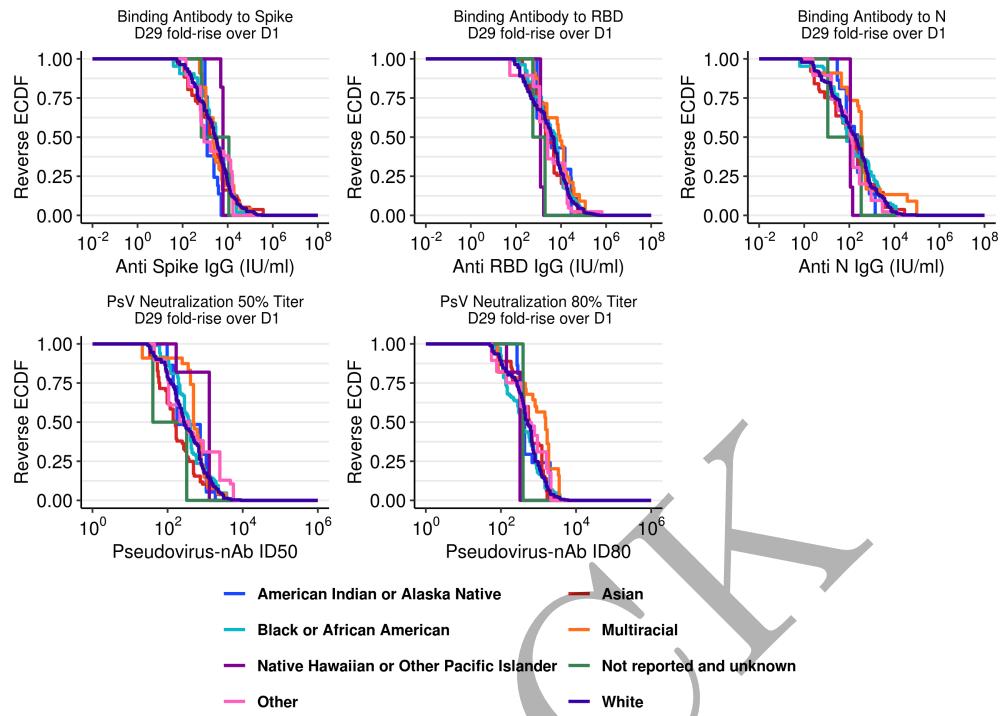


Figure 3.177: RCDF plots for D57 Ab markers: baseline positive placebo arm by race.

3.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT657

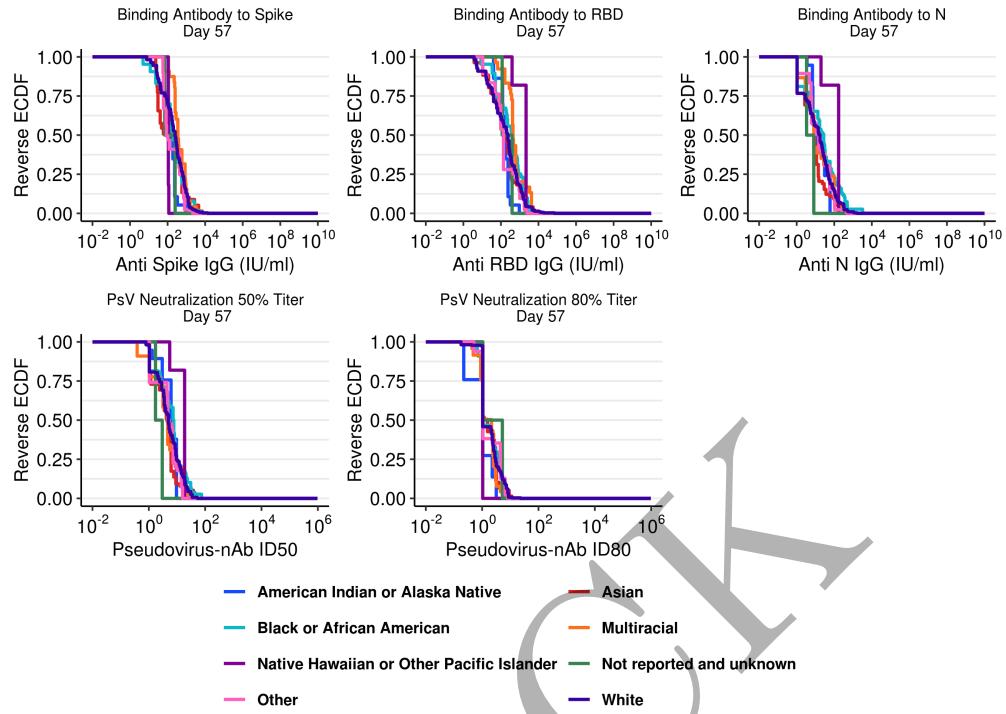


Figure 3.178: RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive placebo arm by race.

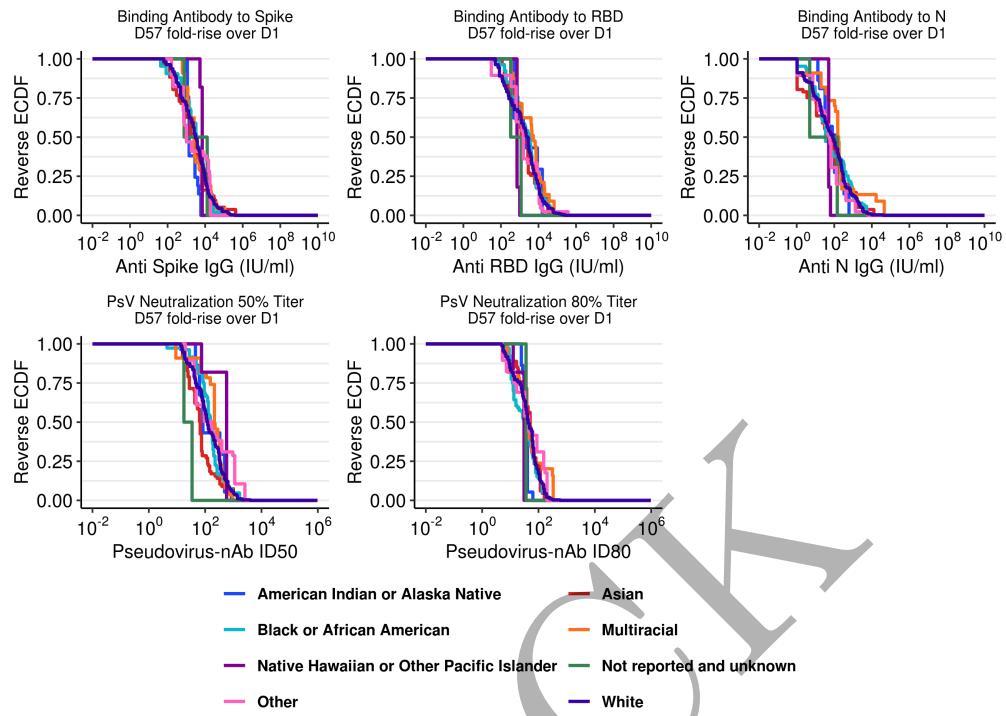


Figure 3.179: RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive placebo arm by race.

3.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT659

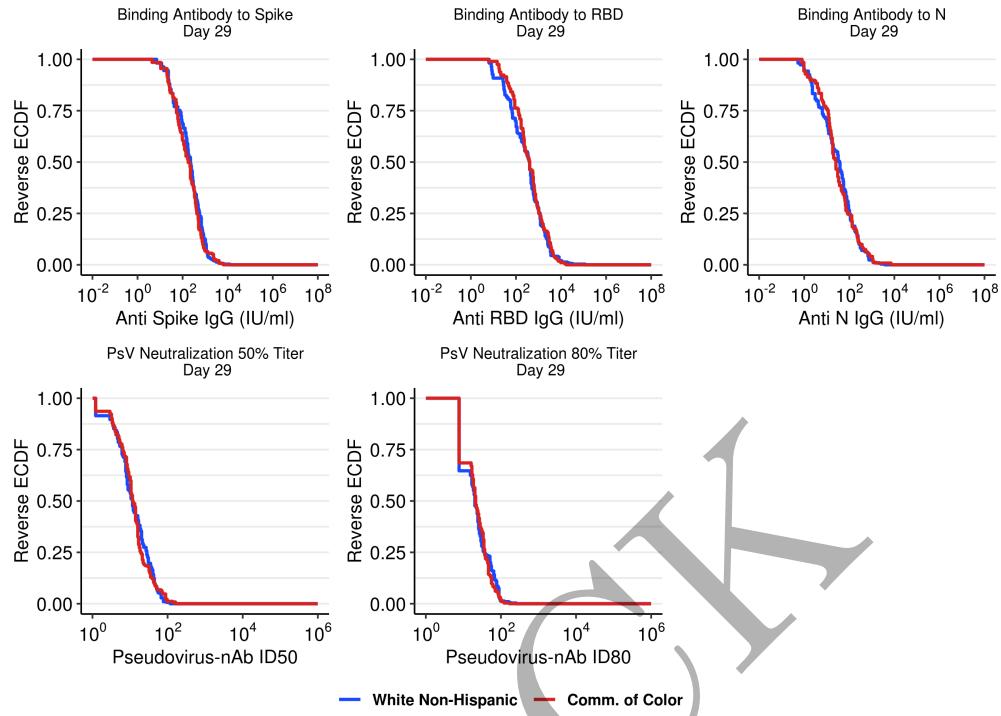


Figure 3.180: RCDF plots for D29 Ab markers: baseline positive placebo arm by dichotomous classification of race and ethnic group.

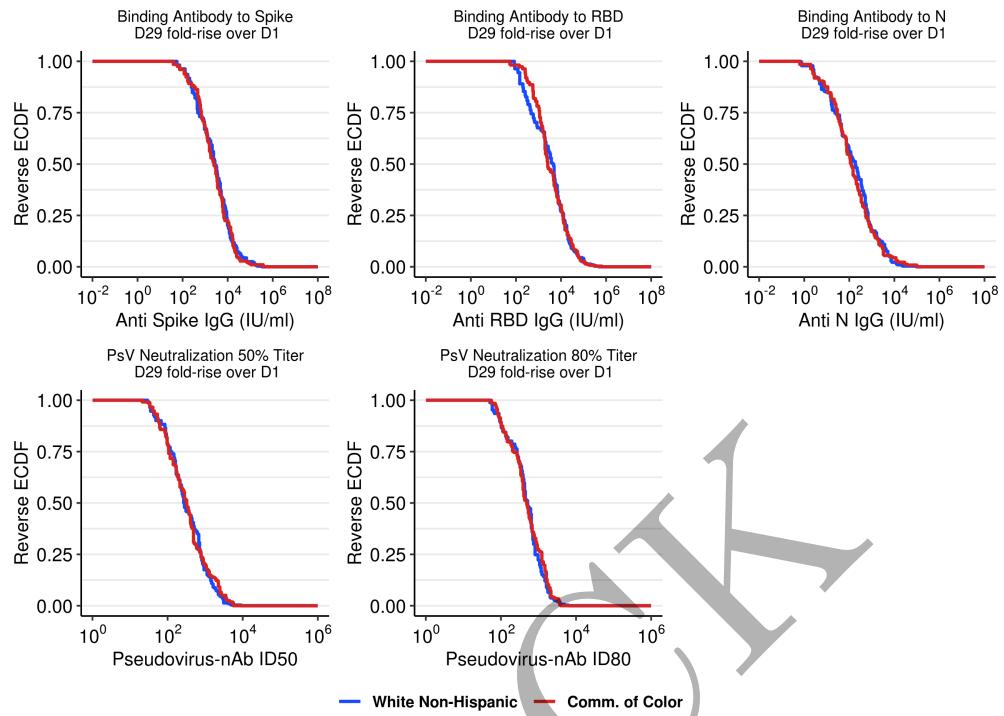


Figure 3.181: RCDF plots for D57 Ab markers: baseline positive placebo arm by dichotomous classification of race and ethnic group.

3.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT661

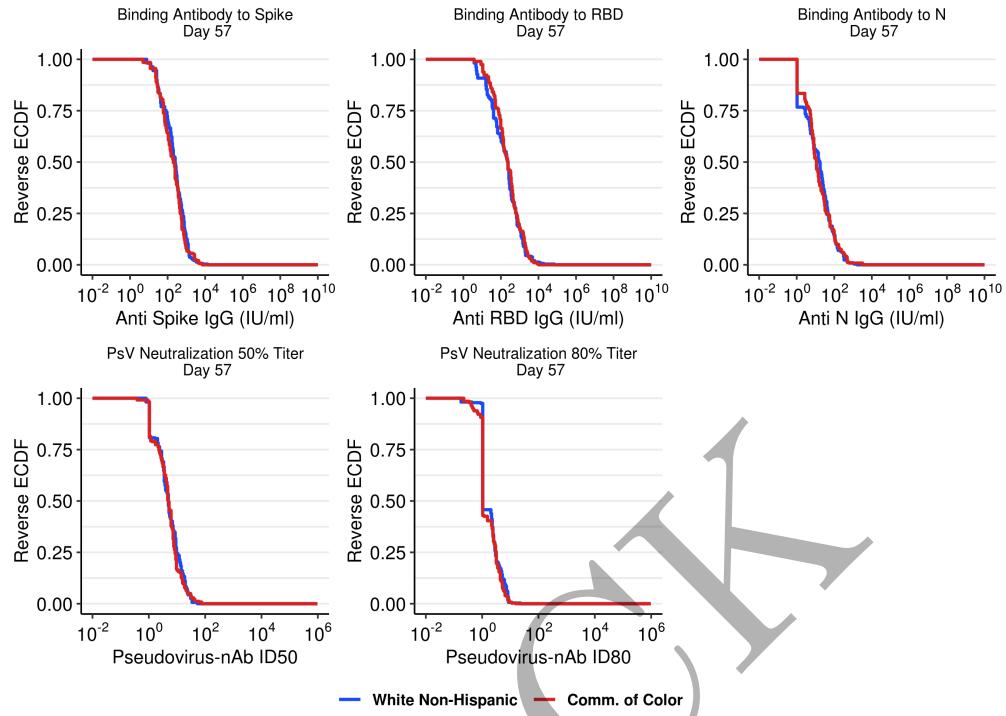


Figure 3.182: RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive placebo arm by dichotomous classification of race and ethnic group.

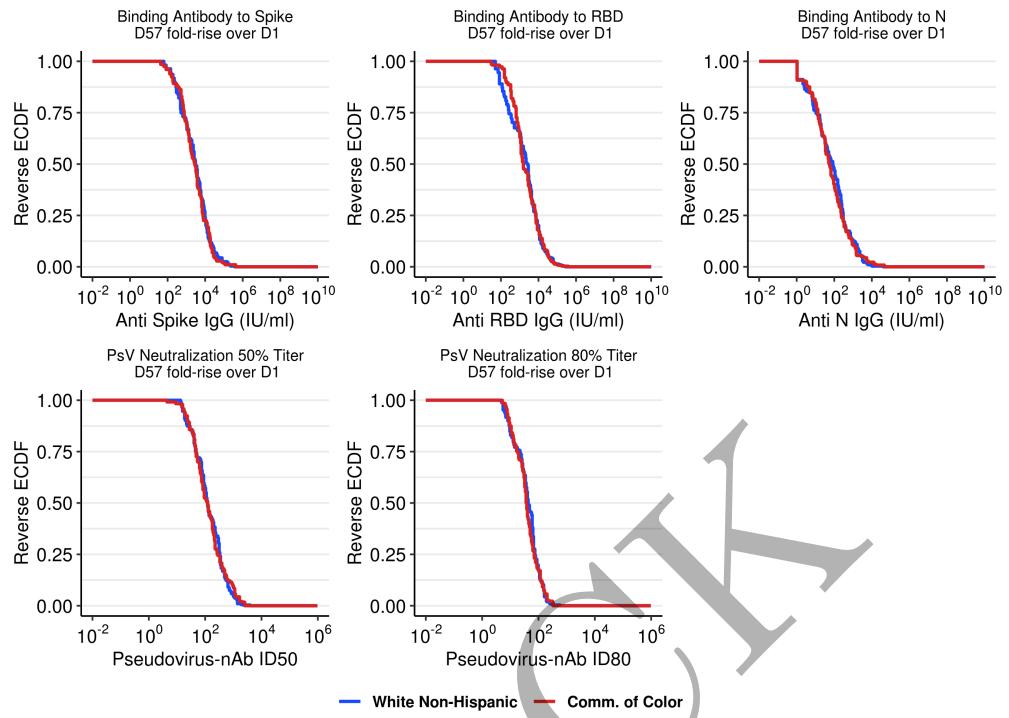


Figure 3.183: RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive placebo arm by dichotomous classification of race and ethnic group.

3.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT663

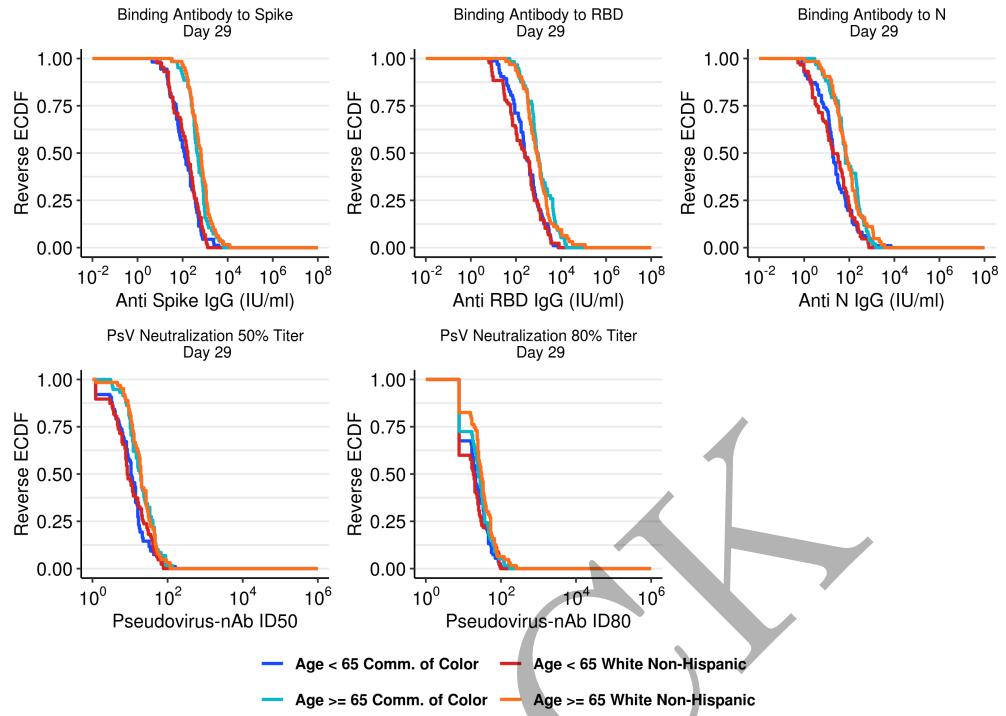


Figure 3.184: RCDF plots for D29 Ab markers: baseline positive placebo arm by age and dichotomous classification of race and ethnic group.

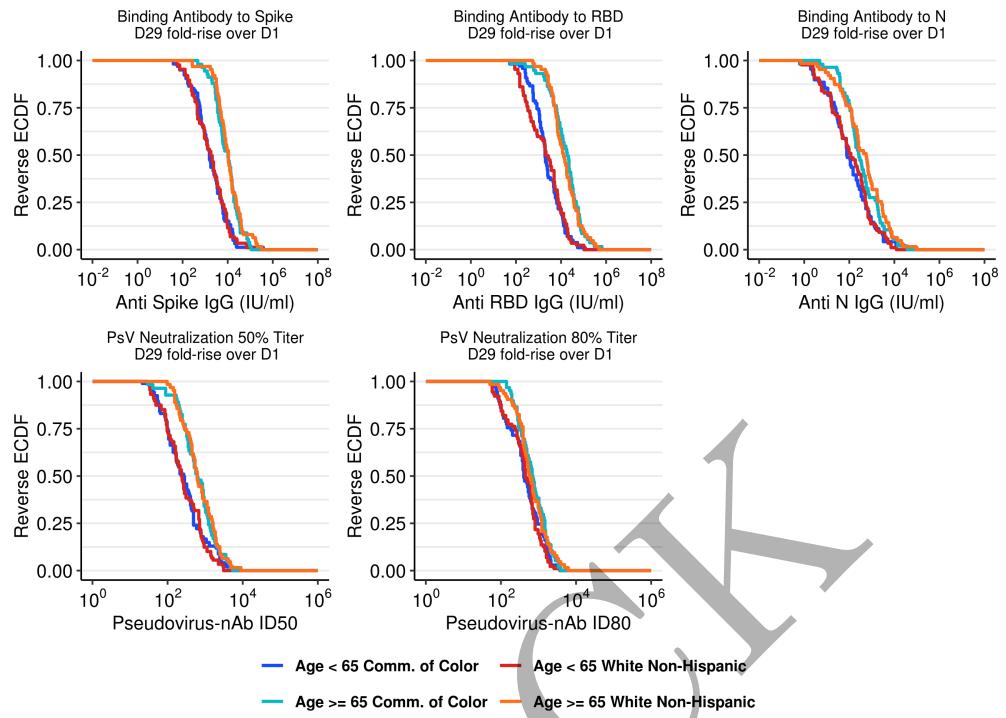


Figure 3.185: RCDF plots for D57 Ab markers: baseline positive placebo arm by age and dichotomous classification of race and ethnic group.

3.6. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT665

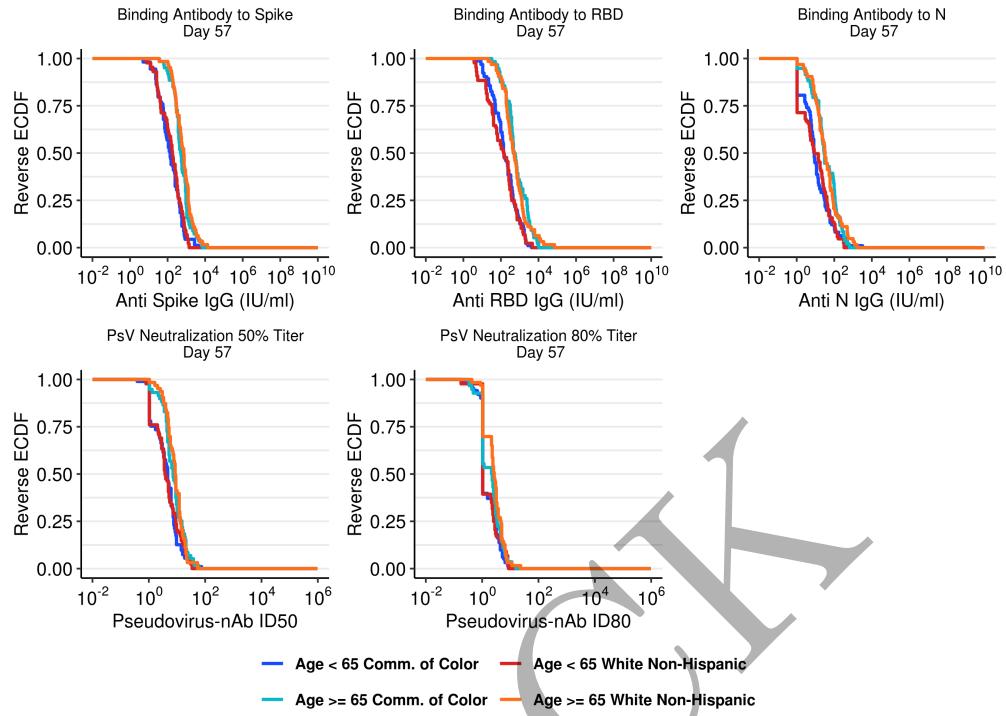


Figure 3.186: RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive placebo arm by age and dichotomous classification of race and ethnic group.

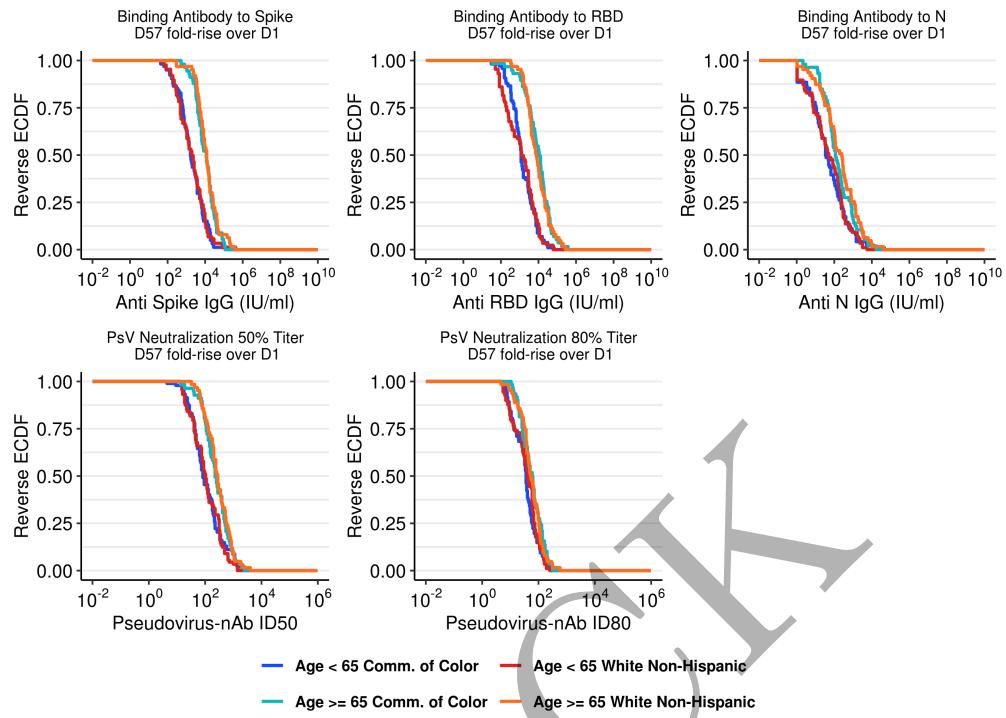


Figure 3.187: RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive placebo arm by age and dichotomous classification of race and ethnic group.

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

3.7.1 Baseline SARS-CoV-2 Negative

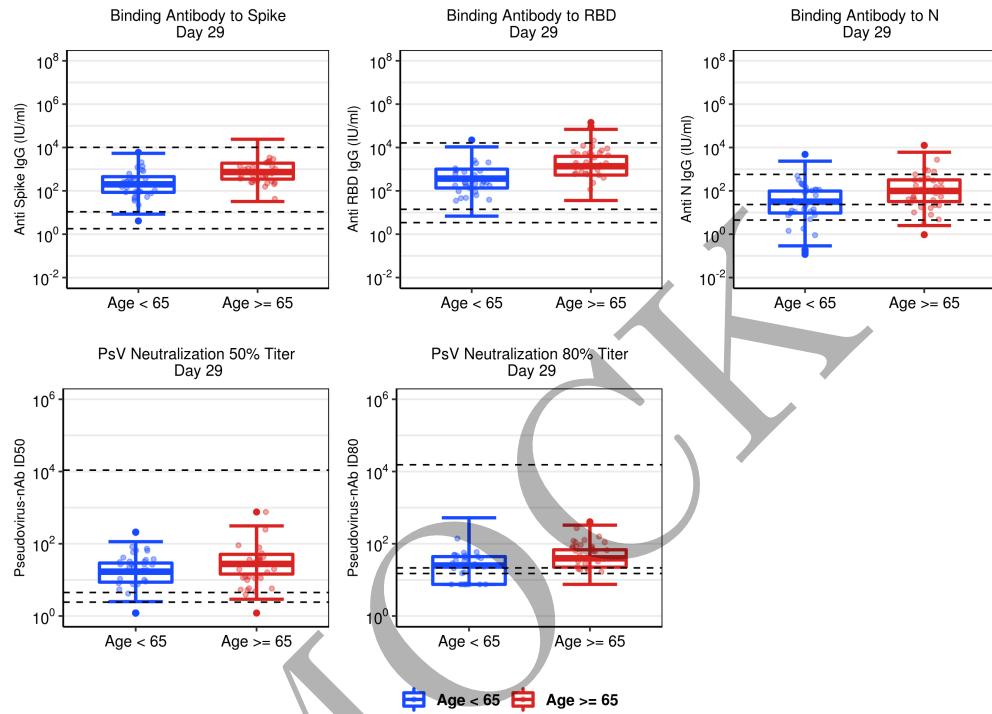


Figure 3.188: Boxplots of D29 Ab markers: Baseline negative vaccine arm by age group. The three dashed lines in each figure are ULOQ, LLOQ, and positivity cutoffs for binding antibody assays, or ULOQ, LLOQ, and LLOD for neutralizing antibody assays, from top to bottom respectively.

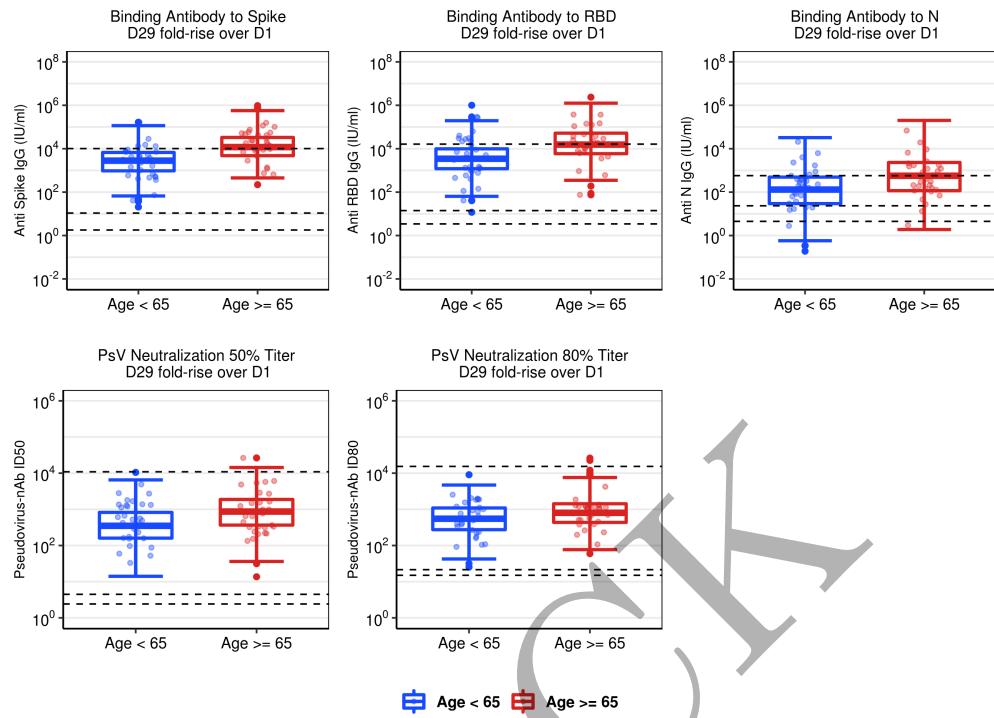


Figure 3.189: Boxplots of D57 Ab markers: Baseline negative vaccine arm by age group. The three dashed lines in each figure are ULOQ, LLOQ, and positivity cutoffs for binding antibody assays, or ULOQ, LLOQ, and LLOD for neutralizing antibody assays, from top to bottom respectively.

3.7. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT669

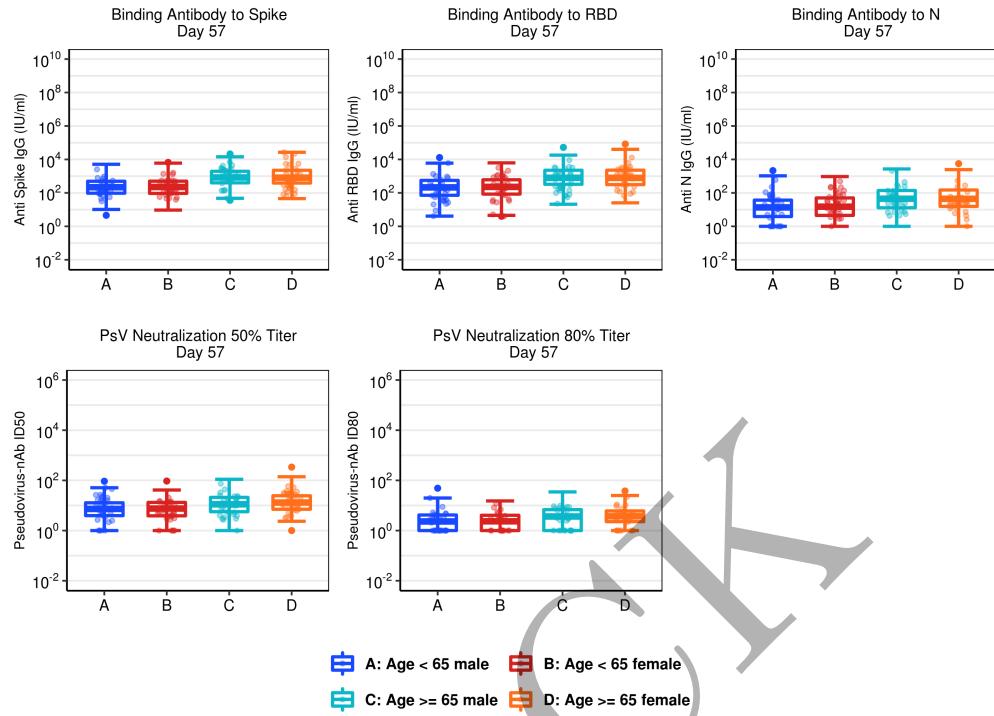


Figure 3.190: Boxplots of D29 fold-rise over D1 Ab markers: Baseline negative vaccine arm by age and sex assigned at birth.

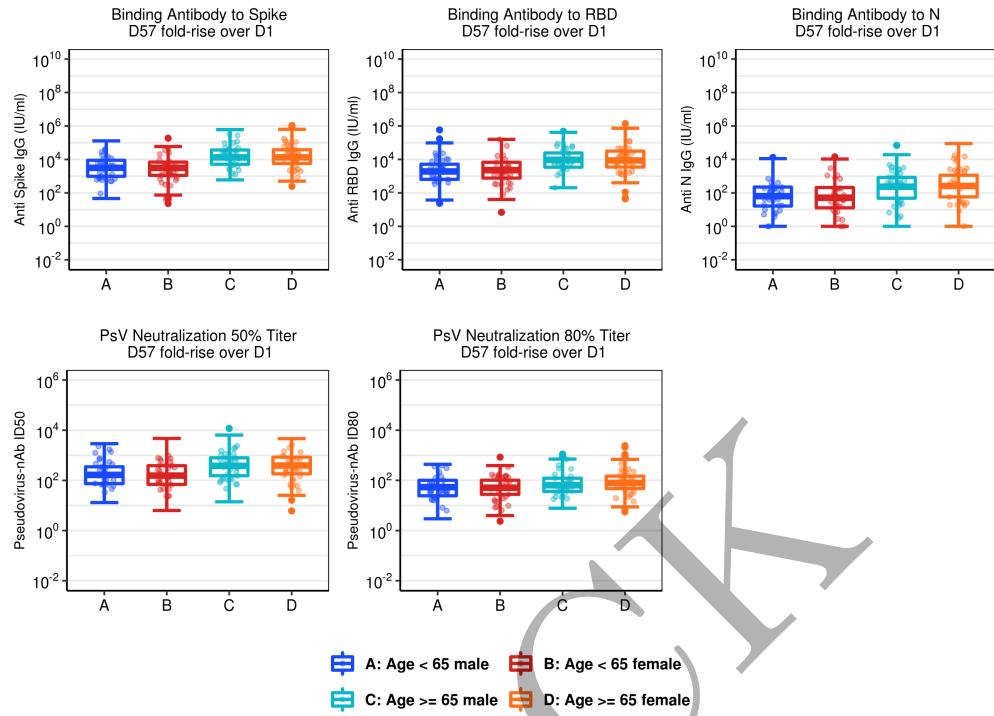


Figure 3.191: Boxplots of D57 fold-rise over D1 Ab markers: Baseline negative vaccine arm by age and sex assigned at birth.

3.7. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT671

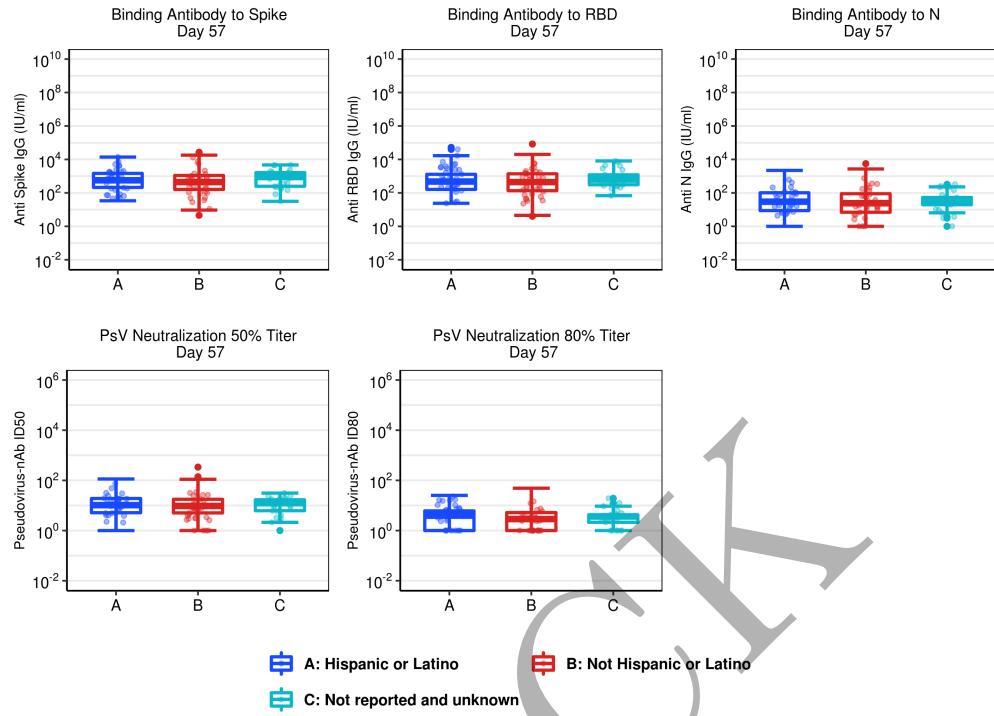


Figure 3.192: Boxplots of D29 fold-rise over D1 Ab markers: Baseline negative vaccine arm by ethnicity.

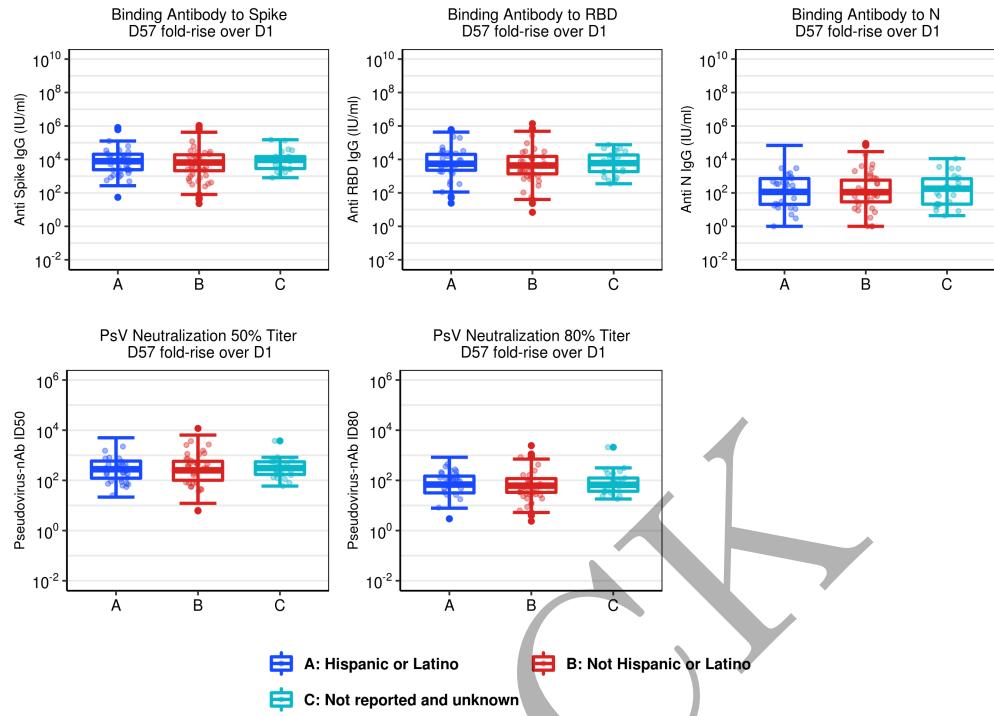


Figure 3.193: Boxplots of D57 fold-rise over D1 Ab markers: Baseline negative vaccine arm by ethnicity.

3.7. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT673

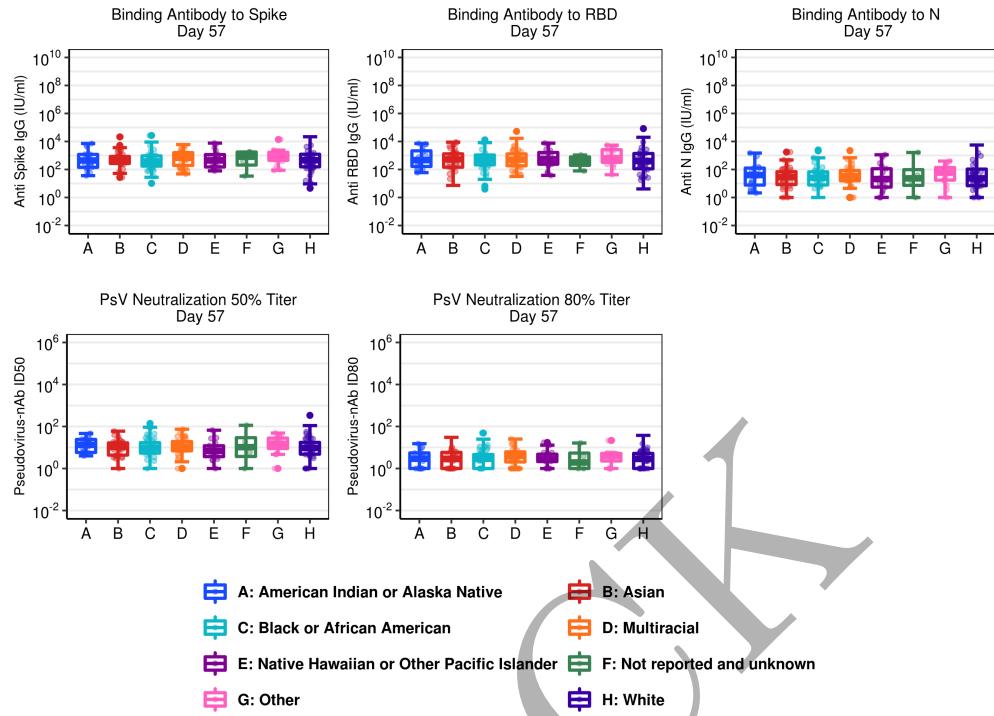


Figure 3.194: Boxplots of D29 fold-rise over D1 Ab markers: Baseline negative vaccine arm by race.

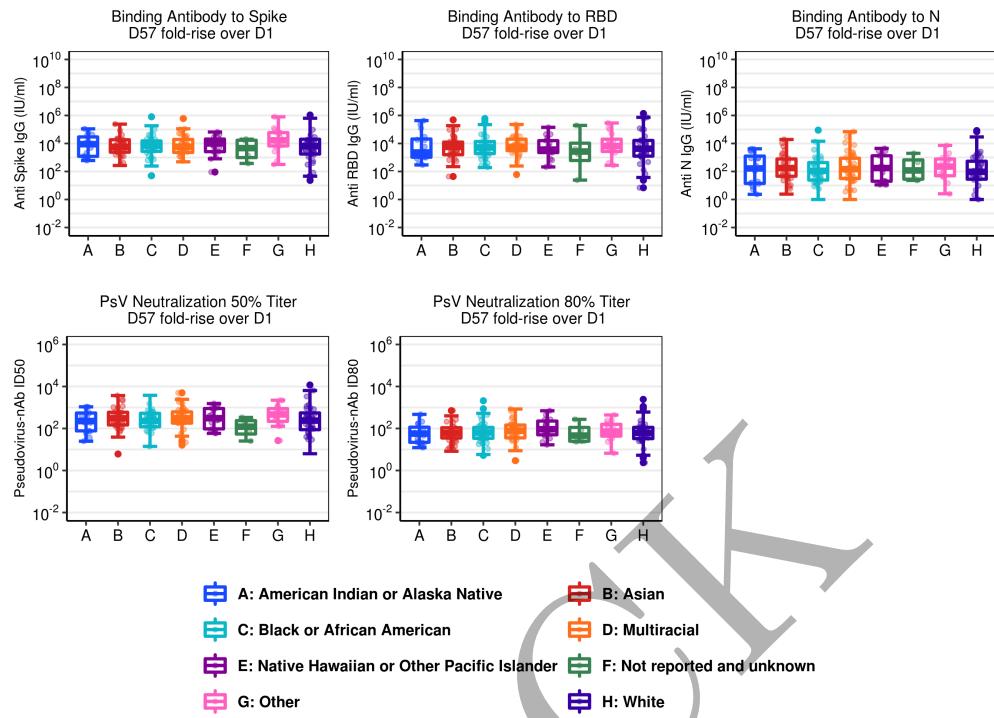


Figure 3.195: Boxplots of D57 fold-rise over D1 Ab markers: Baseline negative vaccine arm by race.

3.7. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT675

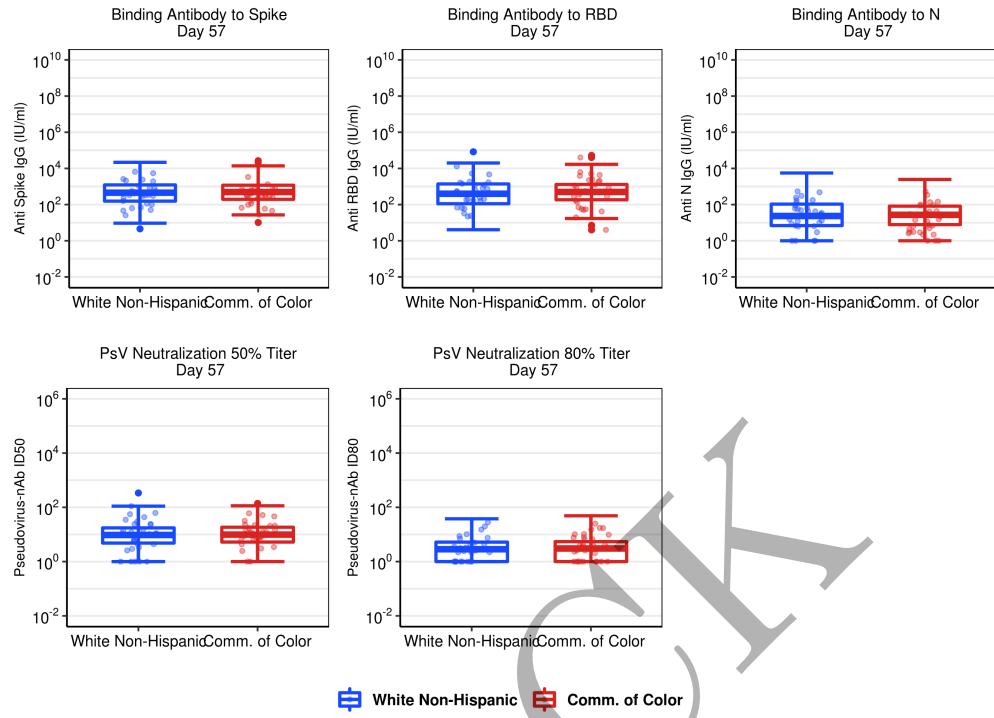


Figure 3.196: Boxplots of D29 fold-rise over D1 Ab markers: Baseline negative vaccine arm by dichotomous classification of race and ethnic group.

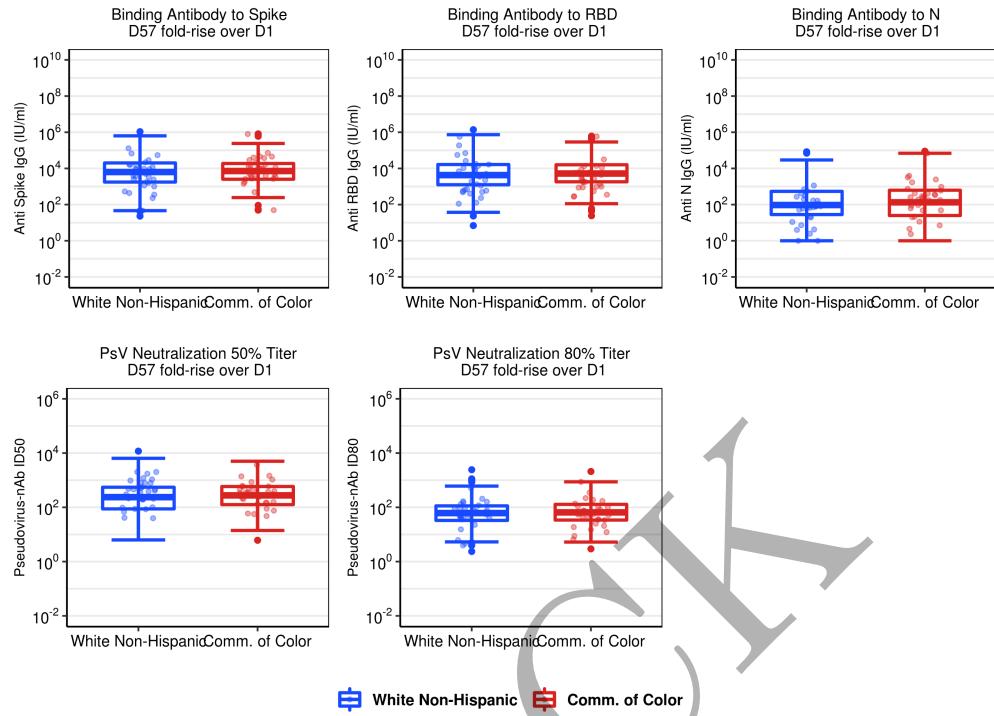


Figure 3.197: Boxplots of D57 fold-rise over D1 Ab markers: Baseline negative vaccine arm by dichotomous classification of race and ethnic group.

3.7. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT677

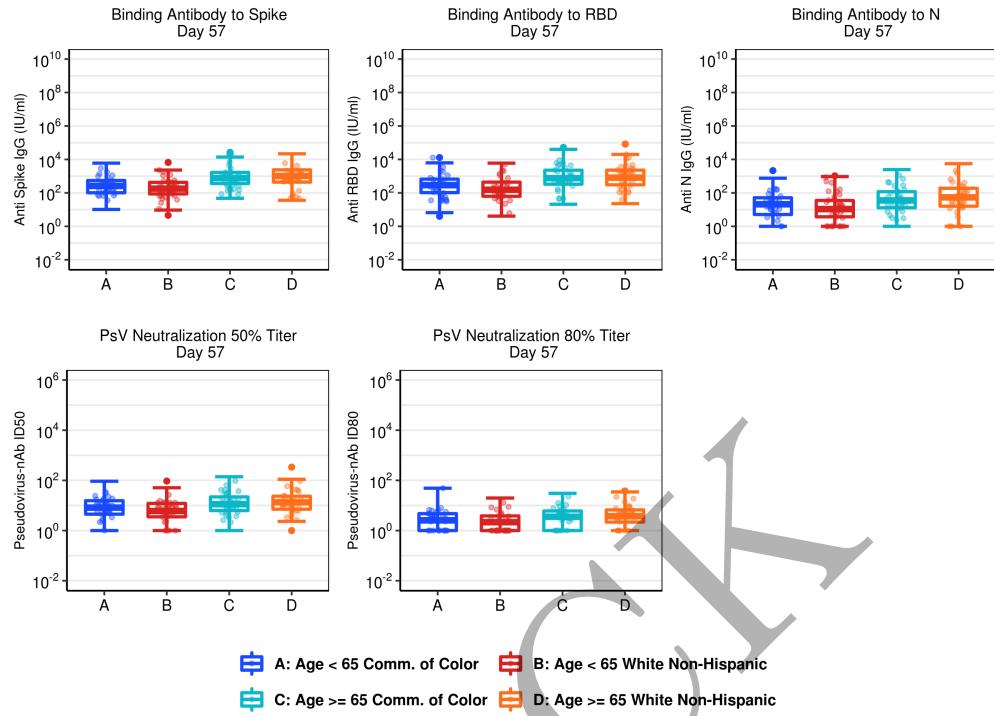


Figure 3.198: Boxplots of D29 fold-rise over D1 Ab markers: Baseline negative vaccine arm by age and dichotomous classification of race and ethnic group.

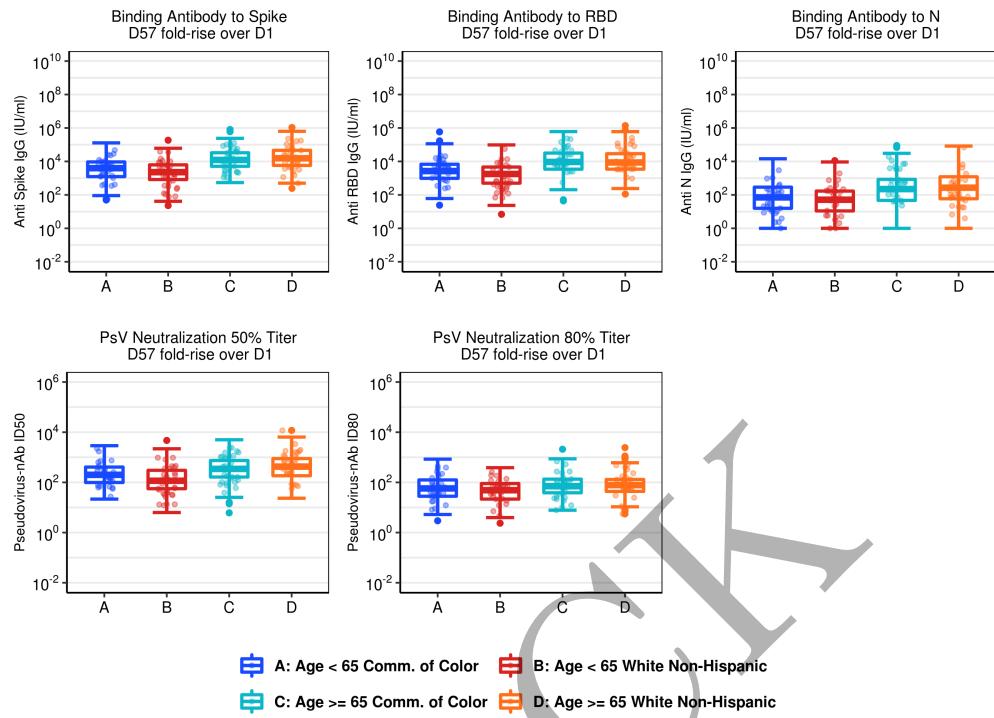


Figure 3.199: Boxplots of D57 fold-rise over D1 Ab markers: Baseline negative vaccine arm by age and dichotomous classification of race and ethnic group.

3.7. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT679

3.7.2 Baseline SARS-CoV-2 Positive

MOCK

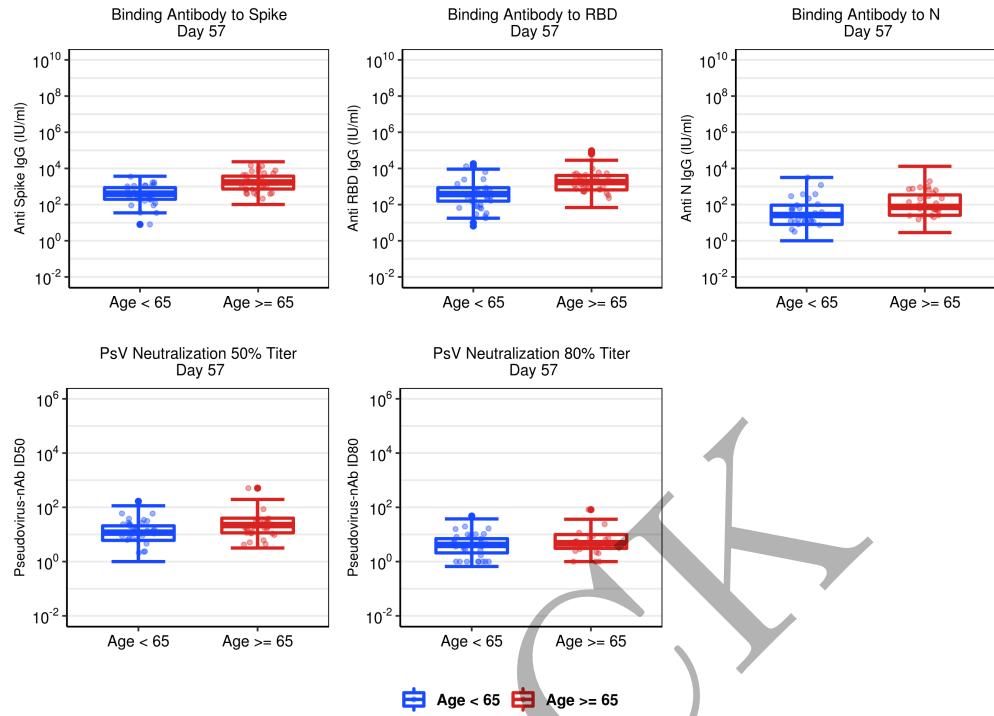


Figure 3.200: Boxplots of D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by age group.

3.7. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT681

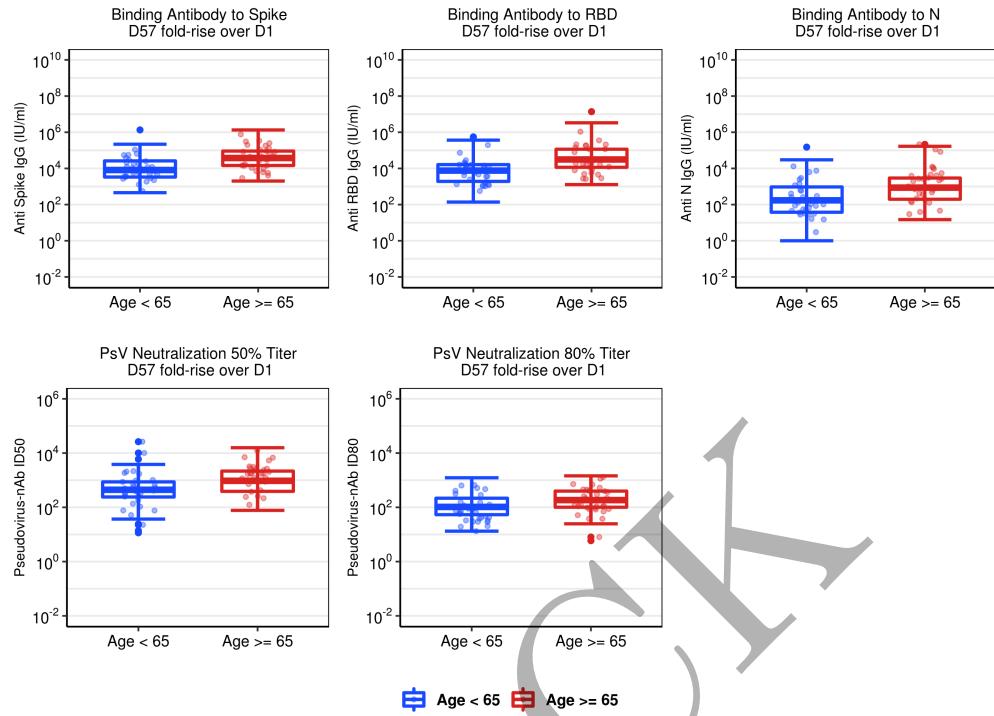


Figure 3.201: Boxplots of D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by age group.

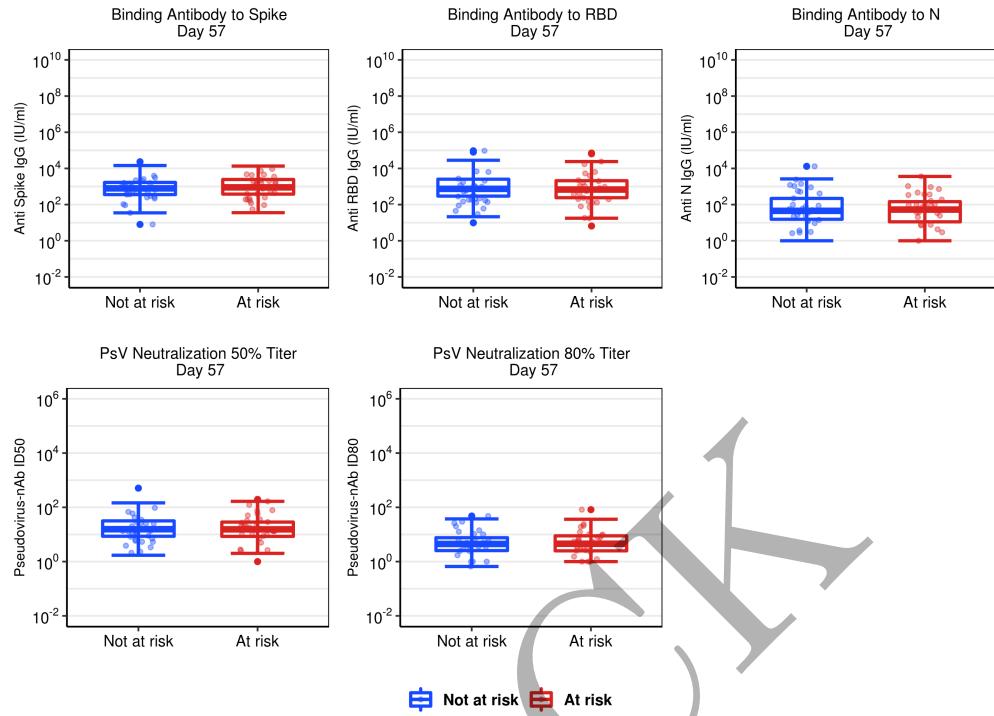


Figure 3.202: Boxplots of D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by high-risk condition.

3.7. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT683

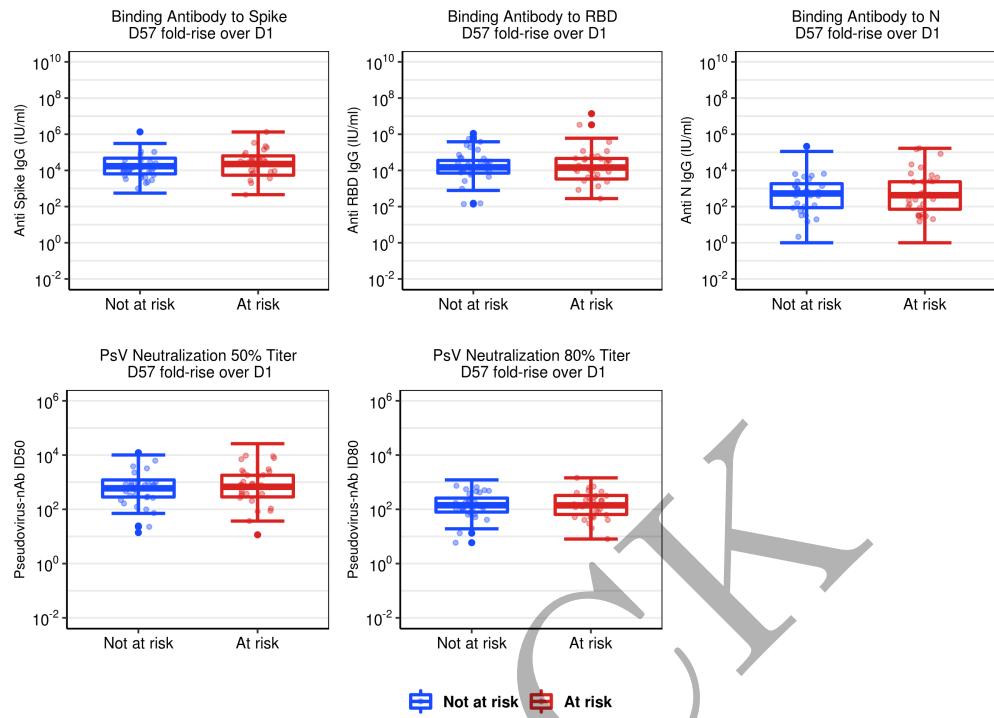


Figure 3.203: Boxplots of D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by high-risk condition.

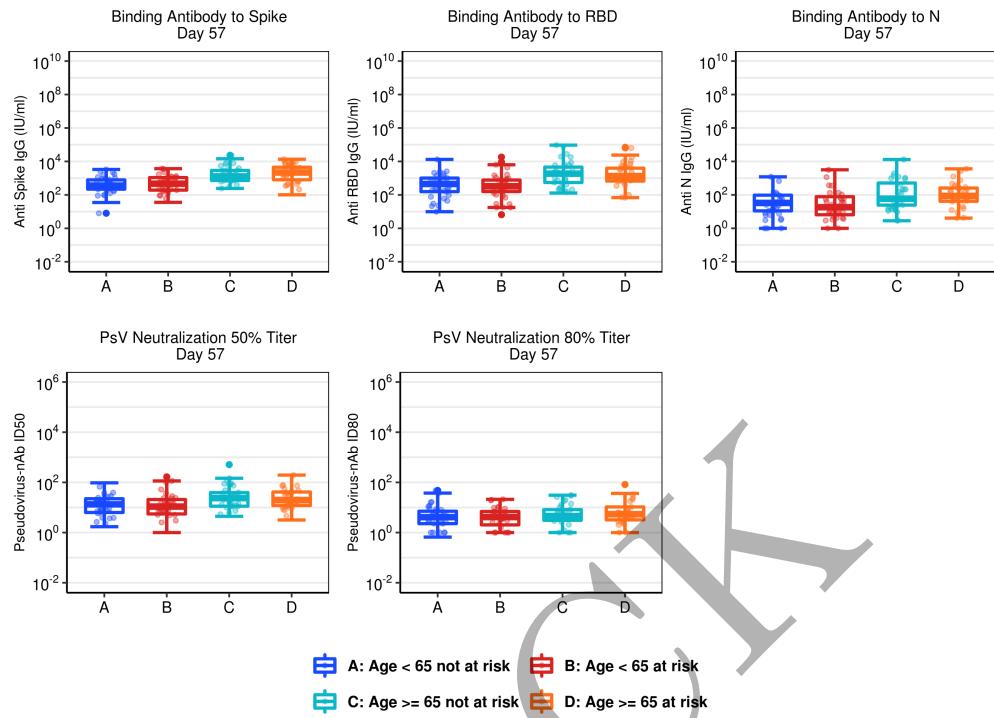


Figure 3.204: Boxplots of D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and high-risk condition.

3.7. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT685

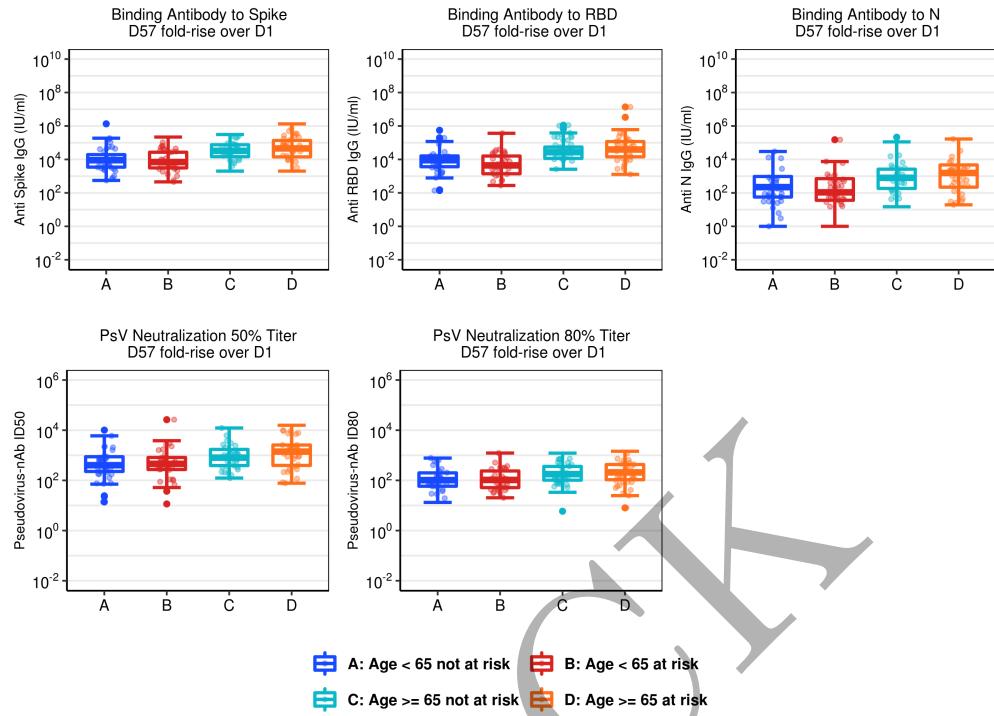


Figure 3.205: Boxplots of D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and high-risk condition.

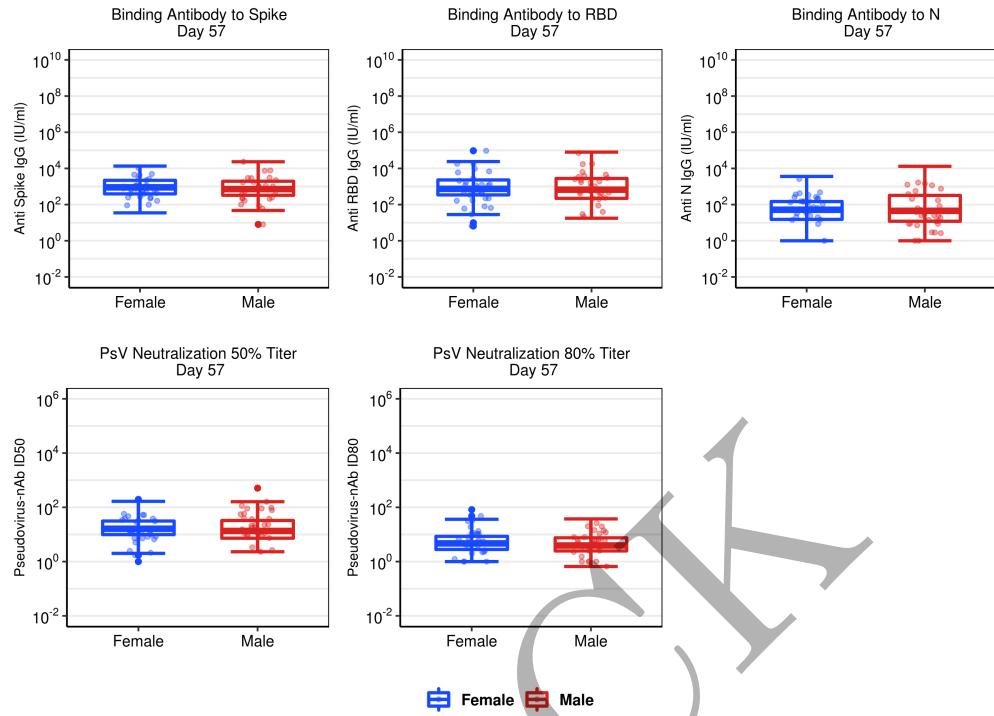


Figure 3.206: Boxplots of D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by sex assigned at birth.

3.7. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT687

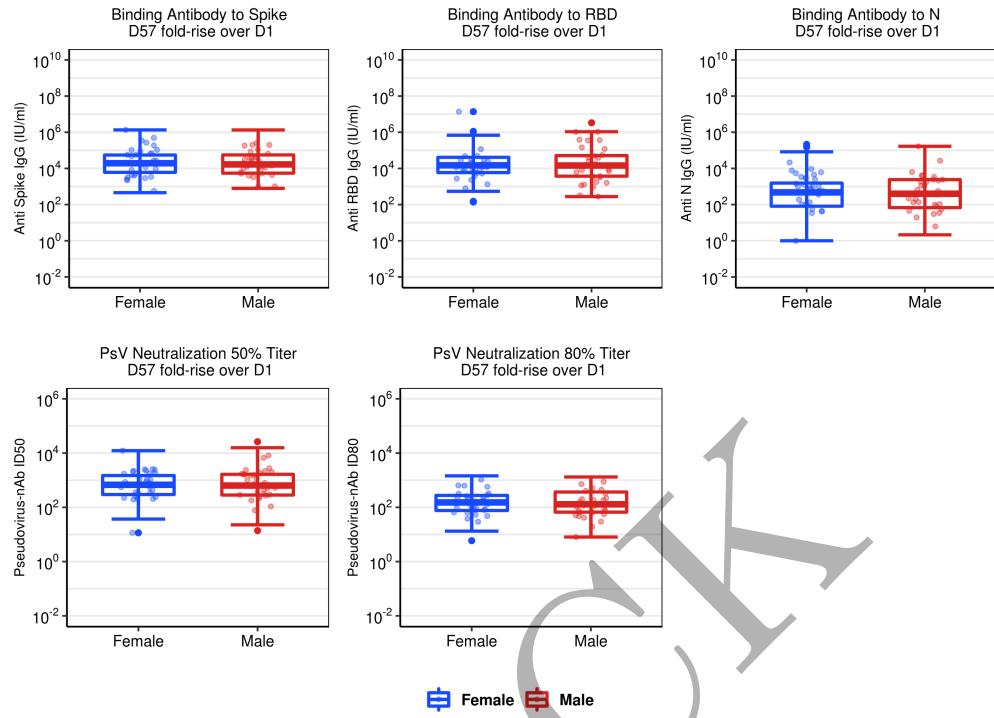


Figure 3.207: Boxplots of D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by sex assigned at birth.

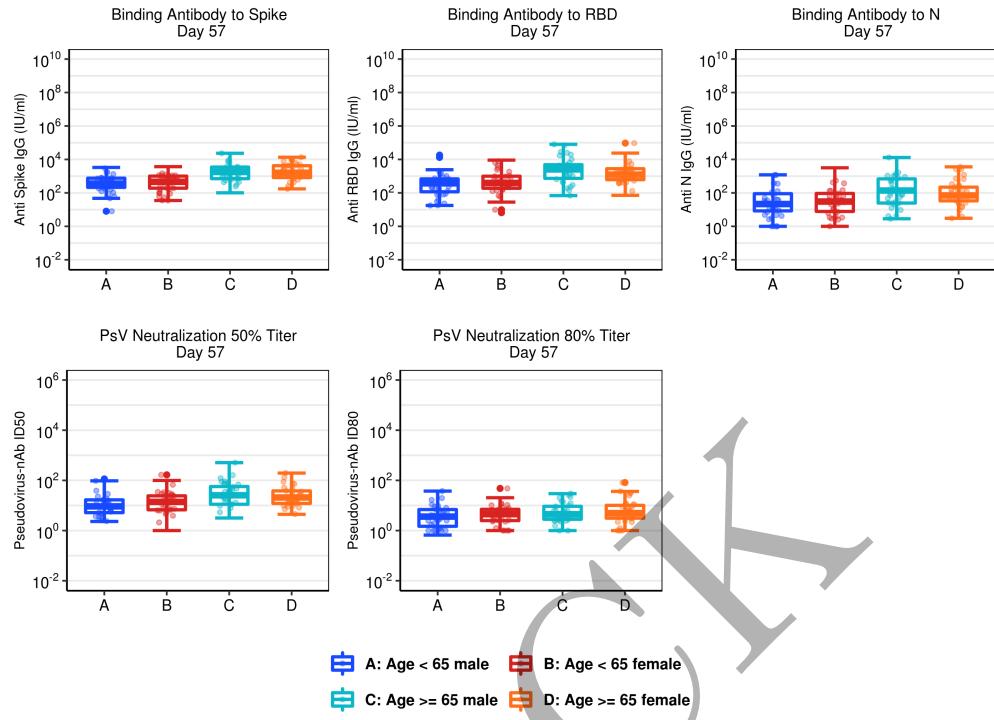


Figure 3.208: Boxplots of D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and sex assigned at birth.

3.7. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT689

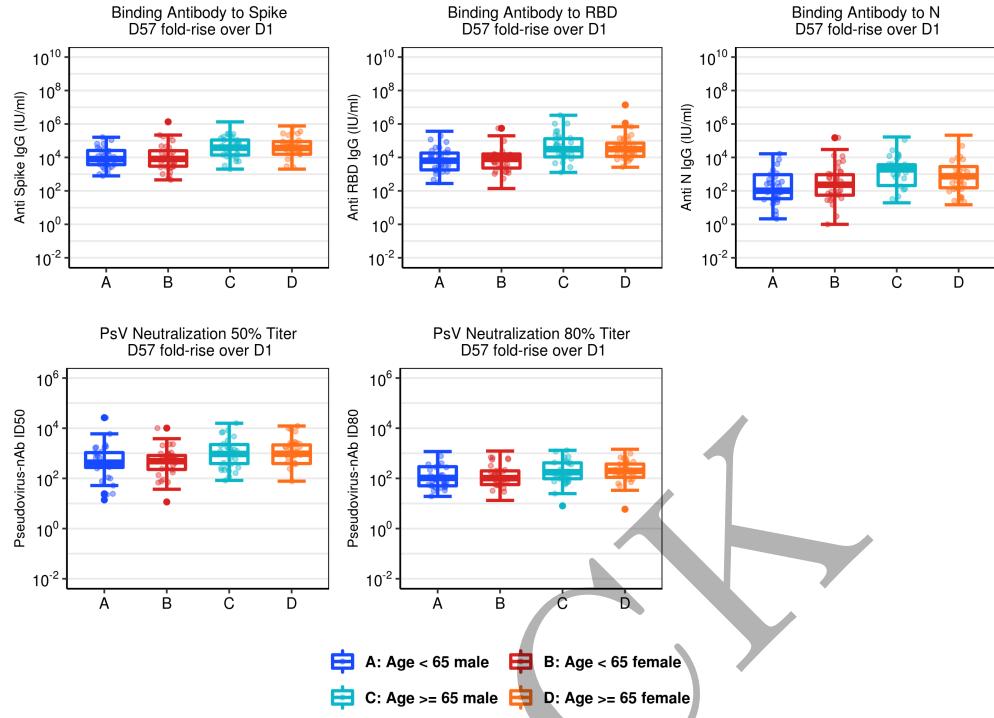


Figure 3.209: Boxplots of D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and sex assigned at birth.

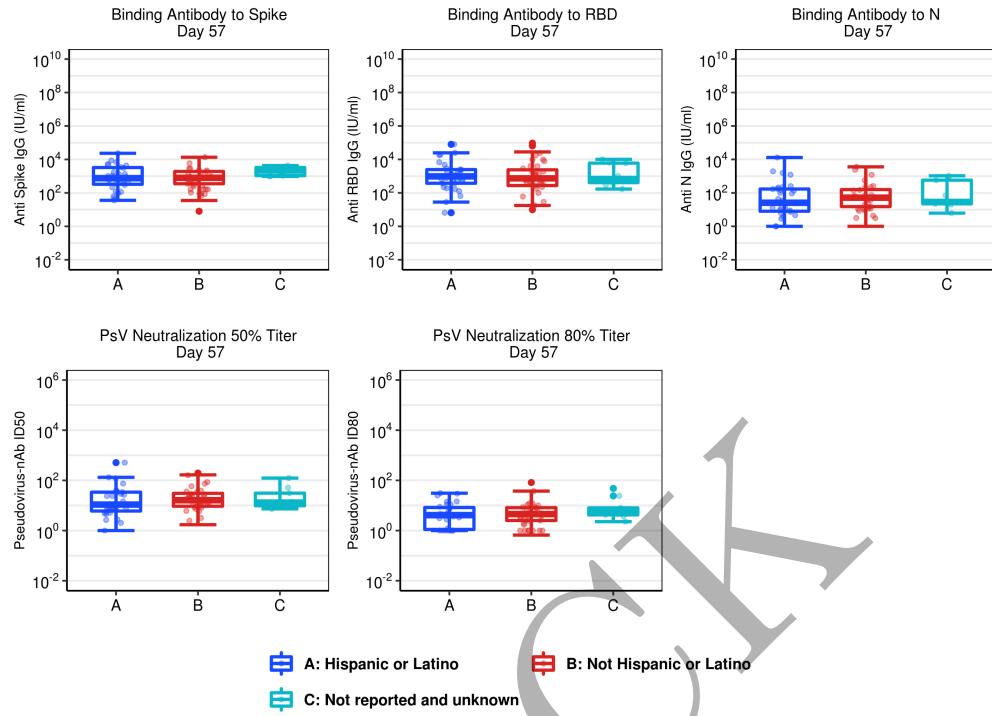


Figure 3.210: Boxplots of D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by ethnicity.

3.7. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT691

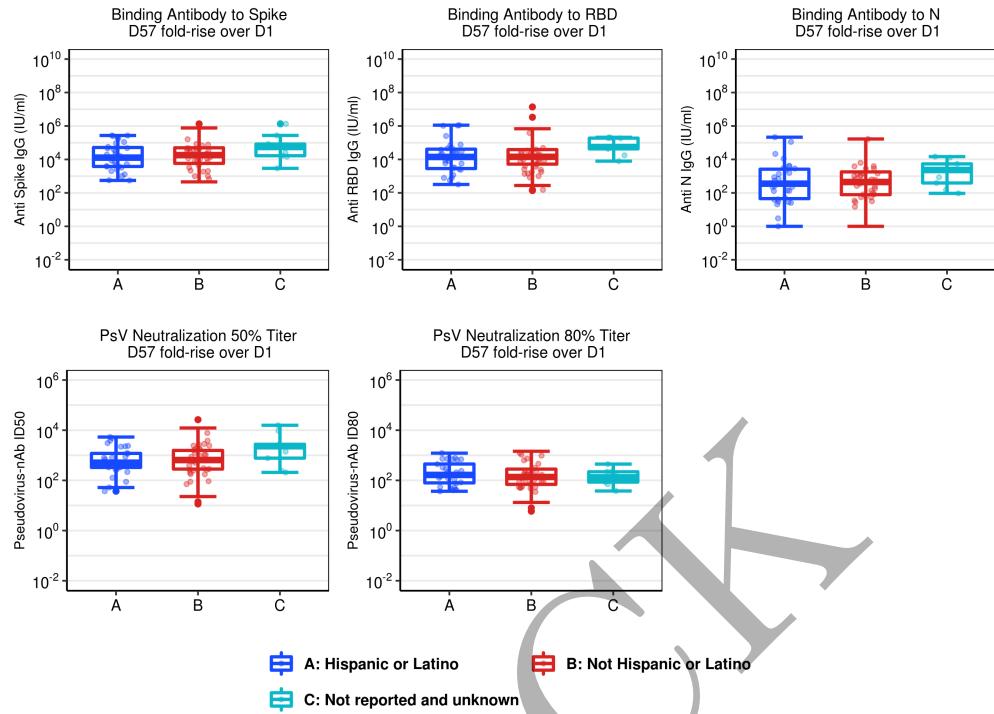


Figure 3.211: Boxplots of D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by ethnicity.

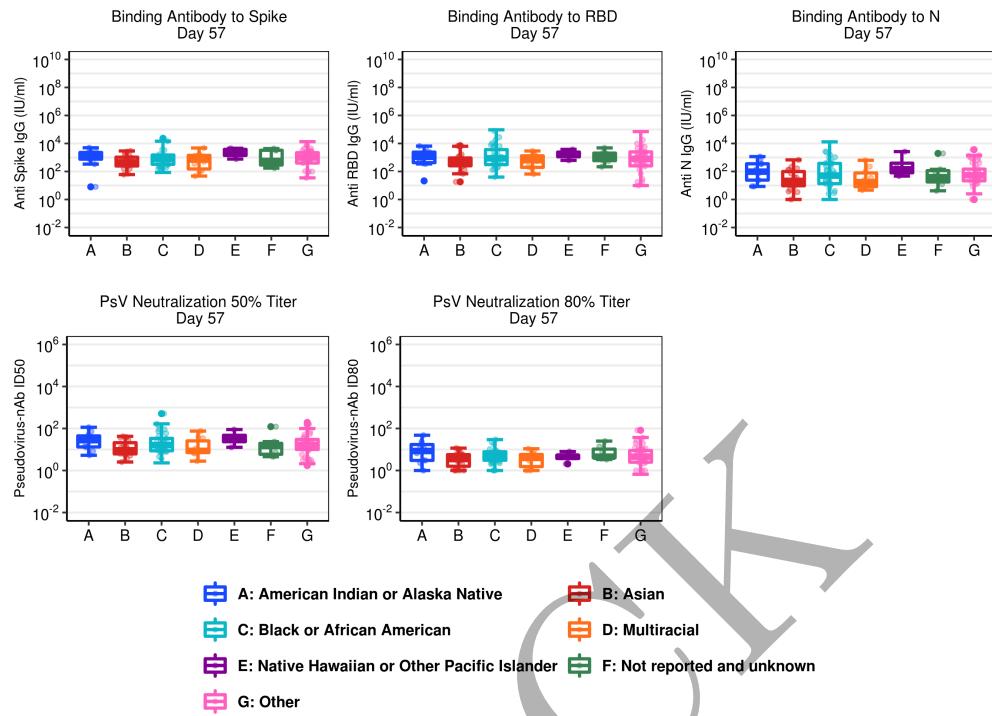


Figure 3.212: Boxplots of D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by race.

3.7. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT693

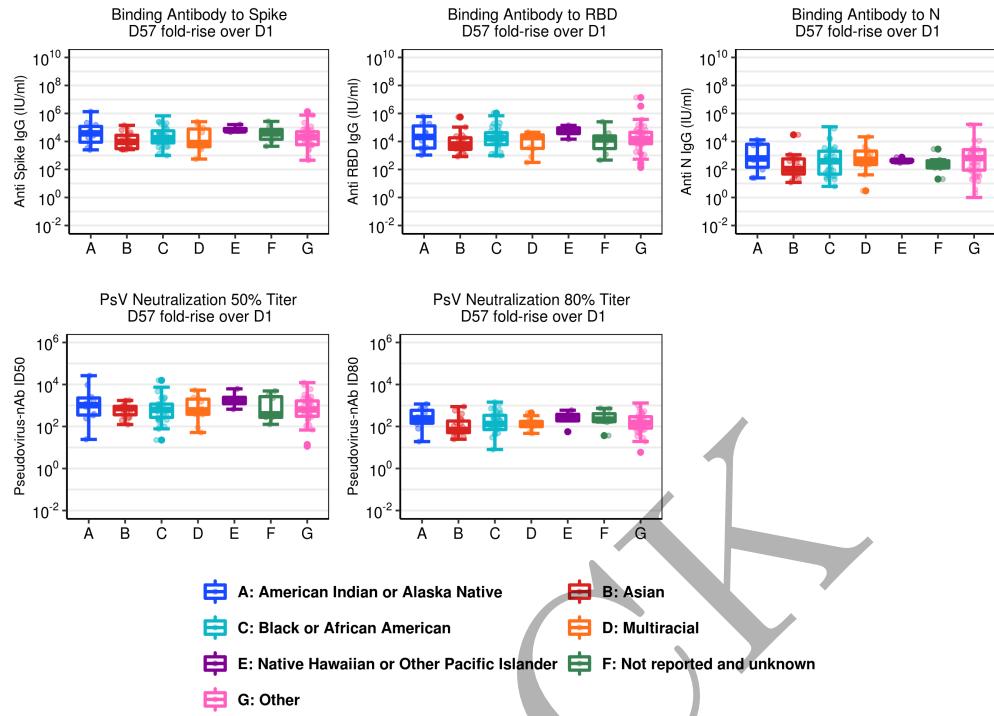


Figure 3.213: Boxplots of D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by race.

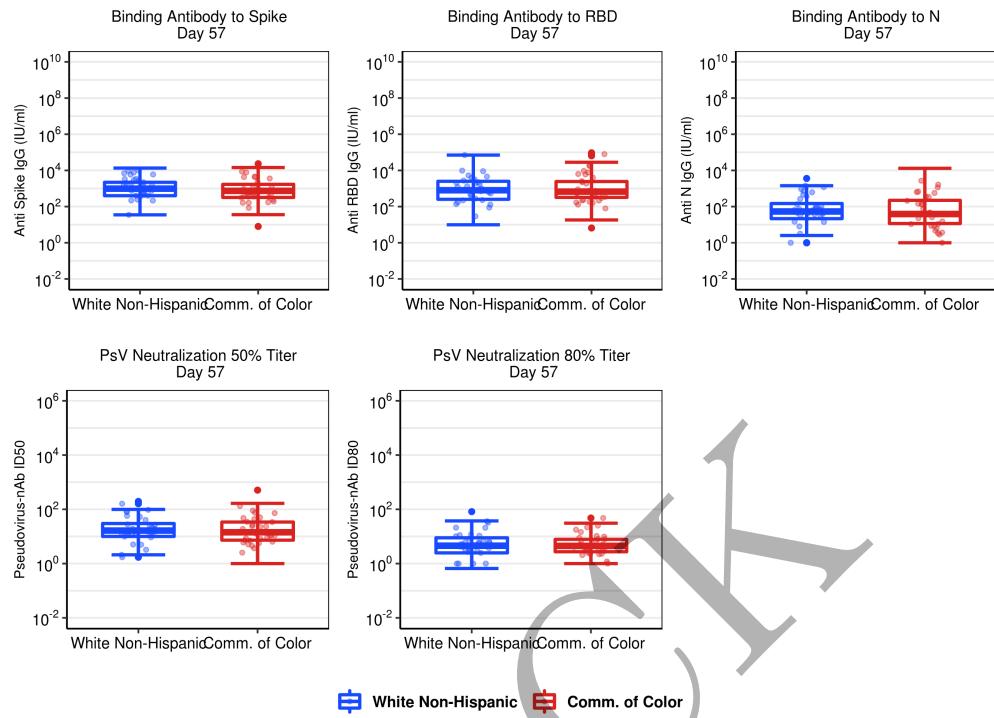


Figure 3.214: Boxplots of D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by dichotomous classification of race and ethnic group.

3.7. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT695

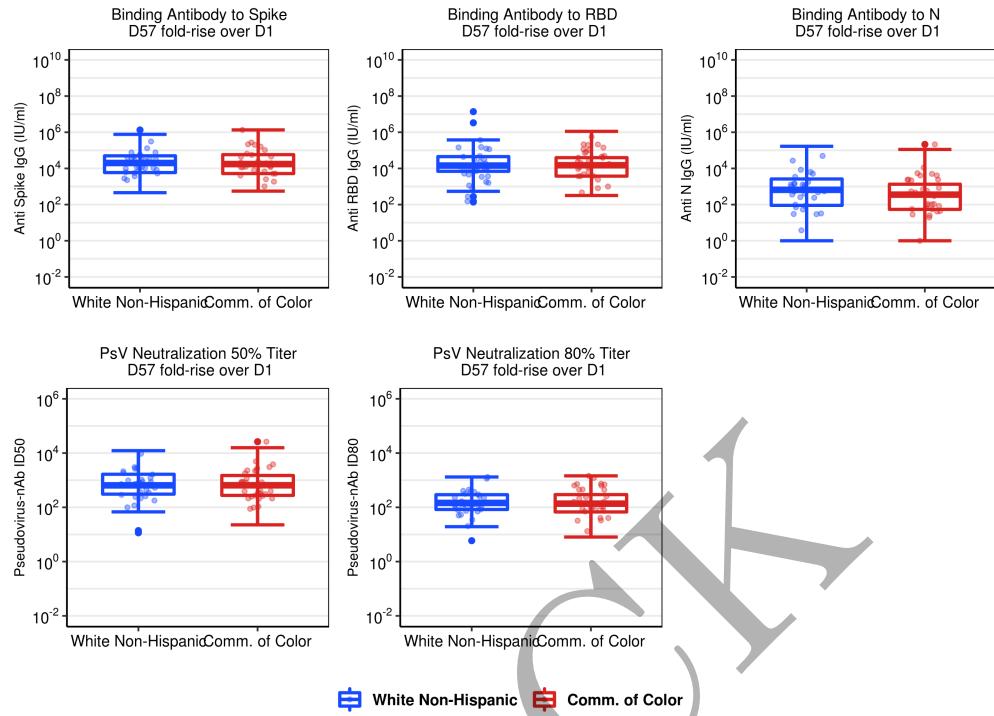


Figure 3.215: Boxplots of D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by dichotomous classification of race and ethnic group.

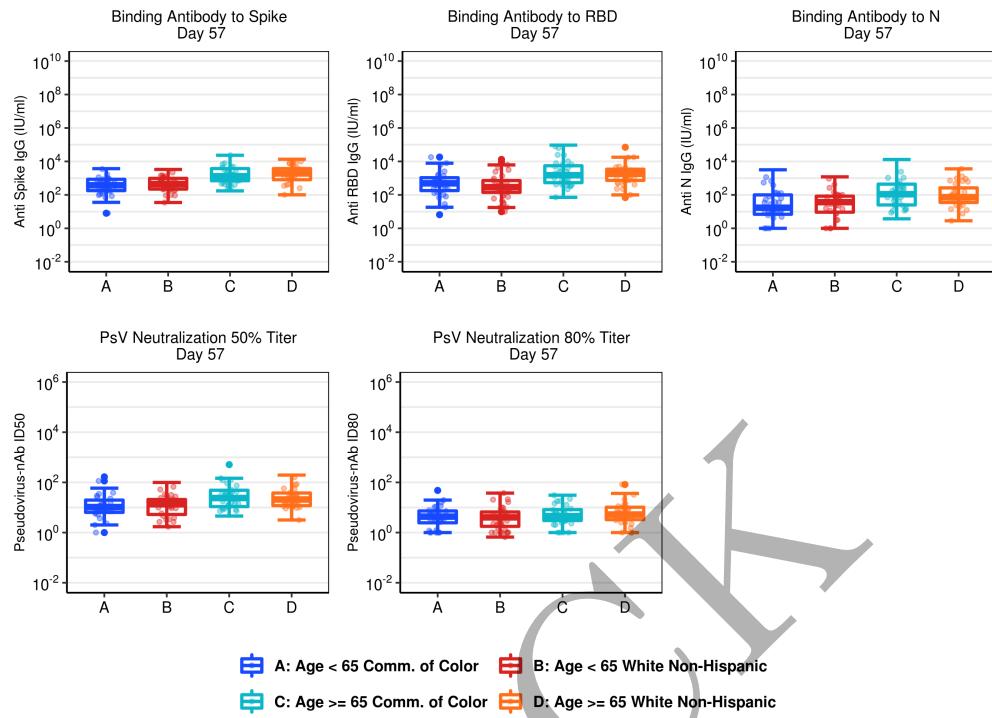


Figure 3.216: Boxplots of D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and dichotomous classification of race and ethnic group.

3.7. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT697

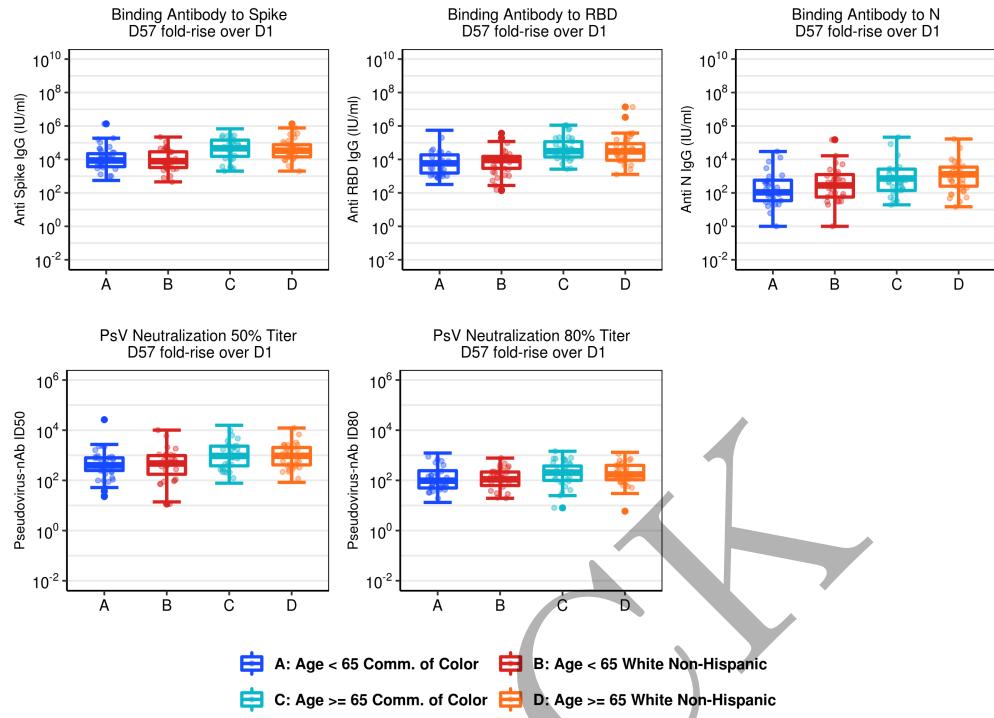


Figure 3.217: Boxplots of D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and dichotomous classification of race and ethnic group.

MOCK

Chapter 4

Appendix

- This report was built from the [CoVPN/correlates_reporting](#) repository with commit hash 7c5fe0cd502b7e8dffef38d5c7f841d98f334c0a. A diff of the changes introduced by that commit may be viewed at https://github.com/CoVPN/correlates_reporting/commit/7c5fe0cd502b7e8dffef38d5c7f841d98f334c0a
- 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