GSE14308\_TH17\_VS\_INDUCED\_TREG\_UP, GSE14308\_TH17\_VS\_INDUCED\_TREG\_UP GSE21670\_UNTREATED\_VS\_IL6\_TREATED\_CD4\_TCELL\_DN, GSE21670\_UNTREATED\_VS\_IL6\_TREATED\_CD4\_TCELL\_DN GSE8621\_UNSTIM\_VS\_LPS\_STIM\_MACROPHAGE\_DN, GSE8621\_UNSTIM\_VS\_LPS\_STIM\_MACROPHAGE\_DN GSE24210\_RESTING\_TREG\_VS\_TCONV\_UP, GSE24210\_RESTING\_TREG\_VS\_TCONV\_UP GSE7764\_NKCELL\_VS\_SPLENOCYTE\_DN, GSE7764\_NKCELL\_VS\_SPLENOCYTE\_DN GSE3982\_MAST\_CELL\_VS\_BASOPHIL\_DN, GSE3982\_MAST\_CELL\_VS\_BASOPHIL\_DN GSE34205\_RSV\_VS\_FLU\_INF\_INFANT\_PBMC\_DN, GSE34205\_RSV\_VS\_FLU\_INF\_INFANT\_PBMC\_DN KEGG\_UBIQUITIN\_MEDIATED\_PROTEOLYSIS, KEGG\_UBIQUITIN\_MEDIATED\_PROTEOLYSIS GSE32423\_IL7\_VS\_IL7\_IL4\_MEMORY\_CD8\_TCELL\_UP, GSE32423\_IL7\_VS\_IL7\_IL4\_MEMORY\_CD8\_TCELL\_UP GSE26928\_NAIVE\_VS\_EFF\_MEMORY\_CD4\_TCELL\_UP, GSE26928\_NAIVE\_VS\_EFF\_MEMORY\_CD4\_TCELL\_UP GSE20727 H2O2 VS ROS INHIBITOR TREATED DC UP, GSE20727 H2O2 VS ROS INHIBITOR TREATED DC UP GSE39820 CTRL VS TGFBETA3 IL6 IL23A CD4 TCELL DN, GSE39820 CTRL VS TGFBETA3 IL6 IL23A CD4 TCELL DN GSE4984\_GALECTIN1\_VS\_LPS\_STIM\_DC\_UP, GSE4984\_GALECTIN1\_VS\_LPS\_STIM\_DC\_UP GSE27859\_DC\_VS\_CD11C\_INT\_F480\_INT\_DC\_UP, GSE27859\_DC\_VS\_CD11C\_INT\_F480\_INT\_DC\_UP GSE17580\_UNINFECTED\_VS\_S\_MANSONI\_INF\_TREG\_UP, GSE17580\_UNINFECTED\_VS\_S\_MANSONI\_INF\_TREG\_UP GSE31082\_CD4\_VS\_CD8\_SP\_THYMOCYTE\_UP, GSE31082\_CD4\_VS\_CD8\_SP\_THYMOCYTE\_UP GSE30083\_SP1\_VS\_SP4\_THYMOCYTE\_DN, GSE30083\_SP1\_VS\_SP4\_THYMOCYTE\_DN GSE32901\_TH1\_VS\_TH17\_ENRICHED\_CD4\_TCELL\_UP, GSE32901\_TH1\_VS\_TH17\_ENRICHED\_CD4\_TCELL\_UP GSE21033\_1H\_VS\_24H\_POLYIC\_STIM\_DC\_UP, GSE21033\_1H\_VS\_24H\_POLYIC\_STIM\_DC\_UP GSE17721\_POLYIC\_VS\_PAM3CSK4\_12H\_BMDC\_UP, GSE17721\_POLYIC\_VS\_PAM3CSK4\_12H\_BMDC\_UP GSE8921\_UNSTIM\_VS\_TLR1\_2\_STIM\_MONOCYTE\_6H\_UP, GSE8921\_UNSTIM\_VS\_TLR1\_2\_STIM\_MONOCYTE\_6H\_UP GSE17721\_PAM3CSK4\_VS\_CPG\_16H\_BMDC\_UP, GSE17721\_PAM3CSK4\_VS\_CPG\_16H\_BMDC\_UP MIR4742\_5P, MIR4742\_5P GSE25088\_WT\_VS\_STAT6\_KO\_MACROPHAGE\_IL4\_STIM\_UP, GSE25088\_WT\_VS\_STAT6\_KO\_MACROPHAGE\_IL4\_STIM\_UP AIZARANI\_LIVER\_C31\_KUPFFER\_CELLS\_5, AIZARANI\_LIVER\_C31\_KUPFFER\_CELLS\_5 GFB\_IL6\_TREATED\_STAT3\_KO\_CD4\_TCELL\_DN, GSE21670\_UNTREATED\_VS\_TGFB\_IL6\_TREATED\_STAT3\_KO\_CD4\_TCELL\_DN MIR605\_5P, MIR605\_5P GSE30083 SP1 VS SP3 THYMOCYTE DN, GSE30083 SP1 VS SP3 THYMOCYTE DN GSE13306\_RA\_VS\_UNTREATED\_MEM\_CD4\_TCELL\_UP, GSE13306\_RA\_VS\_UNTREATED\_MEM\_CD4\_TCELL\_UP MIR653\_5P, MIR653\_5P GSE7764\_IL15\_TREATED\_VS\_CTRL\_NK\_CELL\_24H\_DN, GSE7764\_IL15\_TREATED\_VS\_CTRL\_NK\_CELL\_24H\_DN GSE3982\_MAST\_CELL\_VS\_EFF\_MEMORY\_CD4\_TCELL\_DN, GSE3982\_MAST\_CELL\_VS\_EFF\_MEMORY\_CD4\_TCELL\_DN GSE17721\_LPS\_VS\_CPG\_0.5H\_BMDC\_DN, GSE17721\_LPS\_VS\_CPG\_0.5H\_BMDC\_DN HP\_ASCITES, HP\_ASCITES MIR7978, MIR7978 GSE3982\_MEMORY\_CD4\_TCELL\_VS\_BCELL\_UP, GSE3982\_MEMORY\_CD4\_TCELL\_VS\_BCELL\_UP IRF2\_01, IRF2\_01 MODULE 166, MODULE 166 HP\_ABNORMAL\_PLEURA\_MORPHOLOGY, HP\_ABNORMAL\_PLEURA\_MORPHOLOGY HP\_APLASIA\_HYPOPLASIA\_OF\_THE\_LUNGS, HP\_APLASIA\_HYPOPLASIA\_OF\_THE\_LUNGS KEGG\_CELL\_ADHESION\_MOLECULES\_CAMS, KEGG\_CELL\_ADHESION\_MOLECULES\_CAMS HP\_COUGH, HP\_COUGH PID\_AVB3\_INTEGRIN\_PATHWAY, PID\_AVB3\_INTEGRIN\_PATHWAY MODULE\_157, MODULE\_157 GOBP\_AXONEME\_ASSEMBLY, GOBP\_AXONEME\_ASSEMBLY GLI1 UP.V1 UP, GLI1 UP.V1 UP HP\_ABNORMAL\_SPUTUM, HP\_ABNORMAL\_SPUTUM GSE4590\_SMALL\_VS\_VPREB\_POS\_LARGE\_PRE\_BCELL\_DN, GSE4590\_SMALL\_VS\_VPREB\_POS\_LARGE\_PRE\_BCELL\_DN HP\_PRODUCTIVE\_COUGH, HP\_PRODUCTIVE\_COUGH HP\_ATELECTASIS, HP\_ATELECTASIS

```
GSE17186_NAIVE_VS_CD21LOW_TRANSITIONAL_BCELL_CORD_BLOOD_UP, GSE17186_NAIVE_VS_CD21LOW_TRANSITIONAL_BCELL_CORD_BLOOD_UP
GSE22432_CDC_VS_COMMON_DC_PROGENITOR_UP, GSE22432_CDC_VS_COMMON_DC_PROGENITOR_UP
GSE22601_DOUBLE_NEGATIVE_VS_DOUBLE_POSITIVE_THYMOCYTE_DN, GSE22601_DOUBLE_NEGATIVE_VS_DOUBLE_POSITIVE_THYMOCYTE_DN
GSE5503_LIVER_DC_VS_MLN_DC_ACTIVATED_ALLOGENIC_TCELL_DN, GSE5503_LIVER_DC_VS_MLN_DC_ACTIVATED_ALLOGENIC_TCELL_DN
GSE17186_NAIVE_VS_CD21LOW_TRANSITIONAL_BCELL_DN, GSE17186_NAIVE_VS_CD21LOW_TRANSITIONAL_BCELL_DN
GSE17186_BLOOD_VS_CORD_BLOOD_CD21LOW_TRANSITIONAL_BCELL_UP, GSE17186_BLOOD_VS_CORD_BLOOD_CD21LOW_TRANSITIONAL_BCELL_UP
GSE12003 MIR223 KO VS WT BM PROGENITOR 4D CULTURE UP, GSE12003 MIR223 KO VS WT BM PROGENITOR 4D CULTURE UP
GSE17186 MEMORY VS CD21HIGH TRANSITIONAL BCELL DN, GSE17186 MEMORY VS CD21HIGH TRANSITIONAL BCELL DN
GSE40274 CTRL VS_FOXP3_TRANSDUCED_ACTIVATED_CD4_TCELL_DN, GSE40274_CTRL_VS_FOXP3_TRANSDUCED_ACTIVATED_CD4_TCELL_DN
GSE17186_CD21LOW_VS_CD21HIGH_TRANSITIONAL_BCELL_CORD_BLOOD_DN, GSE17186_CD21LOW_VS_CD21HIGH_TRANSITIONAL_BCELL_CORD_BLOOD_DN
GSE6092_UNSTIM_VS_IFNG_STIM_ENDOTHELIAL_CELL_DN, GSE6092_UNSTIM_VS_IFNG_STIM_ENDOTHELIAL_CELL_DN
GSE40274_FOXP3_VS_FOXP3_AND_EOS_TRANSDUCED_ACTIVATED_CD4_TCELL_UP, GSE40274_FOXP3_VS_FOXP3_AND_EOS_TRANSDUCED_ACTIVATED_CD4_TCELI
GSE8685 IL2 STARVED VS IL2 ACT IL2 STARVED CD4 TCELL UP, GSE8685 IL2 STARVED VS IL2 ACT IL2 STARVED CD4 TCELL UP
GSE16450_IMMATURE_VS_MATURE_NEURON_CELL_LINE_12H_IFNA_STIM_UP, GSE16450_IMMATURE_VS_MATURE_NEURON_CELL_LINE_12H_IFNA_STIM_UP
GSE43863_TH1_VS_LY6C_INT_CXCR5POS_EFFECTOR_CD4_TCELL_DN, GSE43863_TH1_VS_LY6C_INT_CXCR5POS_EFFECTOR_CD4_TCELL_DN
GSE17186_NAIVE_VS_CD21HIGH_TRANSITIONAL_BCELL_CORD_BLOOD_DN, GSE17186_NAIVE_VS_CD21HIGH_TRANSITIONAL_BCELL_CORD_BLOOD_DN
GSE15735_CTRL_VS_HDAC_INHIBITOR_TREATED_CD4_TCELL_12H_DN, GSE15735_CTRL_VS_HDAC_INHIBITOR_TREATED_CD4_TCELL_12H_DN
GSE2770_IL12_AND_TGFB_VS_IL4_TREATED_ACT_CD4_TCELL_48H_UP, GSE2770_IL12_AND_TGFB_VS_IL4_TREATED_ACT_CD4_TCELL_48H_UP
GSE44955_MCSF_VS_MCSF_AND_IL27_STIM_MACROPHAGE_DN, GSE44955_MCSF_VS_MCSF_AND_IL27_STIM_MACROPHAGE_DN
GSE40274_CTRL_VS_XBP1_TRANSDUCED_ACTIVATED_CD4_TCELL_UP, GSE40274_CTRL_VS_XBP1_TRANSDUCED_ACTIVATED_CD4_TCELL_UP
GSE5503_LIVER_DC_VS_PLN_DC_ACTIVATED_ALLOGENIC_TCELL_UP, GSE5503_LIVER_DC_VS_PLN_DC_ACTIVATED_ALLOGENIC_TCELL_UP
GSE40274_CTRL_VS_FOXP3_AND_LEF1_TRANSDUCED_ACTIVATED_CD4_TCELL_UP, GSE40274_CTRL_VS_FOXP3_AND_LEF1_TRANSDUCED_ACTIVATED_CD4_TCELL
GSE15930_NAIVE_VS_48H_IN_VITRO_STIM_IL12_CD8_TCELL_UP, GSE15930_NAIVE_VS_48H_IN_VITRO_STIM_IL12_CD8_TCELL_UP
GSE3982_MAST_CELL_VS_CENT_MEMORY_CD4_TCELL_DN, GSE3982_MAST_CELL_VS_CENT_MEMORY_CD4_TCELL_DN
GSE29164_DAY3_VS_DAY7_CD8_TCELL_TREATED_MELANOMA_DN, GSE29164_DAY3_VS_DAY7_CD8_TCELL_TREATED_MELANOMA_DN
GSE30971_2H_VS_4H_LPS_STIM_MACROPHAGE_WBP7_KO_UP, GSE30971_2H_VS_4H_LPS_STIM_MACROPHAGE_WBP7_KO_UP
GSE15930_NAIVE_VS_24H_IN_VITRO_STIM_IL12_CD8_TCELL_UP, GSE15930_NAIVE_VS_24H_IN_VITRO_STIM_IL12_CD8_TCELL_UP
GSE37605_FOXP3_FUSION_GFP_VS_IRES_GFP_TREG_NOD_DN, GSE37605_FOXP3_FUSION_GFP_VS_IRES_GFP_TREG_NOD_DN
GSE18203_CTRL_VS_INTRATUMORAL_CPG_INJ_MC38_TUMOR_UP, GSE18203_CTRL_VS_INTRATUMORAL_CPG_INJ_MC38_TUMOR_UP
GSE32986_GMCSF_AND_CURDLAN_LOWDOSE_VS_GMCSF_AND_CURDLAN_HIGHDOSE_STIM_DC_DN, GSE32986_GMCSF_AND_CURDLAN_LOWDOSE_VS_GMCSF_A
GAO_LARGE_INTESTINE_24W_C6_SECRETORY_PROGENITOR, GAO_LARGE_INTESTINE_24W_C6_SECRETORY_PROGENITOR
GOMF_PRIMARY_ACTIVE_TRANSMEMBRANE_TRANSPORTER_ACTIVITY, GOMF_PRIMARY_ACTIVE_TRANSMEMBRANE_TRANSPORTER_ACTIVITY
HP RECURRENT GRAM NEGATIVE BACTERIAL INFECTIONS, HP RECURRENT GRAM NEGATIVE BACTERIAL INFECTIONS
KIM_MYCL1_AMPLIFICATION_TARGETS_DN, KIM_MYCL1_AMPLIFICATION_TARGETS_DN
MIR6757_5P, MIR6757_5P
HP_FEMALE_INFERTILITY, HP_FEMALE_INFERTILITY
HP_ABNORMAL_VENA_CAVA_MORPHOLOGY, HP_ABNORMAL_VENA_CAVA_MORPHOLOGY
HP_RETINAL_THINNING, HP_RETINAL_THINNING
HP_CONGENITAL_MALFORMATION_OF_THE_RIGHT_HEART, HP_CONGENITAL_MALFORMATION_OF_THE_RIGHT_HEART
```

GSE41867\_DAY6\_EFFECTOR\_VS\_DAY30\_MEMORY\_CD8\_TCELL\_LCMV\_ARMSTRONG\_UP, GSE41867\_DAY6\_EFFECTOR\_VS\_DAY30\_MEMORY\_CD8\_TCELL\_LCMV\_ARMS