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| **Serum Group** | **Antigen type** | **GMT** | | | | | | **Mean Omicron fold drop from** | | | | | **Mean fold drop to WT** | | | |
| **WT** | **Alpha** | **Beta** | **Gamma** | **Delta** | **Omicron** | **WT** | **Alpha** | **Beta** | **Gamma** | **Delta** | **Alpha** | **Beta** | **Gamma** | **Delta** |
| **2x Vax** | LV | 199 (126; 314) | 207 (106; 402) | 55 (30; 102) | 49 (20; 120) | 68 (37; 125) | 11 (8; 15) | 16.9 (12.6; 22.7) | 12.4 (6.7; 22.7) | 5.8 (4; 8.3) | 4.9 (2.6; 9) | 7.7 (5.6; 10.5) | 1.7 (1.2; 2.5) | 5.7 (4.2; 7.6) | 4 (2.9; 5.6) | 2.9 (2.2; 3.8) |
| PV | 395 (280; 558) | 633 (312; 1286) | 88 (54; 146) | 578 (NA; NA) | 184 (127; 265) | 23 (17; 31) | 17 (13.4; 21.7) | 29.1 (10.3; 82) | 3.4 (2.5; 4.6) | 7.8 (NA; NA) | 6.5 (4.8; 8.7) | 0.9 (0.4; 1.8) | 5.9 (4.3; 8) | 0.8 (NA; NA) | 2.7 (2.1; 3.5) |
| **3x Vax** | LV | 964 (544; 1710) |  | 223 (109; 457) |  | 202 (93; 438) | 90 (52; 155) | 10.9 (8.5; 13.9) | 1.7 (NA; NA) | 3.7 (2.4; 5.7) | 4.8 (NA; NA) | 7 (4; 12) |  | 3.9 (2.4; 6.2) |  | 2.8 (1.9; 4) |
| PV | 2080 (1353; 3196) | 1272 (311; 5196) | 1055 (545; 2044) |  | 1437 (805; 2566) | 399 (258; 618) | 5.3 (4.2; 6.6) | 3.3 (2.1; 5.3) | 1.8 (1.3; 2.6) |  | 2.4 (1.6; 3.6) | 1.4 (1.1; 1.9) | 2.3 (1.9; 2.9) |  | 2.1 (1.5; 3.1) |
| **Inf + 2x Vax** | LV | 1035 (589; 1818) | 492 (317; 763) | 312 (191; 509) | 148 (43; 508) | 556 (188; 1640) | 77 (45; 132) | 13.9 (10.7; 18.1) | 5.7 (2.9; 11.2) | 6 (4.3; 8.6) | 3.5 (2.7; 4.6) | 4.8 (3.4; 6.9) | 1.2 (0.9; 1.6) | 2.9 (2; 4.4) | 3.4 (2.3; 5.2) | 2 (0.9; 4.4) |
| PV | 6580 (3201; 13525) | 1989 (NA; NA) | 1289 (265; 6271) |  | 1367 (658; 2839) | 1151 (537; 2467) | 5.8 (2.6; 13.1) | 0.3 (NA; NA) | 2.1 (0; 382.7) |  | 2.1 (0.4; 11.4) | 3.9 (NA; NA) | 4.9 (0.3; 81.2) |  | 3.1 (1.5; 6.3) |
| **2x Vax + Inf** | LV | 1291 (857; 1945) | 2607 (NA; NA) | 605 (NA; NA) |  | 688 (360; 1316) | 43 (11; 161) | 19.2 (5.7; 64.8) | 12.1 (NA; NA) | 2.8 (NA; NA) |  | 10.7 (2.8; 40.5) | 0.7 (NA; NA) | 3.1 (NA; NA) |  | 1.4 (0.4; 4.9) |
| PV | 1777 (622; 5073) | 4213 (1333; 13315) | 4672 (1561; 13985) | 2195 (585; 8243) | 574 (221; 1493) | 220 (51; 958) | 8.4 (1.4; 50.4) | 5.7 (0; 16814.3) | 5.6 (0.2; 128.3) | 0.8 (0; 20.4) | 1.8 (0.1; 34.7) | 0.9 (0.1; 6) | 0.8 (0.1; 8) | 1 (0; 1000.5) | 3.8 (2.3; 6.5) |
| **WT conv** | LV | 163 (75; 355) | 33 (9; 118) | 14 (6; 30) | 10 (NA; NA) | 65 (21; 200) | 13 (5; 29) | 12.4 (8; 19.3) | 6.7 (1.7; 26.7) | 3.5 (0.9; 13) | 5.6 (0; 239770.7) | 5.5 (3; 10) | 2.6 (1.8; 3.6) | 6.5 (2.2; 18.9) | 3.6 (NA; NA) | 3 (1.6; 5.6) |
| PV | 609 (368; 1006) | 484 (93; 2536) | 70 (25; 194) | 90 (NA; NA) | 315 (129; 770) | 27 (16; 44) | 21.7 (14.1; 33.2) | 19.3 (1.9; 194.2) | 3.4 (0.7; 16.7) | 5.1 (NA; NA) | 20.8 (6.6; 65.5) | 1.5 (0.8; 2.5) | 8.2 (2.2; 30.1) | 2 (NA; NA) | 1.8 (1.2; 2.5) |
| **Alpha conv** | LV | 99 (13; 784) | 149 (48; 461) | 32 (5; 213) | 4 (NA; NA) | 24 (3; 193) | 4 (1; 26) | 25.2 (6.6; 96.1) | 31.6 (14.8; 67.3) | 6.7 (1.2; 38.7) | 4.7 (NA; NA) | 5.1 (0.9; 30) | 0.8 (0.1; 4.7) | 5.4 (1.8; 16.7) | 7.3 (NA; NA) | 5.6 (0.8; 41.3) |
| PV | 1015 (112; 9193) | 802 (NA; NA) | 116 (NA; NA) | 148 (NA; NA) | 619 (85; 4498) | 32 (11; 97) | 31.9 (0; 710049.6) | 56 (NA; NA) | 8.1 (NA; NA) | 10.3 (NA; NA) | 19.4 (0; 58637.1) | 0.3 (NA; NA) | 1.8 (NA; NA) | 1.4 (NA; NA) | 1.6 (0.2; 12.4) |
| **Beta conv** | LV | 24 (3; 194) | 41 (5; 332) | 101 (19; 548) | 3 (NA; NA) | 12 (3; 55) | 4 (1; 19) | 6.4 (1.4; 28.8) | 9 (1.9; 43.3) | 22.6 (5.9; 87.3) | 2.9 (NA; NA) | 2.7 (0.7; 10.2) | 0.9 (0.1; 6.8) | 0.4 (0.2; 0.9) | 2.3 (NA; NA) | 3.4 (0.8; 14.7) |
| PV | 76 (7; 866) | 13 (NA; NA) | 15 (NA; NA) | 24 (NA; NA) | 59 (6; 540) | 14 (0; 526) | 5.5 (0; 328653.1) | 13 (NA; NA) | 15 (NA; NA) | 24 (NA; NA) | 4.3 (0; 2073591.2) | 1 (NA; NA) | 0.9 (NA; NA) | 0.5 (NA; NA) | 1.3 (0.2; 10.2) |
| **Gamma conv** | LV | 40 (16; 102) | 44 (9; 213) | 50 (12; 202) | 56 (NA; NA) | 9 (2; 41) | 7 (1; 40) | 5.7 (0; 7877.9) | 6 (1.8; 20) | 6.9 (0.4; 131.6) | 26.5 (NA; NA) | 1.3 (0.1; 11.4) | 0.9 (0; 359.6) | 0.8 (0; 54.6) | 0.4 (NA; NA) | 4.3 (0; 629) |
| PV | 48 (NA; NA) | 54 (NA; NA) | 102 (NA; NA) | 152 (NA; NA) | 29 (NA; NA) | 25 (NA; NA) | 1.9 (NA; NA) | 2.1 (NA; NA) | 4 (NA; NA) | 6 (NA; NA) | 1.1 (NA; NA) | 0.9 (NA; NA) | 0.5 (NA; NA) | 0.3 (NA; NA) | 1.7 (NA; NA) |
| **Delta conv** | LV | 34 (22; 53) | 66 (22; 198) | 32 (8; 130) | 15 (NA; NA) | 269 (91; 795) | 9 (2; 41) | 3.7 (0; 81963.2) | 7.5 (0.5; 112.4) | 3.7 (0; 415.3) | 4.8 (NA; NA) | 30.8 (11.9; 79.4) | 0.9 (0; 162.9) | 2.5 (0.1; 93.5) | 1.7 (NA; NA) | 0.2 (0; 5096.7) |
| PV | 651 (111; 3821) | 201 (12; 3259) | 84 (10; 702) | 18 (NA; NA) | 2762 (389; 19594) | 104 (38; 285) | 6.3 (1.3; 30.4) | 3.6 (0; 261262.2) | 1.5 (0; 263.8) | 1 (NA; NA) | 26.5 (3.7; 188.1) | 1.6 (0; 103.5) | 4 (0; 102471) | 1.8 (NA; NA) | 0.2 (0.1; 0.8) |