```
GSE40666_WT_VS_STAT4_KO_CD8_TCELL_DN, GSE40666_WT_VS_STAT4_KO_CD8_TCELL_DN
                                                                                         GSE40666_STAT1_KO_VS_STAT4_KO_CD8_TCELL_WITH_IFNA_STIM_90MIN_UP, GSE40666_STAT1_KO_VS_STAT4_KO_CD8_TCELL_WITH_IFNA_STIM_90MIN_UP
                                                                                         GSE25677_MPL_VS_R848_STIM_BCELL_DN, GSE25677_MPL_VS_R848_STIM_BCELL_DN
                                                                                         GSE46606_IRF4_KO_VS_WT_UNSTIM_BCELL_UP, GSE46606_IRF4_KO_VS_WT_UNSTIM_BCELL_UP
                                                                                         GSE26488_CTRL_VS_PEPTIDE_INJECTION_OT2_THYMOCYTE_DN, GSE26488_CTRL_VS_PEPTIDE_INJECTION_OT2_THYMOCYTE_DN
                                                                                         GOCC_REPLICATION_FORK, GOCC_REPLICATION_FORK
                                                                                         REACTOME_DUAL_INCISION_IN_TC_NER, REACTOME_DUAL_INCISION_IN_TC_NER
                                                                                         GSE2770_TGFB_AND_IL4_VS_IL12_TREATED_ACT_CD4_TCELL_2H_UP, GSE2770_TGFB_AND_IL4_VS_IL12_TREATED_ACT_CD4_TCELL_2H_UP
                                                                                         GSE13547_WT_VS_ZFX_KO_BCELL_ANTI_IGM_STIM_12H_DN, GSE13547_WT_VS_ZFX_KO_BCELL_ANTI_IGM_STIM_12H_DN
                                                                                         GSE37416_CTRL_VS_48H_F_TULARENSIS_LVS_NEUTROPHIL_UP, GSE37416_CTRL_VS_48H_F_TULARENSIS_LVS_NEUTROPHIL_UP
                                                                                         MIR633, MIR633
                                                                                         GSE15330_HSC_VS_MEGAKARYOCYTE_ERYTHROID_PROGENITOR_DN, GSE15330_HSC_VS_MEGAKARYOCYTE_ERYTHROID_PROGENITOR_DN
                                                                                         GSE15659_NAIVE_CD4_TCELL_VS_RESTING_TREG_UP, GSE15659_NAIVE_CD4_TCELL_VS_RESTING_TREG_UP
                                                                                         GSE12963_UNINF_VS_ENV_AND_NEF_AND_VPR_DEFICIENT_HIV1_INF_CD4_TCELL_UP, GSE12963_UNINF_VS_ENV_AND_NEF_AND_VPR_DEFICIENT_HIV1_INF_CD4_TCELL_UP
                                                                                          TAYLOR_METHYLATED_IN_ACUTE_LYMPHOBLASTIC_LEUKEMIA, TAYLOR_METHYLATED_IN_ACUTE_LYMPHOBLASTIC_LEUKEMIA
                                                                                         GSE2770_UNTREATED_VS_TGFB_AND_IL4_TREATED_ACT_CD4_TCELL_4H_DN, GSE2770_UNTREATED_VS_TGFB_AND_IL4_TREATED_ACT_CD4_TCELL_4H_DN
                                                                                          MIR4451, MIR4451
                                                                                          GSE43957_UNTREATED_VS_NACL_TREATED_ANTI_CD3_CD28_STIM_CD4_TCELL_UP, GSE43957_UNTREATED_VS_NACL_TREATED_ANTI_CD3_CD28_STIM_CD4_TCELL_UP
                                                                                         GSE15659 NAIVE CD4 TCELL VS NONSUPPRESSIVE TCELL UP, GSE15659 NAIVE CD4 TCELL VS NONSUPPRESSIVE TCELL UP
                                                                                          MIR370 3P, MIR370 3P
                                                                                         GOBP NUCLEOTIDE EXCISION REPAIR PREINCISION COMPLEX STABILIZATION, GOBP NUCLEOTIDE EXCISION REPAIR PREINCISION COMPLEX STABILIZATION
                                                                                         MIR4536_5P, MIR4536_5P
                                                                                          MIR5583_3P, MIR5583_3P
                                                                                          GSE2585 CD80 HIGH VS LOW MTEC DN, GSE2585 CD80 HIGH VS LOW MTEC DN
                                                                                          MIR1265, MIR1265
                                                                                         GOBP_P38MAPK_CASCADE, GOBP_P38MAPK_CASCADE
                                                                                         MIR9718, MIR9718
                                                                                          NIKOLSKY_BREAST_CANCER_20Q11_AMPLICON, NIKOLSKY_BREAST_CANCER_20Q11_AMPLICON
                                                                                         MIR345 5P, MIR345 5P
                                                                                         GOCC_CUL4_RING_E3_UBIQUITIN_LIGASE_COMPLEX, GOCC_CUL4_RING_E3_UBIQUITIN_LIGASE_COMPLEX
                                                                                         HP_IRREGULAR_VERTEBRAL_ENDPLATES, HP_IRREGULAR_VERTEBRAL_ENDPLATES
                                                                                         GOBP POLYOL_CATABOLIC_PROCESS, GOBP_POLYOL_CATABOLIC_PROCESS
                                                                                         GOBP_POSITIVE_REGULATION_OF_P38MAPK_CASCADE, GOBP_POSITIVE_REGULATION_OF_P38MAPK_CASCADE
                                                                                         GOCC_DNA_HELICASE_COMPLEX, GOCC_DNA_HELICASE_COMPLEX
                                                                                         GOBP_INOSITOL_PHOSPHATE_METABOLIC_PROCESS, GOBP_INOSITOL_PHOSPHATE_METABOLIC_PROCESS
                                                                                         HP_ECTROPION, HP_ECTROPION
                                                                                         MIR1293, MIR1293
                                                                                         GOBP_INOSITOL_PHOSPHATE_CATABOLIC_PROCESS, GOBP_INOSITOL_PHOSPHATE_CATABOLIC_PROCESS
                                                                                         HP OVERFRIENDLINESS, HP OVERFRIENDLINESS
                                                                                         HP_TRACHEOMALACIA, HP_TRACHEOMALACIA
KO_VS_STAT4_KO_CD8_TCELL_UP, GSE40666_STAT1_KO_VS_STAT4_KO_CD8_TCELL_UP
                                                                                         GOBP_PHOSPHORYLATED_CARBOHYDRATE_DEPHOSPHORYLATION, GOBP_PHOSPHORYLATED_CARBOHYDRATE_DEPHOSPHORYLATION
                                                                                         GOBP CELLULAR RESPONSE TO ZINC ION, GOBP CELLULAR RESPONSE TO ZINC ION
                                                                                         GOBP RESPONSE TO HYDROXYUREA, GOBP RESPONSE TO HYDROXYUREA
                                                                                         GOMF_UBIQUITIN_UBIQUITIN_LIGASE_ACTIVITY, GOMF_UBIQUITIN_UBIQUITIN_LIGASE_ACTIVITY
                                                                                         HP_PEPTIC_ULCER, HP_PEPTIC_ULCER
                                                                                         HP_FLAT_CORNEA, HP_FLAT_CORNEA
                                                                                         REACTOME_IRAK1_RECRUITS_IKK_COMPLEX, REACTOME_IRAK1_RECRUITS_IKK_COMPLEX
                                                                                         SRPK2_TARGET_GENES, SRPK2_TARGET_GENES
                                                                                         GOBP_PEPTIDYL_GLUTAMIC_ACID_MODIFICATION, GOBP_PEPTIDYL_GLUTAMIC_ACID_MODIFICATION
                                                                                         GOBP_PROTEIN_HYDROXYLATION, GOBP_PROTEIN_HYDROXYLATION
                                                                                         REACTOME_PENTOSE_PHOSPHATE_PATHWAY, REACTOME_PENTOSE_PHOSPHATE_PATHWAY
                                                                                         MIR659_5P, MIR659_5P
                                                                                         HP_RENAL_DUPLICATION, HP_RENAL_DUPLICATION
                                                                                         GOBP_MITOCHONDRIAL_DNA_METABOLIC_PROCESS, GOBP_MITOCHONDRIAL_DNA_METABOLIC_PROCESS
                                                                                          LIU_LIVER_CANCER, LIU_LIVER_CANCER
                                                                                         GOBP_CAVEOLIN_MEDIATED_ENDOCYTOSIS, GOBP_CAVEOLIN_MEDIATED_ENDOCYTOSIS
                                                                                         HP_NYSTAGMUS_INDUCED_HEAD_NODDING, HP_NYSTAGMUS_INDUCED_HEAD_NODDING
                                                                                         GOBP_MEMBRANE_RAFT_ORGANIZATION, GOBP_MEMBRANE_RAFT_ORGANIZATION
                                                                                         GOMF_PROTEIN_GLUTAMIC_ACID_LIGASE_ACTIVITY, GOMF_PROTEIN_GLUTAMIC_ACID_LIGASE_ACTIVITY
                                                                                         GOBP_REGULATION_OF_APOPTOTIC_CELL_CLEARANCE, GOBP_REGULATION_OF_APOPTOTIC_CELL_CLEARANCE
                                                                                         HP_PHONOPHOBIA, HP_PHONOPHOBIA
                                                                                         GOBP_POSITIVE_REGULATION_OF_MAST_CELL_ACTIVATION_INVOLVED_IN_IMMUNE_RESPONSE, GOBP_POSITIVE_REGULATION_OF_MAST_CELL_ACTIVATION_INVOLVED_IN_IMMUNE_RI
                                                                                         GOMF_T_CELL_RECEPTOR_BINDING, GOMF_T_CELL_RECEPTOR_BINDING
                                                                                         REACTOME_SYNTHESIS_OF_IP2_IP_AND_INS_IN_THE_CYTOSOL, REACTOME_SYNTHESIS_OF_IP2_IP_AND_INS_IN_THE_CYTOSOL
                                                                                         HP_HYPERPIGMENTATION_IN_SUN_EXPOSED_AREAS, HP_HYPERPIGMENTATION_IN_SUN_EXPOSED_AREAS
                                                                                         HP_RETROCEREBELLAR_CYST, HP_RETROCEREBELLAR_CYST
                                                                                         GOBP_POSITIVE_REGULATION_OF_INTEGRIN_MEDIATED_SIGNALING_PATHWAY, GOBP_POSITIVE_REGULATION_OF_INTEGRIN_MEDIATED_SIGNALING_PATHWAY
                                                                                         LIU_TOPBP1_TARGETS, LIU_TOPBP1_TARGETS
                                                                                         GOBP_RESPONSE_TO_ZINC_ION, GOBP_RESPONSE_TO_ZINC_ION
                                                                                         HP_HYPOCALCIURIA, HP_HYPOCALCIURIA
                                                                                         TANG_SENESCENCE_TP53_TARGETS_UP, TANG_SENESCENCE_TP53_TARGETS_UP
                                                                                         chr14q21, chr14q21
                                                                                         REACTOME_GDP_FUCOSE_BIOSYNTHESIS, REACTOME_GDP_FUCOSE_BIOSYNTHESIS
                                                                                         GOBP_NEGATIVE_REGULATION_OF_NUCLEOTIDE_BIOSYNTHETIC_PROCESS, GOBP_NEGATIVE_REGULATION_OF_NUCLEOTIDE_BIOSYNTHETIC_PROCESS
                                                                                         chr14q24, chr14q24
                                                                                         MIR6863, MIR6863
                                                                                         GOBP_POSITIVE_REGULATION_OF_CELL_CELL_ADHESION_MEDIATED_BY_CADHERIN, GOBP_POSITIVE_REGULATION_OF_CELL_CELL_ADHESION_MEDIATED_BY_CADHERIN
                                                                                         GOBP_PEPTIDE_CROSS_LINKING, GOBP_PEPTIDE_CROSS_LINKING
                                                                                         HP_ABNORMAL_CALCIFICATION_OF_THE_CARPAL_BONES, HP_ABNORMAL_CALCIFICATION_OF_THE_CARPAL_BONES
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GOBP\_RENIN\_SECRETION\_INTO\_BLOOD\_STREAM, GOBP\_RENIN\_SECRETION\_INTO\_BLOOD\_STREAM

GOBP\_FRUCTOSE\_2\_6\_BISPHOSPHATE\_METABOLIC\_PROCESS, GOBP\_FRUCTOSE\_2\_6\_BISPHOSPHATE\_METABOLIC\_PROCESS

GOMF FRUCTOSE 2 6 BISPHOSPHATE 2 PHOSPHATASE ACTIVITY, GOMF FRUCTOSE 2 6 BISPHOSPHATE 2 PHOSPHATASE ACTIVITY

GSE40666\_UNTREATED\_VS\_IFNA\_STIM\_CD8\_TCELL\_90MIN\_DN, GSE40666\_UNTREATED\_VS\_IFNA\_STIM\_CD8\_TCELL\_90MIN\_DN

GSE37416\_CTRL\_VS\_6H\_F\_TULARENSIS\_LVS\_NEUTROPHIL\_UP, GSE37416\_CTRL\_VS\_6H\_F\_TULARENSIS\_LVS\_NEUTROPHIL\_UP

GSE23308\_WT\_VS\_MINERALCORTICOID\_REC\_KO\_MACROPHAGE\_CORTICOSTERONE\_TREATED\_UP, GSE23308\_WT\_VS\_MINERALCORTICOID\_REC\_KO\_MACROPHAGE\_CORTICOSTERONE\_TREA