

Date: November 26, 2024 To: William Schief

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RE: Schief 856 (G002) B Cell Figures and Tables for Manuscript

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## 1 Figures and Tables: eOD-GT8 Immunogen

#### 1.1 Percent of B cells that are VRC01-class (eOD-GT8 sorts)

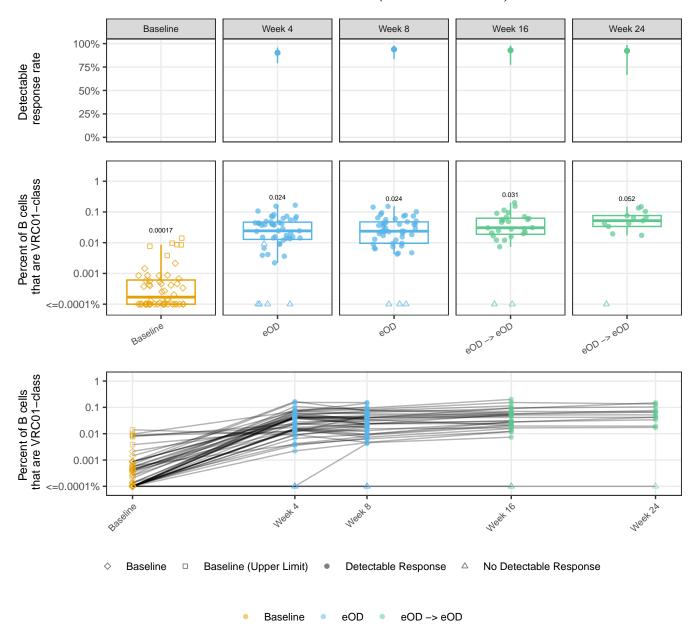


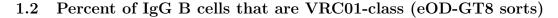
Figure 1: Percent of B cells that are VRC01-class (eOD-GT8 sorts). Detectable response rates are shown in the first row of plots (mean and 95 percent Wilson confidence interval). Response magnitudes are shown in the second row of plots: each marker represents one participant, and the boxplots indicate the median and interquartile range among participants (the median is also noted in text above the boxplot). Response magnitudes over time (i.e., kinetics) are shown in the third row of plots, with each line representing a single participant.

Table 1: Percent of B cells that are VRC01-class (eOD-GT8 sorts): differences in response rates over time, within groups. Hypothesis testing was done using McNemar's test for paired data (two-sided,  $\alpha = 0.05$ ) and p-values less than 0.05 are highlighted. P-values were not computed for insufficient sample sizes (less than three at either time point), or if response rates were identical.

Treatment	Week Comparison	Response Rates (95% Wilson CI)	P-value
	4 vs. 8	43/48 = 89.6% (77.8%, 95.5%) vs. $45/48 = 93.8%$ (83.2%, 97.9%)	0.480
	4 vs. 16	26/28 = 92.9% (77.4%, 98.0%)  vs.  25/28 = 89.3% (72.8%, 96.3%)	1.000
	4 vs. 24	11/12 = 91.7% (64.6%, 98.5%) vs. $10/12 = 83.3%$ (55.2%, 95.3%)	1.000
Any eOD	8 vs. 16	25/27 = 92.6% (76.6%, 97.9%) vs. $25/27 = 92.6%$ (76.6%, 97.9%)	_
Ally COD	8 vs. 24	12/13 = 92.3% (66.7%, 98.6%) vs. $12/13 = 92.3%$ (66.7%, 98.6%)	_
	16 vs. 24	10/11 = 90.9% (62.3%, 98.4%) vs. $10/11 = 90.9%$ (62.3%, 98.4%)	_

Table 2: Percent of B cells that are VRC01-class (eOD-GT8 sorts): differences in response magnitudes over time, within each group. Hypothesis testing was done using the Wilcoxon signed-rank test for paired data (two-sided,  $\alpha = 0.05$ ) and p-values less than 0.05 are highlighted. P-values are not computed for insufficient sample sizes (less than three paired data points).

Treatment	Week Comparison	Number of Pairs	Median (Range)	P-value
	-5 vs. 4	51	<b>0.000</b> [0.000, 0.014] vs. <b>0.024</b> [0.000, 0.166]	< 0.001
	-5 vs. 8	49	<b>0.000</b> [0.000, 0.014] vs. <b>0.024</b> [0.000, 0.152]	< 0.001
	-5 vs. 16	28	<b>0.000</b> [0.000, 0.014] vs. <b>0.031</b> [0.000, 0.201]	< 0.001
	-5 vs. 24	13	<b>0.000</b> [0.000, 0.014] vs. <b>0.052</b> [0.000, 0.149]	< 0.001
	4 vs. 8	48	<b>0.024</b> [0.000, 0.166] vs. <b>0.024</b> [0.000, 0.152]	0.811
	4 vs. 16	28	<b>0.024</b> [0.000, 0.166] vs. <b>0.031</b> [0.000, 0.201]	0.027
Any eOD	4 vs. 24	12	<b>0.032</b> [0.000, 0.107] vs. <b>0.054</b> [0.000, 0.149]	0.030
	8 vs. 16	27	<b>0.024</b> [0.000, 0.094] vs. <b>0.031</b> [0.000, 0.201]	< 0.001
	8 vs. 24	13	<b>0.040</b> [0.000, 0.082] vs. <b>0.052</b> [0.000, 0.149]	0.005
	16 vs. 24	11	<b>0.056</b> [0.000, 0.154] vs. <b>0.066</b> [0.000, 0.149]	0.160



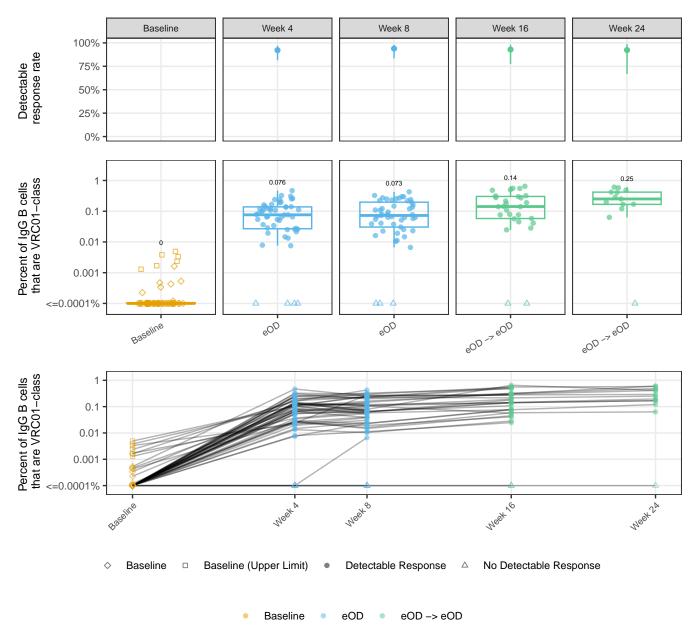


Figure 2: Percent of IgG B cells that are VRC01-class (eOD-GT8 sorts). Detectable response rates are shown in the first row of plots (mean and 95 percent Wilson confidence interval). Response magnitudes are shown in the second row of plots: each marker represents one participant, and the boxplots indicate the median and interquartile range among participants (the median is also noted in text above the boxplot). Response magnitudes over time (i.e., kinetics) are shown in the third row of plots, with each line representing a single participant.

Table 3: Percent of IgG B cells that are VRC01-class (eOD-GT8 sorts): differences in response rates over time, within groups. Hypothesis testing was done using McNemar's test for paired data (two-sided,  $\alpha = 0.05$ ) and p-values less than 0.05 are highlighted. P-values were not computed for insufficient sample sizes (less than three at either time point), or if response rates were identical.

Treatment	Week Comparison	Response Rates (95% Wilson CI)	P-value
	4 vs. 8	44/48 = 91.7% (80.4%, 96.7%) vs. $45/48 = 93.8%$ (83.2%, 97.9%)	1.000
	4 vs. 16	26/28 = 92.9% (77.4%, 98.0%)  vs.  26/28 = 92.9% (77.4%, 98.0%)	_
	4 vs. 24	11/12 = 91.7% (64.6%, 98.5%) vs. $11/12 = 91.7%$ (64.6%, 98.5%)	_
Any eOD	8 vs. 16	25/27 = 92.6% (76.6%, 97.9%) vs. $25/27 = 92.6%$ (76.6%, 97.9%)	_
Ally COD	8 vs. 24	12/13 = 92.3% (66.7%, 98.6%) vs. $12/13 = 92.3%$ (66.7%, 98.6%)	_
	16 vs. 24	10/11 = 90.9% (62.3%, 98.4%) vs. $10/11 = 90.9%$ (62.3%, 98.4%)	_

Table 4: Percent of IgG B cells that are VRC01-class (eOD-GT8 sorts): differences in response magnitudes over time, within each group. Hypothesis testing was done using the Wilcoxon signed-rank test for paired data (two-sided,  $\alpha = 0.05$ ) and p-values less than 0.05 are highlighted. P-values are not computed for insufficient sample sizes (less than three paired data points).

Treatment	Week Comparison	Number of Pairs	Median (Range)	P-value
	-5 vs. 4	51	<b>0.000</b> [0.000, 0.005] vs. <b>0.076</b> [0.000, 0.467]	< 0.001
	-5 vs. 8	49	<b>0.000</b> [0.000, 0.005] vs. <b>0.073</b> [0.000, 0.427]	< 0.001
	-5 vs. 16	28	<b>0.000</b> [0.000, 0.005] vs. <b>0.142</b> [0.000, 0.648]	< 0.001
	-5 vs. 24	13	<b>0.000</b> [0.000, 0.002] vs. <b>0.250</b> [0.000, 0.606]	< 0.001
	4 vs. 8	48	<b>0.076</b> [0.000, 0.467] vs. <b>0.070</b> [0.000, 0.427]	0.207
	4 vs. 16	28	<b>0.076</b> [0.000, 0.467] vs. <b>0.142</b> [0.000, 0.648]	< 0.001
Any eOD	4 vs. 24	12	<b>0.081</b> [0.000, 0.307] vs. <b>0.223</b> [0.000, 0.606]	< 0.001
	8 vs. 16	27	<b>0.067</b> [0.000, 0.325] vs. <b>0.144</b> [0.000, 0.648]	< 0.001
	8 vs. 24	13	<b>0.120</b> [0.000, 0.272] vs. <b>0.250</b> [0.000, 0.606]	< 0.001
	16 vs. 24	11	<b>0.215</b> [0.000, 0.648] vs. <b>0.250</b> [0.000, 0.606]	0.047

### 1.3 Percent of antigen-specific IgG B cells that are VRC01-class (eOD-GT8 sorts)

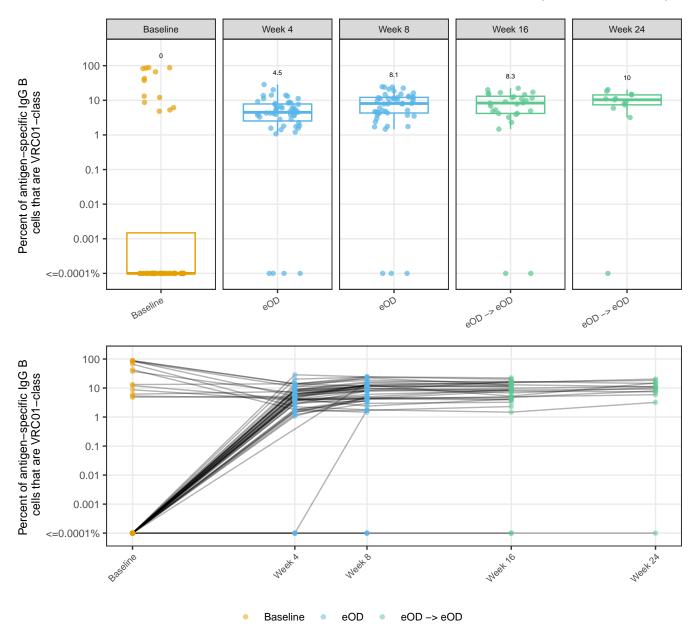


Figure 3: Percent of antigen-specific IgG B cells that are VRC01-class (eOD-GT8 sorts). Response magnitudes are shown in the first row of plots: each marker represents one participant, and the boxplots indicate the median and interquartile range among participants (the median is also noted in text above the boxplot). Response magnitudes over time (i.e., kinetics) are shown in the second row of plots, with each line representing a single participant.

Table 5: Percent of antigen-specific IgG B cells that are VRC01-class (eOD-GT8 sorts): differences in response magnitudes over time, within each group. Hypothesis testing was done using the Wilcoxon signed-rank test for paired data (two-sided,  $\alpha = 0.05$ ) and p-values less than 0.05 are highlighted. P-values are not computed for insufficient sample sizes (less than three paired data points).

Treatment	Week Comparison	Number of Pairs	Median (Range)	P-value
	-5 vs. 4	51	<b>0.000</b> [0.000, 88.000] vs. <b>4.496</b> [0.000, 28.621]	0.017
	-5 vs. 8	49	<b>0.000</b> [0.000, 88.000] vs. <b>8.084</b> [0.000, 24.573]	0.011
	-5 vs. 16	28	<b>0.000</b> [0.000, 82.927] vs. <b>8.317</b> [0.000, 22.328]	0.039
	-5 vs. 24	13	<b>0.000</b> [0.000, 66.667] vs. <b>10.335</b> [0.000, 20.390]	0.660
	4 vs. 8	48	<b>4.578</b> [0.000, 28.621] vs. <b>7.979</b> [0.000, 24.573]	< 0.001
	4 vs. 16	28	<b>4.913</b> [0.000, 28.621] vs. <b>8.317</b> [0.000, 22.328]	0.001
Any eOD	4 vs. 24	12	<b>4.639</b> [0.000, 13.200] vs. <b>9.755</b> [0.000, 20.390]	< 0.001
	8 vs. 16	27	<b>8.501</b> [0.000, 24.225] vs. <b>8.393</b> [0.000, 22.328]	0.670
	8 vs. 24	13	<b>8.084</b> [0.000, 18.582] vs. <b>10.335</b> [0.000, 20.390]	0.015
	16 vs. 24	11	<b>6.765</b> [0.000, 16.688] vs. <b>10.335</b> [0.000, 20.390]	0.027

### 1.4 Percent of CD4bs-specific IgG B cells that are VRC01-class (eOD-GT8 sorts)

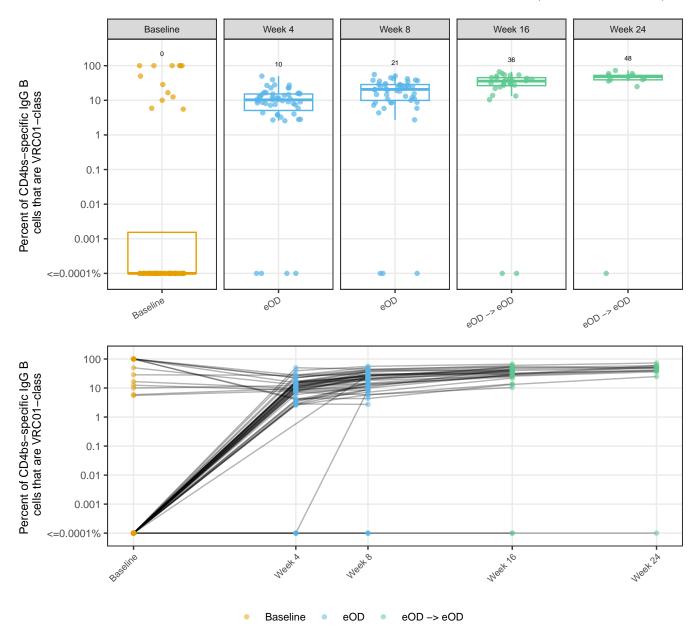


Figure 4: Percent of CD4bs-specific IgG B cells that are VRC01-class (eOD-GT8 sorts). Response magnitudes are shown in the first row of plots: each marker represents one participant, and the boxplots indicate the median and interquartile range among participants (the median is also noted in text above the boxplot). Response magnitudes over time (i.e., kinetics) are shown in the second row of plots, with each line representing a single participant.

Table 6: Percent of CD4bs-specific IgG B cells that are VRC01-class (eOD-GT8 sorts): differences in response magnitudes over time, within each group. Hypothesis testing was done using the Wilcoxon signed-rank test for paired data (two-sided,  $\alpha = 0.05$ ) and p-values less than 0.05 are highlighted. P-values are not computed for insufficient sample sizes (less than three paired data points).

Treatment	Week Comparison	Number of Pairs	Median (Range)	P-value
	-5 vs. 4	51	<b>0.000</b> [0.000, 100.000] vs. <b>10.294</b> [0.000, 50.000]	0.007
	-5 vs. 8	49	<b>0.000</b> [0.000, 100.000] vs. <b>20.617</b> [0.000, 55.714]	0.003
	-5 vs. 16	28	<b>0.000</b> [0.000, 100.000] vs. <b>35.903</b> [0.000, 66.549]	0.006
	-5 vs. 24	13	<b>0.000</b> [0.000, 100.000] vs. <b>48.208</b> [0.000, 72.887]	0.203
	4 vs. 8	48	<b>10.011</b> [0.000, 50.000] vs. <b>20.428</b> [0.000, 55.714]	< 0.001
	4 vs. 16	28	<b>10.380</b> [0.000, 50.000] vs. <b>35.903</b> [0.000, 66.549]	< 0.001
Any eOD	4 vs. 24	12	<b>9.721</b> [0.000, 26.869] vs. <b>48.436</b> [0.000, 72.887]	< 0.001
	8 vs. 16	27	<b>21.123</b> [0.000, 55.714] vs. <b>36.667</b> [0.000, 66.549]	< 0.001
	8 vs. 24	13	<b>20.239</b> [0.000, 42.065] vs. <b>48.208</b> [0.000, 72.887]	< 0.001
	16 vs. 24	11	<b>30.639</b> [0.000, 60.050] vs. <b>48.664</b> [0.000, 72.887]	0.004

### 1.5 Percent of IgG B cells that are antigen-specific (eOD-GT8 sorts)

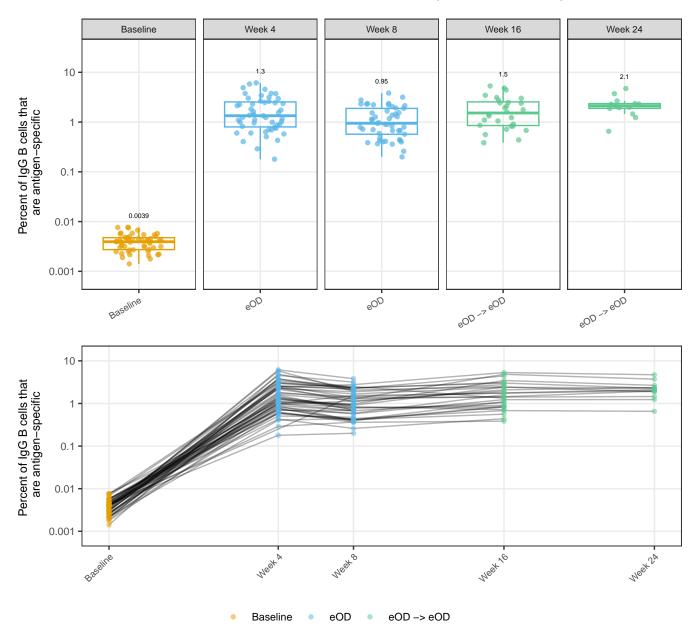


Figure 5: Percent of IgG B cells that are antigen-specific (eOD-GT8 sorts). Response magnitudes are shown in the first row of plots: each marker represents one participant, and the boxplots indicate the median and interquartile range among participants (the median is also noted in text above the boxplot). Response magnitudes over time (i.e., kinetics) are shown in the second row of plots, with each line representing a single participant.

Table 7: Percent of IgG B cells that are antigen-specific (eOD-GT8 sorts): differences in response magnitudes over time, within each group. Hypothesis testing was done using the Wilcoxon signed-rank test for paired data (two-sided,  $\alpha = 0.05$ ) and p-values less than 0.05 are highlighted. P-values are not computed for insufficient sample sizes (less than three paired data points).

Treatment	Week Comparison	Number of Pairs	Median (Range)	P-value
	-5 vs. 4	51	<b>0.004</b> [0.001, 0.008] vs. <b>1.340</b> [0.179, 6.139]	< 0.001
	-5 vs. 8	49	<b>0.004</b> [0.001, 0.008] vs. <b>0.946</b> [0.200, 3.817]	< 0.001
	-5 vs. 16	28	<b>0.004</b> [0.002, 0.008] vs. <b>1.524</b> [0.385, 5.313]	< 0.001
	-5 vs. 24	13	<b>0.003</b> [0.002, 0.008] vs. <b>2.117</b> [0.653, 4.720]	< 0.001
	4 vs. 8	48	<b>1.294</b> [0.179, 6.139] vs. <b>0.927</b> [0.200, 3.817]	< 0.001
	4 vs. 16	28	<b>1.241</b> [0.406, 3.774] vs. <b>1.524</b> [0.385, 5.313]	0.210
Any eOD	4 vs. 24	12	<b>1.984</b> [0.406, 3.764] vs. <b>2.196</b> [0.653, 4.720]	0.233
	8 vs. 16	27	<b>0.908</b> [0.259, 2.765] vs. <b>1.605</b> [0.385, 5.313]	< 0.001
	8 vs. 24	13	<b>1.282</b> [0.444, 2.765] vs. <b>2.117</b> [0.653, 4.720]	< 0.001
	16 vs. 24	11	<b>2.396</b> [0.681, 5.313] vs. <b>2.274</b> [0.653, 4.720]	0.147

### 1.6 Percent of IgG B cells that are CD4bs-specific (eOD-GT8 sorts)

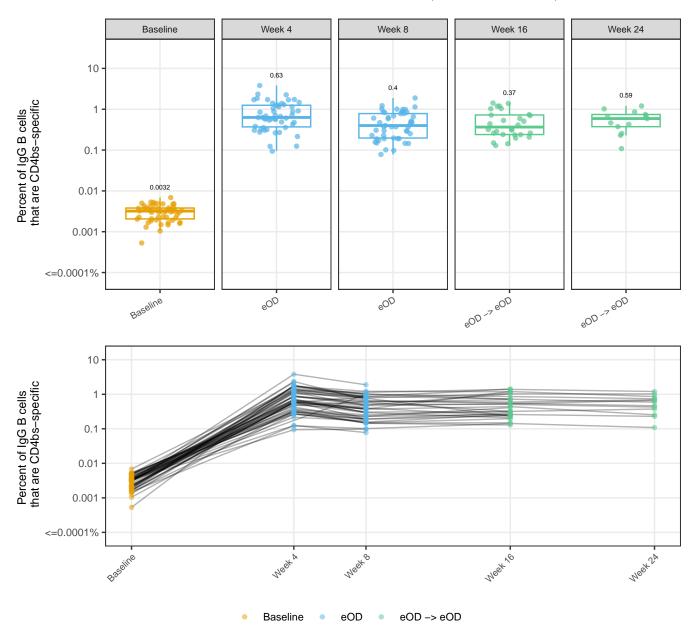


Figure 6: Percent of IgG B cells that are CD4bs-specific (eOD-GT8 sorts). Response magnitudes are shown in the first row of plots: each marker represents one participant, and the boxplots indicate the median and interquartile range among participants (the median is also noted in text above the boxplot). Response magnitudes over time (i.e., kinetics) are shown in the second row of plots, with each line representing a single participant.

Table 8: Percent of IgG B cells that are CD4bs-specific (eOD-GT8 sorts): differences in response magnitudes over time, within each group. Hypothesis testing was done using the Wilcoxon signed-rank test for paired data (two-sided,  $\alpha = 0.05$ ) and p-values less than 0.05 are highlighted. P-values are not computed for insufficient sample sizes (less than three paired data points).

Treatment	Week Comparison	Number of Pairs	Median (Range)	P-value
	-5 vs. 4	51	<b>0.003</b> [0.001, 0.007] vs. <b>0.630</b> [0.094, 3.812]	< 0.001
	-5 vs. 8	49	<b>0.003</b> [0.001, 0.007] vs. <b>0.399</b> [0.078, 1.887]	< 0.001
	-5 vs. 16	28	<b>0.003</b> [0.001, 0.005] vs. <b>0.368</b> [0.129, 1.419]	< 0.001
	-5 vs. 24	13	<b>0.002</b> [0.001, 0.005] vs. <b>0.591</b> [0.109, 1.204]	< 0.001
	4 vs. 8	48	<b>0.629</b> [0.094, 3.812] vs. <b>0.389</b> [0.078, 1.887]	< 0.001
	4 vs. 16	28	<b>0.629</b> [0.123, 1.735] vs. <b>0.368</b> [0.129, 1.419]	0.005
Any eOD	4 vs. 24	12	<b>0.872</b> [0.123, 1.735] vs. <b>0.527</b> [0.109, 1.204]	0.021
	8 vs. 16	27	<b>0.373</b> [0.101, 1.221] vs. <b>0.410</b> [0.129, 1.419]	0.086
	8 vs. 24	13	<b>0.516</b> [0.101, 1.138] vs. <b>0.591</b> [0.109, 1.204]	0.893
	16 vs. 24	11	<b>0.532</b> [0.143, 1.388] vs. <b>0.591</b> [0.109, 1.204]	0.206

#### 1.7 Percent of antigen-specific IgG B cells that are CD4bs-specific (eOD-GT8 sorts)

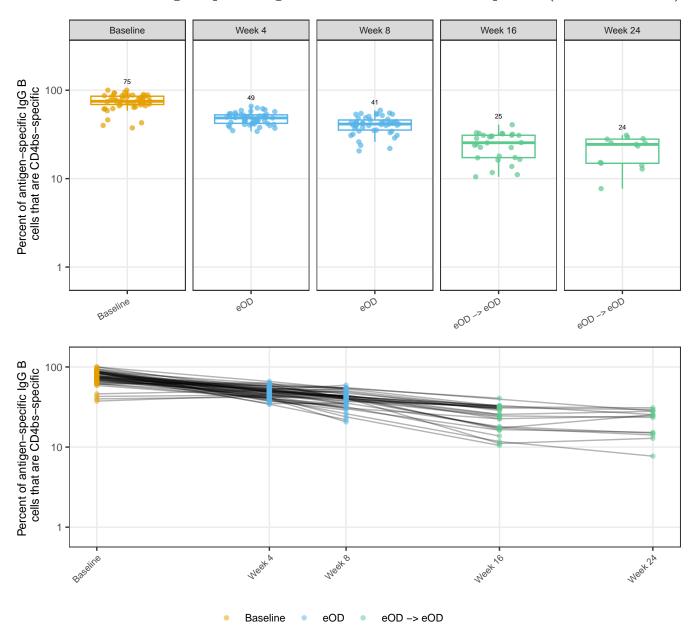


Figure 7: Percent of antigen-specific IgG B cells that are CD4bs-specific (eOD-GT8 sorts). Response magnitudes are shown in the first row of plots: each marker represents one participant, and the boxplots indicate the median and interquartile range among participants (the median is also noted in text above the boxplot). Response magnitudes over time (i.e., kinetics) are shown in the second row of plots, with each line representing a single participant.

Table 9: Percent of antigen-specific IgG B cells that are CD4bs-specific (eOD-GT8 sorts): differences in response magnitudes over time, within each group. Hypothesis testing was done using the Wilcoxon signed-rank test for paired data (two-sided,  $\alpha = 0.05$ ) and p-values less than 0.05 are highlighted. P-values are not computed for insufficient sample sizes (less than three paired data points).

Treatment	Week Comparison	Number of Pairs	Median (Range)	P-value
	-5 vs. 4	51	<b>75.000</b> [37.500, 100.000] vs. <b>48.555</b> [34.267, 65.871]	< 0.001
	-5 vs. 8	49	<b>76.923</b> [37.500, 100.000] vs. <b>41.441</b> [20.608, 59.298]	< 0.001
	-5 vs. 16	28	<b>72.556</b> [40.000, 100.000] vs. <b>25.472</b> [10.485, 40.699]	< 0.001
	-5 vs. 24	13	<b>66.667</b> [40.000, 84.615] vs. <b>24.397</b> [7.703, 30.912]	< 0.001
	4 vs. 8	48	<b>48.754</b> [34.267, 65.871] vs. <b>41.417</b> [20.608, 59.298]	< 0.001
	4 vs. 16	28	<b>49.353</b> [38.358, 63.055] vs. <b>25.472</b> [10.485, 40.699]	< 0.001
Any eOD	4 vs. 24	12	<b>48.790</b> [39.833, 63.055] vs. <b>23.909</b> [7.703, 30.912]	< 0.001
	8 vs. 16	27	<b>40.887</b> [23.830, 54.150] vs. <b>25.559</b> [10.485, 40.699]	< 0.001
	8 vs. 24	13	<b>41.441</b> [26.067, 55.263] vs. <b>24.397</b> [7.703, 30.912]	< 0.001
	16 vs. 24	11	<b>18.009</b> [11.088, 31.734] vs. <b>23.420</b> [7.703, 30.912]	0.765

# 2 Figures and Tables: Core-g28v2 Immunogen

#### 2.1 Percent of B cells that are VRC01-class (Core-g28v2 sorts)

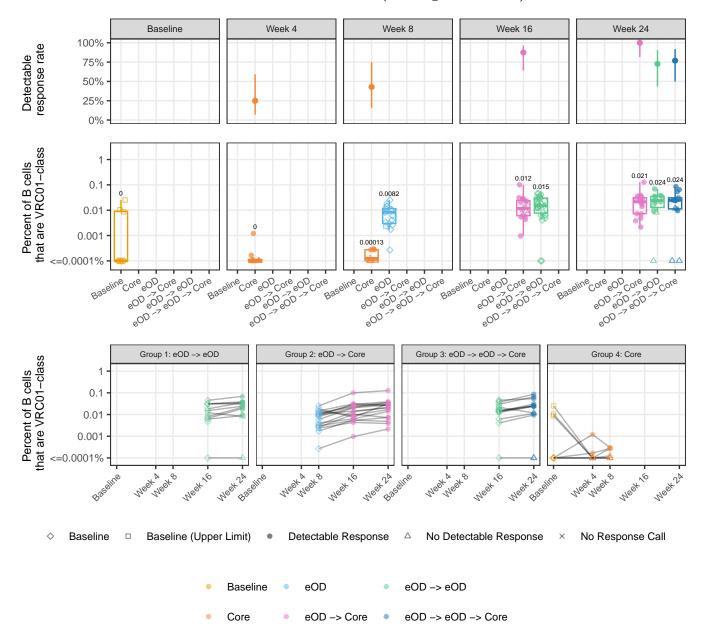


Figure 8: Percent of B cells that are VRC01-class (Core-g28v2 sorts). Detectable response rates are shown in the first row of plots (mean and 95 percent Wilson confidence interval). Response magnitudes are shown in the second row of plots: each marker represents one participant, and the boxplots indicate the median and interquartile range among participants (the median is also noted in text above the boxplot). Response magnitudes over time (i.e., kinetics) are shown in the third row of plots, with each line representing a single participant.

Table 10: Percent of B cells that are VRC01-class (Core-g28v2 sorts): differences in response rates between groups. Hypothesis testing was done using Barnard's exact test (two-sided,  $\alpha = 0.05$ ) and p-values less than 0.05 are highlighted. P-values were not computed for insufficient sample sizes (less than three in either group), or if observed response rates were identical.

Time Point	Comparison	Response Rates (95% Wilson CI)	P-value
	$eOD \rightarrow Core vs. eOD \rightarrow eOD$	17/17 = 100.0% (81.6%, 100.0%) vs. $8/11 = 72.7%$ (43.4%, 90.3%)	0.023
Week 24	$\mathrm{eOD} \to \mathrm{Core} \ \mathrm{vs.} \ \mathrm{eOD} \to \mathrm{eOD} \to \mathrm{Core}$	17/17 = 100.0% (81.6%, 100.0%) vs. $10/13 = 76.9%$ (49.7%, 91.8%)	0.045
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	$\mathrm{eOD} \rightarrow \mathrm{eOD}$ vs. $\mathrm{eOD} \rightarrow \mathrm{eOD} \rightarrow \mathrm{Core}$	8/11 = 72.7% (43.4%, 90.3%) vs. $10/13 = 76.9%$ (49.7%, 91.8%)	0.852
	Core vs. eOD $\rightarrow$ Core	3/7 = 42.9% (15.8%, 75.0%) vs. $14/16 = 87.5%$ (64.0%, 96.5%)	0.027
8 weeks	Core vs. $eOD \rightarrow eOD \rightarrow Core$	3/7 = 42.9% (15.8%, 75.0%) vs. $10/13 = 76.9%$ (49.7%, 91.8%)	0.144
post-Core	$\mathrm{eOD} \to \mathrm{Core} \ \mathrm{vs.} \ \mathrm{eOD} \to \mathrm{eOD} \to \mathrm{Core}$	14/16 = 87.5% (64.0%, 96.5%) vs. $10/13 = 76.9%$ (49.7%, 91.8%)	0.598

Table 11: Percent of B cells that are VRC01-class (Core-g28v2 sorts): differences in response rates over time, within groups. Hypothesis testing was done using McNemar's test for paired data (two-sided,  $\alpha = 0.05$ ) and p-values less than 0.05 are highlighted. P-values were not computed for insufficient sample sizes (less than three at either time point), or if response rates were identical.

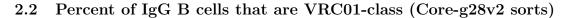
Treatment	Week Comparison	Response Rates (95% Wilson CI)	P-value
Core	4 vs. 8	2/7 = 28.6% (8.2%, 64.1%) vs. $3/7 = 42.9%$ (15.8%, 75.0%)	1.000
$eOD \rightarrow Core$	16 vs. 24	14/16 = 87.5% (64.0%, 96.5%) vs. $16/16 = 100.0%$ (80.6%, 100.0%)	0.480

Table 12: Percent of B cells that are VRC01-class (Core-g28v2 sorts): differences in response magnitudes between groups. Hypothesis testing was done using the Wilcoxon rank-sum test (two-sided,  $\alpha = 0.05$ ) and p-values less than 0.05 are highlighted. P-values are not computed for insufficient sample sizes (less than three in either group).

Time Point	Comparison	Sample Sizes	Median (Range)	P-value
Week 8	Core vs. eOD	7 vs. 17	<b>0.000</b> [0.000, 0.000] vs. <b>0.008</b> [0.000, 0.025]	< 0.001
Week 16	$eOD \rightarrow Core vs. eOD \rightarrow eOD$	16 vs. 28	<b>0.012</b> [0.001, 0.100] vs. <b>0.015</b> [0.000, 0.046]	0.550
	$eOD \rightarrow Core vs. eOD \rightarrow eOD$	17 vs. 13	<b>0.021</b> [0.002, 0.127] vs. <b>0.024</b> [0.000, 0.069]	0.536
Week 24	$\mathrm{eOD} \to \mathrm{Core} \ \mathrm{vs.} \ \mathrm{eOD} \to \mathrm{eOD} \to \mathrm{Core}$	17 vs. 13	<b>0.021</b> [0.002, 0.127] vs. <b>0.024</b> [0.000, 0.086]	0.991
Week 21	$\mathrm{eOD} \to \mathrm{eOD}$ vs. $\mathrm{eOD} \to \mathrm{eOD} \to \mathrm{Core}$	13 vs. 13	<b>0.024</b> [0.000, 0.069] vs. <b>0.024</b> [0.000, 0.086]	0.880
prior to Core dose	eOD vs. eOD $\rightarrow$ eOD	17 vs. 16	<b>0.008</b> [0.000, 0.025] vs. <b>0.016</b> [0.000, 0.046]	0.005
	Core vs. $eOD \rightarrow Core$	7 vs. 16	<b>0.000</b> [0.000, 0.000] vs. <b>0.012</b> [0.001, 0.100]	< 0.001
8 weeks post-Core	Core vs. $eOD \rightarrow eOD \rightarrow Core$	7 vs. 13	<b>0.000</b> [0.000, 0.000] vs. <b>0.024</b> [0.000, 0.086]	0.004
ocomb post core	$\mathrm{eOD} \to \mathrm{Core} \ \mathrm{vs.} \ \mathrm{eOD} \to \mathrm{eOD} \to \mathrm{Core}$	16 vs. 13	<b>0.012</b> [0.001, 0.100] vs. <b>0.024</b> [0.000, 0.086]	0.263

Table 13: Percent of B cells that are VRC01-class (Core-g28v2 sorts): differences in response magnitudes over time, within each group. Hypothesis testing was done using the Wilcoxon signed-rank test for paired data (two-sided,  $\alpha=0.05$ ) and p-values less than 0.05 are highlighted. P-values are not computed for insufficient sample sizes (less than three paired data points).

Treatment	Week Comparison	Number of Pairs	Median (Range)	P-value
Core	4 vs. 8	7	<b>0.000</b> [0.000, 0.001] vs. <b>0.000</b> [0.000, 0.000]	0.625
$eOD \rightarrow Core$	16 vs. 24	16	<b>0.012</b> [0.001, 0.100] vs. <b>0.024</b> [0.002, 0.127]	0.009
$eOD \rightarrow eOD$	16 vs. 24	11	<b>0.015</b> [0.000, 0.045] vs. <b>0.024</b> [0.000, 0.069]	0.016



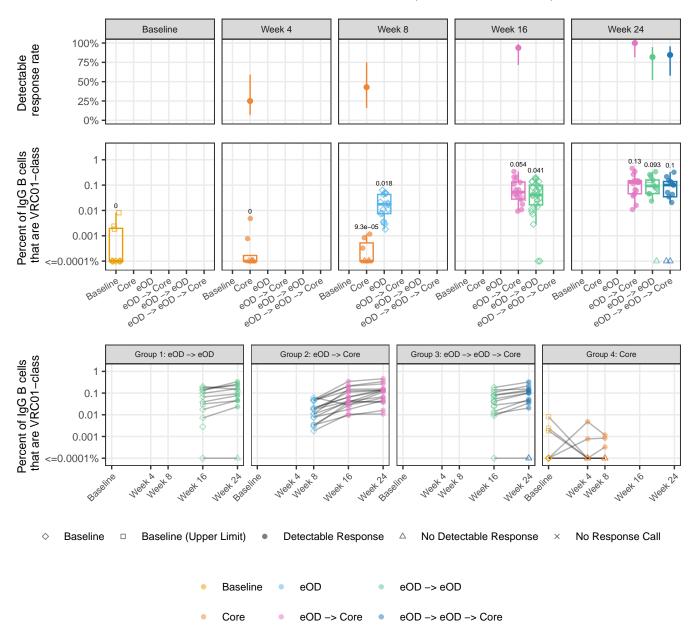


Figure 9: Percent of IgG B cells that are VRC01-class (Core-g28v2 sorts). Detectable response rates are shown in the first row of plots (mean and 95 percent Wilson confidence interval). Response magnitudes are shown in the second row of plots: each marker represents one participant, and the boxplots indicate the median and interquartile range among participants (the median is also noted in text above the boxplot). Response magnitudes over time (i.e., kinetics) are shown in the third row of plots, with each line representing a single participant.

Table 14: Percent of IgG B cells that are VRC01-class (Core-g28v2 sorts): differences in response rates between groups. Hypothesis testing was done using Barnard's exact test (two-sided,  $\alpha = 0.05$ ) and p-values less than 0.05 are highlighted. P-values were not computed for insufficient sample sizes (less than three in either group), or if observed response rates were identical.

Time Point	Comparison	Response Rates (95% Wilson CI)	P-value
	$eOD \rightarrow Core vs. eOD \rightarrow eOD$	17/17 = 100.0% (81.6%, 100.0%) vs. $9/11 = 81.8%$ (52.3%, 94.9%)	0.079
Week 24	$\mathrm{eOD} \to \mathrm{Core} \ \mathrm{vs.} \ \mathrm{eOD} \to \mathrm{eOD} \to \mathrm{Core}$	17/17 = 100.0% (81.6%, 100.0%) vs. $11/13 = 84.6%$ (57.8%, 95.7%)	0.118
Week 24	$\mathrm{eOD} \to \mathrm{eOD}$ vs. $\mathrm{eOD} \to \mathrm{eOD} \to \mathrm{Core}$	9/11 = 81.8% (52.3%, 94.9%) vs. $11/13 = 84.6%$ (57.8%, 95.7%)	0.957
	Core vs. $eOD \rightarrow Core$	3/7 = 42.9% (15.8%, 75.0%) vs. $15/16 = 93.8%$ (71.7%, 98.9%)	0.009
8 weeks	Core vs. $eOD \rightarrow eOD \rightarrow Core$	3/7 = 42.9% (15.8%, 75.0%) vs. $11/13 = 84.6%$ (57.8%, 95.7%)	0.064
post-Core	$\mathrm{eOD} \to \mathrm{Core} \ \mathrm{vs.} \ \mathrm{eOD} \to \mathrm{eOD} \to \mathrm{Core}$	15/16 = 93.8% (71.7%, 98.9%) vs. $11/13 = 84.6%$ (57.8%, 95.7%)	0.585

Table 15: Percent of IgG B cells that are VRC01-class (Core-g28v2 sorts): differences in response rates over time, within groups. Hypothesis testing was done using McNemar's test for paired data (two-sided,  $\alpha = 0.05$ ) and p-values less than 0.05 are highlighted. P-values were not computed for insufficient sample sizes (less than three at either time point), or if response rates were identical.

Treatment	Week Comparison	Response Rates (95% Wilson CI)	
Core	4 vs. 8	2/7 = 28.6% (8.2%, 64.1%) vs. $3/7 = 42.9%$ (15.8%, 75.0%)	1.000
$eOD \rightarrow Core$	16 vs. 24	15/16 = 93.8% (71.7%, 98.9%)  vs.  16/16 = 100.0% (80.6%, 100.0%)	1.000

Table 16: Percent of IgG B cells that are VRC01-class (Core-g28v2 sorts): differences in response magnitudes between groups. Hypothesis testing was done using the Wilcoxon rank-sum test (two-sided,  $\alpha = 0.05$ ) and p-values less than 0.05 are highlighted. P-values are not computed for insufficient sample sizes (less than three in either group).

Time Point	Comparison	Sample Sizes	Median (Range)	P-value
Week 8	Core vs. eOD	7 vs. 17	<b>0.000</b> [0.000, 0.001] vs. <b>0.018</b> [0.002, 0.063]	< 0.001
Week 16	eOD $\rightarrow$ Core vs. eOD $\rightarrow$ eOD	16 vs. 28	<b>0.054</b> [0.009, 0.344] vs. <b>0.041</b> [0.000, 0.199]	0.349
	eOD $\rightarrow$ Core vs. eOD $\rightarrow$ eOD	17 vs. 13	<b>0.127</b> [0.011, 0.458] vs. <b>0.093</b> [0.000, 0.338]	0.934
Week 24	$eOD \rightarrow Core \ vs. \ eOD \rightarrow eOD \rightarrow Core$	17 vs. 13	<b>0.127</b> [0.011, 0.458] vs. <b>0.101</b> [0.000, 0.323]	0.379
	$eOD \rightarrow eOD$ vs. $eOD \rightarrow eOD \rightarrow Core$	13 vs. 13	<b>0.093</b> [0.000, 0.338] vs. <b>0.101</b> [0.000, 0.323]	0.479
prior to Core dose	eOD vs. eOD $\rightarrow$ eOD	17 vs. 16	<b>0.018</b> [0.002, 0.063] vs. <b>0.041</b> [0.000, 0.181]	0.021
	Core vs. $eOD \rightarrow Core$	7 vs. 16	<b>0.000</b> [0.000, 0.001] vs. <b>0.054</b> [0.009, 0.344]	< 0.001
8 weeks post-Core	Core vs. $eOD \rightarrow eOD \rightarrow Core$	7 vs. 13	<b>0.000</b> [0.000, 0.001] vs. <b>0.101</b> [0.000, 0.323]	0.004
	$\mathrm{eOD} \to \mathrm{Core} \ \mathrm{vs.} \ \mathrm{eOD} \to \mathrm{eOD} \to \mathrm{Core}$	16 vs. 13	<b>0.054</b> [0.009, 0.344] vs. <b>0.101</b> [0.000, 0.323]	0.803

Table 17: Percent of IgG B cells that are VRC01-class (Core-g28v2 sorts): differences in response magnitudes over time, within each group. Hypothesis testing was done using the Wilcoxon signed-rank test for paired data (two-sided,  $\alpha = 0.05$ ) and p-values less than 0.05 are highlighted. P-values are not computed for insufficient sample sizes (less than three paired data points).

Treatment	Week Comparison	Number of Pairs	Median (Range)	P-value
Core	4 vs. 8	7	<b>0.000</b> [0.000, 0.005] vs. <b>0.000</b> [0.000, 0.001]	0.625
$eOD \rightarrow Core$	16 vs. 24	16	<b>0.054</b> [0.009, 0.344] vs. <b>0.120</b> [0.011, 0.458]	< 0.001
$eOD \rightarrow eOD$	16 vs. 24	11	<b>0.066</b> [0.000, 0.199] vs. <b>0.093</b> [0.000, 0.338]	0.021

### 2.3 Percent of antigen-specific IgG B cells that are VRC01-class (Core-g28v2 sorts)

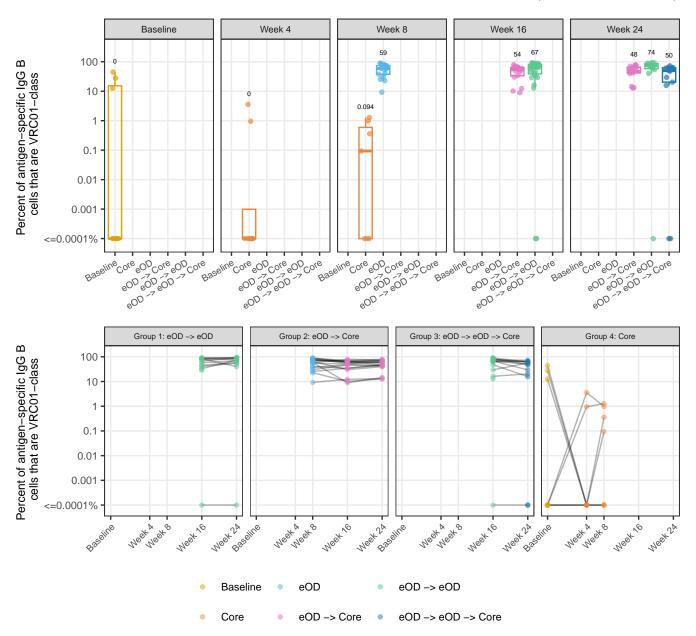


Figure 10: Percent of antigen-specific IgG B cells that are VRC01-class (Core-g28v2 sorts). Response magnitudes are shown in the first row of plots: each marker represents one participant, and the boxplots indicate the median and interquartile range among participants (the median is also noted in text above the boxplot). Response magnitudes over time (i.e., kinetics) are shown in the second row of plots, with each line representing a single participant.

Table 18: Percent of antigen-specific IgG B cells that are VRC01-class (Core-g28v2 sorts): differences in response magnitudes between groups. Hypothesis testing was done using the Wilcoxon rank-sum test (two-sided,  $\alpha = 0.05$ ) and p-values less than 0.05 are highlighted. P-values are not computed for insufficient sample sizes (less than three in either group).

Time Point	Comparison	Sample Sizes	Median (Range)	P-value
Week 8	Core vs. eOD	7 vs. 17	<b>0.094</b> [0.000, 1.282] vs. <b>59.091</b> [9.220, 90.000]	< 0.001
Week 16	$eOD \rightarrow Core vs. eOD \rightarrow eOD$	16 vs. 28	<b>54.165</b> [8.923, 79.470] vs. <b>67.208</b> [0.000, 92.451]	0.094
	$eOD \rightarrow Core vs. eOD \rightarrow eOD$	17 vs. 13	<b>47.538</b> [12.738, 79.619] vs. <b>73.717</b> [0.000, 93.112]	0.022
Week 24	$eOD \rightarrow Core vs. eOD \rightarrow eOD \rightarrow Core$	17 vs. 13	<b>47.538</b> [12.738, 79.619] vs. <b>49.853</b> [0.000, 72.619]	0.613
Week 21	$\mathrm{eOD} \to \mathrm{eOD}$ vs. $\mathrm{eOD} \to \mathrm{eOD} \to \mathrm{Core}$	13 vs. 13	<b>73.717</b> [0.000, 93.112] vs. <b>49.853</b> [0.000, 72.619]	0.007
prior to Core dose	eOD vs. eOD $\rightarrow$ eOD	17 vs. 16	<b>59.091</b> [9.220, 90.000] vs. <b>67.393</b> [0.000, 90.261]	0.657
	Core vs. $eOD \rightarrow Core$	7 vs. 16	<b>0.094</b> [0.000, 1.282] vs. <b>54.165</b> [8.923, 79.470]	< 0.001
8 weeks post-Core	Core vs. $eOD \rightarrow eOD \rightarrow Core$	7 vs. 13	<b>0.094</b> [0.000, 1.282] vs. <b>49.853</b> [0.000, 72.619]	0.004
o meene post core	$\mathrm{eOD} \to \mathrm{Core} \ \mathrm{vs.} \ \mathrm{eOD} \to \mathrm{eOD} \to \mathrm{Core}$	16 vs. 13	<b>54.165</b> [8.923, 79.470] vs. <b>49.853</b> [0.000, 72.619]	0.495

Table 19: Percent of antigen-specific IgG B cells that are VRC01-class (Core-g28v2 sorts): differences in response magnitudes over time, within each group. Hypothesis testing was done using the Wilcoxon signed-rank test for paired data (two-sided,  $\alpha = 0.05$ ) and p-values less than 0.05 are highlighted. P-values are not computed for insufficient sample sizes (less than three paired data points).

Treatment	Week Comparison	Number of Pairs	Median (Range)	P-value
Core	4 vs. 8	7	<b>0.000</b> [0.000, 3.572] vs. <b>0.094</b> [0.000, 1.282]	0.625
$eOD \rightarrow Core$	16 vs. 24	16	<b>54.165</b> [8.923, 79.470] vs. <b>52.143</b> [12.738, 79.619]	0.274
$eOD \rightarrow eOD$	16 vs. 24	11	<b>67.293</b> [0.000, 92.451] vs. <b>73.717</b> [0.000, 93.112]	0.299

### 2.4 Percent of CD4bs-specific IgG B cells that are VRC01-class (Core-g28v2 sorts)

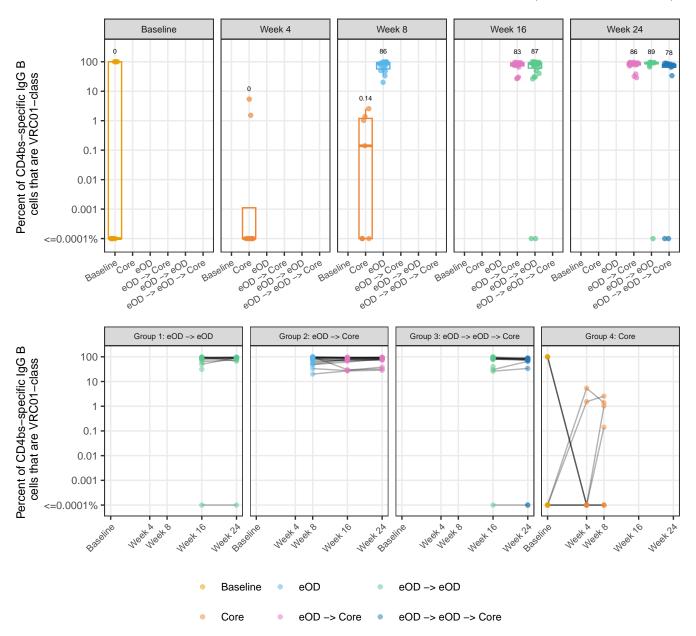


Figure 11: Percent of CD4bs-specific IgG B cells that are VRC01-class (Core-g28v2 sorts). Response magnitudes are shown in the first row of plots: each marker represents one participant, and the boxplots indicate the median and interquartile range among participants (the median is also noted in text above the boxplot). Response magnitudes over time (i.e., kinetics) are shown in the second row of plots, with each line representing a single participant.

Table 20: Percent of CD4bs-specific IgG B cells that are VRC01-class (Core-g28v2 sorts): differences in response magnitudes between groups. Hypothesis testing was done using the Wilcoxon rank-sum test (two-sided,  $\alpha = 0.05$ ) and p-values less than 0.05 are highlighted. P-values are not computed for insufficient sample sizes (less than three in either group).

Time Point	Comparison	Sample Sizes	Median (Range)	P-value
Week 8	Core vs. eOD	7 vs. 17	<b>0.141</b> [0.000, 2.548] vs. <b>85.714</b> [20.000, 100.000]	< 0.001
Week 16	$eOD \rightarrow Core vs. eOD \rightarrow eOD$	16 vs. 28	<b>83.457</b> [26.852, 96.667] vs. <b>86.794</b> [0.000, 100.000]	0.777
	$eOD \rightarrow Core vs. eOD \rightarrow eOD$	17 vs. 13	<b>85.556</b> [28.736, 96.162] vs. <b>89.404</b> [0.000, 96.296]	0.341
Week 24	$\mathrm{eOD} \to \mathrm{Core} \ \mathrm{vs.} \ \mathrm{eOD} \to \mathrm{eOD} \to \mathrm{Core}$	17 vs. 13	<b>85.556</b> [28.736, 96.162] vs. <b>77.689</b> [0.000, 89.224]	0.077
Week 21	$\mathrm{eOD} \to \mathrm{eOD}$ vs. $\mathrm{eOD} \to \mathrm{eOD} \to \mathrm{Core}$	13 vs. 13	<b>89.404</b> [0.000, 96.296] vs. <b>77.689</b> [0.000, 89.224]	0.009
prior to Core dose	eOD vs. eOD $\rightarrow$ eOD	17 vs. 16	<b>85.714</b> [20.000, 100.000] vs. <b>86.794</b> [0.000, 100.000]	0.709
	Core vs. $eOD \rightarrow Core$	7 vs. 16	<b>0.141</b> [0.000, 2.548] vs. <b>83.457</b> [26.852, 96.667]	< 0.001
8 weeks post-Core	Core vs. $eOD \rightarrow eOD \rightarrow Core$	7 vs. 13	<b>0.141</b> [0.000, 2.548] vs. <b>77.689</b> [0.000, 89.224]	0.004
	$\mathrm{eOD} \to \mathrm{Core} \ \mathrm{vs.} \ \mathrm{eOD} \to \mathrm{eOD} \to \mathrm{Core}$	16 vs. 13	<b>83.457</b> [26.852, 96.667] vs. <b>77.689</b> [0.000, 89.224]	0.167

Table 21: Percent of CD4bs-specific IgG B cells that are VRC01-class (Core-g28v2 sorts): differences in response magnitudes over time, within each group. Hypothesis testing was done using the Wilcoxon signed-rank test for paired data (two-sided,  $\alpha = 0.05$ ) and p-values less than 0.05 are highlighted. P-values are not computed for insufficient sample sizes (less than three paired data points).

Treatment	Week Comparison	Number of Pairs	Median (Range)	P-value
Core	4 vs. 8	7	<b>0.000</b> [0.000, 5.366] vs. <b>0.141</b> [0.000, 2.548]	0.625
$eOD \rightarrow Core$	16 vs. 24	16	<b>83.457</b> [26.852, 96.667] vs. <b>86.743</b> [28.736, 96.162]	0.093
$eOD \rightarrow eOD$	16 vs. 24	11	87.838 [0.000, 100.000] vs. 89.404 [0.000, 96.296]	0.189

### 2.5 Percent of IgG B cells that are antigen-specific (Core-g28v2 sorts)

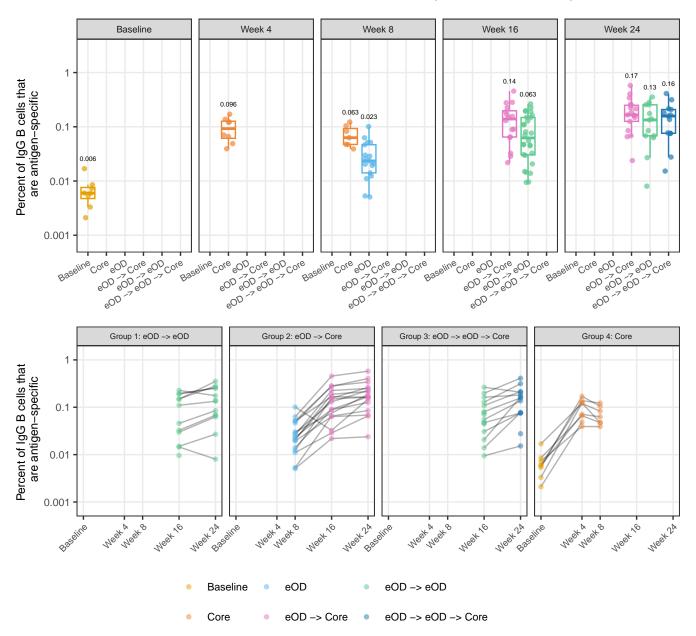


Figure 12: Percent of IgG B cells that are antigen-specific (Core-g28v2 sorts). Response magnitudes are shown in the first row of plots: each marker represents one participant, and the boxplots indicate the median and interquartile range among participants (the median is also noted in text above the boxplot). Response magnitudes over time (i.e., kinetics) are shown in the second row of plots, with each line representing a single participant.

Table 22: Percent of IgG B cells that are antigen-specific (Core-g28v2 sorts): differences in response magnitudes between groups. Hypothesis testing was done using the Wilcoxon rank-sum test (two-sided,  $\alpha = 0.05$ ) and p-values less than 0.05 are highlighted. P-values are not computed for insufficient sample sizes (less than three in either group).

Time Point	Comparison	Sample Sizes	Median (Range)	P-value
Week 8	Core vs. eOD	7 vs. 17	<b>0.063</b> [0.039, 0.123] vs. <b>0.023</b> [0.005, 0.101]	0.003
Week 16	$eOD \rightarrow Core vs. eOD \rightarrow eOD$	16 vs. 28	<b>0.140</b> [0.022, 0.455] vs. <b>0.063</b> [0.009, 0.264]	0.061
	$eOD \rightarrow Core vs. eOD \rightarrow eOD$	17 vs. 13	<b>0.166</b> [0.024, 0.578] vs. <b>0.134</b> [0.008, 0.354]	0.281
Week 24	$\mathrm{eOD} \to \mathrm{Core} \ \mathrm{vs.} \ \mathrm{eOD} \to \mathrm{eOD} \to \mathrm{Core}$	17 vs. 13	<b>0.166</b> [0.024, 0.578] vs. <b>0.158</b> [0.015, 0.410]	0.363
Week 21	$\mathrm{eOD} \to \mathrm{eOD}$ vs. $\mathrm{eOD} \to \mathrm{eOD} \to \mathrm{Core}$	13 vs. 13	<b>0.134</b> [0.008, 0.354] vs. <b>0.158</b> [0.015, 0.410]	0.687
prior to Core dose	eOD vs. eOD $\rightarrow$ eOD	17 vs. 16	<b>0.023</b> [0.005, 0.101] vs. <b>0.063</b> [0.009, 0.264]	0.006
	Core vs. $eOD \rightarrow Core$	7 vs. 16	<b>0.063</b> [0.039, 0.123] vs. <b>0.140</b> [0.022, 0.455]	0.103
8 weeks post-Core	Core vs. $eOD \rightarrow eOD \rightarrow Core$	7 vs. 13	<b>0.063</b> [0.039, 0.123] vs. <b>0.158</b> [0.015, 0.410]	0.081
	$\mathrm{eOD} \to \mathrm{Core} \ \mathrm{vs.} \ \mathrm{eOD} \to \mathrm{eOD} \to \mathrm{Core}$	16 vs. 13	<b>0.140</b> [0.022, 0.455] vs. <b>0.158</b> [0.015, 0.410]	0.846

Table 23: Percent of IgG B cells that are antigen-specific (Core-g28v2 sorts): differences in response magnitudes over time, within each group. Hypothesis testing was done using the Wilcoxon signed-rank test for paired data (two-sided,  $\alpha = 0.05$ ) and p-values less than 0.05 are highlighted. P-values are not computed for insufficient sample sizes (less than three paired data points).

Treatment	Week Comparison	Number of Pairs	Median (Range)	P-value
Core	4 vs. 8	7	<b>0.121</b> [0.039, 0.171] vs. <b>0.063</b> [0.039, 0.123]	0.016
$eOD \rightarrow Core$	16 vs. 24	16	<b>0.140</b> [0.022, 0.455] vs. <b>0.165</b> [0.024, 0.578]	< 0.001
$eOD \rightarrow eOD$	16 vs. 24	11	<b>0.110</b> [0.014, 0.227] vs. <b>0.134</b> [0.008, 0.354]	0.024

### 2.6 Percent of IgG B cells that are CD4bs-specific (Core-g28v2 sorts)

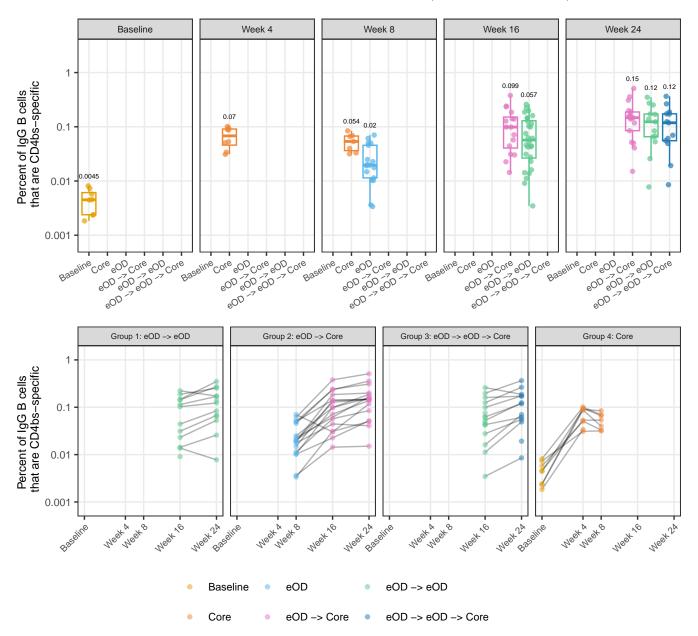


Figure 13: Percent of IgG B cells that are CD4bs-specific (Core-g28v2 sorts). Response magnitudes are shown in the first row of plots: each marker represents one participant, and the boxplots indicate the median and interquartile range among participants (the median is also noted in text above the boxplot). Response magnitudes over time (i.e., kinetics) are shown in the second row of plots, with each line representing a single participant.

Table 24: Percent of IgG B cells that are CD4bs-specific (Core-g28v2 sorts): differences in response magnitudes between groups. Hypothesis testing was done using the Wilcoxon rank-sum test (two-sided,  $\alpha = 0.05$ ) and p-values less than 0.05 are highlighted. P-values are not computed for insufficient sample sizes (less than three in either group).

Time Point	Comparison	Sample Sizes	Median (Range)	P-value
Week 8	Core vs. eOD	7 vs. 17	<b>0.054</b> [0.032, 0.084] vs. <b>0.020</b> [0.003, 0.070]	0.009
Week 16	$eOD \rightarrow Core vs. eOD \rightarrow eOD$	16 vs. 28	<b>0.099</b> [0.014, 0.379] vs. <b>0.057</b> [0.003, 0.260]	0.250
	$\mathrm{eOD} \to \mathrm{Core} \ \mathrm{vs.} \ \mathrm{eOD} \to \mathrm{eOD}$	17 vs. 13	<b>0.147</b> [0.015, 0.510] vs. <b>0.123</b> [0.008, 0.351]	0.592
Week 24	$eOD \rightarrow Core vs. eOD \rightarrow eOD \rightarrow Core$	17 vs. 13	<b>0.147</b> [0.015, 0.510] vs. <b>0.118</b> [0.009, 0.365]	0.483
Week 21	$\mathrm{eOD} \to \mathrm{eOD}$ vs. $\mathrm{eOD} \to \mathrm{eOD} \to \mathrm{Core}$	13 vs. 13	<b>0.123</b> [0.008, 0.351] vs. <b>0.118</b> [0.009, 0.365]	0.880
prior to Core dose	eOD vs. eOD $\rightarrow$ eOD	17 vs. 16	<b>0.020</b> [0.003, 0.070] vs. <b>0.057</b> [0.003, 0.260]	0.008
	Core vs. $eOD \rightarrow Core$	7 vs. 16	<b>0.054</b> [0.032, 0.084] vs. <b>0.099</b> [0.014, 0.379]	0.198
8 weeks post-Core	Core vs. $eOD \rightarrow eOD \rightarrow Core$	7 vs. 13	<b>0.054</b> [0.032, 0.084] vs. <b>0.118</b> [0.009, 0.365]	0.115
	$\mathrm{eOD} \to \mathrm{Core} \ \mathrm{vs.} \ \mathrm{eOD} \to \mathrm{eOD} \to \mathrm{Core}$	16 vs. 13	<b>0.099</b> [0.014, 0.379] vs. <b>0.118</b> [0.009, 0.365]	0.880

Table 25: Percent of IgG B cells that are CD4bs-specific (Core-g28v2 sorts): differences in response magnitudes over time, within each group. Hypothesis testing was done using the Wilcoxon signed-rank test for paired data (two-sided,  $\alpha = 0.05$ ) and p-values less than 0.05 are highlighted. P-values are not computed for insufficient sample sizes (less than three paired data points).

Treatment	Week Comparison	Number of Pairs	Median (Range)	P-value
Core	4 vs. 8	7	<b>0.087</b> [0.031, 0.101] vs. <b>0.054</b> [0.032, 0.084]	0.078
$eOD \rightarrow Core$	16 vs. 24	16	<b>0.099</b> [0.014, 0.379] vs. <b>0.147</b> [0.015, 0.510]	< 0.001
$eOD \rightarrow eOD$	16 vs. 24	11	<b>0.103</b> [0.014, 0.223] vs. <b>0.123</b> [0.008, 0.351]	0.024

### 2.7 Percent of antigen-specific IgG B cells that are CD4bs-specific (Core-g28v2 sorts)

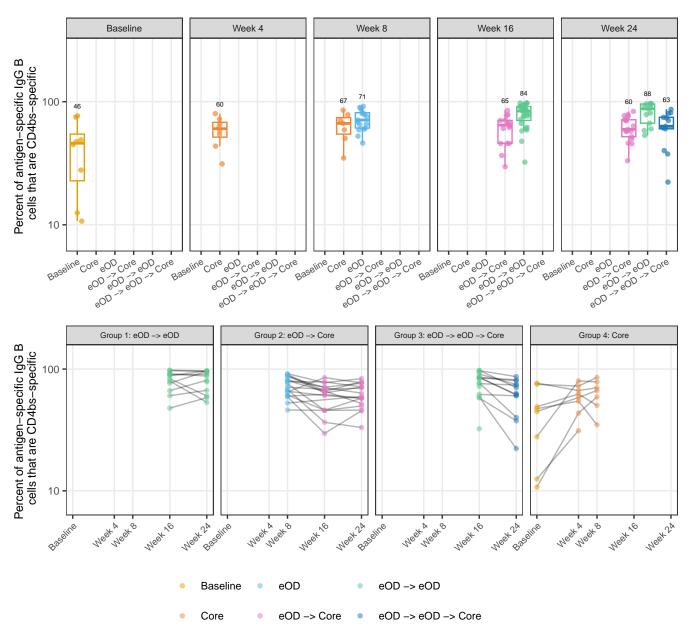


Figure 14: Percent of antigen-specific IgG B cells that are CD4bs-specific (Core-g28v2 sorts). Response magnitudes are shown in the first row of plots: each marker represents one participant, and the boxplots indicate the median and interquartile range among participants (the median is also noted in text above the boxplot). Response magnitudes over time (i.e., kinetics) are shown in the second row of plots, with each line representing a single participant.

Table 26: Percent of antigen-specific IgG B cells that are CD4bs-specific (Core-g28v2 sorts): differences in response magnitudes between groups. Hypothesis testing was done using the Wilcoxon rank-sum test (two-sided,  $\alpha = 0.05$ ) and p-values less than 0.05 are highlighted. P-values are not computed for insufficient sample sizes (less than three in either group).

Time Point	Comparison	Sample Sizes	Median (Range)	P-value
Week 8	Core vs. eOD	7 vs. 17	<b>66.650</b> [34.848, 85.410] vs. <b>70.992</b> [46.099, 91.681]	0.260
Week 16	$eOD \rightarrow Core vs. eOD \rightarrow eOD$	16 vs. 28	<b>64.585</b> [29.608, 85.047] vs. <b>83.995</b> [32.313, 97.951]	< 0.001
	$\mathrm{eOD} \to \mathrm{Core} \ \mathrm{vs.} \ \mathrm{eOD} \to \mathrm{eOD}$	17 vs. 13	<b>59.605</b> [33.120, 83.482] vs. <b>87.500</b> [53.226, 96.693]	0.002
Week 24	$\mathrm{eOD} \to \mathrm{Core} \ \mathrm{vs.} \ \mathrm{eOD} \to \mathrm{eOD} \to \mathrm{Core}$	17 vs. 13	<b>59.605</b> [33.120, 83.482] vs. <b>63.140</b> [22.241, 86.667]	0.592
Week 21	$eOD \rightarrow eOD \text{ vs. } eOD \rightarrow eOD \rightarrow Core$		<b>87.500</b> [53.226, 96.693] vs. <b>63.140</b> [22.241, 86.667]	0.026
prior to Core dose	eOD vs. eOD $\rightarrow$ eOD	17 vs. 16	<b>70.992</b> [46.099, 91.681] vs. <b>83.845</b> [32.313, 97.494]	0.231
	Core vs. $eOD \rightarrow Core$	7 vs. 16	<b>66.650</b> [34.848, 85.410] vs. <b>64.585</b> [29.608, 85.047]	0.720
8 weeks post-Core	Core vs. $eOD \rightarrow eOD \rightarrow Core$	7 vs. 13	<b>66.650</b> [34.848, 85.410] vs. <b>63.140</b> [22.241, 86.667]	0.877
o weeks post core	$\mathrm{eOD} \to \mathrm{Core} \ \mathrm{vs.} \ \mathrm{eOD} \to \mathrm{eOD} \to \mathrm{Core}$	16 vs. 13	<b>64.585</b> [29.608, 85.047] vs. <b>63.140</b> [22.241, 86.667]	0.779

Table 27: Percent of antigen-specific IgG B cells that are CD4bs-specific (Core-g28v2 sorts): differences in response magnitudes over time, within each group. Hypothesis testing was done using the Wilcoxon signed-rank test for paired data (two-sided,  $\alpha = 0.05$ ) and p-values less than 0.05 are highlighted. P-values are not computed for insufficient sample sizes (less than three paired data points).

Treatment	Week Comparison	Number of Pairs	Median (Range)	P-value
Core	4 vs. 8	7	<b>62.345</b> [43.558, 79.975] vs. <b>66.650</b> [34.848, 85.410]	0.813
$eOD \rightarrow Core$	16 vs. 24	16	<b>64.585</b> [29.608, 85.047] vs. <b>60.470</b> [33.120, 83.482]	0.669
$eOD \rightarrow eOD$	16 vs. 24	11	<b>83.333</b> [47.702, 97.951] vs. <b>87.500</b> [53.226, 96.693]	0.831

- ${\bf 3}\quad {\bf Additional\ tables\ for\ manuscript}$
- 3.1 Sequence counts

Table 28: Number of paired heavy and light chain sequences included in analysis (PBMCs)

Group 1: eOD  droup 2: eOD  Core	1D  254 302 479 502 509 516 546 616 619 678 733 758 813 834 852 905 969  119 136 145 230 293 341 480 493 577 620 630 820 831 855 943	Wk -5   23   743   6   148   30   136   6   35   107   68   54   7   39   57   100   14   33   185   379   41   19   2158   61   105   17   64   212   101   17   64   212   101	Wk 4  602 401 480 1817 No Sort 961 822 2030 1210 616 374 1094 681 453 2728 195 364  1377 2515 1213 757 1565 2851 27 885 857 89 1418 1068 3767 952	Wk 7.5/8  No Sort 96 108 1708 1122 605 757 2354 852 537 267 1958 1027 209 2730 837 190  2054 1383 1276 339 1702 1326 53 2118 2164 329 1418 1189 1800 676	Wk 15.5/16  Excluded 275  Excluded No Sort 380 657 1478 668 1443  Excluded 291 125 46 1928 716 288	Wk 24  Excluded 253  Excluded 633 981 No Sort 281 338 180 1807  Excluded 640 637 57 1950 167 185		Wk 4	Wk 7.5/8	Wk 15.5/16  Excluded 107 Excluded No Sort No Sort 30 104 509 199 405 Excluded 136 61 No Seq 847 10 122  209 76 383 448 104 239 22 20 585 104 422 156	Wk 2 Exclude 17 Exclude 8 19 No Soi 21 16 18 76 Exclude 22 22 1 105 4 4 29 51 114 28 66 10 3 1 61 9 50
Group 1: eOD  → eOD  Group 2: eOD  - Core	302 479 502 509 516 546 619 678 733 758 813 834 852 905 969 119 136 145 230 341 480 493 577 620 630 820 831 855	743 6 148 30 136 6 35 107 68 54 7 39 57 100 14 33 6 102 101 3 185 379 41 19 2158 61 105 17 64 212	401 480 1817 No Sort 961 822 2030 1210 616 374 1094 681 453 2728 195 364  1377 2515 1213 757 1565 2851 27 885 857 89 1418 1068 3767	96 108 1708 1708 1122 605 757 2354 852 537 267 1958 1027 209 2730 837 190  2054 1383 1276 339 1702 1326 53 2118 2164 329 1418 1189 1800	275 Excluded No Sort No Sort 380 657 1478 668 1443 Excluded 291 125 46 1928 716 288	253 Excluded 633 981 No Sort 281 338 180 1807 Excluded 640 637 57 1950 167 185	- - - - - - - - - - - - - - - - - - -		40 211 158 38 43 7 8 8 24 No Seq 110	107 Excluded No Sort No Sort 30 104 509 199 405 Excluded 136 61 No Seq 847 10 122 209 76 383 448 104 239 22 20 585 104 422	17 Exclude 8 19 No Son 21 16 18 76 Exclude 22 22 1 105 4 4 29 51 114 28 66 100 3 1 61 9
Group	479 502 509 516 546 616 619 678 733 758 813 834 852 905 969  119 136 145 230 293 341 480 493 577 620 630 820 831 855	6 148 30 136 6 35 107 68 54 7 39 57 100 14 33 6 102 101 3 185 379 41 19 2158 61 105 17 64 212	480 1817 No Sort 961 822 2030 1210 616 374 1094 681 453 2728 195 364  1377 2515 1213 757 1565 2851 27 885 857 89 1418 1068 3767	108 1708 1122 605 757 2354 852 537 267 1958 1027 209 2730 837 190  2054 1383 1276 339 1702 1326 53 2118 2164 329 1418 1189 1800	Excluded No Sort No Sort 380 657 1478 668 1443 Excluded 291 125 46 1928 716 288	Excluded 633 981 No Sort 281 338 180 1807 Excluded 640 637 57 1950 167 185		-	40 211 158 38 43 7 8 8 24 No Seq 110	Excluded No Sort No Sort 30 104 509 199 405 Excluded 136 61 No Seq 847 10 122 209 76 383 448 104 239 22 20 585 104 422	Exclude
Group	502 509 516 546 616 619 678 733 758 813 834 852 905 969 119 136 145 230 293 341 480 493 577 620 630 820 831 855	148 30 136 6 35 107 68 54 7 39 57 100 14 33 6 102 101 3 185 379 41 19 2158 61 105 17 64 212	1817 No Sort 961 822 2030 1210 616 374 1094 681 453 2728 195 364 1377 2515 1213 757 1565 2851 27 885 857 89 1418 1068 3767	1708 1122 605 757 2354 852 537 267 1958 1027 209 2730 837 190  2054 1383 1276 339 1702 1326 53 2118 2164 329 1418 1189 1800	No Sort No Sort 380 657 1478 668 1443 Excluded 291 125 46 1928 716 288	633 981 No Sort 281 338 180 1807 Excluded 640 637 57 1950 167 185		-	40 211 158 38 43 7 8 8 24 No Seq 110	No Sort No Sort 30 104 509 199 405 Excluded 136 61 No Seq 847 10 122 209 76 383 448 104 239 22 20 585 104 422	8 19 19 19 19 19 19 19 19 19 19 19 19 19
Group : OD → OD Group :: OD → Core	509 516 546 616 619 678 733 758 813 834 852 905 969 119 136 145 230 293 341 480 493 577 620 630 820 831 855	30 136 6 35 107 68 54 7 39 57 100 14 33 6 102 101 3 185 379 41 19 2158 61 105 17 64 212	No Sort 961 822 2030 1210 616 374 1094 681 453 2728 195 364  1377 2515 1213 757 1565 2851 27 885 885 887 89 1418 1068 3767	1122 605 757 2354 852 537 267 1958 1027 209 2730 837 190 2054 1383 1276 339 1702 1326 53 2118 2164 329 1418	No Sort 380 657 1478 668 1443 Excluded 291 125 46 1928 716 288	981 No Sort 281 338 180 1807 Excluded 640 637 57 1950 167 185		-	40 211 158 38 43 7 8 8 8 24 No Seq 110	No Sort 30 104 509 199 405 Excluded 136 61 No Seq 847 10 122 209 76 383 448 104 239 22 20 585 104 422	19 No So 2: 11 18 77 Exclude 2: 10 10 2: 55 11 2: 66 11 6: 9 56
Group : :OD  Group :: :OD  Group :: :OD  Group :: :OS :OS	516 546 616 619 678 733 758 813 834 852 905 969 119 136 145 230 293 341 480 493 577 620 630 820 831 855	136 6 35 107 68 54 7 39 57 100 14 33 185 379 41 19 2158 61 105 17 64 212	961 822 2030 1210 616 374 1094 681 453 2728 195 364  1377 2515 1213 757 1565 2851 27 885 857 89 1418 1068 3767	605 757 2354 852 537 267 1958 1027 209 2730 837 190  2054 1383 1276 339 1702 1326 53 2118 2164 329 1418 1189 1800	380 657 1478 668 1443 Excluded 291 125 46 1928 716 288	No Sort  281  338  180  1807  Excluded  640  637  57  1950  167		-	40 211 158 38 43 7 8 8 8 24 No Seq 110	30 104 509 199 405 Excluded 136 61 No Seq 847 10 122 209 76 383 448 104 239 22 20 585 104 422	No So 2: 10 11 70 Exclude 2: 2: 10 10 4 2: 5: 11 2: 66 11 6: 9 5: 5: 5:
Group : OD → OD Group :: OD Group :: Group ::	546 616 619 678 733 758 813 834 852 905 969 119 136 145 230 293 341 480 493 577 620 630 820 831 855	6 35 107 68 54 7 39 57 100 14 33 6 102 101 3 185 379 41 19 2158 61 105 17 64 212	822 2030 1210 616 374 1094 681 453 2728 195 364 1377 2515 1213 757 1565 2851 27 885 857 89 1418 1068 3767	757 2354 852 537 267 1958 1027 209 2730 837 190  2054 1383 1276 339 1702 1326 53 2118 2164 329 1418 1189 1800	657 1478 668 1443 Excluded 291 125 46 1928 716 288	281 338 180 1807 Excluded 640 637 57 1950 167 185	- - - - - - - - - - - - - - - - - - -	-	40 211 158 38 43 7 8 8 8 24 No Seq 110	104 509 199 405 Excluded 136 61 No Seq 847 10 122 209 76 383 448 104 239 22 20 585 104 422	2: 14 77 Exclude 2: 2: 108 4 4 2: 5: 11- 2: 66 10 3. 4 6. 6. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9.
: OD → OD Group :: OD → Core	616 619 678 733 758 813 834 852 905 969 119 136 145 230 293 341 480 493 577 620 630 820 831 855	35 107 68 54 7 39 57 100 14 33 6 102 101 3 185 379 41 19 2158 61 105 17 64 212	2030 1210 616 374 1094 681 453 2728 195 364 1377 2515 1213 757 1565 2851 27 885 857 89 1418 1068 3767	2354 852 537 267 1958 1027 209 2730 837 190 2054 1383 1276 339 1702 1326 53 2118 2164 329 1418	1478 668 1443 Excluded 291 125 46 1928 716 288	338 180 1807 Excluded 640 637 57 1950 167 185	- - - - - - - - - - - - - - - - - - -	-	40 211 158 38 43 7 8 8 8 24 No Seq 110	509 199 405 Excluded 136 61 No Seq 847 10 122 209 76 383 448 104 239 22 20 585 104 422	10 11:77 Excluded 22:22:31 10:32:33 10:33:33 11:24:36:36 11:36 11:
OD → OD Group ∷ OD → Core	619 678 733 758 813 834 852 905 969 119 136 145 230 293 341 480 493 577 620 630 820 831 855	107 68 54 7 39 57 100 14 33 6 102 101 3 185 379 41 19 2158 61 105 17 64 212	1210 616 374 1094 681 453 2728 195 364 1377 2515 1213 27 1565 2851 27 885 857 89 1418 1068 3767	852 537 267 1958 1027 209 2730 837 190 2054 1383 1276 339 1702 1326 53 2118 2164 329 1418 1189	668 1443 Excluded 291 125 46 1928 716 288	180 1807 Excluded 640 637 57 1950 167 185	- - - - - - - - - - - - - - - - - - -	-	40 211 158 38 43 7 8 8 8 24 No Seq 110	199 405 Excluded 136 61 No Seq 847 10 122 209 76 383 448 104 239 22 20 585 104 422	1: 77 Exclude 22: 100 100 2: 55 11: 2: 60 11: 6
→ ODD  Group  COD  Group  Group  Group  Group  Group	678 733 758 813 834 852 905 969 119 136 145 230 341 480 493 577 620 630 820 831 855	68 54 7 39 57 100 14 33 6 102 101 3 185 379 41 19 2158 61 105 17 64 212	616 374 1094 681 453 2728 195 364 1377 2515 1213 757 1565 2851 27 885 857 89 1418 1068 3767	537 267 1958 1027 209 2730 837 190 2054 1383 1276 339 1702 1326 53 2118 2164 329 1418	1443 Excluded 291 125 46 1928 716 288	1807 Excluded 640 637 57 1950 167 185	-	-	40 211 158 38 43 7 8 8 8 24 No Seq 110	405 Excluded 136 61 No Seq 847 10 122 209 76 383 448 104 239 22 20 585 104 422	2: 2: 10: 2: 5: 11: 2: 6: 11: 6: 5: 5:
Group :: :OD  Core  Group :: :::::::::::::::::::::::::::::::::	733 758 813 834 852 905 969 119 136 145 230 293 341 480 493 577 620 630 820 831 855	54 7 39 57 100 14 33 6 102 101 3 185 379 41 19 2158 61 105 17 64 212	374 1094 681 453 2728 195 364 1377 2515 1213 757 1565 2851 27 885 857 89 1418 1068 3767	267 1958 1027 209 2730 837 190 2054 1383 1276 339 1702 1326 53 2118 2164 329 1418 1189 1800	Excluded 291 125 46 1928 716 288	Excluded 640 637 57 1950 167 185	- - - - - - - - - - - - - - - - - - -	-	40 211 158 38 43 7 8 8 8 24 No Seq 110	Excluded 136 61 No Seq 847 10 122 209 76 383 448 104 239 22 20 585 104 422	Exclude 2: 2: 10: 10: 10: 10: 10: 10: 10: 10: 10: 10
Group :: :OD → Core	758 813 834 852 905 969 119 136 145 230 293 341 480 493 577 620 630 820 831 855	7 39 57 100 14 33 6 102 101 3 185 379 41 19 2158 61 105 17 64 212	1094 681 453 2728 195 364 1377 2515 1213 757 1565 2851 27 885 857 89 1418 1068 3767	1958 1027 209 2730 837 190 2054 1383 1276 339 1702 1326 53 2118 2164 329 1418	291 125 46 1928 716 288	640 637 57 1950 167 185	- - - - - - - - - - - - - - - - - - -	-	40 211 158 38 43 7 8 8 8 24 No Seq 110	136 61 No Seq 847 10 122 209 76 383 448 104 239 22 20 585 104 422	2: 10: 2: 5: 11: 2: 6: 6: 11:
Group :: •OD → Core Group 3:	813 834 852 905 969 119 136 145 230 293 341 480 493 577 620 630 820 831 855	39 57 100 14 33 6 102 101 3 185 379 41 19 2158 61 105 17 64 212	681 453 2728 195 364 1377 2515 1213 757 1565 2851 27 885 857 89 1418 1068 3767	1027 209 2730 837 190 2054 1383 1276 339 1702 1326 53 2118 2164 329 1418 1189 1800	125 46 1928 716 288	637 57 1950 167 185	- - - - - - - - - - - - - - - - - - -	-	40 211 158 38 43 7 8 8 8 24 No Seq 110	61 No Seq 847 10 122 209 76 383 448 104 239 22 20 585 104 422	2: 103 2: 5: 114 2: 60 111 3: 6: 9: 5:
Group : OD → Core Group :	834 852 905 969 119 136 145 230 293 341 480 493 577 620 630 820 831 855	57 100 14 33 6 102 101 3 185 379 41 19 2158 61 105 17 64 212	453 2728 195 364 1377 2515 1213 757 1565 2851 27 885 857 89 1418 1068 3767	209 2730 837 190 2054 1383 1276 339 1702 1326 53 2118 2164 329 1418 1189 1800	46 1928 716 288	57 1950 167 185	- - - - - - - - - - - - - - - - - - -	-	40 211 158 38 43 7 8 8 8 24 No Seq 110	No Seq 847 10 122 209 76 383 448 104 239 22 20 585 104 422	22: 55: 11: 22: 66: 11:
Group :: •OD → Core Group 3:	852 905 969 119 136 145 230 293 341 480 493 577 620 630 820 831 855	100 14 33 6 102 101 3 185 379 41 19 2158 61 105 17 64 212	2728 195 364 1377 2515 1213 757 1565 2851 27 885 857 89 1418 1068 3767	2730 837 190 2054 1383 1276 339 1702 1326 53 2118 2164 329 1418 1189 1800	1928 716 288	1950 167 185		-	40 211 158 38 43 7 8 8 8 24 No Seq 110	847 10 122 209 76 383 448 104 239 22 20 585 104 422	103 29 55 114 28 66 10
Group : OD → Core Group :	905 969 119 136 145 230 293 341 480 493 577 620 630 820 831 855	14 33 6 102 101 3 185 379 41 19 2158 61 105 17 64 212	195 364 1377 2515 1213 757 1565 2851 27 885 857 89 1418 1068 3767	837 190 2054 1383 1276 339 1702 1326 53 2118 2164 329 1418 1189	716 288	167 185		-	40 211 158 38 43 7 8 8 24 No Seq 110	10 122 209 76 383 448 104 239 22 20 585 104 422	2: 5 11: 2: 6: 11:
Group :: •OD → Core Group 3:	969 119 136 145 230 293 341 480 493 577 620 630 820 831 855	33  6 102 101 3 185 379 41 19 2158 61 105 17 64 212	364 1377 2515 1213 757 1565 2851 27 885 857 89 1418 1068 3767	190  2054 1383 1276 339 1702 1326 53 2118 2164 329 1418 1189 1800	288	185	- - - - - - - - - - - - - -	-	40 211 158 38 43 7 8 8 24 No Seq 110	209 76 383 448 104 239 22 20 585 104 422	22 5. 11. 20 60 11.
Group :: ••OD → Core Group 3:	119 136 145 230 293 341 480 493 577 620 630 820 831 855	6 102 101 3 185 379 41 19 2158 61 105 17 64 212	1377 2515 1213 757 1565 2851 27 885 857 89 1418 1068 3767	2054 1383 1276 339 1702 1326 53 2118 2164 329 1418 1189	-			-	40 211 158 38 43 7 8 8 24 No Seq 110	209 76 383 448 104 239 22 20 585 104 422	29 55 114 28 66 16 61 61 9
Group :: ••OD → Core Group 3:	136 145 230 293 341 480 493 577 620 630 820 831 855	102 101 3 185 379 41 19 2158 61 105 17 64 212	2515 1213 757 1565 2851 27 885 857 89 1418 1068 3767	1383 1276 339 1702 1326 53 2118 2164 329 1418 1189		- - - - - - - - -	- - - - - - - - - -	-	211 158 38 43 7 8 8 24 No Seq 110	76 383 448 104 239 22 20 585 104 422	51 114 28 66 10 3 61 63 55
Group 2: :OD → Core Group 3:	145 230 293 341 480 493 577 620 630 820 831 855	101 3 185 379 41 19 2158 61 105 17 64 212	1213 757 1565 2851 27 885 857 89 1418 1068 3767	1276 339 1702 1326 53 2118 2164 329 1418 1189	-	- - - - - - - -	- - - - - - - - -	-	158 38 43 7 8 8 24 No Seq 110	383 448 104 239 22 20 585 104 422	114 28 66 10 3 61 61 5
Group 2: :OD → Core Group 3:	230 293 341 480 493 577 620 630 820 831 855	3 185 379 41 19 2158 61 105 17 64 212	757 1565 2851 27 885 857 89 1418 1068 3767	339 1702 1326 53 2118 2164 329 1418 1189 1800	-	- - - - - -	- - - - - - -	- - - - -	38 43 7 8 8 24 No Seq 110	448 104 239 22 20 585 104 422	28 66 10 5 6 9
Group :: :: :: :: :: :: :: :: :: :	293 341 480 493 577 620 630 820 831 855	185 379 41 19 2158 61 105 17 64 212	1565 2851 27 885 857 89 1418 1068 3767	1702 1326 53 2118 2164 329 1418 1189 1800	-	- - - - -	- - - - - -	- - - -	43 7 8 8 24 No Seq 110	104 239 22 20 585 104 422	66 10 5 1 63 5 5
Group :: :: :: :: :: :: :: :: :: :	341 480 493 577 620 630 820 831 855	379 41 19 2158 61 105 17 64 212	2851 27 885 857 89 1418 1068 3767	1326 53 2118 2164 329 1418 1189	- - - - - -	- - - - -	- - - - - -	- - -	7 8 8 24 No Seq 110	239 22 20 585 104 422	10 3 1 61 5 5
Group E: GOD → Core Group Group	480 493 577 620 630 820 831 855	41 19 2158 61 105 17 64 212	27 885 857 89 1418 1068 3767	53 2118 2164 329 1418 1189 1800	- - - - - -	- - - -	- - - - -	- - -	8 8 24 No Seq 110	22 20 585 104 422	3 61 9 50
2: :ODD → Core Group 3:	493 577 620 630 820 831 855	19 2158 61 105 17 64 212	885 857 89 1418 1068 3767	2118 2164 329 1418 1189 1800	- - - -	- - -	- - - -	-	8 24 No Seq 110	20 585 104 422	1 63 9 50
Group	577 620 630 820 831 855	2158 61 105 17 64 212	857 89 1418 1068 3767	2164 329 1418 1189 1800	- - - -	- - -	- - - -	-	24 No Seq 110	585 104 422	6: 9 50
→ Core Group 3:	620 630 820 831 855	61 105 17 64 212	89 1418 1068 3767	329 1418 1189 1800	- - -	-	- - -	-	No Seq 110	104 422	50 50
Group 3:	630 820 831 855	105 17 64 212	1418 1068 3767	1418 1189 1800	- - -	-	- - -		110	422	50
Group 3:	820 831 855	17 64 212	1068 3767	1189 1800	-		-	-			
Group 3:	831 855	64 212	3767	1800	-	-	_				
Group 3:			952	676				-	400	No Sort	36
Group 3:	943	10		010	-	-	_	_	97	163	7
Group 3:	U 1U	18	571	1554	_	_	-	_	39	414	57
Group 3:	947	2	95	62	-	-	-	_	54	138	18
Group 3:	957	23	509	142	-	-	-	-	42	82	
Group 3:	278	9	480	47	254	-	-	-	-	98	2
Group 3:	304	180	237	773	534	-	-	-	-	178	26
3:	371	121	1568	1273	428	-	-	-	-	8	;
3:	427	203	105	156	253	-	-	-	-	147	10
3:	462	77	4	49	178	-	-	-	-	57	Exclude
3:	477	99	1378	589	489	-	-	-	-	132	Exclude
	595	139	737	327	1012	-	-	-	-	74	38
	632	119	296	87	685	-	-	-	-	179	Exclude
$\rightarrow$	689	123	888	No Sort	Excluded	-	-	-	-	Excluded	Exclude
OD	796	7	784	337	1027	-	-	-	-	388	7
$\rightarrow$	810	73	202	166	157	-	-	-	-	51	Exclude
Core	825	49	567	No Sort	164	-	-	-	-	No Seq	28
	866	73	496	280	404	-	-	-	-	124	9
	871	68	170	210	No Sort	-	-	-	-	No Sort	
	884	94	614	513	1275	-	-	-	-	390	7.
	931	226	1081	2232	2993	-	-	-	-	460	8
	988 997	No Seq 316	153 1403	972 $1140$	960 1949	-	-	-	-	831 325	2:
		310	1403	1140	1949		-			323	4;
	104 365	-	-	-	-	-	36 64	161 141	83 204	-	
	387	_	_	-	-	-	55	123	215	-	
Froup	396	_	-	-	-	-	71	215	151	-	
:		_	-	-	-	-	34			-	
Core	489	-	-	-	-	-	l	19 702	No Sort	-	
	611	_	-	-	-	-	No Seq No Seq	$702 \\ 804$	$\frac{1112}{672}$	-	
	710	_	-	-	-	-	209	91	106	-	
Tot	710 794							8		42	4

Excluded: Samples that were either not collected, or were excluded from analysis, due to protocol deviations (i.e., missed vaccine doses and/or study discontinuation)

No Seq: Samples for which flow cytometry data was available, but no sequencing data was available

 $<sup>\</sup>hbox{--:} \ \, \text{The given probe set (eOD-GT8 or Core-} \\ \text{g} \text{e} \text{set)} \text{ was not used for this treatment group and time point due to the vaccination schedule}$ 

Table 29: Number of paired heavy and light chain IgG sequences included in analysis (PBMCs)

			eOD-GT8-	specific IgG I	3 Cells Sequence	ed		C	ore-g28v2-spe	ecific IgG B Cells Sequ	enced
Group	ID	Wk -5	Wk 4	Wk 7.5/8	Wk 15.5/16	Wk 24	Wk -5	Wk 4	Wk 7.5/8	Wk 15.5/16	Wk 24
	254	6	482	No Sort	Excluded	Excluded	-	-	-	Excluded	Excluded
	302	62	357	92	255	235	-	-	-	74	157
	479	1	427	98	Excluded	Excluded	-	-	-	Excluded	Excluded
	502	6	1511	1458	No Sort	524	-	-	-	No Sort	49
	509	2	No Sort	811	No Sort	761	-	-	-	No Sort	148
	516	7	623	408	259	No Sort	-	-	-	16	No Sort
Group	546	3	671	625	565	238	-	-	-	66	187
1:	616	6	1727	2095	1288	307	-	-	-	449	151
eOD	619	2	1036	680	588	144	-	-	-	101	13:
$\rightarrow$	678	4	428	397	1209	1479	-	-	-	326	689
eOD	733	3	286	208	Excluded	Excluded	-	-	-	Excluded	Exclude
	758	1	589	1167	226	563	-	-	-	109	20
	813	10	480	819	111	524	-	-	-	47	17
	834	0	323	165	40	53	-	-	-	No Seq	90
	852	17	2193	2302	1596	1637	-	-	-	636	86-
	905	0	138	668	625	149	-	-	-	10	3-
	969	12	296	157	232	144	-			56	1
	119	2	1044	1587	-	-	-	-	38	166	243
	136	18	2143	1201	-	-	-	-	184	61	46
	145	4	879	973	-	-	-	-	135	341	100
	230	0	524	239	-	-	-	-	24	411	26
	293	9	1096	1383	-	-	-	-	34	77	54
a	341	3	2215	1019	-	-	-	-	5	216	8
Group	480	3	21	47	-	-	-	-	2	8	1
2: -OD	493	1 124	602	1610	-	-	-	-	6 20	18	1
eOD	577		696	1819	-	-	-	-		512	56
$\rightarrow$ Core	620 630	4 12	74 $1239$	297 1135	-	-	-	-	No Seq	73 335	7 40
Core	820	5	864	923	-	-	-	-	58 37	121	77
	831	7	3041	1437	-	-	-	_	185	No Sort	32
	855	7	612	452	-	-	-	-	62	121	52
	943	4	482	1324	-	-	-	-	35	364	499
	947	0	70	39	_	_	_	-	14	60	10
	957	0	436	119	_	-	_	-	28	59	3
	278	3	408	42	238	-	_	_	_	84	20
	304	2	185	548	466	_	_	_	_	120	23
	371	10	1140	972	347	-	-	_	_	3	2
	427	8	71	130	216	-	-	_	_	80	8
	462	2	4	38	144	-	-	_	_	45	Exclude
a	477	13	1144	514	420	-	-	_	_	111	Exclude
Group	595	14	527	257	882	-	-	-	_	66	35
3:	632	12	228	70	568	-	-	-	_	147	Exclude
eOD	689	5	607	No Sort	Excluded	-	-	-	_	Excluded	Exclude
→ eOD	796	1	621	266	910	-	-	-	-	349	70
	810	9	143	115	122	-	-	-	-	35	Exclude
$\rightarrow$ Core	825	7	430	No Sort	124	-	-	-	-	No Seq	25
Core	866	14	398	223	314	-	-	-	-	91	5
	871	4	147	187	No Sort	-	-	-	-	No Sort	2
	884	12	521	428	1173	-	-	-	-	338	65
	931	5	759	1650	2601	-	-	-	_	414	72
	988	No Seq	124	845	846	-	-	-	-	810	21
	997	7	1096	954	1670	-	-	-	-	253	36
	104	-	-	-	-	-	6	134	74	-	
	365	-	-	-	-	-	22	131	157	-	
Group	387	-	-	-	-	-	12	107	187	-	
4:	396	-	-	-	-	-	6	205	144	-	
core	489	-	-	-	-	-	0	17	No Sort	-	
	611	-	-	-	-	-	No Seq	466	711	-	
	710	-	-	-	-	-	No Seq	484	402	-	
	794	<u> </u>	-	-	-	-	21	74	97	-	
	Total Obs.	51	51	49	28	13	6	8	23	42	4

Excluded: Samples that were either not collected, or were excluded from analysis, due to protocol deviations (i.e., missed vaccine doses and/or study discontinuation)

No Seq: Samples for which flow cytometry data was available, but no sequencing data was available

 $<sup>\</sup>hbox{--:} \ \, \text{The given probe set (eOD-GT8 or Core-} \\ \text{g} \text{e} \text{set)} \text{ was not used for this treatment group and time point due to the vaccination schedule}$ 

VISC	Schief 856 (G002) B Cell Figures and Tables for Revised Manuscript
3.2	IGHV1-2 genotype and detection of VRC01-class B cells

Table 30: IGHV1-2 genotype and detection of VRC01-class B cells in PBMCs

Group 1: $eOD \rightarrow eOD$	Genotype  02/02 02/02 02/02 02/04 02/04 02/05 02/05 04/04 04/04 04/04 04/04 04/04 04/04	479 509 813 616 678 852 619 758 254 302 502	No Yes Yes Yes Yes Yes Yes No No Yes	Wk 4  Yes No Sort Yes	Yes	Wk 15.5/16  Excluded  No Sort  Yes  Yes  Yes  Yes	Wk 24  Excluded Yes Yes Yes	Wk -5	Wk 4	Wk 7.5/8	Wk 15.5/16  Excluded No Sort	Wk 24 Excluded Yes
-	02/02 02/02 02/04 02/04 02/04 02/05 02/05 04/04 04/04 04/04 04/04 04/04	509 813 616 678 852 619 758 254 302 502 546	Yes Yes Yes Yes Yes Yes Yes No No Yes	No Sort Yes Yes Yes Yes Yes Yes Yes Yes	Yes Yes Yes Yes Yes	No Sort Yes Yes Yes Yes	Yes Yes Yes		-		No Sort	Yes
-	02/02 02/04 02/04 02/04 02/05 02/05 02/05 04/04 04/04 04/04 04/04 04/04	813 616 678 852 619 758 254 302 502 546	Yes Yes Yes Yes Yes Yes No No Yes	Yes Yes Yes Yes Yes Yes	Yes Yes Yes Yes	Yes Yes Yes	Yes Yes	-	-			
-	02/04 02/04 02/04 02/05 02/05 02/05 04/04 04/04 04/04 04/04 04/04	616 678 852 619 758 254 302 502 546	Yes Yes Yes Yes No No Yes	Yes Yes Yes Yes Yes	Yes Yes Yes	Yes Yes Yes	Yes	-	_		* *	
-	02/04 02/04 02/05 02/05 02/05 04/04 04/04 04/04 04/04 04/04 04/04	678 852 619 758 254 302 502 546	Yes Yes Yes No No Yes	Yes Yes Yes	Yes Yes Yes	Yes Yes		1		-	Yes	Yes
-	02/04 02/05 02/05 04/04 04/04 04/04 04/04 04/04 04/04	852 619 758 254 302 502 546	Yes Yes No No Yes	Yes Yes Yes	Yes Yes	Yes	3.7	-	_	-	Yes	Yes
-	02/05 02/05 04/04 04/04 04/04 04/04 04/04	619 758 254 302 502 546	Yes No No Yes	Yes Yes	Yes		Yes	-	_	-	Yes	Yes
-	02/05 02/05 04/04 04/04 04/04 04/04 04/04	619 758 254 302 502 546	Yes No No Yes	Yes Yes	Yes		Yes	_	_	_	Yes	Yes
-	02/05 04/04 04/04 04/04 04/04 04/04 04/04	758 254 302 502 546	No No Yes	Yes		Yes	Yes	_	_	_	Yes	Yes
-	04/04 04/04 04/04 04/04 04/04 04/04	254 302 502 546	No Yes			Yes	Yes	_	_	_	Yes	Yes
$OD \rightarrow eOD$	04/04 04/04 04/04 04/04 04/04	302 502 546	Yes		No Sort	Excluded	Excluded	_	_	_	Excluded	Excluded
	04/04 04/04 04/04 04/04	$502 \\ 546$		Yes	Yes	Yes	Yes				Yes	Yes
	04/04 04/04 04/04	546	Yes	Yes	Yes	No Sort	Yes	_	-	-	No Sort	Yes
	04/04 04/04		No	Yes	Yes	Yes	Yes	_	-	-	Yes	Yes
	04/04							_	-	-		
		733	Yes	Yes	Yes	Excluded	Excluded	-	-		Excluded	Exclude
		834	No	Yes	Yes	Yes	Yes	-	-	-	No Seq	Yes
	04/05	905	No	Yes	Yes	Yes	Yes	-	-	-	Yes	Yes
	04/06	516	No	Yes	Yes	Yes	No Sort	-	-	-	Yes	No Sort
	06/06	969	No	No	No	No	No	-	-	-	No	No
	02/02 02/02	145 230	Yes No	Yes	Yes Yes	-	-	-	-	Yes Yes	Yes Yes	Yes
		293	Yes	Yes Yes	Yes Yes	-	-	_	-	Yes	Yes	Yes Yes
	02/02					-	-	-	-			
	02/02	630	Yes	Yes	Yes	-	-	-	-	Yes	Yes	Yes
	02/02	947	No	Yes	Yes	-	-	-	-	Yes	Yes	Yes
	02/04	119	Yes	Yes	Yes	-	-	-	-	Yes	Yes	Yes
	02/04	136	Yes	Yes	Yes	-	-	-	-	Yes	Yes	Yes
roup 2:	02/04	577	Yes	Yes	Yes	-	-	-	-	Yes	Yes	Yes
$OD \rightarrow Core$	02/04	820	Yes	Yes	Yes	-	-	-	-	Yes	Yes	Yes
OD - Core	02/06	957	Yes	Yes	Yes	-	-	-	-	Yes	Yes	Yes
	04/04	341	Yes	Yes	Yes	-	-	-	-	Yes	Yes	Yes
	04/04	493	No	Yes	Yes	-	-	-	-	Yes	Yes	Yes
	04/04	620	Yes	Yes	Yes	-	-	-	-	No Seq	Yes	Yes
	04/04	831	Yes	Yes	Yes	-	-	-	_	Yes	No Sort	Yes
	04/04	855	Yes	Yes	Yes	_	_	_	_	Yes	Yes	Yes
	04/04	943	No	Yes	Yes	_	_	_	_	Yes	Yes	Yes
	04/06	480	No	No	Yes	-	-	-	_	Yes	Yes	Yes
	02/02	632	Yes	Yes	Yes	Yes	Excluded	I -		_	Yes	Exclude
	02/04	278	No	Yes	Yes	Yes	Excluded		_	_	Yes	Yes
	02/04	462	Yes	Yes	Yes	Yes	Excluded	_	-	-	Yes	Exclude
								_	-	-		
	02/04	477	Yes	Yes	Yes	Yes	Excluded	-	-	-	Yes	Exclude
	02/04	595	Yes	Yes	Yes	Yes		-	-	-	Yes	Yes
	02/04	689	Yes	Yes	No Sort	Excluded	Excluded	-	-	-	Excluded	Exclude
	02/04	796	No	Yes	Yes	Yes	-	-	-	-	Yes	Yes
Group 3:	02/04	884	Yes	Yes	Yes	Yes	-	-	-	-	Yes	Yes
$OD \rightarrow eOD$	02/04	931	Yes	Yes	Yes	Yes	-	-	-	-	Yes	Yes
→ Core	02/04	988	No Seq	Yes	Yes	Yes	-	-	-	-	Yes	Yes
. 0010	02/04	997	Yes	Yes	Yes	Yes	-	-	-	-	Yes	Yes
	02/06	304	Yes	Yes	Yes	Yes	-	-	-	-	Yes	Yes
	02/06	427	Yes	Yes	Yes	Yes	-	-	-	-	Yes	Yes
	02/06	825	No	Yes	No Sort	Yes	-	-	-	-	No Seq	Yes
	04/04	810	Yes	Yes	Yes	Yes	Excluded	-	-	-	Yes	Exclude
	04/06	866	No	Yes	Yes	Yes	-	-	_	-	Yes	Yes
	05/05	371	No	No	No	No	-	-	_	-	No	No
	05/05	871	No	No	No	No Sort	-			_	No Sort	No
	02/02	794	-	-	-	-	-	No	No	Yes	-	
	02/06	365	-	-	-	-	-	No	Yes	Yes	-	-
	02/06	396	-	-	-	-	-	No	Yes	Yes	-	-
Group 4:	04/04	387	-	-	-	-	-	No	No	No	-	-
Core	04/04	611	-	-	_	_	-	No Seq	No	Yes	-	_
	04/05	104	_	_	_	_	_	No	No	No	_	_
	04/06	489	-	_	_	_	_	No	No	No Sort	-	_
	05/05	710	-	-	-	-	-	No Seq	No	No	-	-
`otal	1	-	99 / 81	47 / E1	46 / 40	26 / 29	19 / 19			20 / 22	40 / 42	40 / 41
Cotal	1		32 / 51	47 / 51	46 / 49	26 / 28	12 / 13	0 / 6	2 / 8	20 / 23	40 / 42	40 / 4

Excluded: Samples that were either not collected, or were excluded from analysis, due to protocol deviations (i.e., missed vaccine doses and/or study discontinuation)

No Seq: Samples for which flow cytometry data was available, but no sequencing data was available

 $<sup>\</sup>hbox{-:} \ \, \text{The given probe set (eOD-GT8 or Core-} \\ \text{g2sv2) was not used for this treatment group and time point due to the vaccination schedule}$ 

Table 31: IGHV1-2 genotype and detection of VRC01-class IgG B cells in PBMCs

			VRC	01-class eOL	0-GT8-specifi	c IgG B Cells D	etected	VRC	701-class	Core-g28v2-sp	pecific IgG B Cell	s Detected
Group	Genotype	ID	Wk -5	Wk 4	Wk 7.5/8	Wk $15.5/16$	Wk 24	Wk -5	Wk 4	Wk 7.5/8	Wk $15.5/16$	Wk 24
	02/02	479	No	Yes	Yes	Excluded	Excluded	-	-	-	Excluded	Excluded
	02/02	509	No	No Sort	Yes	No Sort	Yes	-	-	-	No Sort	Yes
	02/02	813	Yes	Yes	Yes	Yes	Yes	-	_	_	Yes	Yes
	02/04	616	Yes	Yes	Yes	Yes	Yes	_	_	_	Yes	Yes
	02/04	678	No	Yes	Yes	Yes	Yes	_	_	_	Yes	Yes
	02/04	852	Yes	Yes	Yes	Yes	Yes	_			Yes	Yes
								_	-	-		
	02/05	619	No	Yes	Yes	Yes	Yes	-	-	-	Yes	Yes
Group 1:	02/05	758	No	Yes	Yes	Yes	Yes	-	-	-	Yes	Yes
$eOD \rightarrow eOD$	04/04	254	No	Yes	No Sort	Excluded	Excluded	-	-	-	Excluded	Excluded
	04/04	302	No	Yes	Yes	Yes	Yes	-	-	-	Yes	Yes
	04/04	502	Yes	Yes	Yes	No Sort	Yes	-	-	-	No Sort	Yes
	04/04	546	No	Yes	Yes	Yes	Yes	-	-	-	Yes	Yes
	04/04	733	No	Yes	Yes	Excluded	Excluded	-	-	-	Excluded	Excluded
	04/04	834	No	Yes	Yes	Yes	Yes	_	-	_	No Seq	Yes
	04/05	905	No	Yes	Yes	Yes	Yes	_	_	_	Yes	Yes
	04/06	516	No	Yes	Yes	Yes	No Sort	_	_	_	Yes	No Sort
	06/06	969	No	No	No	No	No	_	_	-	No	No
	02/02	145	No	Yes	Yes	_	_	_	_	Yes	Yes	Yes
	02/02	230	No	Yes	Yes	-	-	_	_	Yes	Yes	Yes
	02/02	293	No	Yes	Yes	_	_			Yes	Yes	Yes
	,					-	-	_				
	02/02	630	No	Yes	Yes	-	-	-	-	Yes	Yes	Yes
	02/02	947	No	Yes	Yes	-	-	-	-	Yes	Yes	Yes
	02/04	119	No	Yes	Yes	-	-	-	-	Yes	Yes	Yes
	02/04	136	Yes	Yes	Yes	-	-	-	-	Yes	Yes	Yes
n	02/04	577	No	Yes	Yes	-	-	-	-	Yes	Yes	Yes
Group 2:	02/04	820	No	Yes	Yes	-	-	-	-	Yes	Yes	Yes
$OD \rightarrow Core$	02/06	957	No	Yes	Yes	_	_	_	_	Yes	Yes	Yes
	04/04	341	No	Yes	Yes	_	_	_	_	Yes	Yes	Yes
	04/04	493	No	Yes	Yes		_		_	Yes	Yes	Yes
	04/04	620	No	Yes	Yes	-	-	_	_		Yes	Yes
	,					-	-	_		No Seq		
	04/04	831	No	Yes	Yes	-	-	-	-	Yes	No Sort	Yes
	04/04	855	No	Yes	Yes	-	-	-	-	Yes	Yes	Yes
	04/04	943	No	Yes	Yes	-	-	-	-	Yes	Yes	Yes
	04/06	480	No	No	Yes	-	-	-	-	Yes	Yes	Yes
	02/02	632	No	Yes	Yes	Yes	Excluded	-	-	-	Yes	Excluded
	02/04	278	No	Yes	Yes	Yes	-	-	-	-	Yes	Yes
	02/04	462	No	Yes	Yes	Yes	Excluded	-	-	-	Yes	Excluded
	02/04	477	No	Yes	Yes	Yes	Excluded	-	-	-	Yes	Excluded
	02/04	595	No	Yes	Yes	Yes	_	_	_	_	Yes	Yes
	02/04	689	No	Yes	No Sort	Excluded	Excluded	_	_	_	Excluded	Excluded
	02/04	796	No	Yes	Yes	Yes	-	_	_	_	Yes	Yes
	02/04	884	No	Yes	Yes	Yes	_		_		Yes	Yes
Froup 3:			No				-	_	-	-		
$OD \rightarrow eOD$	02/04	931		Yes	Yes	Yes	-	-	-	-	Yes	Yes
→ Core	02/04	988	No Seq	Yes	Yes	Yes	-	-	-	-	Yes	Yes
	02/04	997	Yes	Yes	Yes	Yes	-	-	-	-	Yes	Yes
	02/06	304	No	Yes	Yes	Yes	-	-	-	-	Yes	Yes
	02/06	427	Yes	Yes	Yes	Yes	-	-	-	-	Yes	Yes
	02/06	825	No	Yes	No Sort	Yes	-	-	-	-	No Seq	Yes
	04/04	810	No	Yes	Yes	Yes	Excluded	-	-	-	Yes	Excluded
	04/06	866	No	Yes	Yes	Yes	-	-	-	-	Yes	Yes
	05/05	371	No	No	No	No	-	-	_	_	No	No
	05/05	871	No	No	No	No Sort	-	-	-	-	No Sort	No
	02/02	794	-	-	-	-	-	No	No	Yes	-	-
	02/06	365	-	-	_	-	-	No	Yes	Yes	-	_
	02/06	396	_	_	_	_	_	No	Yes	Yes	_	_
Group 4:	04/04	387	_	_	_	_	_	No	No	No	_	_
Core	04/04		_	-	-	-	-	No Seq		Yes	-	-
Jore	,	611	-	-	-	-	-		No N-		-	-
	04/05	104	-	-	-	-	-	No	No	No	-	-
	04/06	489	-	-	-	-	-	No Soc	No	No Sort	-	-
	05/05	710	-	-	-	-	-	No Seq	No	No	-	-
otal			7 / 51	47 / 51	46 / 49	26 / 28	12 / 13	0 / 6	2 / 8	20 / 23	40 / 42	40 / 43

Excluded: Samples that were either not collected, or were excluded from analysis, due to protocol deviations (i.e., missed vaccine doses and/or study discontinuation)

No Seq: Samples for which flow cytometry data was available, but no sequencing data was available

 $<sup>\</sup>hbox{-:} \ \, \text{The given probe set (eOD-GT8 or Core-} \\ \text{g2sv2) was not used for this treatment group and time point due to the vaccination schedule}$ 

# 4 Reproducibility: software session and package version information

Table 32: Reproducibility software session information

name	value
version	R version 4.4.0 (2024-04-24)
os	macOS 15.1.1
system	aarch64, darwin20
ui	X11
language	(EN)
collate	en_US.UTF-8
ctype	en_US.UTF-8
tz	America/Los_Angeles
date	2024-11-26
pandoc	3.1.11 @ /Applications/RStudio.app/Contents/Resources/app/quarto/bin/tools/aarch64/ (via rmarkdown)
repo	git@github.com:FredHutch/Schief856Analysis.git
file name	Schief856_Bcell_tables_for_manuscript.Rmd
location	Bcell/manuscript_revisions
user	Kellie MacPhee

Table 33: Reproducibility software package version information

package	version	date	source
arrow	17.0.0.1	2024-08-21	CRAN (R 4.4.1)
conflicted	1.2.0	2023-02-01	CRAN (R 4.4.0)
dplyr	1.1.4	2023-11-17	CRAN (R 4.4.0)
flextable	0.9.6	2024-05-05	CRAN (R 4.4.0)
forcats	1.0.0	2023-01-29	CRAN (R 4.4.0)
ggplot2	3.5.1	2024-04-23	CRAN (R 4.4.0)
here	1.0.1	2020-12-13	CRAN (R 4.4.0)
kableExtra	1.4.0	2024-01-24	CRAN (R 4.4.0)
knitr	1.48	2024-07-07	CRAN (R 4.4.0)
lubridate	1.9.3	2023-09-27	CRAN (R 4.4.0)
patchwork	1.3.0	2024-09-16	CRAN (R 4.4.1)
purrr	1.0.2	2023-08-10	CRAN (R 4.4.0)
readr	2.1.5	2024-01-10	CRAN (R 4.4.0)
readxl	1.4.3	2023-07-06	CRAN (R 4.4.0)
rmarkdown	2.28	2024-08-17	CRAN (R 4.4.0)
stringr	1.5.1	2023-11-14	CRAN (R 4.4.0)
tibble	3.2.1	2023-03-20	CRAN (R 4.4.0)
$\operatorname{tidyr}$	1.3.1	2024-01-24	CRAN (R 4.4.0)
tidyverse	2.0.0	2023-02-22	CRAN (R 4.4.0)
VISCfunctions	1.2.3	2024-09-10	Github (FredHutch/VISCfunctions@781efdc)
VISCtemplates	1.3.2.9000	2024-11-05	Github~(FredHutch/VISC templates@02d8d8d)