```
GSE32986_GMCSF_VS_GMCSF_AND_CURDLAN_LOWDOSE_STIM_DC_UP, GSE32986_GMCSF_VS_GMCSF_AND_CURDLAN_LOWDOSE_STIM_DC_UP
 GSE17974_1.5H_VS_72H_IL4_AND_ANTI_IL12_ACT_CD4_TCELL_DN, GSE17974_1.5H_VS_72H_IL4_AND_ANTI_IL12_ACT_CD4_TCELL_DN
 GSE17974 OH VS 2H IN VITRO ACT CD4 TCELL UP, GSE17974 OH VS 2H IN VITRO ACT CD4 TCELL UP
 GSE17974_CTRL_VS_ACT_IL4_AND_ANTI_IL12_72H_CD4_TCELL_DN, GSE17974_CTRL_VS_ACT_IL4_AND_ANTI_IL12_72H_CD4_TCELL_DN
 GSE17721_CTRL_VS_PAM3CSK4_6H_BMDC_UP, GSE17721_CTRL_VS_PAM3CSK4_6H_BMDC_UP
 GSE29617_CTRL_VS_DAY7_TIV_FLU_VACCINE_PBMC_2008_DN, GSE29617_CTRL_VS_DAY7_TIV_FLU_VACCINE_PBMC_2008_DN
 GSE27786_LSK_VS_NKCELL_UP, GSE27786_LSK_VS_NKCELL_UP
 GSE24026_PD1_LIGATION_VS_CTRL_IN_ACT_TCELL_LINE_UP, GSE24026_PD1_LIGATION_VS_CTRL_IN_ACT_TCELL_LINE_UP
 GSE17974_2.5H_VS_72H_IL4_AND_ANTI_IL12_ACT_CD4_TCELL_DN, GSE17974_2.5H_VS_72H_IL4_AND_ANTI_IL12_ACT_CD4_TCELL_DN
 GSE3982_EOSINOPHIL_VS_CENT_MEMORY_CD4_TCELL_DN, GSE3982_EOSINOPHIL_VS_CENT_MEMORY_CD4_TCELL_DN
 GSE42021_CD24HI_VS_CD24INT_TREG_THYMUS_UP, GSE42021_CD24HI_VS_CD24INT_TREG_THYMUS_UP
 GSE46606_IRF4_KO_VS_WT_CD40L_IL2_IL5_1DAY_STIMULATED_BCELL_UP, GSE46606_IRF4_KO_VS_WT_CD40L_IL2_IL5_1DAY_STIMULATED_BCELL_UP
 CHUNG_BLISTER_CYTOTOXICITY_UP, CHUNG_BLISTER_CYTOTOXICITY_UP
 GSE17974 CTRL VS ACT IL4 AND ANTI IL12 2H CD4 TCELL UP, GSE17974 CTRL VS ACT IL4 AND ANTI IL12 2H CD4 TCELL UP
 GSE17974_0H_VS_4H_IN_VITRO_ACT_CD4_TCELL_UP, GSE17974_0H_VS_4H_IN_VITRO_ACT_CD4_TCELL_UP
GSE360_CTRL_VS_B_MALAYI_LOW_DOSE_DC_UP, GSE360_CTRL_VS_B_MALAYI_LOW_DOSE_DC_UP
 GSE17721_LPS_VS_POLYIC_12H_BMDC_DN, GSE17721_LPS_VS_POLYIC_12H_BMDC_DN
 GSE22611_UNSTIM_VS_6H_MDP_STIM_MUTANT_NOD2_TRANSDUCED_HEK293T_CELL_UP, GSE22611_UNSTIM_VS_6H_MDP_STIM_MUTANT_NOD2_TRANSDUCED_HEK293T_CELL_UP
 GSE2585_THYMIC_MACROPHAGE_VS_MTEC_UP, GSE2585_THYMIC_MACROPHAGE_VS_MTEC_UP
 GSE17974_CTRL_VS_ACT_IL4_AND_ANTI_IL12_1H_CD4_TCELL_UP, GSE17974_CTRL_VS_ACT_IL4_AND_ANTI_IL12_1H_CD4_TCELL_UP
 GSE3982_EOSINOPHIL_VS_EFF_MEMORY_CD4_TCELL_DN, GSE3982_EOSINOPHIL_VS_EFF_MEMORY_CD4_TCELL_DN
 GSE17974_0H_VS_1H_IN_VITRO_ACT_CD4_TCELL_UP, GSE17974_0H_VS_1H_IN_VITRO_ACT_CD4_TCELL_UP
 HP_PREMATURELY_AGED_APPEARANCE, HP_PREMATURELY_AGED_APPEARANCE
GSE44649_WT_VS_MIR155_KO_ACTIVATED_CD8_TCELL_DN, GSE44649_WT_VS_MIR155_KO_ACTIVATED_CD8_TCELL_DN
GSE37605_C57BL6_VS_NOD_FOXP3_IRES_GFP_TCONV_UP, GSE37605_C57BL6_VS_NOD_FOXP3_IRES_GFP_TCONV_UP
E2F3_UP.V1_UP, E2F3_UP.V1_UP
GOCC_MICROBODY_MEMBRANE, GOCC_MICROBODY_MEMBRANE
 REACTOME_SULFUR_AMINO_ACID_METABOLISM, REACTOME_SULFUR_AMINO_ACID_METABOLISM
 GSE22601_DOUBLE_NEGATIVE_VS_DOUBLE_POSITIVE_THYMOCYTE_UP, GSE22601_DOUBLE_NEGATIVE_VS_DOUBLE_POSITIVE_THYMOCYTE_UP
 SHAFFER_IRF4_TARGETS_IN_ACTIVATED_DENDRITIC_CELL, SHAFFER_IRF4_TARGETS_IN_ACTIVATED_DENDRITIC_CELL
MIR4794, MIR4794
GSE22935_UNSTIM_VS_24H_MBOVIS_BCG_STIM_MACROPHAGE_UP, GSE22935_UNSTIM_VS_24H_MBOVIS_BCG_STIM_MACROPHAGE_UP
 LINDSTEDT_DENDRITIC_CELL_MATURATION_C, LINDSTEDT_DENDRITIC_CELL_MATURATION_C
 MANNE_COVID19_ICU_VS_HEALTHY_DONOR_PLATELETS_UP, MANNE_COVID19_ICU_VS_HEALTHY_DONOR_PLATELETS_UP
 GOBP_PROTEIN_HOMOOLIGOMERIZATION, GOBP_PROTEIN_HOMOOLIGOMERIZATION
 HP_NEOPLASM_OF_THE_SKIN, HP_NEOPLASM_OF_THE_SKIN
GNF2_INPP5D, GNF2_INPP5D
GSE36078_UNTREATED_VS_AD5_T425A_HEXON_INF_IL1R_KO_MOUSE_LUNG_DC_DN, GSE36078_UNTREATED_VS_AD5_T425A_HEXON_INF_IL1R_KO_MOUSE_LUNG_DC_DN
REACTOME_RNA_POLYMERASE_III_TRANSCRIPTION_INITIATION_FROM_TYPE_3_PROMOTER, REACTOME_RNA_POLYMERASE_III_TRANSCRIPTION_INITIATION_FROM_TYPE_3_PROMOTER
GOBP_NEGATIVE_REGULATION_OF_DNA_RECOMBINATION, GOBP_NEGATIVE_REGULATION_OF_DNA_RECOMBINATION
GSE29618_PRE_VS_DAY7_FLU_VACCINE_BCELL_UP, GSE29618_PRE_VS_DAY7_FLU_VACCINE_BCELL_UP
WP_SMALL_CELL_LUNG_CANCER, WP_SMALL_CELL_LUNG_CANCER
HOFT_CD4_POSITIVE_ALPHA_BETA_MEMORY_T_CELL_BCG_VACCINE_AGE_18_45YO_ID_56D_TOP_100_DEG_AFTER_IN_VITRO_RE_STIMULATION_UP, HOFT_CD4_POSITIVE_ALPHA_BCG_VACCINE_AGE_18_45YO_ID_56D_TOP_100_DEG_AFTER_IN_VITRO_RE_STIMULATION_UP, HOFT_CD4_POSITIVE_ALPHA_BCG_VACCINE_AGE_18_45YO_ID_56D_TOP_100_DEG_AFTER_IN_VITRO_RE_STIMULATION_UP, HOFT_CD4_POSITIVE_ALPHA_BCG_VACCINE_AGE_18_45YO_ID_56D_TOP_100_DEG_AFTER_IN_VITRO_RE_STIMULATION_UP, HOFT_CD4_POSITIVE_AGE_18_5TER_IN_VITRO_RE_STIMULATION_UP, HOFT_CD4_POSITIVE_AGE_18_5TER_IN_VITRO_RE_STIMULATION_UP, HOFT_CD4_POSITIVE_AGE_18_5TER_IN_VITRO_RE_STIMULATION_UP, HOFT_CD4_POSITIVE_AGE_18_5TER_IN_VITRO_RE_STIMULATION_UP, HOFT_CD4_POSITIVE_AGE_18_5TER_IN_VITRO_RE_STIMULATION_UP, HOFT_CD4_POSI
WP CYSTEINE AND METHIONINE CATABOLISM, WP CYSTEINE AND METHIONINE CATABOLISM
HP ABNORMAL CIRCULATING CHOLESTEROL CONCENTRATION, HP ABNORMAL CIRCULATING CHOLESTEROL CONCENTRATION
HP_BLEPHARITIS, HP_BLEPHARITIS
MIR4305, MIR4305
HP_HYPERMELANOTIC_MACULE, HP_HYPERMELANOTIC_MACULE
RIZ_ERYTHROID_DIFFERENTIATION_CCNE1, RIZ_ERYTHROID_DIFFERENTIATION_CCNE1
LEONARD_HYPOXIA, LEONARD_HYPOXIA
MIR3975, MIR3975
MIR4793_5P, MIR4793_5P
REACTOME DEGRADATION OF CYSTEINE AND HOMOCYSTEINE, REACTOME DEGRADATION OF CYSTEINE AND HOMOCYSTEINE
HOWARD_T_CELL_INACT_MONOV_INFLUENZA_A_INDONESIA_05_2005_H5N1_AGE_18_49YO_1DY_UP, HOWARD_T_CELL_INACT_MONOV_INFLUENZA_A_INDONESIA_05_2005_H5N1_AGE_18_49YO_1DY_UP
HP_SQUAMOUS_CELL_CARCINOMA, HP_SQUAMOUS_CELL_CARCINOMA
HP_ABNORMALITY_OF_HAIR_PIGMENTATION, HP_ABNORMALITY_OF_HAIR_PIGMENTATION
HP NAIL DYSPLASIA, HP NAIL DYSPLASIA
HP_HYPERLIPIDEMIA, HP_HYPERLIPIDEMIA
GOBP_CELL_CELL_JUNCTION_ASSEMBLY, GOBP_CELL_CELL_JUNCTION_ASSEMBLY
GOMF_PEPTIDASE_ACTIVATOR_ACTIVITY, GOMF_PEPTIDASE_ACTIVATOR_ACTIVITY
HUANG GATA2 TARGETS DN, HUANG GATA2 TARGETS DN
NAGASHIMA_NRG1_SIGNALING_DN, NAGASHIMA_NRG1_SIGNALING_DN
GOBP_SULFUR_COMPOUND_CATABOLIC_PROCESS, GOBP_SULFUR_COMPOUND_CATABOLIC_PROCESS
HP_PROLONGED_NEONATAL_JAUNDICE, HP_PROLONGED_NEONATAL_JAUNDICE
 GOMF_5_3_EXONUCLEASE_ACTIVITY, GOMF_5_3_EXONUCLEASE_ACTIVITY
 MSX1_01, MSX1_01
 HOEK_NEUTROPHIL_2011_2012_TIV_ADULT_1DY_DN, HOEK_NEUTROPHIL_2011_2012_TIV_ADULT_1DY_DN
 HP_ARTERIOSCLEROSIS, HP_ARTERIOSCLEROSIS
 PTEN_DN.V2_DN, PTEN_DN.V2_DN
 MIR6836_3P, MIR6836_3P
 GOBP_REGULATION_OF_MEMBRANE_INVAGINATION, GOBP_REGULATION_OF_MEMBRANE_INVAGINATION
HP_PROGEROID_FACIAL_APPEARANCE, HP_PROGEROID_FACIAL_APPEARANCE
 HP_PREMATURE_GRAYING_OF_HAIR, HP_PREMATURE_GRAYING_OF_HAIR
 ZHAN_V1_LATE_DIFFERENTIATION_GENES_DN, ZHAN_V1_LATE_DIFFERENTIATION_GENES_DN
 HP_ABNORMAL_CORONARY_ARTERY_MORPHOLOGY, HP_ABNORMAL_CORONARY_ARTERY_MORPHOLOGY
 GOBP_SULFUR_AMINO_ACID_CATABOLIC_PROCESS, GOBP_SULFUR_AMINO_ACID_CATABOLIC_PROCESS
 MIR4439, MIR4439
MIR3650, MIR3650
HP_MUSCLE_STIFFNESS, HP_MUSCLE_STIFFNESS
 DESCARTES_MAIN_FETAL_THYMOCYTES, DESCARTES_MAIN_FETAL_THYMOCYTES
 GOMF_PHOSPHATIDYLSERINE_BINDING, GOMF_PHOSPHATIDYLSERINE_BINDING
 GOBP_NEURON_MIGRATION, GOBP_NEURON_MIGRATION
 GOCC_SMOOTH_ENDOPLASMIC_RETICULUM, GOCC_SMOOTH_ENDOPLASMIC_RETICULUM
 HP_ABNORMAL_BLISTERING_OF_THE_SKIN, HP_ABNORMAL_BLISTERING_OF_THE_SKIN
 MIR374C_3P, MIR374C_3P
 GOBP_GLYCEROL_ETHER_METABOLIC_PROCESS, GOBP_GLYCEROL_ETHER_METABOLIC_PROCESS
 GOCC_CELL_CELL_CONTACT_ZONE, GOCC_CELL_CELL_CONTACT_ZONE
 STANELLE_E2F1_TARGETS, STANELLE_E2F1_TARGETS
 GOBP_PURINE_NUCLEOBASE_BIOSYNTHETIC_PROCESS, GOBP_PURINE_NUCLEOBASE_BIOSYNTHETIC_PROCESS
 MIR3136_5P, MIR3136_5P
VALK_AML_WITH_CEBPA, VALK_AML_WITH_CEBPA
GOBP_GALACTOSE_METABOLIC_PROCESS, GOBP_GALACTOSE_METABOLIC_PROCESS
REACTOME_PLATELET_CALCIUM_HOMEOSTASIS, REACTOME_PLATELET_CALCIUM_HOMEOSTASIS
GOBP_REGULATION_OF_DEFENSE_RESPONSE_TO_VIRUS_BY_HOST, GOBP_REGULATION_OF_DEFENSE_RESPONSE_TO_VIRUS_BY_HOST
GOBP_PURINE_NUCLEOBASE_METABOLIC_PROCESS, GOBP_PURINE_NUCLEOBASE_METABOLIC_PROCESS
HP_ACROCYANOSIS, HP_ACROCYANOSIS
HP PSYCHOTIC MENTATION, HP PSYCHOTIC MENTATION
GOBP_PROTEIN_HYDROXYLATION, GOBP_PROTEIN_HYDROXYLATION
WP_TRANSSULFURATION_PATHWAY, WP_TRANSSULFURATION_PATHWAY
GOMF_RRNA_ADENINE_METHYLTRANSFERASE_ACTIVITY, GOMF_RRNA_ADENINE_METHYLTRANSFERASE_ACTIVITY
GOBP_PYRIDINE_CONTAINING_COMPOUND_BIOSYNTHETIC_PROCESS, GOBP_PYRIDINE_CONTAINING_COMPOUND_BIOSYNTHETIC_PROCESS
HP_PANNICULITIS, HP_PANNICULITIS
GOBP_CELL_VOLUME_HOMEOSTASIS, GOBP_CELL_VOLUME_HOMEOSTASIS
GOBP_PROTEIN_MATURATION_BY_IRON_SULFUR_CLUSTER_TRANSFER, GOBP_PROTEIN_MATURATION_BY_IRON_SULFUR_CLUSTER_TRANSFER
GOBP_HISTONE_H4_R3_METHYLATION, GOBP_HISTONE_H4_R3_METHYLATION
 REACTOME_KERATAN_SULFATE_KERATIN_METABOLISM, REACTOME_KERATAN_SULFATE_KERATIN_METABOLISM
XU_GH1_EXOGENOUS_TARGETS_DN, XU_GH1_EXOGENOUS_TARGETS_DN
PRC1_BMI_UP.V1_DN, PRC1_BMI_UP.V1_DN
GOBP_NEGATIVE_REGULATION_OF_PLASMA_MEMBRANE_BOUNDED_CELL_PROJECTION_ASSEMBLY, GOBP_NEGATIVE_REGULATION_OF_PLASMA_MEMBRANE_BOUNDED_CELL_PROJECTION_ASSEMBLY
NIKOLSKY_BREAST_CANCER_1Q32_AMPLICON, NIKOLSKY_BREAST_CANCER_1Q32_AMPLICON
GOBP_APOPTOTIC_DNA_FRAGMENTATION, GOBP_APOPTOTIC_DNA_FRAGMENTATION
GOMF_ENDODEOXYRIBONUCLEASE_ACTIVITY_PRODUCING_5_PHOSPHOMONOESTERS, GOMF_ENDODEOXYRIBONUCLEASE_ACTIVITY_PRODUCING_5_PHOSPHOMONOESTERS
 GOMF OXIDOREDUCTASE ACTIVITY ACTING ON SINGLE DONORS WITH INCORPORATION OF MOLECULAR OXYGEN, GOMF OXIDOREDUCTASE ACTIVITY ACTING ON SINGLE DONORS WITH INCORPORATION OF MOLECULAR OXYGEN
 GSE10422 WT_VS_BAFF_TRANSGENIC_LN_BCELL_DN, GSE10422 WT_VS_BAFF_TRANSGENIC_LN_BCELL_DN
 HP_CORNEAL_EROSION, HP_CORNEAL_EROSION
KEGG_FRUCTOSE_AND_MANNOSE_METABOLISM, KEGG_FRUCTOSE_AND_MANNOSE_METABOLISM
 GOBP_DOPAMINE_METABOLIC_PROCESS, GOBP_DOPAMINE_METABOLIC_PROCESS
GOBP_PYRIDINE_CONTAINING_COMPOUND_METABOLIC_PROCESS, GOBP_PYRIDINE_CONTAINING_COMPOUND_METABOLIC_PROCESS
```

NTREATED IN VITRO CD4 TCELL DN, GSE17974 2H VS 72H UNTREATED IN VITRO CD4 TCELL DN

```
GOMF_MODIFIED_AMINO_ACID_BINDING, GOMF_MODIFIED_AMINO_ACID_BINDING
HP_DECREASED_NUMBER_OF_PERIPHERAL_MYELINATED_NERVE_FIBERS, HP_DECREASED_NUMBER_OF_PERIPHERAL_MYELINATED_NERVE_FIBERS
HP_ABNORMALITY_OF_IMMUNE_SERUM_PROTEIN_PHYSIOLOGY, HP_ABNORMALITY_OF_IMMUNE_SERUM_PROTEIN_PHYSIOLOGY
GOMF_CAMP_RESPONSE_ELEMENT_BINDING, GOMF_CAMP_RESPONSE_ELEMENT_BINDING
WP_TRYPTOPHAN_CATABOLISM_LEADING_TO_NAD_PRODUCTION, WP_TRYPTOPHAN_CATABOLISM_LEADING_TO_NAD_PRODUCTION
GOBP_EPITHELIAL_CELL_CELL_ADHESION, GOBP_EPITHELIAL_CELL_CELL_ADHESION
GOBP_MAINTENANCE_OF_PROTEIN_LOCATION_IN_NUCLEUS, GOBP_MAINTENANCE_OF_PROTEIN_LOCATION_IN_NUCLEUS
HP_GENERALIZED_HYPOPIGMENTATION_OF_HAIR, HP_GENERALIZED_HYPOPIGMENTATION_OF_HAIR
GOBP_KERATAN_SULFATE_METABOLIC_PROCESS, GOBP_KERATAN_SULFATE_METABOLIC_PROCESS
GOBP_PEPTIDYL_ARGININE_OMEGA_N_METHYLATION, GOBP_PEPTIDYL_ARGININE_OMEGA_N_METHYLATION
WP_P53_TRANSCRIPTIONAL_GENE_NETWORK, WP_P53_TRANSCRIPTIONAL_GENE_NETWORK
GOBP_DNA_CATABOLIC_PROCESS_ENDONUCLEOLYTIC, GOBP_DNA_CATABOLIC_PROCESS_ENDONUCLEOLYTIC
GOMF_EXODEOXYRIBONUCLEASE_ACTIVITY, GOMF_EXODEOXYRIBONUCLEASE_ACTIVITY
KOHOUTEK_CCNT1_TARGETS, KOHOUTEK_CCNT1_TARGETS
HP_ECTROPION, HP_ECTROPION
GOMF_CARBOHYDRATE_KINASE_ACTIVITY, GOMF_CARBOHYDRATE_KINASE_ACTIVITY
HARALAMBIEVA_PBMC_TIV_AGE_50_74YO_CORRELATED_WITH_MEMORY_B_CELL_RESPONSE_28DY_NEGATIVE, HARALAMBIEVA_PBMC_TIV_AGE_50_74YO_CORRELATED_WITH_MEMORY_B_CELL_RESPONSE_28DY_NEGATIVE
KEGG_GALACTOSE_METABOLISM, KEGG_GALACTOSE_METABOLISM
GOBP_REGULATION_OF_FC_RECEPTOR_MEDIATED_STIMULATORY_SIGNALING_PATHWAY, GOBP_REGULATION_OF_FC_RECEPTOR_MEDIATED_STIMULATORY_SIGNALING_PATHWAY
LOPEZ_MESOTHELIOMA_SURVIVAL_WORST_VS_BEST_UP, LOPEZ_MESOTHELIOMA_SURVIVAL_WORST_VS_BEST_UP
GSE29618_LAIV_VS_TIV_FLU_VACCINE_DAY7_BCELL_UP, GSE29618_LAIV_VS_TIV_FLU_VACCINE_DAY7_BCELL_UP
WANG_RECURRENT_LIVER_CANCER_UP, WANG_RECURRENT_LIVER_CANCER_UP
HP_ABNORMAL_CIRCULATING_CREATININE_CONCENTRATION, HP_ABNORMAL_CIRCULATING_CREATININE_CONCENTRATION
GOCC_INTERCALATED_DISC, GOCC_INTERCALATED_DISC
HP_ABNORMALITY_OF_THE_FIRST_METATARSAL_BONE, HP_ABNORMALITY_OF_THE_FIRST_METATARSAL_BONE
HP_ABNORMALITY_OF_THE_MIDDLE_PHALANGES_OF_THE_TOES, HP_ABNORMALITY_OF_THE_MIDDLE_PHALANGES_OF_THE_TOES
KRISHNAN_FURIN_TARGETS_UP, KRISHNAN_FURIN_TARGETS_UP
GOBP_NAD_BIOSYNTHETIC_PROCESS, GOBP_NAD_BIOSYNTHETIC_PROCESS
GOCC_BRISC_COMPLEX, GOCC_BRISC_COMPLEX
GOBP_HYDROGEN_SULFIDE_METABOLIC_PROCESS, GOBP_HYDROGEN_SULFIDE_METABOLIC_PROCESS
HP_APLASIA_HYPOPLASIA_OF_THE_HUMERUS, HP_APLASIA_HYPOPLASIA_OF_THE_HUMERUS
GOBP_PEPTIDYL_PROLINE_HYDROXYLATION, GOBP_PEPTIDYL_PROLINE_HYDROXYLATION
GOMF_ACID_AMINO_ACID_LIGASE_ACTIVITY, GOMF_ACID_AMINO_ACID_LIGASE_ACTIVITY
RAMPON_ENRICHED_LEARNING_ENVIRONMENT_LATE_UP, RAMPON_ENRICHED_LEARNING_ENVIRONMENT_LATE_UP
HP_ABNORMAL_SERUM_INTERFERON_LEVEL, HP_ABNORMAL_SERUM_INTERFERON_LEVEL
GOBP_REGULATION_OF_TRANSLATIONAL_INITIATION_BY_EIF2_ALPHA_PHOSPHORYLATION, GOBP_REGULATION_OF_TRANSLATIONAL_INITIATION_BY_EIF2_ALPHA_PHOSPHORYLATION
```

GOMF_FLAP_ENDONUCLEASE_ACTIVITY, GOMF_FLAP_ENDONUCLEASE_ACTIVITY