

Table S2. Top canonical pathways enriched in expressed genes, after selection of canonical pathway related to immune response.

| Ingenuity canonical pathways | −log (p-value) | Ratio | z-score | Molecules |
|---|----------------|----------|---------|--|
| Leukocyte extravasation signaling | 3.8E00 | 1.24E−01 | 1.043 | <i>ABL1, ACTG2, CD44, CLDN3, CXCL12, GNAI3, ICAM3, MAPK10, MMP17, MMP23B, MMP9, NCF2, NCF4, PIK3C2B, PRKCG, PRKCZ, PTK2, PXN, RAP1B, VAV1, VAV3, VCAMI, WAS, WIPF1</i> |
| PI3K signaling in B lymphocytes | 3.49E00 | 1.33E−01 | 0.500 | <i>ABL1, ATF2, ATF4, CALM1 (includes others), CD81, CREB1, FOXO3, ITPR2, MALT1, PDPK1, PLCD1, PLCL1, PLEKHA4, PPP3CB, PRKCZ, RAP1B, RRAS2, VAV1, VAV3</i> |
| Virus entry <i>via</i> endocytic pathways | 2.34E00 | 1.25E−01 | N/A | <i>ABL1, ACTG2, AP1G1, CLTB, CLTC, FOLR1, ITGB3, ITSN1, PIK3C2B, PRKCG, PRKCZ, RAP1B, RRAS2</i> |
| Neuroinflammation signaling pathway | 2.29E00 | 9.15E−02 | −0.408 | <i>ATF2, ATF4, BACE1, BACE2, CASP3, CD200, CREB1, CREB3LI, CXCL12, GABRB3, GAD1, GAD2, GRIN1, IL18, MAPK10, MAPK4, MMP9, NCF2, NCSTN, PIK3C2B, PLA2G12A, PPP3CB, PRKCG, PSEN1, S100G, SLC1A3, TRAF3, TYROBP, VCAMI</i> |
| Mechanisms of viral exit from host cells | 2.19E00 | 1.71E−01 | N/A | <i>ACTG2, PRKCG, PRKCZ, SH3GL3, SH3GLB2, VPS28, VPS36</i> |
| Prolactin signaling | 2.13E00 | 1.28E−01 | 0.707 | <i>CEBPB, CSN2, NR3C1, PDPK1, PIK3C2B, PRKCG, PRKCZ, RAP1B, RRAS2, SOCS5, STAT3</i> |
| Role of MAPK signaling in promoting the pathogenesis of influenza | 2.04E00 | 1.15E−01 | 0.577 | <i>ATF2, ATP6V0A4, ATP6V1A, ATP6V1F, ATP6V1H, CASP3, LCAT, MAPK10, NUP153, PLA2G12A, PRDX6, RAP1B, RRAS2</i> |
| CXCR4 signaling | 1.92E00 | 1.01E−01 | 1.291 | <i>Cdc42, CXCL12, EGRI, GNAI3, GNB1, GNG3, ITPR2, MAPK10, MYL9, PIK3C2B, PRKCG, PRKCZ, PTK2, PXN, RAP1B, RHOG, RRAS2</i> |
| Phagosome maturation | 1.84E00 | 1.01E−01 | N/A | <i>ATP6V0A4, ATP6V1A, ATP6V1F, ATP6V1H, CALR, CTSA, CTSC, CTSG, CTSH, DYNC1L12, NCF2, NSF, PRDX1, PRDX6, VPS28, VPS39</i> |
| IL-15 production | 1.75E00 | 1.06E−01 | 1.941 | <i>ABL1, CLK2, CSK, DDR1, IGF1R, LCK, MET, MUSK, NTRK1, PRKCZ, PTK2, RYK, YES1</i> |
| fMLP signaling in neutrophils | 1.55E00 | 9.92E−02 | 1.155 | <i>CALM1 (includes others), GNAI3, GNB1, GNG3, ITPR2, NCF2, PIK3C2B, PPP3CB, PRKCG, PRKCZ, RAP1B, RRAS2, WAS</i> |
| Fc Epsilon RI signaling | 1.54E00 | 1.02E−01 | −0.302 | <i>GRAP2, MAPK10, PDPK1, PIK3C2B, PLA2G12A, PRKCG, PRKCZ, RAP1B, RRAS2, SYNJ1, VAV1, VAV3</i> |
| FAT10 signaling pathway | 1.48E00 | 1.25E−01 | N/A | <i>PSMA1, PSMB10, PSMC5, PSMC6, PSMD1, PSMD10, PSMD8</i> |
| FLT3 signalling in haematopoietic progenitor cells | 1.45E00 | 1.1E−01 | 0.707 | <i>ATF2, ATF4, CREB1, CREB3LI, PDPK1, PIK3C2B, RAP1B, RRAS2, STAT3</i> |
| IL-8 signaling | 1.38E00 | 8.57E−02 | 1.500 | <i>CCND1, Cdc42, GNAI3, GNB1, GNG3, ITGB3, MAPK10, MMP9, MYL9, NCF2, PIK3C2B, PRKCG, PRKCZ, PTK2, RAP1B, RHOG, RRAS2, VCAMI</i> |
| PFKFB4 signaling pathway | 1.33E00 | 1.25E−01 | −0.447 | <i>ATF2, ATF4, CREB1, CREB3LI, HK3, PRKACA</i> |