**Supplementary Table 1: Primer and probe combinations used in the present study**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Forward primer (5’🡪3’)** | **Reverse primer (5’🡪3’)** | **Probe (5’🡪3’)** | **Ref** |
| **GAPDH** | AACATCATCCCTGCTTCCACTGGT | 5’TGTTGAAGTCGCAGGAGACAACCT-3’ | 6FAM-TGACCTGCCGCCTGGAGAAAGCTGCC-TAMRA |  |
| **TNFα** | ATGTTGTAGCAAACCCTGAAGCT | ATTGGCCAGGAGGGCATT | 6FAM-ACTCCAATGGCTGAGCCGACGTG-TAMRA | [1] |
| **IL-6** | GCAGAGAACAACCTAAATCTTCCAA | TGATTGAATTGAGACTGGAAGCA | 6FAM-CTGGCAGAAGAGGAC-MGBNFQ | [2] |
| **IL-8** | GGCACCTTGCATGAACATGA- | AAGCAGGAAAACTGCCAAGAGA | 6FAM-TTCCAAGCTGGCTGTTG-MGBNFQ | [2] |

1. Nakata, M., T. Itou, and T. Sakai, *Quantitative analysis of inflammatory cytokines expression in peripheral blood mononuclear cells of the ferret (Mustela putorius furo) using real-time PCR.* Veterinary immunology and immunopathology, 2009. **130**(1): p. 88-91.

2. Carolan, L.A., et al., *TaqMan real time RT-PCR assays for detecting ferret innate and adaptive immune responses.* Journal of virological methods, 2014. **205**: p. 38-52.

 **Supplementary Table 2: Viral titres in extra-respiratory organs (Log10TCID50/gram)1.**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|   |   | Olfactory bulb | Cerebrum  | Heart | Spleen | Liver | Kidney | Pancreas | Jejunum |
| H5N1 Day 1 | Ferret 1 | 2.68 | 1.81 | 1.01 | 1.61 | 1.81 | 1.71 | N.D2. | 1.56 |
| Ferret 2 | 2.28 | 1.55 | <1.17 | 2.46 | 1.1 | <1.17 | N.D | <1.11 |
| Ferret 3 | <1.50 | <1.06 | 1.24 | 1.75 | <1.25 | 2.14 | N.D | <1.28 |
| Ferret 4 | <1.68 | <1.17 | <1.08 | 1.45 | <1.09 | 1.32 | N.D | <1.48 |
|  |  |  |  |  |  |  |  |  |  |
| H5N1 Day 3 | Ferret 1 | 3.86 | 3.46 | 1.76 | 3.07 | 2.51 | 0.96 | N.D | 5.18 |
| Ferret 2 | <1.72 | <1.31 | 1.62 | 3.86 | 1.12 | 1.48 | N.D | 4.46 |
| Ferret 3 | 5.75 | 2.5 | <1.10 | 4.5 | 1.82 | <1.25 | N.D | <1.65 |
| Ferret 4 | 1.53 | 1.51 | 1.13 | 3.2 | 1.49 | <1.26 | N.D | <1.61 |
|  |  |  |  |  |  |  |  |  |  |
| pH1N1 Day 1 | Ferret 1 | 5.38 | 1.98 | 1.55 | <1.08 | <1.08 | <1.16 | <1.81 | <1.53 |
| Ferret 2 | 1.96 | <1.08 | <0.92 | <1.12 | <1.41 | <1.44 | <1.52 | <1.47 |
| Ferret 3 | 5.07 | 3.16 | <1.37 | <1.14 | 1.37 | <1.70 | <1.57 | <1.42 |
| Ferret 4 | 1.61 | <1.69 | 2.59 | <0.82 | <1.12 | <1.24 | <1.73 | <1.51 |
|  |  |  |  |  |  |  |  |  |  |
| pH1N1 Day 3 | Ferret 1 | 3.34 | 1.26 | <1.37 | <1.13 | <1.17 | <1.44 | <1.57 | <1.55 |
| Ferret 2 | 4.51 | 3.05 | 2.42 | <1.47 | <1.46 | <1.30 | <1.43 | <1.44 |
| Ferret 3 | 2.01 | 1.22 | <1.23 | <1.39 | <1.29 | <1.41 | <1.47 | <1.35 |
| Ferret 4 | 4.07 | 3.83 | 1.71 | <1.24 | <1.00 | <1.38 | <1.75 | <1.25 |

1. Data is reprinted from [9] under the PLoS One Creative Commons License.

2. Not determined