```
GSE15930 STIM VS_STIM_AND_IFNAB_72H_CD8_T_CELL_DN, GSE15930 STIM_VS_STIM_AND_IFNAB_72H_CD8_T_CELL_DN
                                                                                                                   GSE37301 COMMON LYMPHOID PROGENITOR VS PRO BCELL DN, GSE37301 COMMON LYMPHOID PROGENITOR VS PRO BCELL DN
                                                                                                                  GSE21670_STAT3_KO_VS_WT_CD4_TCELL_TGFB_TREATED_UP, GSE21670_STAT3_KO_VS_WT_CD4_TCELL_TGFB_TREATED_UP
                                                                                                                  GSE7460 CTRL VS_TGFB_TREATED_ACT_TREG_UP, GSE7460 CTRL_VS_TGFB_TREATED_ACT_TREG_UP
                                                                                                                  GSE3039_NKT_CELL_VS_B1_BCELL_DN, GSE3039_NKT_CELL_VS_B1_BCELL_DN
                                                                                                                  GSE5679_PPARG_LIGAND_ROSIGLITAZONE_VS_RARA_AGONIST_AM580_TREATED_DC_UP, GSE5679_PPARG_LIGAND_ROSIGLITAZONE_VS_RARA_AGONIST_AM580_TREATED_DC_UP
                                                                                                                  GSE13485_PRE_VS_POST_YF17D_VACCINATION_PBMC_DN, GSE13485_PRE_VS_POST_YF17D_VACCINATION_PBMC_DN
                                                                                                                  GSE24814_STAT5_KO_VS_WT_PRE_BCELL_DN, GSE24814_STAT5_KO_VS_WT_PRE_BCELL_DN
                                                                                                                  GSE20727_DNFB_ALLERGEN_VS_ROS_INH_AND_DNFB_ALLERGEN_TREATED_DC_DN, GSE20727_DNFB_ALLERGEN_VS_ROS_INH_AND_DNFB_ALLERGEN_TREATED_DC_DN
                                                                                                                  GSE40068_CXCR5NEG_BCL6NEG_CD4_TCELL_VS_CXCR5POS_BCL6NEG_TFH_UP, GSE40068_CXCR5NEG_BCL6NEG_CD4_TCELL_VS_CXCR5POS_BCL6NEG_TFH_UP
                                                                                                                  GSE3720 UNSTIM VS PMA STIM VD2 GAMMADELTA TCELL DN, GSE3720 UNSTIM VS PMA STIM VD2 GAMMADELTA TCELL DN
                                                                                                                  GSE40666_WT_VS_STAT4_KO_CD8_TCELL_WITH_IFNA_STIM_90MIN_DN, GSE40666_WT_VS_STAT4_KO_CD8_TCELL_WITH_IFNA_STIM_90MIN_DN
                                                                                                                   GSE15930_STIM_VS_STIM_AND_IL12_24H_CD8_T_CELL_UP, GSE15930_STIM_VS_STIM_AND_IL12_24H_CD8_T_CELL_UP
                                                                                                                   GSE24142_ADULT_VS_FETAL_EARLY_THYMIC_PROGENITOR_DN, GSE24142_ADULT_VS_FETAL_EARLY_THYMIC_PROGENITOR_DN
                                                                                                                   GSE25088_WT_VS_STAT6_KO_MACROPHAGE_ROSIGLITAZONE_AND_IL4_STIM_UP, GSE25088_WT_VS_STAT6_KO_MACROPHAGE_ROSIGLITAZONE_AND_IL4_STIM_UP
                                                                                                                   GSE3337_CTRL_VS_16H_IFNG_IN_CD8POS_DC_DN, GSE3337_CTRL_VS_16H_IFNG_IN_CD8POS_DC_DN
                                                                                                                   GSE12392_CD8A_POS_VS_NEG_SPLEEN_DC_UP, GSE12392_CD8A_POS_VS_NEG_SPLEEN_DC_UP
                                                                                                                   GSE39110_UNTREATED_VS_IL2_TREATED_CD8_TCELL_DAY6_POST_IMMUNIZATION_UP, GSE39110_UNTREATED_VS_IL2_TREATED_CD8_TCELL_DAY6_POST_IMMUNIZATION_UP
                                                                                                                  GSE369_SOCS3_KO_VS_IFNG_KO_LIVER_DN, GSE369_SOCS3_KO_VS_IFNG_KO_LIVER_DN
                                                                                                                   GSE37534_UNTREATED_VS_PIOGLITAZONE_TREATED_CD4_TCELL_PPARG1_AND_FOXP3_TRASDUCED_DN, GSE37534_UNTREATED_VS_PIOGLITAZONE_TREATED_CD4_TCELL_PPARG1
                                                                                                                  IVANOVA_HEMATOPOIESIS_INTERMEDIATE_PROGENITOR, IVANOVA_HEMATOPOIESIS_INTERMEDIATE_PROGENITOR
                                                                                                                   GSE5589_LPS_VS_LPS_AND_IL10_STIM_MACROPHAGE_45MIN_UP, GSE5589_LPS_VS_LPS_AND_IL10_STIM_MACROPHAGE_45MIN_UP
                                                                                                                   GSE34156_NOD2_LIGAND_VS_TLR1_TLR2_LIGAND_6H_TREATED_MONOCYTE_UP, GSE34156_NOD2_LIGAND_VS_TLR1_TLR2_LIGAND_6H_TREATED_MONOCYTE_UP
                                                                                                                   GSE15930_STIM_VS_STIM_AND_IFNAB_48H_CD8_T_CELL_DN, GSE15930_STIM_VS_STIM_AND_IFNAB_48H_CD8_T_CELL_DN
                                                                                                                   GSE11961_MARGINAL_ZONE_BCELL_VS_GERMINAL_CENTER_BCELL_DAY7_DN, GSE11961_MARGINAL_ZONE_BCELL_VS_GERMINAL_CENTER_BCELL_DAY7_DN
                                                                                                                   GSE42724_MEMORY_VS_B1_BCELL_DN, GSE42724_MEMORY_VS_B1_BCELL_DN
                                                                                                                   GSE26928_NAIVE_VS_CXCR5_POS_CD4_TCELL_DN, GSE26928_NAIVE_VS_CXCR5_POS_CD4_TCELL_DN
                                                                                                                  GSE40277_EOS_AND_LEF1_TRANSDUCED_VS_GATA1_AND_SATB1_TRANSDUCED_CD4_TCELL_DN, GSE40277_EOS_AND_LEF1_TRANSDUCED_VS_GATA1_AND_SATB1_TRANSDUCED_C
                                                                                                                  GSE17721_PAM3CSK4_VS_CPG_12H_BMDC_DN, GSE17721_PAM3CSK4_VS_CPG_12H_BMDC_DN
                                                                                                                  GSE4984_UNTREATED_VS_VEHICLE_CTRL_TREATED_DC_DN, GSE4984_UNTREATED_VS_VEHICLE_CTRL_TREATED_DC_DN
                                                                                                                  GSE7852_LN_VS_FAT_TREG_DN, GSE7852_LN_VS_FAT_TREG_DN
                                                                                                                  GSE17580_TREG_VS_TEFF_S_MANSONI_INF_UP, GSE17580_TREG_VS_TEFF_S_MANSONI_INF_UP
                                                                                                                  GSE21927_C26GM_VS_4T1_TUMOR_MONOCYTE_BALBC_UP, GSE21927_C26GM_VS_4T1_TUMOR_MONOCYTE_BALBC_UP
                                                                                                                  GSE24142_ADULT_VS_FETAL_DN3_THYMOCYTE_DN, GSE24142_ADULT_VS_FETAL_DN3_THYMOCYTE_DN
                                                                                                                   GSE24142_EARLY_THYMIC_PROGENITOR_VS_DN2_THYMOCYTE_DN, GSE24142_EARLY_THYMIC_PROGENITOR_VS_DN2_THYMOCYTE_DN
                                                                                                                   GSE2770_TGFB_AND_IL4_VS_IL12_TREATED_ACT_CD4_TCELL_2H_DN, GSE2770_TGFB_AND_IL4_VS_IL12_TREATED_ACT_CD4_TCELL_2H_DN
                                                                                                                   GSE13306_RA_VS_UNTREATED_MEM_CD4_TCELL_DN, GSE13306_RA_VS_UNTREATED_MEM_CD4_TCELL_DN
                                                                                                                   GSE7831_UNSTIM_VS_INFLUENZA_STIM_PDC_4H_DN, GSE7831_UNSTIM_VS_INFLUENZA_STIM_PDC_4H_DN
                                                                                                                  GSE2826_WT_VS_XID_BCELL_UP, GSE2826_WT_VS_XID_BCELL_UP
                                                                                                                   GSE37301_MULTIPOTENT_PROGENITOR_VS_COMMON_LYMPHOID_PROGENITOR_DN, GSE37301_MULTIPOTENT_PROGENITOR_VS_COMMON_LYMPHOID_PROGENITOR_DN
                                                                                                                   LIU_VMYB_TARGETS_UP, LIU_VMYB_TARGETS_UP
                                                                                                                   GSE19888_ADENOSINE_A3R_ACT_VS_A3R_ACT_WITH_A3R_INH_PRETREATMENT_IN_MAST_CELL_DN, GSE19888_ADENOSINE_A3R_ACT_VS_A3R_ACT_WITH_A3R_INH_PRETREATMEN
                                                                                                                   GSE3337_CTRL_VS_4H_IFNG_IN_CD8POS_DC_DN, GSE3337_CTRL_VS_4H_IFNG_IN_CD8POS_DC_DN
                                                                                                                   GSE8685 IL15 ACT IL2 STARVED VS IL21 ACT IL2 STARVED CD4 TCELL UP, GSE8685 IL15 ACT IL2 STARVED VS IL21 ACT IL2 STARVED CD4 TCELL UP
                                                                                                                   GSE6259 33D1_POS_DC_VS_BCELL_DN, GSE6259_33D1_POS_DC_VS_BCELL_DN
                                                                                                                   GSE46606_IRF4HIGH_VS_IRF4MID_CD40L_IL2_IL5_DAY3_STIMULATED_BCELL_DN, GSE46606_IRF4HIGH_VS_IRF4MID_CD40L_IL2_IL5_DAY3_STIMULATED_BCELL_DN
                                                                                                                   GSE15930 NAIVE VS 24H IN VITRO STIM CD8 TCELL UP, GSE15930 NAIVE VS 24H IN VITRO STIM CD8 TCELL UP
                                                                                                                   GSE29618_PRE_VS_DAY7_POST_TIV_FLU_VACCINE_MONOCYTE_DN, GSE29618_PRE_VS_DAY7_POST_TIV_FLU_VACCINE_MONOCYTE_DN
                                                                                                                   GSE360_L_DONOVANI_VS_M_TUBERCULOSIS_MAC_DN, GSE360_L_DONOVANI_VS_M_TUBERCULOSIS_MAC_DN
                                                                                                                   QI_HYPOXIA, QI_HYPOXIA
                                                                                                                   GSE2770_UNTREATED_VS_TGFB_AND_IL12_TREATED_ACT_CD4_TCELL_2H_DN, GSE2770_UNTREATED_VS_TGFB_AND_IL12_TREATED_ACT_CD4_TCELL_2H_DN
                                                                                                                   GSE7219 WT_VS_NIK_NFKB2_KO_LPS_AND_ANTI_CD40_STIM_DC_UP, GSE7219_WT_VS_NIK_NFKB2_KO_LPS_AND_ANTI_CD40_STIM_DC_UP
                                                                                                                   COLDREN_GEFITINIB_RESISTANCE_UP, COLDREN_GEFITINIB_RESISTANCE_UP
                                                                                                                   GSE36078_UNTREATED_VS_AD5_INF_IL1R_KO_MOUSE_LUNG_DC_DN, GSE36078_UNTREATED_VS_AD5_INF_IL1R_KO_MOUSE_LUNG_DC_DN
                                                                                                                   GSE43955 10H VS 30H ACT CD4 TCELL WITH TGFB IL6 UP, GSE43955 10H VS 30H ACT CD4 TCELL WITH TGFB IL6 UP
                                                                                                                   GSE43955_TH0_VS_TGFB_IL6_TH17_ACT_CD4_TCELL_10H_UP, GSE43955_TH0_VS_TGFB_IL6_TH17_ACT_CD4_TCELL_10H_UP
                                                                                                                   GSE18804_SPLEEN_MACROPHAGE_VS_BRAIN_TUMORAL_MACROPHAGE_UP, GSE18804_SPLEEN_MACROPHAGE_VS_BRAIN_TUMORAL_MACROPHAGE_UP
                                                                                                                   GSE360_L_MAJOR_VS_B_MALAYI_HIGH_DOSE_MAC_UP, GSE360_L_MAJOR_VS_B_MALAYI_HIGH_DOSE_MAC_UP
                                                                                                                  GSE43955_1H_VS_10H_ACT_CD4_TCELL_DN, GSE43955_1H_VS_10H_ACT_CD4_TCELL_DN
                                                                                                                  HP_FULL_CHEEKS, HP_FULL_CHEEKS
                                                                                                                  GSE10239_NAIVE_VS_MEMORY_CD8_TCELL_DN, GSE10239_NAIVE_VS_MEMORY_CD8_TCELL_DN
                                                                                                                  GSE360_CTRL_VS_B_MALAYI_HIGH_DOSE_DC_DN, GSE360_CTRL_VS_B_MALAYI_HIGH_DOSE_DC_DN
H_IN_VITRO_STIM_IFNAB_CD8_TCELL_DN, GSE15930_NAIVE_VS_72H_IN_VITRO_STIM_IFNAB_CD8_TCELL_DN
                                                                                                                  HP_JAUNDICE, HP_JAUNDICE
                                                                                                                  HP_DELAYED_PUBERTY, HP_DELAYED_PUBERTY
                                                                                                                   GSE26928_EFF_MEMORY_VS_CXCR5_POS_CD4_TCELL_UP, GSE26928_EFF_MEMORY_VS_CXCR5_POS_CD4_TCELL_UP
                                                                                                                   HUANG_GATA2_TARGETS_DN, HUANG_GATA2_TARGETS_DN
                                                                                                                   PID_HIF1_TFPATHWAY, PID_HIF1_TFPATHWAY
                                                                                                                   GSE12003_MIR223_KO_VS_WT_BM_PROGENITOR_4D_CULTURE_DN, GSE12003_MIR223_KO_VS_WT_BM_PROGENITOR_4D_CULTURE_DN
                                                                                                                   HP_ABNORMAL_CIRCULATING_CHOLESTEROL_CONCENTRATION, HP_ABNORMAL_CIRCULATING_CHOLESTEROL_CONCENTRATION
                                                                                                                   JECHLINGER_EPITHELIAL_TO_MESENCHYMAL_TRANSITION_UP, JECHLINGER_EPITHELIAL_TO_MESENCHYMAL_TRANSITION_UP
                                                                                                                   JI_RESPONSE_TO_FSH_UP, JI_RESPONSE_TO_FSH_UP
                                                                                                                  HP_BIPARIETAL_NARROWING, HP_BIPARIETAL_NARROWING
                                                                                                                   GOCC_GAMMA_TUBULIN_COMPLEX, GOCC_GAMMA_TUBULIN_COMPLEX
                                                                                                                   BRUNO_HEMATOPOIESIS, BRUNO_HEMATOPOIESIS
                                                                                                                   HP_ABDOMINAL_DISTENTION, HP_ABDOMINAL_DISTENTION
                                                                                                                  NAKAJIMA_MAST_CELL, NAKAJIMA_MAST_CELL
                                                                                                                  HP_PROLONGED_NEONATAL_JAUNDICE, HP_PROLONGED_NEONATAL_JAUNDICE
                                                                                                                  CHIARETTI_ACUTE_LYMPHOBLASTIC_LEUKEMIA_ZAP70, CHIARETTI_ACUTE_LYMPHOBLASTIC_LEUKEMIA_ZAP70
                                                                                                                   AMIT EGF RESPONSE 480 MCF10A, AMIT EGF RESPONSE 480 MCF10A
                                                                                                                   ALK_DN.V1_UP, ALK_DN.V1_UP
                                                                                                                  FXR_IR1_Q6, FXR_IR1_Q6
                                                                                                                   HOSHIDA_LIVER_CANCER_SURVIVAL_UP, HOSHIDA_LIVER_CANCER_SURVIVAL_UP
                                                                                                                   TSENG_ADIPOGENIC_POTENTIAL_UP, TSENG_ADIPOGENIC_POTENTIAL_UP
                                                                                                                   DESCARTES_FETAL_PLACENTA_AFP_ALB_POSITIVE_CELLS, DESCARTES_FETAL_PLACENTA_AFP_ALB_POSITIVE_CELLS
                                                                                                                   GSE26488_CTRL_VS_PEPTIDE_INJECTION_HDAC7_DELTAP_TG_OT2_THYMOCYTE_UP, GSE26488_CTRL_VS_PEPTIDE_INJECTION_HDAC7_DELTAP_TG_OT2_THYMOCYTE_UP
                                                                                                                  HP_PROTUBERANT_ABDOMEN, HP_PROTUBERANT_ABDOMEN
                                                                                                                  GOBP_MEDIUM_CHAIN_FATTY_ACID_METABOLIC_PROCESS, GOBP_MEDIUM_CHAIN_FATTY_ACID_METABOLIC_PROCESS
                                                                                                                  KIM MYCL1 AMPLIFICATION TARGETS DN, KIM MYCL1 AMPLIFICATION TARGETS DN
                                                                                                                  HP_PSEUDOBULBAR_PARALYSIS, HP_PSEUDOBULBAR_PARALYSIS
                                                                                                                  GRANDVAUX_IFN_RESPONSE_NOT_VIA_IRF3, GRANDVAUX_IFN_RESPONSE_NOT_VIA_IRF3
                                                                                                                  GOMF_CYSTEINE_TYPE_ENDOPEPTIDASE_INHIBITOR_ACTIVITY_INVOLVED_IN_APOPTOTIC_PROCESS, GOMF_CYSTEINE_TYPE_ENDOPEPTIDASE_INHIBITOR_ACTIVITY_INVOLVED_IN
                                                                                                                  OUYANG PROSTATE CANCER MARKERS, OUYANG PROSTATE CANCER MARKERS
                                                                                                                  chr17q11, chr17q11
                                                                                                                  GOBP_NEGATIVE_REGULATION_OF_FATTY_ACID_BIOSYNTHETIC_PROCESS, GOBP_NEGATIVE_REGULATION_OF_FATTY_ACID_BIOSYNTHETIC_PROCESS
                                                                                                                  GOBP_NEGATIVE_REGULATION_OF_FATTY_ACID_METABOLIC_PROCESS, GOBP_NEGATIVE_REGULATION_OF_FATTY_ACID_METABOLIC_PROCESS
                                                                                                                  WACKER HYPOXIA TARGETS OF VHL, WACKER HYPOXIA TARGETS OF VHL
                                                                                                                  GOBP_SECONDARY_HEART_FIELD_SPECIFICATION, GOBP_SECONDARY_HEART_FIELD_SPECIFICATION
                                                                                                                  GOBP_PROTECTION_FROM_NATURAL_KILLER_CELL_MEDIATED_CYTOTOXICITY, GOBP_PROTECTION_FROM_NATURAL_KILLER_CELL_MEDIATED_CYTOTOXICITY
                                                                                                                  GOCC_PHOTORECEPTOR_INNER_SEGMENT, GOCC_PHOTORECEPTOR_INNER_SEGMENT
                                                                                                                  REACTOME RESPONSE TO METAL IONS, REACTOME RESPONSE TO METAL IONS
                                                                                                                  GOBP_DETOXIFICATION_OF_INORGANIC_COMPOUND, GOBP_DETOXIFICATION_OF_INORGANIC_COMPOUND
                                                                                                                   MAINA_VHL_TARGETS_DN, MAINA_VHL_TARGETS_DN
                                                                                                                  GOBP_STRESS_RESPONSE_TO_METAL_ION, GOBP_STRESS_RESPONSE_TO_METAL_ION
                                                                                                                  HP_COMPENSATED_HYPOTHYROIDISM, HP_COMPENSATED_HYPOTHYROIDISM
                                                                                                                  GOBP_POSITIVE_REGULATION_OF_ACTIN_CYTOSKELETON_REORGANIZATION, GOBP_POSITIVE_REGULATION_OF_ACTIN_CYTOSKELETON_REORGANIZATION
                                                                                                                  SMID BREAST CANCER RELAPSE IN LUNG UP, SMID BREAST CANCER RELAPSE IN LUNG UP
                                                                                                                  GOBP_POSITIVE_REGULATION_OF_PROTEIN_KINASE_C_SIGNALING, GOBP_POSITIVE_REGULATION_OF_PROTEIN_KINASE_C_SIGNALING
                                                                                                                  MODULE_191, MODULE_191
                                                                                                                  MODULE_262, MODULE_262
                                                                                                                  REACTOME_BUTYROPHILIN_BTN_FAMILY_INTERACTIONS, REACTOME_BUTYROPHILIN_BTN_FAMILY_INTERACTIONS
                                                                                                                  WP_THYROXINE_THYROID_HORMONE_PRODUCTION, WP_THYROXINE_THYROID_HORMONE_PRODUCTION
                                                                                                                  HP_UNCONTROLLED_EYE_MOVEMENTS, HP_UNCONTROLLED_EYE_MOVEMENTS
                                                                                                                  HP_EEG_WITH_SPIKE_WAVE_COMPLEXES_2_5_3_5_HZ, HP_EEG_WITH_SPIKE_WAVE_COMPLEXES_2_5_3_5_HZ
                                                                                                                  GOBP_REGULATION_OF_PEPTIDYL_TYROSINE_AUTOPHOSPHORYLATION, GOBP_REGULATION_OF_PEPTIDYL_TYROSINE_AUTOPHOSPHORYLATION
                                                                                                                  SCHAEFFER_PROSTATE_DEVELOPMENT_AND_CANCER_BOX6_DN, SCHAEFFER_PROSTATE_DEVELOPMENT_AND_CANCER_BOX6_DN
                                                                                                                  HP_LOW_SELF_ESTEEM, HP_LOW_SELF_ESTEEM
                                                                                                                  GOBP_CARBOHYDRATE_IMPORT_ACROSS_PLASMA_MEMBRANE, GOBP_CARBOHYDRATE_IMPORT_ACROSS_PLASMA_MEMBRANE
                                                                                                                  GOMF_SPHINGOMYELIN_PHOSPHODIESTERASE_ACTIVITY, GOMF_SPHINGOMYELIN_PHOSPHODIESTERASE_ACTIVITY
                                                                                                                  GOMF_D_GLUCOSE_TRANSMEMBRANE_TRANSPORTER_ACTIVITY, GOMF_D_GLUCOSE_TRANSMEMBRANE_TRANSPORTER_ACTIVITY
                                                                                                                  GOMF_CHEMOATTRACTANT_ACTIVITY, GOMF_CHEMOATTRACTANT_ACTIVITY
                                                                                                                  WP_HEART_DEVELOPMENT, WP_HEART_DEVELOPMENT
                                                                                                                  GOBP_GLUCOSE_IMPORT_ACROSS_PLASMA_MEMBRANE, GOBP_GLUCOSE_IMPORT_ACROSS_PLASMA_MEMBRANE
                                                                                                                  GOBP_LEUKOTRIENE_B4_METABOLIC_PROCESS, GOBP_LEUKOTRIENE_B4_METABOLIC_PROCESS
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