

Table S2: qRT-PCR results for oropharyngeal swabs as log₁₀ vRNA viral titres/ml, with EID₅₀/ml titres in parenthesis

| Treatment group | Chicken No. | Sampling day post challenge | | | | | |
|----------------------------------|-------------|-----------------------------|-------------------------------------|---------------------------------------|--------------------------------------|---------------------------------|------------------------------|
| | | 2 | 3 | 4 | 7 | 14 | 21 |
| A: H6 VLP vaccine | A1 | 3.40 [0.05] | U | U | U | U | U |
| | A2 | 6.80 [122.80] | 6.65 [87.89] | 6.63 [83.08] | 6.23 [33.05] | 3.32 [0.04] | U |
| | A3 | 8.56 [7,087.50] | 9.36 [44,166.00] | 8.49 [5,972.72] | 7.30 [390.38] | U | U |
| | A4 | 3.74 [0.11] | 3.65 [0.09] | 4.07 [0.23] | U | U | U |
| | A5 | U | 5.48 [5.91] | 3.24 [0.03] | U | U | U |
| | A6 | 4.51 [0.63] | U | U | U | U | U |
| | A7 | U | U | U | U | U | U |
| | A8 | U | 3.68 [0.09] | 3.65 [0.09] | U | U | U |
| | A9 | 5.80 [12.29] | 3.75 [0.11] | 3.44 [0.05] | U | U | U |
| | A10 | 8.48 [5,882.91] | 9.28 [36,683.59] | 8.95 [17,352.63] | 7.54 [669.72] | U | U |
| | A11 | 5.93 [16.57] | U | 3.32 [0.04] | U | U | U |
| | A12 | 5.94 [17.02] | U | 3.52 [0.06] | U | U | U |
| | | Mean | 4.43 ± 3.10 [1,094.99 ± 2531.06] | 3.49 ± 3.60 [6,745.31 ± 15,812.36] | 3.78 ± 3.03 [1,950.75 ± 5,144.54] | 1.76 ± 3.19 [91.10 ± 231.72] | 0.28 ± 0.96 [0.00 ± 0.01] |
| B: Commercial H6N2 vaccine | B1 | 8.95 [17,147.34] | 9.20 [31,123.68] | 9.47 [56,762.66] | 7.82 [1,271.09] | 4.07 [0.23] | 3.30 [0.04] |
| | B2 | 9.21 [31,693.99] | 9.03 [208,57.23] | 8.98 [18,794.16] | 5.67 [9.15] | 4.66 [0.89] | U |
| | B3 | 4.44 [0.54] | 5.47 [5.72] | 5.68 [9.35] | 3.96 [0.18] | U | U |
| | B4 | 8.69 [9,496.08] | 10.06 [222,982.17] | 10.38 [465,251.66] | 7.35 [436.86] | 5.20 [3.08] | 3.82 [0.13] |
| | B5 | 10.18 [294,594.91] | 10.72 [1,011,907.56] | 10.02 [204,423.14] | 9.29 [38,369.80] | 3.51 [0.06] | U |
| | B6 | 5.38 [4.67] | 5.57 [7.21] | 4.80 [1.22] | 3.63 [0.08] | U | U |
| | B7 | 8.40 | 8.33 | 7.97 | 5.09 | 3.78 | 3.77 |

| | | | | | | | |
|-------------------------------------|------|---|---|---|--|---|---------------------------------|
| | | [4,941.30] | [4,172.49] | [1,808.42] | [2.38] | [0.12] | [0.11] |
| | B8 | 9.68 [94,055.52] | 9.29 [38,088.14] | 10.53 [653,765.94] | 9.25 [34375.70] | 8.87 [14,506.68] | U |
| | B9 | 11.26 [3,554,684.50] | 10.47 [573,779.94] | 9.41 [49,937.49] | 7.49 [607.32] | 3.82 [0.13] | 4.43 [0.53] |
| | B10 | 10.83 [1,319,418.75] | 10.73 [1,053,922.00] | 10.51 [631,874.00] | 8.46 [5,616.02] | 4.71 [1.00] | 3.99 [0.19] |
| | B11 | 9.71 [100,821.03] | 9.86 [141,862.56] | 9.67 [90,377.52] | 6.73 [105.34] | U | 3.55 [0.07] |
| | B12 | 10.25 [342,713.22] | 10.63 [838,345.88] | 10.39 [47,4669.69] | 8.72 [10,240.57] | 4.22 [0.32] | 4.26 [0.36] |
| | Mean | 8.92 ± 2.06 [480,797.65 ± 1,036,923.51] | 9.11 ± 1.84 [328,087.88 ± 420,797.26] | 8.98 ± 1.91 [220,639.60 ± 259,421.07] | 6.96 ± 1.96 [7,586.21 ± 13,823.30] | 3.57 ± 2.56 [1,209.38 ± 4,187.56] | 2.26 ± 2.02 [1.45 ± 0.12] |
| C: Non- vaccinated control | C1 | 9.83 [132,184.05] | 9.92 [162,635.92] | 9.20 [30,582.46] | 5.78 [11.67] | 3.76 [0.11] | U |
| | C2 | 9.07 [22,873.56] | 10.12 [255,302.47] | 8.99 [19,051.86] | U | U | † |
| | C3 | 11.03 [2,094,932.25] | 10.73 [1,052,160.00] | 10.80 [1,229,791.88] | 9.61 [79,515.58] | 4.75 [1.08] | U |
| | C4 | 10.83 [1,308,116.13] | 10.27 [366,290.41] | 9.69 [95,887.45] | 7.33 [416.87] | 3.65 [0.09] | 3.68 [0.09] |
| | C5 | 9.06 [22,264.40] | 9.57 [72,389.12] | 9.69 [96,366.26] | 5.31 [4.00] | 4.05 [0.22] | 4.26 [0.36] |
| | C6 | 11.17 [2,880,247.00] | 10.04 [212,548.03] | 9.58 [74,106.70] | 4.52 [0.64] | U | U |
| | C7 | 9.18 [29,331.09] | 9.57 [72,102.30] | 9.30 [39,215.80] | 3.63 [0.08] | U | U |
| | C8 | 8.40 [4,852.83] | 9.39 [47,933.50] | 8.66 [8,931.28] | 3.70 [0.10] | U | U |
| | C9 | 9.09 [23,994.57] | 6.42 [50.74] | 8.32 [4,092.66] | 4.01 [0.20] | U | U |
| | C10 | 10.24 [335,462.56] | 9.61 [79,864.50] | 8.50 [6,085.93] | 4.00 [0.19] | 3.33 [0.04] | 3.65 [0.09] |
| | C11 | 9.31 [40,149.06] | 10.03 [208,241.86] | 8.91 [15,671.43] | 4.19 [0.30] | 4.02 [0.20] | 3.51 [0.06] |
| | C12 | 7.71 [1,002.83] | 10.53 [654,263.75] | 9.84 [133,386.89] | 6.42 [51.62] | U | U |
| | Mean | 9.58 ± 1.07 [574,617.53 ± 980,148.75] | 9.68 ± 1.11 [265,315.22 ± 305,085.74] | 9.29 ± 0.69 [146,097.55 ± 343,938.97] | 4.87 ± 2.35 [6,666.77 ± 22,941.73] | 1.96 ± 2.08 [0.15 ± 0.31] | 1.37 ± 1.91 [1.12 ± 0.05] |

U-undetected/ below the limit of detection of 1000 viral copies ; † chicken C2 was euthanized 16 days post challenge for humane reasons unrelated to viral challenge