**Supplemental table S4. Up-regulated genes in iPAM 3D4/21 cells**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **PCV2b/H1N1** |  | **PCV2b** |  | **H1N1** |  |
| Gene ID | Fold change | Gene ID | Fold change | Gene ID | Fold change |
| FAM124A | 246,10 | RCSD1 | 217,99 | CCK | 181,02 |
| MX2 | 235,55 | FAM124A | 200,88 | IL19 | 98,10 |
| ARG1 | 200,86 | ARG1 | 195,20 | RCSD1 | 21,56 |
| VAT1L | 182,81 | VAT1L | 165,05 | gene:ENSSSCG00000043470 | 18,83 |
| CCK | 174,13 | SLC38A4 | 134,88 | C3 | 13,90 |
| SLC38A4 | 146,43 | CCK | 122,35 | TNFAIP3 | 9,59 |
| RCSD1 | 113,02 | MX2 | 110,08 | S100A8 | 9,49 |
| IL19 | 70,79 | IL19 | 71,13 | TNIP3 | 8,60 |
| CXCL2 | 35,69 | CHRNG | 40,13 | CXCL2 | 8,24 |
| ISG15 | 35,34 | ISG15 | 28,95 | NLRP3 | 8,08 |
| gene:ENSSSCG00000045989 | 32,50 | B3GNT9 | 26,12 | PLET1 | 6,10 |
| B3GNT9 | 28,46 | gene:ENSSSCG00000049288 | 23,38 | PTGS2 | 5,96 |
| CHRNG | 27,13 | CXCL2 | 22,51 | HS3ST1 | 5,44 |
| gene:ENSSSCG00000022738 | 20,66 | gene:ENSSSCG00000022738 | 19,10 | CD14 | 4,74 |
| ISG12(A) | 19,86 | ISG12(A) | 18,00 | EHF | 4,25 |
| gene:ENSSSCG00000032591 | 17,87 | CABP5 | 17,38 | ZC3H12A | 4,17 |
| TNFAIP3 | 17,26 | PRDM5 | 14,94 | gene:ENSSSCG00000006588 | 4,14 |
| PTGS2 | 17,23 | S100A8 | 13,64 | ANKRD1 | 4,12 |
| TNIP3 | 15,35 | gene:ENSSSCG00000046436 | 13,33 | IL1A | 4,05 |
| IQUB | 14,65 | IQUB | 13,08 | STYXL1 | 4,04 |
| IFIT1 | 14,51 | PTGS2 | 11,41 | ZC3H12C | 3,99 |
| CABP5 | 13,45 | DHRS9 | 10,49 | ING3 | 3,66 |
| S100A8 | 12,59 | CCL2 | 10,48 | S100A12 | 3,55 |
| gene:ENSSSCG00000049288 | 12,25 | NLRP3 | 10,09 | gene:ENSSSCG00000014997 | 3,54 |
| gene:ENSSSCG00000016733 | 12,14 | TGFBR3 | 9,79 | CHI3L1 | 3,29 |
| KLF4 | 11,67 | TNFAIP3 | 9,74 | ITPR1 | 3,24 |
| NLRP3 | 9,74 | ZC3H12A | 9,55 | ICAM1 | 3,14 |
| TGFBR3 | 9,13 | gene:ENSSSCG00000032591 | 9,51 | PIGR | 3,12 |
| PRDM5 | 8,96 | IFIT1 | 8,46 | F3 | 2,97 |
| MX1 | 8,90 | PAPPA | 7,87 | FBXO32 | 2,94 |
| DHRS9 | 8,67 | gene:ENSSSCG00000047320 | 7,79 | RNF125 | 2,78 |
| CHAC1 | 8,61 | AGR2 | 7,74 | APIP | 2,75 |
| PLET1 | 8,60 | gene:ENSSSCG00000049253 | 7,63 | MX1 | 2,73 |
| gene:ENSSSCG00000043470 | 7,98 | TNIP3 | 7,47 | gene:ENSSSCG00000020872 | 2,70 |
| IL1A | 7,94 | CDC6 | 7,34 | HPS5 | 2,52 |
| gene:ENSSSCG00000010878 | 7,52 | C3 | 7,25 | TNIP1 | 2,46 |
| ATP5MC3 | 7,25 | gene:ENSSSCG00000010878 | 7,11 | IER3 | 2,43 |
| C3 | 7,21 | EDN1 | 6,92 | CD44 | 2,41 |
| PMAIP1 | 7,16 | MX1 | 6,30 | NFKBIZ | 2,37 |
| ATG101 | 7,02 | PSPH | 6,23 | PLTP | 2,34 |
| gene:ENSSSCG00000008929 | 6,79 | MMP13 | 6,23 | TXNRD1 | 2,32 |
| NUPR1 | 6,42 | gene:ENSSSCG00000017864 | 6,07 | ATF3 | 2,25 |
| EDN1 | 6,10 | gene:ENSSSCG00000044847 | 6,07 | CFTR | 2,18 |
| CDC6 | 6,09 | PLET1 | 5,92 | gene:ENSSSCG00000010954 | 2,03 |
| gene:ENSSSCG00000047320 | 6,08 | TPST1 | 5,69 | COX1 | 1,99 |
| SERPINE1 | 6,05 | gene:ENSSSCG00000038304 | 5,55 | TNFRSF1B | 1,90 |
| gene:ENSSSCG00000024973 | 5,82 | ND6 | 5,50 | EREG | 1,89 |
| TRIB3 | 5,66 | HOOK2 | 5,45 | GSAP | 1,84 |
| TPST1 | 5,63 | ATG101 | 5,36 | PADI1 | 1,84 |
| ANKRD1 | 5,33 | GLP2R | 5,22 |  |  |
| OLFML3 | 5,28 | gene:ENSSSCG00000024973 | 5,19 |  |  |
| RASSF1 | 5,20 | SOX9 | 5,16 |  |  |
| HS3ST1 | 5,13 | MLLT11 | 5,11 |  |  |
| IVL | 5,12 | gene:ENSSSCG00000026210 | 5,11 |  |  |
| gene:ENSSSCG00000014997 | 5,06 | S100A12 | 4,91 |  |  |
| IFIT2 | 5,01 | PMAIP1 | 4,90 |  |  |
| gene:ENSSSCG00000044847 | 5,01 | RASSF1 | 4,75 |  |  |
| SOX9 | 4,80 | SERPINE1 | 4,62 |  |  |
| MAP3K8 | 4,79 | MXD1 | 4,57 |  |  |
| gene:ENSSSCG00000006588 | 4,73 | IVL | 4,57 |  |  |
| CHI3L1 | 4,50 | TDG | 4,57 |  |  |
| SLC1A4 | 4,49 | RNF19B | 4,52 |  |  |
| ZC3H12C | 4,39 | ANKRD1 | 4,50 |  |  |
| FOS | 4,37 | NFKBIA | 4,42 |  |  |
| IL6 | 4,37 | RGS2 | 4,33 |  |  |
| PPP1R15A | 4,33 | IER3 | 4,24 |  |  |
| MMP13 | 4,27 | MAP3K8 | 4,21 |  |  |
| IFIH1 | 4,18 | GMNN | 4,18 |  |  |
| gene:ENSSSCG00000012050 | 4,16 | CSKMT | 4,09 |  |  |
| IER3 | 4,09 | gene:ENSSSCG00000012050 | 4,07 |  |  |
| EPSTI1 | 4,06 | GADD45B | 3,95 |  |  |
| LIPG | 4,03 | IL1A | 3,94 |  |  |
| IFNGR1 | 4,01 | AGPAT4 | 3,93 |  |  |
| EHF | 3,99 | SEMA7A | 3,93 |  |  |
| ITPR1 | 3,98 | gene:ENSSSCG00000006588 | 3,89 |  |  |
| HERC5 | 3,98 | CCDC80 | 3,83 |  |  |
| GADD45B | 3,95 | ZNFX1 | 3,77 |  |  |
| ING3 | 3,93 | SERTAD1 | 3,70 |  |  |
| F3 | 3,91 | CHI3L1 | 3,70 |  |  |
| PLAU | 3,88 | NFKBIZ | 3,69 |  |  |
| CCN2 | 3,86 | CCN2 | 3,67 |  |  |
| NFKBIA | 3,80 | HBEGF | 3,65 |  |  |
| GADD45A | 3,74 | RND3 | 3,65 |  |  |
| ZC3H12A | 3,68 | IFFO2 | 3,63 |  |  |
| ATF3 | 3,68 | gene:ENSSSCG00000047164 | 3,59 |  |  |
| S100A12 | 3,65 | TMPRSS11F | 3,47 |  |  |
| PSPH | 3,62 | THOC6 | 3,45 |  |  |
| gene:ENSSSCG00000013613 | 3,61 | ZC3H12C | 3,44 |  |  |
| NRP2 | 3,50 | ICAM1 | 3,37 |  |  |
| EGR1 | 3,40 | MAFG | 3,35 |  |  |
| TTC9 | 3,32 | SAT1 | 3,29 |  |  |
| FBXO32 | 3,29 | ADM | 3,24 |  |  |
| OAS2 | 3,27 | ZNF131 | 3,24 |  |  |
| BATF3 | 3,23 | F3 | 3,22 |  |  |
| gene:ENSSSCG00000009633 | 3,22 | IFNGR1 | 3,18 |  |  |
| VEGFA | 3,21 | COX1 | 3,16 |  |  |
| RND3 | 3,19 | HS3ST1 | 3,15 |  |  |
| ICAM1 | 3,14 | gene:ENSSSCG00000017106 | 3,13 |  |  |
| CSKMT | 3,10 | HPS5 | 3,11 |  |  |
| JMY | 3,08 | S1PR1 | 3,08 |  |  |
| EREG | 3,06 | CUTC | 3,08 |  |  |
| TMPRSS11F | 3,02 | gene:ENSSSCG00000014997 | 3,04 |  |  |
| HBEGF | 2,99 | HERC5 | 3,02 |  |  |
| CTSC | 2,97 | APOBEC1 | 2,89 |  |  |
| SGMS2 | 2,92 | RSRP1 | 2,88 |  |  |
| NMI | 2,89 | gene:ENSSSCG00000009633 | 2,86 |  |  |
| APOBEC1 | 2,87 | gene:ENSSSCG00000033189 | 2,83 |  |  |
| PLK2 | 2,86 | FJX1 | 2,81 |  |  |
| TMEM87B | 2,85 | EPSTI1 | 2,80 |  |  |
| CENPS | 2,82 | MMP7 | 2,80 |  |  |
| CD44 | 2,81 | NUPR1 | 2,76 |  |  |
| CSTF2 | 2,80 | CCNL1 | 2,76 |  |  |
| H1-3 | 2,80 | DDX52 | 2,73 |  |  |
| gene:ENSSSCG00000003079 | 2,73 | EREG | 2,73 |  |  |
| NFKBIZ | 2,69 | LIPG | 2,62 |  |  |
| COX1 | 2,69 | TRIB1 | 2,61 |  |  |
| MKNK2 | 2,67 | BRIX1 | 2,61 |  |  |
| MED13 | 2,56 | C1orf52 | 2,58 |  |  |
| TNIP1 | 2,54 | MALT1 | 2,58 |  |  |
| ZNFX1 | 2,53 | SIRT7 | 2,57 |  |  |
| TARS1 | 2,50 | GADD45A | 2,56 |  |  |
| HPS5 | 2,49 | OAS2 | 2,55 |  |  |
| CDCP1 | 2,35 | EHF | 2,55 |  |  |
| YPEL2 | 2,33 | RBP4 | 2,53 |  |  |
| gene:ENSSSCG00000032525 | 2,30 | FST | 2,51 |  |  |
| SAT1 | 2,21 | FAM76B | 2,48 |  |  |
| BRIX1 | 2,20 | CBX2 | 2,44 |  |  |
| SAMD9 | 2,19 | SECISBP2L | 2,41 |  |  |
| SERPINE2 | 2,16 | AMOTL2 | 2,41 |  |  |
| JAG1 | 2,16 | PLK2 | 2,41 |  |  |
| ATF4 | 2,05 | GID4 | 2,40 |  |  |
| EIF2AK2 | 2,04 | IFITM3 | 2,39 |  |  |
| PSME2 | 2,02 | TP53RK | 2,39 |  |  |
| EIF4EBP1 | 1,96 | TNFSF9 | 2,38 |  |  |
| EIF3J | 1,94 | gene:ENSSSCG00000016441 | 2,38 |  |  |
| ACSL4 | 1,85 | CTSC | 2,37 |  |  |
| PADI1 | 1,83 | TMEM87B | 2,37 |  |  |
|  |  | WDR74 | 2,32 |  |  |
|  |  | CFD | 2,31 |  |  |
|  |  | TNIP1 | 2,31 |  |  |
|  |  | JAG1 | 2,31 |  |  |
|  |  | CSTF2 | 2,29 |  |  |
|  |  | FKBP4 | 2,27 |  |  |
|  |  | ATF3 | 2,25 |  |  |
|  |  | KLF6 | 2,23 |  |  |
|  |  | R3HDM4 | 2,20 |  |  |
|  |  | gene:ENSSSCG00000003079 | 2,19 |  |  |
|  |  | MGLL | 2,17 |  |  |
|  |  | AMD1 | 2,15 |  |  |
|  |  | MAP2K3 | 2,11 |  |  |
|  |  | gene:ENSSSCG00000017754 | 2,08 |  |  |
|  |  | BST2 | 2,07 |  |  |
|  |  | BMP4 | 2,07 |  |  |
|  |  | FBXO32 | 2,06 |  |  |
|  |  | FAM177A1 | 2,06 |  |  |
|  |  | gene:ENSSSCG00000011803 | 2,05 |  |  |
|  |  | CCND1 | 2,04 |  |  |
|  |  | CD44 | 2,03 |  |  |
|  |  | ZFP36L1 | 2,01 |  |  |
|  |  | gene:ENSSSCG00000028092 | 2,00 |  |  |
|  |  | IVNS1ABP | 1,97 |  |  |
|  |  | ID2 | 1,96 |  |  |
|  |  | CLDN1 | 1,95 |  |  |
|  |  | TRIM25 | 1,93 |  |  |
|  |  | NAMPT | 1,92 |  |  |
|  |  | PLEKHN1 | 1,92 |  |  |
|  |  | MKNK2 | 1,91 |  |  |
|  |  | TAF1D | 1,89 |  |  |
|  |  | EMP1 | 1,89 |  |  |
|  |  | TRA2B | 1,88 |  |  |
|  |  | FSCN1 | 1,87 |  |  |
|  |  | DNAJB1 | 1,86 |  |  |
|  |  | SAMD9 | 1,84 |  |  |
|  |  | SNAPC1 | 1,84 |  |  |
|  |  | SERPINE2 | 1,82 |  |  |
|  |  | EIF3J | 1,82 |  |  |
|  |  | TM4SF1 | 1,79 |  |  |
|  |  | SPP1 | 1,77 |  |  |
|  |  | POLR3D | 1,77 |  |  |
|  |  | SDC1 | 1,73 |  |  |
|  |  | RSRC2 | 1,68 |  |  |
|  |  | MAP7D1 | 1,68 |  |  |
|  |  | SRXN1 | 1,63 |  |  |
|  |  | LLPH | 1,59 |  |  |

Fold change of gene expression in infected cells comparing to control (mock-infected cells).