Supplementary Table XX: Assay based statistical comparison of fold changes from WT/D614G to other pre-Omicron Variants of Concern. A t-test was performed to compare pseudovirus (PV) and live virus (LV) assessed fold changes in different serum groups. Normality was checked with a Shapiro-Wilk test.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Variant** | **Serum group** | **Variable** | **Group 1** | **Group 2** | **n1** | **n2** | **statistic** | **df** | **p** | **Significance** |
| Beta | 3x Vax | Fold change from WT | PV | LV | 16 | 14 | -3.44 | 16.4 | 0.00325 | \*\* |
| Alpha | 2x Vax | Fold change from WT | PV | LV | 4 | 7 | -3.59 | 7.46 | 0.0079 | \*\* |
| Delta | Vax + BA.1 | Fold change from WT | PV | LV | 10 | 5 | 2.57 | 10.9 | 0.026 | \* |
| Delta | Vax + Inf | Fold change from WT | PV | LV | 6 | 4 | 2.43 | 4.64 | 0.0631 | ns |
| Beta | Inf + Vax | Fold change from WT | PV | LV | 3 | 9 | -1.91 | 4.22 | 0.125 | ns |
| Delta | WT conv | Fold change from WT | PV | LV | 10 | 8 | -1.39 | 12.1 | 0.189 | ns |
| Delta | Alpha conv | Fold change from WT | PV | LV | 5 | 3 | -1.41 | 2.72 | 0.262 | ns |
| Delta | 2x Vax | Fold change from WT | PV | LV | 31 | 19 | -1.01 | 43.6 | 0.316 | ns |
| Delta | 3x Vax | Fold change from WT | PV | LV | 20 | 13 | -0.844 | 24 | 0.407 | ns |
| Alpha | Delta conv | Fold change from WT | PV | LV | 3 | 3 | 0.826 | 3.97 | 0.455 | ns |
| Beta | Delta conv | Fold change from WT | PV | LV | 3 | 3 | 0.724 | 2.74 | 0.526 | ns |
| Beta | WT conv | Fold change from WT | PV | LV | 5 | 4 | 0.622 | 6.27 | 0.556 | ns |
| Beta | 2x Vax | Fold change from WT | PV | LV | 24 | 20 | -0.574 | 40.9 | 0.569 | ns |
| Beta | Alpha conv | Fold change from WT | PV | LV | 3 | 3 | 0.563 | 3.56 | 0.607 | ns |
| Delta | BA.1 conv | Fold change from WT | PV | LV | 5 | 4 | 0.288 | 6.78 | 0.782 | ns |
| Beta | Vax + BA.1 | Fold change from WT | PV | LV | 7 | 3 | -0.186 | 3.11 | 0.864 | ns |
| Delta | Beta conv | Fold change from WT | PV | LV | 3 | 3 | -0.148 | 2.17 | 0.895 | ns |
| Alpha | WT conv | Fold change from WT | PV | LV | 4 | 3 | -0.0807 | 5 | 0.939 | ns |
| Beta | BA.1 conv | Fold change from WT | PV | LV | 4 | 3 | 0.0622 | 2.84 | 0.955 | ns |
| Delta | Delta conv | Fold change from WT | PV | LV | 7 | 3 | -0.0228 | 4.35 | 0.983 | ns |

Supplementary Table XX: Assay based statistical comparison of fold changes from WT/D614G to other pre-Omicron Variants of Concern. A Wilcoxon-test was performed to compare pseudovirus (PV) and live virus (LV) assessed fold changes in different serum groups. Normality was checked with a Shapiro-Wilk test.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Variant** | **Serum group** | **Variable** | **Group 1** | **Group 2** | **n1** | **n2** | **statistic** | **p** | **Significance** |
| Delta | Inf + Vax | Fold change from WT | PV | LV | 7 | 9 | 43 | 0.252 | ns |
| Alpha | Alpha conv | Fold change from WT | PV | LV | 4 | 3 | 4 | 0.629 | ns |

Supplementary Table XX: Assay based statistical comparison of fold changes from WT/D614G to BA.1. A t-test was performed to compare pseudovirus (PV) and live virus (LV) assessed fold changes in different serum groups. Normality was checked with a Shapiro Wilks test.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Serum group** | **Variable** | **Group 1** | **Group 2** | **n1** | **n2** | **statistic** | **df** | **p** | **Significance** |
| 3x Vax | Fold change from WT | PV | LV | 61 | 28 | -4.39 | 51.4 | 5.66e-05 | \*\*\*\* |
| WT conv | Fold change from WT | PV | LV | 19 | 14 | 2.99 | 30.9 | 0.00543 | \*\* |
| 2x Vax | Fold change from WT | PV | LV | 69 | 39 | -1.58 | 88.1 | 0.118 | ns |
| Beta conv | Fold change from WT | PV | LV | 3 | 3 | -0.974 | 2.45 | 0.416 | ns |
| Vax + Inf | Fold change from WT | PV | LV | 10 | 5 | -0.841 | 6.87 | 0.429 | ns |
| Vax + BA.1 | Fold change from WT | PV | LV | 25 | 7 | -0.591 | 8.22 | 0.571 | ns |
| Delta conv | Fold change from WT | PV | LV | 7 | 3 | 0.471 | 5.18 | 0.657 | ns |

Supplementary Table XX: Assay based statistical comparison of fold changes from WT/D614G to BA.1. A Wilcoxon-test was performed to compare pseudovirus (PV) and live virus (LV) assessed fold changes in different serum groups. Normality was checked with a Shapiro Wilks test.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Serum group** | **Variable** | **Group 1** | **Group 2** | **n1** | **n2** | **statistic** | **p** | **Significance** |
| Inf + Vax | Fold change from WT | PV | LV | 17 | 23 | 138 | 0.122 | ns |
| BA.1 conv | Fold change from WT | PV | LV | 6 | 5 | 12 | 0.647 | ns |
| Alpha conv | Fold change from WT | PV | LV | 5 | 3 | 9 | 0.786 | ns |

Supplementary Table XX: Assay based statistical comparison of variant GMTs. A t-test was performed to compare pseudovirus (PV) and live virus (LV) assessed fold changes in different serum groups. Normality was checked with a Shapiro Wilks test.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Variant** | **Serum group** | **Variable** | **Group 1** | **Group 2** | **n1** | **n2** | **statistic** | **df** | **p** | **Significance** |
| Alpha | WT conv | Titer | PV | LV | 5 | 3 | 2.62 | 5.68 | 0.0415 | \* |
| Alpha | 2x Vax | Titer | PV | LV | 4 | 7 | -0.694 | 5.12 | 0.518 | ns |
| BA.1 | Vax + BA.1 | Titer | PV | LV | 24 | 12 | 3.74 | 32.2 | 0.00072 | \*\*\* |
| BA.1 | Vax + Inf | Titer | PV | LV | 6 | 6 | 1.56 | 9.09 | 0.152 | ns |
| BA.1 | Inf + Vax | Titer | PV | LV | 17 | 15 | 3.65 | 29.3 | 0.00102 | \*\* |
| BA.1 | 3x Vax | Titer | PV | LV | 58 | 23 | 4.48 | 38.8 | 6.43e-05 | \*\*\*\* |
| Beta | BA.1 conv | Titer | PV | LV | 4 | 3 | 0.813 | 2.9 | 0.478 | ns |
| Beta | Delta conv | Titer | PV | LV | 3 | 3 | 2.54 | 2.48 | 0.102 | ns |
| Beta | WT conv | Titer | PV | LV | 6 | 3 | 1.57 | 6.74 | 0.162 | ns |
| Beta | Inf + Vax | Titer | PV | LV | 3 | 6 | 3.18 | 2.08 | 0.0819 | ns |
| Beta | 3x Vax | Titer | PV | LV | 16 | 11 | 2.26 | 20.9 | 0.0346 | \* |
| Beta | 2x Vax | Titer | PV | LV | 24 | 17 | 0.758 | 29.2 | 0.454 | ns |
| Delta | BA.1 conv | Titer | PV | LV | 5 | 4 | 1.31 | 3.71 | 0.265 | ns |
| Delta | Delta conv | Titer | PV | LV | 6 | 3 | 5.27 | 2.15 | 0.0293 | \* |
| Delta | Alpha conv | Titer | PV | LV | 3 | 3 | 2.92 | 2.02 | 0.0989 | ns |
| Delta | WT conv | Titer | PV | LV | 10 | 8 | 2.59 | 15.3 | 0.0201 | \* |
| Delta | Vax + BA.1 | Titer | PV | LV | 9 | 7 | -0.245 | 10.2 | 0.812 | ns |
| Delta | Vax + Inf | Titer | PV | LV | 5 | 6 | 1.83 | 8.37 | 0.103 | ns |
| Delta | 3x Vax | Titer | PV | LV | 18 | 13 | 0.654 | 25.1 | 0.519 | ns |
| Delta | 2x Vax | Titer | PV | LV | 25 | 19 | 1.4 | 34.1 | 0.17 | ns |
| WT | BA.1 conv | Titer | PV | LV | 7 | 5 | 1.85 | 4.99 | 0.124 | ns |
| WT | Delta conv | Titer | PV | LV | 6 | 3 | 8.56 | 5.82 | 0.000163 | \*\*\* |
| WT | Alpha conv | Titer | PV | LV | 3 | 3 | 2.69 | 2.23 | 0.103 | ns |
| WT | WT conv | Titer | PV | LV | 20 | 12 | 3.24 | 25.1 | 0.00334 | \*\* |
| WT | Vax + Inf | Titer | PV | LV | 7 | 4 | 1.6 | 8.97 | 0.143 | ns |
| WT | 3x Vax | Titer | PV | LV | 62 | 24 | 3.24 | 41.8 | 0.00236 | \*\* |
| WT | 2x Vax | Titer | PV | LV | 61 | 32 | 2.35 | 58.7 | 0.022 | \* |

Supplementary Table XX: Assay based statistical comparison of variant GMTs. A Wilcoxon-test was performed to compare pseudovirus (PV) and live virus (LV) assessed fold changes in different serum groups. Normality was checked with a Shapiro Wilks test.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Variant** | **Serum group** | **Variable** | **Group 1** | **Group 2** | **n1** | **n2** | **statistic** | **p** | **Significance** |
| Alpha | Delta conv | Titer | PV | LV | 3 | 3 | 9 | 0.1 | ns |
| BA.1 | BA.1 conv | Titer | PV | LV | 6 | 8 | 42 | 0.02 | \* |
| BA.1 | Delta conv | Titer | PV | LV | 5 | 3 | 15 | 0.0358 | \* |
| BA.1 | Alpha conv | Titer | PV | LV | 3 | 3 | 9 | 0.0765 | ns |
| BA.1 | WT conv | Titer | PV | LV | 15 | 13 | 102 | 0.835 | ns |
| BA.1 | 2x Vax | Titer | PV | LV | 55 | 26 | 1.1e+03 | 0.000117 | \*\*\* |
| Beta | Vax + BA.1 | Titer | PV | LV | 7 | 3 | 16 | 0.267 | ns |
| Delta | Inf + Vax | Titer | PV | LV | 7 | 9 | 36 | 0.681 | ns |
| WT | Vax + BA.1 | Titer | PV | LV | 27 | 7 | 133 | 0.107 | ns |
| WT | Inf + Vax | Titer | PV | LV | 17 | 15 | 200 | 0.00535 | \*\* |

Supplementary Table XX: Assay based statistical comparison of variant GMTs. A t-test was performed to compare pseudovirus (PV) and live virus (LV) assessed fold changes in different serum groups. Normality was checked with a Shapiro Wilks test.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Variant** | **Serum group** | **Variable** | **Group 1** | **Group 2** | **n1** | **n2** | **statistic** | **df** | **p** | **Significance** |
| BA.1 | 3x Vax | Titer | PV | LV | 58 | 23 | 4.48 | 38.8 | 6.43e-05 | \*\*\*\* |
| WT | Delta conv | Titer | PV | LV | 6 | 3 | 8.56 | 5.82 | 0.000163 | \*\*\* |
| BA.1 | Vax + BA.1 | Titer | PV | LV | 24 | 12 | 3.74 | 32.2 | 0.00072 | \*\*\* |
| BA.1 | Inf + Vax | Titer | PV | LV | 17 | 15 | 3.65 | 29.3 | 0.00102 | \*\* |
| WT | 3x Vax | Titer | PV | LV | 62 | 24 | 3.24 | 41.8 | 0.00236 | \*\* |
| WT | WT conv | Titer | PV | LV | 20 | 12 | 3.24 | 25.1 | 0.00334 | \*\* |
| Delta | WT conv | Titer | PV | LV | 10 | 8 | 2.59 | 15.3 | 0.0201 | \* |
| WT | 2x Vax | Titer | PV | LV | 61 | 32 | 2.35 | 58.7 | 0.022 | \* |
| Delta | Delta conv | Titer | PV | LV | 6 | 3 | 5.27 | 2.15 | 0.0293 | \* |
| Beta | 3x Vax | Titer | PV | LV | 16 | 11 | 2.26 | 20.9 | 0.0346 | \* |
| Alpha | WT conv | Titer | PV | LV | 5 | 3 | 2.62 | 5.68 | 0.0415 | \* |
| Beta | Inf + Vax | Titer | PV | LV | 3 | 6 | 3.18 | 2.08 | 0.0819 | ns |
| Delta | Alpha conv | Titer | PV | LV | 3 | 3 | 2.92 | 2.02 | 0.0989 | ns |
| Beta | Delta conv | Titer | PV | LV | 3 | 3 | 2.54 | 2.48 | 0.102 | ns |
| WT | Alpha conv | Titer | PV | LV | 3 | 3 | 2.69 | 2.23 | 0.103 | ns |
| Delta | Vax + Inf | Titer | PV | LV | 5 | 6 | 1.83 | 8.37 | 0.103 | ns |
| WT | BA.1 conv | Titer | PV | LV | 7 | 5 | 1.85 | 4.99 | 0.124 | ns |
| WT | Vax + Inf | Titer | PV | LV | 7 | 4 | 1.6 | 8.97 | 0.143 | ns |
| BA.1 | Vax + Inf | Titer | PV | LV | 6 | 6 | 1.56 | 9.09 | 0.152 | ns |
| Beta | WT conv | Titer | PV | LV | 6 | 3 | 1.57 | 6.74 | 0.162 | ns |
| Delta | 2x Vax | Titer | PV | LV | 25 | 19 | 1.4 | 34.1 | 0.17 | ns |
| Delta | BA.1 conv | Titer | PV | LV | 5 | 4 | 1.31 | 3.71 | 0.265 | ns |
| Beta | 2x Vax | Titer | PV | LV | 24 | 17 | 0.758 | 29.2 | 0.454 | ns |
| Beta | BA.1 conv | Titer | PV | LV | 4 | 3 | 0.813 | 2.9 | 0.478 | ns |
| Alpha | 2x Vax | Titer | PV | LV | 4 | 7 | -0.694 | 5.12 | 0.518 | ns |
| Delta | 3x Vax | Titer | PV | LV | 18 | 13 | 0.654 | 25.1 | 0.519 | ns |
| Delta | Vax + BA.1 | Titer | PV | LV | 9 | 7 | -0.245 | 10.2 | 0.812 | ns |

Supplementary Table XX: Assay based statistical comparison of variant GMTs. A Wilcoxon-test was performed to compare pseudovirus (PV) and live virus (LV) assessed fold changes in different serum groups. Normality was checked with a Shapiro Wilks test.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Variant** | **Serum group** | **Variable** | **Group 1** | **Group 2** | **n1** | **n2** | **statistic** | **p** | **Significance** |
| BA.1 | 2x Vax | Titer | PV | LV | 55 | 26 | 1.1e+03 | 0.000117 | \*\*\* |
| WT | Inf + Vax | Titer | PV | LV | 17 | 15 | 200 | 0.00535 | \*\* |
| BA.1 | BA.1 conv | Titer | PV | LV | 6 | 8 | 42 | 0.02 | \* |
| BA.1 | Delta conv | Titer | PV | LV | 5 | 3 | 15 | 0.0358 | \* |
| BA.1 | Alpha conv | Titer | PV | LV | 3 | 3 | 9 | 0.0765 | ns |
| Alpha | Delta conv | Titer | PV | LV | 3 | 3 | 9 | 0.1 | ns |
| WT | Vax + BA.1 | Titer | PV | LV | 27 | 7 | 133 | 0.107 | ns |
| Beta | Vax + BA.1 | Titer | PV | LV | 7 | 3 | 16 | 0.267 | ns |
| Delta | Inf + Vax | Titer | PV | LV | 7 | 9 | 36 | 0.681 | ns |
| BA.1 | WT conv | Titer | PV | LV | 15 | 13 | 102 | 0.835 | ns |