```
GSE41176_WT_VS_TAK1_KO_ANTI_IGM_STIM_BCELL_6H_DN, GSE41176_WT_VS_TAK1_KO_ANTI_IGM_STIM_BCELL_6H_DN
  GSE37416_0H_VS_12H_F_TULARENSIS_LVS_NEUTROPHIL_DN, GSE37416_0H_VS_12H_F_TULARENSIS_LVS_NEUTROPHIL_DN
  GSE2770_TGFB_AND_IL4_VS_IL4_TREATED_ACT_CD4_TCELL_48H_UP, GSE2770_TGFB_AND_IL4_VS_IL4_TREATED_ACT_CD4_TCELL_48H_UP
  GSE37416_0H_VS_3H_F_TULARENSIS_LVS_NEUTROPHIL_DN, GSE37416_0H_VS_3H_F_TULARENSIS_LVS_NEUTROPHIL_DN
  GSE42088_UNINF_VS_LEISHMANIA_INF_DC_4H_UP, GSE42088_UNINF_VS_LEISHMANIA_INF_DC_4H_UP
  GSE12392_IFNAR_KO_VS_IFNB_KO_CD8_NEG_SPLEEN_DC_UP, GSE12392_IFNAR_KO_VS_IFNB_KO_CD8_NEG_SPLEEN_DC_UP
  GSE45365_NK_CELL_VS_BCELL_MCMV_INFECTION_DN, GSE45365_NK_CELL_VS_BCELL_MCMV_INFECTION_DN
  GSE339_EX_VIVO_VS_IN_CULTURE_CD4POS_DC_DN, GSE339_EX_VIVO_VS_IN_CULTURE_CD4POS_DC_DN
  GSE19888_CTRL_VS_TCELL_MEMBRANES_ACT_MAST_CELL_PRETREAT_A3R_INH_DN, GSE19888_CTRL_VS_TCELL_MEMBRANES_ACT_MAST_CELL_PRETREAT_A3R_INH_DN
  GSE41087_WT_VS_FOXP3_MUT_ANTI_CD3_CD28_STIM_CD4_TCELL_UP, GSE41087_WT_VS_FOXP3_MUT_ANTI_CD3_CD28_STIM_CD4_TCELL_UP
  GSE24634_IL4_VS_CTRL_TREATED_NAIVE_CD4_TCELL_DAY3_DN, GSE24634_IL4_VS_CTRL_TREATED_NAIVE_CD4_TCELL_DAY3_DN
  GSE2128_C57BL6_VS_NOD_CD4CD8_DP_THYMOCYTE_UP, GSE2128_C57BL6_VS_NOD_CD4CD8_DP_THYMOCYTE_UP
  GSE5542_UNTREATED_VS_IFNA_TREATED_EPITHELIAL_CELLS_6H_UP, GSE5542_UNTREATED_VS_IFNA_TREATED_EPITHELIAL_CELLS_6H_UP
  GSE19401_UNSTIM_VS_RETINOIC_ACID_STIM_FOLLICULAR_DC_DN, GSE19401_UNSTIM_VS_RETINOIC_ACID_STIM_FOLLICULAR_DC_DN
  GSE30971_CTRL_VS_LPS_STIM_MACROPHAGE_WBP7_HET_4H_UP, GSE30971_CTRL_VS_LPS_STIM_MACROPHAGE_WBP7_HET_4H_UP
  GSE3982_MAC_VS_EFF_MEMORY_CD4_TCELL_UP, GSE3982_MAC_VS_EFF_MEMORY_CD4_TCELL_UP
  GSE17721_PAM3CSK4_VS_GADIQUIMOD_24H_BMDC_DN, GSE17721_PAM3CSK4_VS_GADIQUIMOD_24H_BMDC_DN
  GSE23308_CTRL_VS_CORTICOSTERONE_TREATED_MACROPHAGE_DN, GSE23308_CTRL_VS_CORTICOSTERONE_TREATED_MACROPHAGE_DN
  GSE44732_UNSTIM_VS_IL27_STIM_IMATURE_DC_UP, GSE44732_UNSTIM_VS_IL27_STIM_IMATURE_DC_UP
  HALLMARK_IL2_STAT5_SIGNALING, HALLMARK_IL2_STAT5_SIGNALING
  GSE7852_TREG_VS_TCONV_LN_UP, GSE7852_TREG_VS_TCONV_LN_UP
  CHUNG_BLISTER_CYTOTOXICITY_UP, CHUNG_BLISTER_CYTOTOXICITY_UP
  GSE43956 WT_VS_SGK1_KO_TH17_DIFFERENTIATED_CD4_TCELL_DN, GSE43956 WT_VS_SGK1_KO_TH17_DIFFERENTIATED_CD4_TCELL_DN
  GSE7460_TCONV_VS_TREG_LN_DN, GSE7460_TCONV_VS_TREG_LN_DN
  GSE36095_WT_VS_HDAC9_KO_TREG_UP, GSE36095_WT_VS_HDAC9_KO_TREG_UP
  GSE7460 TREG VS TCONV ACT UP, GSE7460 TREG VS TCONV ACT UP
  GSE5589_LPS_VS_LPS_AND_IL10_STIM_MACROPHAGE_180MIN_UP, GSE5589_LPS_VS_LPS_AND_IL10_STIM_MACROPHAGE_180MIN_UP
  GSE14386 UNTREATED VS IFNA TREATED ACT PBMC MS PATIENT DN, GSE14386 UNTREATED VS IFNA TREATED ACT PBMC MS PATIENT DN
  GSE43955_TH0_VS_TGFB_IL6_TH17_ACT_CD4_TCELL_4H_DN, GSE43955_TH0_VS_TGFB_IL6_TH17_ACT_CD4_TCELL_4H_DN
 GSE6259_BCELL_VS_CD4_TCELL_DN, GSE6259_BCELL_VS_CD4_TCELL_DN
  GSE16385_IFNG_TNF_VS_UNSTIM_MACROPHAGE_ROSIGLITAZONE_TREATED_UP, GSE16385_IFNG_TNF_VS_UNSTIM_MACROPHAGE_ROSIGLITAZONE_TREATED_UP
  GSE43863_DAY6_EFF_VS_DAY150_MEM_TH1_CD4_TCELL_UP, GSE43863_DAY6_EFF_VS_DAY150_MEM_TH1_CD4_TCELL_UP
  GSE15735_2H_VS_12H_HDAC_INHIBITOR_TREATED_CD4_TCELL_UP, GSE15735_2H_VS_12H_HDAC_INHIBITOR_TREATED_CD4_TCELL_UP
  GO_AUTOPHAGOSOME, GO_AUTOPHAGOSOME
 GSE21546_UNSTIM_VS_ANTI_CD3_STIM_SAP1A_KO_DP_THYMOCYTES_UP, GSE21546_UNSTIM_VS_ANTI_CD3_STIM_SAP1A_KO_DP_THYMOCYTES_UP
 GSE26488_WT_VS_HDAC7_DELTAP_TG_OT2_THYMOCYTE_WITH_PEPTIDE_INJECTION_DN, GSE26488_WT_VS_HDAC7_DELTAP_TG_OT2_THYMOCYTE_WITH_PEPTIDE_INJECTION_DN
 GO_VIRUS_RECEPTOR_ACTIVITY, GO_VIRUS_RECEPTOR_ACTIVITY
 GSE13484_12H_UNSTIM_VS_YF17D_VACCINE_STIM_PBMC_DN, GSE13484_12H_UNSTIM_VS_YF17D_VACCINE_STIM_PBMC_DN
 GSE1740_UNSTIM_VS_IFNA_STIMULATED_MCSF_DERIVED_MACROPHAGE_DN, GSE1740_UNSTIM_VS_IFNA_STIMULATED_MCSF_DERIVED_MACROPHAGE_DN
  MOSERLE IFNA RESPONSE, MOSERLE IFNA RESPONSE
  GO_ACTIVE_ION_TRANSMEMBRANE_TRANSPORTER_ACTIVITY, GO_ACTIVE_ION_TRANSMEMBRANE_TRANSPORTER_ACTIVITY
 GSE29949_MICROGLIA_VS_DC_BRAIN_UP, GSE29949_MICROGLIA_VS_DC_BRAIN_UP
  GSE2128_CTRL_VS_MIMETOPE_NEGATIVE_SELECTION_DP_THYMOCYTE_C57BL6_UP, GSE2128_CTRL_VS_MIMETOPE_NEGATIVE_SELECTION_DP_THYMOCYTE_C57BL6_UP
  GAVIN FOXP3 TARGETS CLUSTER P4, GAVIN FOXP3 TARGETS CLUSTER P4
GSE40274_SATB1_VS_FOXP3_AND_SATB1_TRANSDUCED_ACTIVATED_CD4_TCELL_UP, GSE40274_SATB1_VS_FOXP3_AND_SATB1_TRANSDUCED_ACTIVATED_CD4_TCELL_UP
LE_EGR2_TARGETS_DN, LE_EGR2_TARGETS_DN
 GO_PROTON_TRANSPORTING_TWO_SECTOR_ATPASE_COMPLEX, GO_PROTON_TRANSPORTING_TWO_SECTOR_ATPASE_COMPLEX
GSE36891_POLYIC_TLR3_VS_PAM_TLR2_STIM_PERITONEAL_MACROPHAGE_UP, GSE36891_POLYIC_TLR3_VS_PAM_TLR2_STIM_PERITONEAL_MACROPHAGE_UP
GSE18791_CTRL_VS_NEWCASTLE_VIRUS_DC_12H_DN, GSE18791_CTRL_VS_NEWCASTLE_VIRUS_DC_12H_DN
// GSE22935_UNSTIM_VS_24H_MBOVIS_BCG_STIM_MACROPHAGE_DN, GSE22935_UNSTIM_VS_24H_MBOVIS_BCG_STIM_MACROPHAGE_DN
 // GSE360_L_MAJOR_VS_B_MALAYI_HIGH_DOSE_MAC_UP, GSE360_L_MAJOR_VS_B_MALAYI_HIGH_DOSE_MAC_UP
 // GO_CELLULAR_MONOVALENT_INORGANIC_CATION_HOMEOSTASIS, GO_CELLULAR_MONOVALENT_INORGANIC_CATION_HOMEOSTASIS
  / GO_CELLULAR_RESPONSE_TO_STARVATION, GO_CELLULAR_RESPONSE_TO_STARVATION
  KUROZUMI_RESPONSE_TO_ONCOCYTIC_VIRUS, KUROZUMI_RESPONSE_TO_ONCOCYTIC_VIRUS
  MODULE_76, MODULE_76
  GSE20715_WT_VS_TLR4_KO_24H_OZONE_LUNG_UP, GSE20715_WT_VS_TLR4_KO_24H_OZONE_LUNG_UP
   GSE22313 HEALTHY VS SLE MOUSE CD4 TCELL UP, GSE22313 HEALTHY VS SLE MOUSE CD4 TCELL UP
  NIELSEN_GIST, NIELSEN_GIST
  GSE4590_PRE_BCELL_VS_LARGE_PRE_BCELL_UP, GSE4590_PRE_BCELL_VS_LARGE_PRE_BCELL_UP
  GO_CELLULAR_RESPONSE_TO_EXTRACELLULAR_STIMULUS, GO_CELLULAR_RESPONSE_TO_EXTRACELLULAR_STIMULUS
  GSE9650_EXHAUSTED_VS_MEMORY_CD8_TCELL_UP, GSE9650_EXHAUSTED_VS_MEMORY_CD8_TCELL_UP
 CSE21927_BALBC_VS_C57BL6_MONOCYTE_SPLEEN_DN, GSE21927_BALBC_VS_C57BL6_MONOCYTE_SPLEEN_DN
 \\\\\\ LIANG_SILENCED_BY_METHYLATION_2, LIANG_SILENCED_BY_METHYLATION_2
  ONGUSAHA_TP53_TARGETS, ONGUSAHA_TP53_TARGETS
   BILBAN_B_CLL_LPL_UP, BILBAN_B_CLL_LPL_UP
  LINDSTEDT_DENDRITIC_CELL_MATURATION_A, LINDSTEDT_DENDRITIC_CELL_MATURATION_A
  GO_REGULATION_OF_ERBB_SIGNALING_PATHWAY, GO_REGULATION_OF_ERBB_SIGNALING_PATHWAY
  GUO_TARGETS_OF_IRS1_AND_IRS2, GUO_TARGETS_OF_IRS1_AND_IRS2
  GO_LIPID_PARTICLE, GO_LIPID_PARTICLE
  GSE16385_IL4_VS_ROSIGLITAZONE_STIM_MACROPHAGE_DN, GSE16385_IL4_VS_ROSIGLITAZONE_STIM_MACROPHAGE_DN
  GSE25677_MPL_VS_MPL_AND_R848_STIM_BCELL_DN, GSE25677_MPL_VS_MPL_AND_R848_STIM_BCELL_DN
  GO_PEPTIDASE_ACTIVATOR_ACTIVITY, GO_PEPTIDASE_ACTIVATOR_ACTIVITY
  CCAGGGG_MIR331, CCAGGGG_MIR331
 GSE9650_NAIVE_VS_EXHAUSTED_CD8_TCELL_DN, GSE9650_NAIVE_VS_EXHAUSTED_CD8_TCELL_DN
 GSE36527_CD62L_HIGH_CD69_NEG_VS_CD62L_LOW_CD69_POS_TREG_KLRG1_NEG_DN, GSE36527_CD62L_HIGH_CD69_NEG_VS_CD62L_LOW_CD69_POS_TREG_KLRG1_NEG_DN
  GO_POSITIVE_REGULATION_OF_CYTOKINE_BIOSYNTHETIC_PROCESS, GO_POSITIVE_REGULATION_OF_CYTOKINE_BIOSYNTHETIC_PROCESS
  MUELLER_COMMON_TARGETS_OF_AML_FUSIONS_DN, MUELLER_COMMON_TARGETS_OF_AML_FUSIONS_DN
  GO_RESPONSE_TO_THYROID_HORMONE, GO_RESPONSE_TO_THYROID_HORMONE
  GO_ATP_HYDROLYSIS_COUPLED_TRANSMEMBRANE_TRANSPORT, GO_ATP_HYDROLYSIS_COUPLED_TRANSMEMBRANE_TRANSPORT
  GO MONOVALENT INORGANIC CATION HOMEOSTASIS, GO MONOVALENT INORGANIC CATION HOMEOSTASIS
  GO_OXIDOREDUCTASE_ACTIVITY_ACTING_ON_PAIRED_DONORS_WITH_INCORPORATION_OF_MOLECULAR_OXYGEN_NAD_P_H_AS_ONE_DONORS_WITH_INCORPORATION_OF_MOLECULAR_OXYGEN_NAD_P_H_AS_ONE_DONORS_WITH_INCORPORATION_OF_MOLECULAR_OXYGEN_NAD_P_H_AS_ONE_DONORS_WITH_INCORPORATION_OF_MOLECULAR_OXYGEN_NAD_P_H_AS_ONE_DONORS_WITH_INCORPORATION_OF_MOLECULAR_OXYGEN_NAD_P_H_AS_ONE_DONORS_WITH_INCORPORATION_OF_MOLECULAR_OXYGEN_NAD_P_H_AS_ONE_DONORS_WITH_INCORPORATION_OF_MOLECULAR_OXYGEN_NAD_P_H_AS_ONE_DONORS_WITH_INCORPORATION_OF_MOLECULAR_OXYGEN_NAD_P_H_AS_ONE_DONORS_WITH_INCORPORATION_OF_MOLECULAR_OXYGEN_NAD_P_H_AS_ONE_DONORS_WITH_INCORPORATION_OF_MOLECULAR_OXYGEN_NAD_P_H_AS_ONE_DONORS_WITH_INCORPORATION_OF_MOLECULAR_OXYGEN_NAD_P_H_AS_ONE_DONORS_WITH_INCORPORATION_OF_MOLECULAR_OXYGEN_NAD_P_H_AS_ONE_DONORS_WITH_INCORPORATION_OF_MOLECULAR_OXYGEN_NAD_P_H_AS_ONE_DONORS_WITH_INCORPORATION_OF_MOLECULAR_OXYGEN_NAD_P_H_AS_ONE_DONORS_WITH_INCORPORATION_OF_MOLECULAR_OXYGEN_NAD_P_H_AS_ONE_DONORS_WITH_INCORPORATION_OF_MOLECULAR_OXYGEN_NAD_P_H_AS_ONE_DONORS_WITH_INCORPORATION_OF_MOLECULAR_OXYGEN_NAD_P_H_AS_ONE_DONORS_WITH_INCORPORATION_OF_MOLECULAR_OXYGEN_NAD_P_H_AS_ONE_DONORS_WITH_INCORPORATION_OF_MOLECULAR_OXYGEN_NAD_P_H_AS_ONE_DONORS_WITH_INCORPORATION_OF_MOLECULAR_OXYGEN_NAD_P_H_AS_ONE_DONORS_WITH_INCORPORATION_OT_MOLECULAR_OXYGEN_NAD_P_H_AS_ONE_DONORS_WITH_INCORPORATION_OT_MOLECULAR_OXYGEN_NAD_P_H_AS_ONE_DONORS_WITH_INCORPORATION_OT_MOLECULAR_OXYGEN_NAD_P_H_AS_ONE_DONORS_WITH_INCORPORATION_OT_MOLECULAR_OXYGEN_DONORS_WITH_INCORPORATION_OT_MOLECULAR_OXYGEN_DONORS_WITH_INCORPORATION_OT_MOLECULAR_OXYGEN_DONORS_WITH_INCORPORATION_OT_MOLECULAR_OXYGEN_DONORS_WITH_INCORPORATION_OT_MOLECULAR_OXYGEN_DONORS_WITH_INCORPORATION_OT_MOLECULAR_OXYGEN_DONORS_WITH_INCORPORATION_OXYGEN_DONORS_WITH_INCORPORATION_DONORS_WITH_INCORPORATION_DONORS_WITH_INCORPORATION_DONORS_WITH_INCORPORATION_DONORS_WITH_INCORPORATION_DONORS_WITH_INCORPORATION_DONORS_WITH_INCORPORATION_DONORS_WITH_INCORPORATION_DONORS_WITH_INCORPORATION_DONORS_WITH_INCORPORATION_DONORS_WITH_INCORPORATION_DON
  MODULE 121, MODULE 121
  MIKKELSEN_NPC_LCP_WITH_H3K4ME3, MIKKELSEN_NPC_LCP_WITH_H3K4ME3
  WORSCHECH_TUMOR_REJECTION_UP, WORSCHECH_TUMOR_REJECTION_UP
  GSE29949_MICROGLIA_VS_DC_BRAIN_DN, GSE29949_MICROGLIA_VS_DC_BRAIN_DN
  TSUNODA_CISPLATIN_RESISTANCE_DN, TSUNODA_CISPLATIN_RESISTANCE_DN
  BOHN_PRIMARY_IMMUNODEFICIENCY_SYNDROM_DN, BOHN_PRIMARY_IMMUNODEFICIENCY_SYNDROM_DN
  GSE2405_HEAT_KILLED_VS_LIVE_A_PHAGOCYTOPHILUM_STIM_NEUTROPHIL_24H_DN, GSE2405_HEAT_KILLED_VS_LIVE_A_PHAGOCYTOPHILUM_STIM_NEUTROPHIL_24H_DN
  NIELSEN_LIPOSARCOMA_UP, NIELSEN_LIPOSARCOMA_UP
  GO_CELLULAR_RESPONSE_TO_THYROID_HORMONE_STIMULUS, GO_CELLULAR_RESPONSE_TO_THYROID_HORMONE_STIMULUS
  VISALA RESPONSE TO HEAT SHOCK AND AGING DN, VISALA RESPONSE TO HEAT SHOCK AND AGING DN
  REACTOME_GROWTH_HORMONE_RECEPTOR_SIGNALING, REACTOME_GROWTH_HORMONE_RECEPTOR_SIGNALING
  GSE46242_CTRL_VS_EGR2_DELETED_TH1_CD4_TCELL_DN, GSE46242_CTRL_VS_EGR2_DELETED_TH1_CD4_TCELL_DN
  GO DEVELOPMENTAL PROGRAMMED CELL DEATH, GO DEVELOPMENTAL PROGRAMMED CELL DEATH
  HOFFMANN_SMALL_PRE_BII_TO_IMMATURE_B_LYMPHOCYTE_UP, HOFFMANN_SMALL_PRE_BII_TO_IMMATURE_B_LYMPHOCYTE_UP
  GSE37301_LYMPHOID_PRIMED_MPP_VS_RAG2_KO_NK_CELL_DN, GSE37301_LYMPHOID_PRIMED_MPP_VS_RAG2_KO_NK_CELL_DN
  GO_TEMPERATURE_HOMEOSTASIS, GO_TEMPERATURE_HOMEOSTASIS
  ROETH_TERT_TARGETS_UP, ROETH_TERT_TARGETS_UP
  GO_INSULIN_LIKE_GROWTH_FACTOR_RECEPTOR_SIGNALING_PATHWAY, GO_INSULIN_LIKE_GROWTH_FACTOR_RECEPTOR_SIGNALING_PATHWAY
  GSE22443_NAIVE_VS_ACT_AND_IL2_TREATED_CD8_TCELL_UP, GSE22443_NAIVE_VS_ACT_AND_IL2_TREATED_CD8_TCELL_UP
  ZHANG_RESPONSE_TO_CANTHARIDIN_UP, ZHANG_RESPONSE_TO_CANTHARIDIN_UP
  SCHOEN_NFKB_SIGNALING, SCHOEN_NFKB_SIGNALING
  GO TERPENOID METABOLIC PROCESS, GO TERPENOID METABOLIC PROCESS
  GO_POSITIVE_REGULATION_OF_INTERLEUKIN_2_BIOSYNTHETIC_PROCESS, GO_POSITIVE_REGULATION_OF_INTERLEUKIN_2_BIOSYNTHETIC_PROCESS
  GO INSULIN LIKE GROWTH FACTOR BINDING, GO INSULIN LIKE GROWTH FACTOR BINDING
  SEITZ_NEOPLASTIC_TRANSFORMATION_BY_8P_DELETION_DN, SEITZ_NEOPLASTIC_TRANSFORMATION_BY_8P_DELETION_DN
  VANDESLUIS_COMMD1_TARGETS_GROUP_2_UP, VANDESLUIS_COMMD1_TARGETS_GROUP_2_UP
```

\_IL4\_ACT\_VS\_ACT\_CD4\_TCELL\_48H\_UP, GSE2770\_TGFB\_AND\_IL4\_ACT\_VS\_ACT\_CD4\_TCELL\_48H\_UP

DAUER\_STAT3\_TARGETS\_UP, DAUER\_STAT3\_TARGETS\_UP

GO RECEPTOR CATABOLIC PROCESS, GO RECEPTOR CATABOLIC PROCESS

ONO\_FOXP3\_TARGETS\_UP, ONO\_FOXP3\_TARGETS\_UP