```
GSE17721_0.5H_VS_4H_CPG_BMDC_UP, GSE17721_0.5H_VS_4H_CPG_BMDC_UP
 GSE39864_WT_VS_GATA3_KO_TREG_DN, GSE39864_WT_VS_GATA3_KO_TREG_DN
 GSE42021_TREG_PLN_VS_CD24HI_TREG_THYMUS_DN, GSE42021_TREG_PLN_VS_CD24HI_TREG_THYMUS_DN
GSE35825 IFNA VS IFNG STIM MACROPHAGE DN, GSE35825 IFNA VS IFNG STIM MACROPHAGE DN
 GSE17721_CTRL_VS_CPG_4H_BMDC_UP, GSE17721_CTRL_VS_CPG_4H_BMDC_UP
 GSE42021_CD24HI_TREG_VS_CD24HI_TCONV_THYMUS_UP, GSE42021_CD24HI_TREG_VS_CD24HI_TCONV_THYMUS_UP
 GSE21360_TERTIARY_VS_QUATERNARY_MEMORY_CD8_TCELL_UP, GSE21360_TERTIARY_VS_QUATERNARY_MEMORY_CD8_TCELL_UP
GSE17721_CTRL_VS_CPG_0.5H_BMDC_UP, GSE17721_CTRL_VS_CPG_0.5H_BMDC_UP
GSE17721_CTRL_VS_PAM3CSK4_4H_BMDC_UP, GSE17721_CTRL_VS_PAM3CSK4_4H_BMDC_UP
GSE17721_CTRL_VS_CPG_8H_BMDC_UP, GSE17721_CTRL_VS_CPG_8H_BMDC_UP
 GSE20727_CTRL_VS_ROS_INH_AND_DNFB_ALLERGEN_TREATED_DC_UP, GSE20727_CTRL_VS_ROS_INH_AND_DNFB_ALLERGEN_TREATED_DC_UP
 GSE17721_CTRL_VS_GARDIQUIMOD_4H_BMDC_UP, GSE17721_CTRL_VS_GARDIQUIMOD_4H_BMDC_UP
GSE17721_CTRL_VS_GARDIQUIMOD_8H_BMDC_UP, GSE17721_CTRL_VS_GARDIQUIMOD_8H_BMDC_UP
GSE17721_CTRL_VS_POLYIC_24H_BMDC_UP, GSE17721_CTRL_VS_POLYIC_24H_BMDC_UP
GSE17721_CTRL_VS_GARDIQUIMOD_24H_BMDC_UP, GSE17721_CTRL_VS_GARDIQUIMOD_24H_BMDC_UP
 GSE40274_CTRL_VS_SATB1_TRANSDUCED_ACTIVATED_CD4_TCELL_UP, GSE40274_CTRL_VS_SATB1_TRANSDUCED_ACTIVATED_CD4_TCELL_UP
 GSE17721_CTRL_VS_CPG_6H_BMDC_UP, GSE17721_CTRL_VS_CPG_6H_BMDC_UP
 GSE6092_B_BURGDOFERI_VS_B_BURGDORFERI_AND_IFNG_STIM_ENDOTHELIAL_CELL_UP, GSE6092_B_BURGDOFERI_VS_B_BURGDORFERI_AND_IFNG_STIM_ENDOTHELIAL_CELL_UP
 GSE17721_LPS_VS_POLYIC_8H_BMDC_DN, GSE17721_LPS_VS_POLYIC_8H_BMDC_DN
 GSE17721_CTRL_VS_LPS_12H_BMDC_UP, GSE17721_CTRL_VS_LPS_12H_BMDC_UP
 GSE5589_WT_VS_IL10_KO_LPS_STIM_MACROPHAGE_45MIN_DN, GSE5589_WT_VS_IL10_KO_LPS_STIM_MACROPHAGE_45MIN_DN
 GSE46606_IRF4MID_VS_WT_CD40L_IL2_IL5_DAY1_STIMULATED_BCELL_UP, GSE46606_IRF4MID_VS_WT_CD40L_IL2_IL5_DAY1_STIMULATED_BCELL_UP
 GSE17721_0.5H_VS_12H_POLYIC_BMDC_UP, GSE17721_0.5H_VS_12H_POLYIC_BMDC_UP
 GSE6259_33D1_POS_VS_DEC205_POS_FLT3L_INDUCED_SPLENIC_DC_DN, GSE6259_33D1_POS_VS_DEC205_POS_FLT3L_INDUCED_SPLENIC_DC_DN
 GSE19198_CTRL_VS_IL21_TREATED_TCELL_24H_DN, GSE19198_CTRL_VS_IL21_TREATED_TCELL_24H_DN
 GSE8384 CTRL VS B ABORTUS 4H MAC CELL LINE UP, GSE8384 CTRL VS B ABORTUS 4H MAC CELL LINE UP
 GSE17721_POLYIC_VS_CPG_0.5H_BMDC_DN, GSE17721_POLYIC_VS_CPG_0.5H_BMDC_DN
 GSE3039_ALPHAALPHA_VS_ALPHABETA_CD8_TCELL_UP, GSE3039_ALPHAALPHA_VS_ALPHABETA_CD8_TCELL_UP
 GSE17721_CTRL_VS_GARDIQUIMOD_6H_BMDC_UP, GSE17721_CTRL_VS_GARDIQUIMOD_6H_BMDC_UP
 GSE3039_CD4_TCELL_VS_B2_BCELL_DN, GSE3039_CD4_TCELL_VS_B2_BCELL_DN
 GSE17721_CPG_VS_GARDIQUIMOD_0.5H_BMDC_DN, GSE17721_CPG_VS_GARDIQUIMOD_0.5H_BMDC_DN
 GSE18281_SUBCAPSULAR_VS_PERIMEDULLARY_CORTICAL_REGION_OF_THYMUS_UP, GSE18281_SUBCAPSULAR_VS_PERIMEDULLARY_CORTICAL_REGION_OF_THYMUS_UP
 HALLMARK_GLYCOLYSIS, HALLMARK_GLYCOLYSIS
 GSE17721_PAM3CSK4_VS_CPG_0.5H_BMDC_UP, GSE17721_PAM3CSK4_VS_CPG_0.5H_BMDC_UP
 GSE17721_LPS_VS_CPG_0.5H_BMDC_UP, GSE17721_LPS_VS_CPG_0.5H_BMDC_UP
 GSE7831_UNSTIM_VS_INFLUENZA_STIM_PDC_4H_DN, GSE7831_UNSTIM_VS_INFLUENZA_STIM_PDC_4H_DN
 GSE40274_CTRL_VS_FOXP3_AND_EOS_TRANSDUCED_ACTIVATED_CD4_TCELL_UP, GSE40274_CTRL_VS_FOXP3_AND_EOS_TRANSDUCED_ACTIVATED_CD4_TCELL_UP
 GSE43863_DAY6_EFF_VS_DAY150_MEM_LY6C_INT_CXCR5POS_CD4_TCELL_UP, GSE43863_DAY6_EFF_VS_DAY150_MEM_LY6C_INT_CXCR5POS_CD4_TCELL_UP
 GSE17721_0.5H_VS_24H_LPS_BMDC_UP, GSE17721_0.5H_VS_24H_LPS_BMDC_UP
 GSE28737_BCL6_HET_VS_BCL6_KO_FOLLICULAR_BCELL_DN, GSE28737_BCL6_HET_VS_BCL6_KO_FOLLICULAR_BCELL_DN
 GSE17974_IL4_AND_ANTI_IL12_VS_UNTREATED_4H_ACT_CD4_TCELL_UP, GSE17974_IL4_AND_ANTI_IL12_VS_UNTREATED_4H_ACT_CD4_TCELL_UP
 QI_HYPOXIA, QI_HYPOXIA
 GSE34006 WT VS A2AR KO TREG UP, GSE34006 WT VS A2AR KO TREG UP
 GSE17974 IL4 AND ANTI IL12 VS UNTREATED 48H ACT CD4 TCELL UP, GSE17974 IL4 AND ANTI IL12 VS UNTREATED 48H ACT CD4 TCELL UP
ZHONG RESPONSE TO AZACITIDINE AND TSA UP, ZHONG RESPONSE TO AZACITIDINE AND TSA UP
 GOBP_CERAMIDE_METABOLIC_PROCESS, GOBP_CERAMIDE_METABOLIC_PROCESS
 HALLMARK BILE ACID METABOLISM, HALLMARK BILE ACID METABOLISM
HP_UPPER_LIMB_MUSCLE_WEAKNESS, HP_UPPER_LIMB_MUSCLE_WEAKNESS
 HP_PANCREATITIS, HP_PANCREATITIS
 GOBP_NEGATIVE_REGULATION_OF_CELLULAR_PROTEIN_CATABOLIC_PROCESS, GOBP_NEGATIVE_REGULATION_OF_CELLULAR_PROTEIN_CATABOLIC_PROCESS
 GOBP_RESPONSE_TO_NUTRIENT, GOBP_RESPONSE_TO_NUTRIENT
 RIZKI_TUMOR_INVASIVENESS_2D_DN, RIZKI_TUMOR_INVASIVENESS_2D_DN
KEGG_STEROID_BIOSYNTHESIS, KEGG_STEROID_BIOSYNTHESIS
- HP_BILIARY_TRACT_ABNORMALITY, HP_BILIARY_TRACT_ABNORMALITY
LEIN_MEDULLA_MARKERS, LEIN_MEDULLA_MARKERS
 HP_ECTRODACTYLY, HP_ECTRODACTYLY
 HP_DISTAL_LOWER_LIMB_MUSCLE_WEAKNESS, HP_DISTAL_LOWER_LIMB_MUSCLE_WEAKNESS
 GOMF_MITOGEN_ACTIVATED_PROTEIN_KINASE_KINASE_KINASE_BINDING, GOMF_MITOGEN_ACTIVATED_PROTEIN_KINASE_KINASE_BINDING
 VALK_AML_CLUSTER_9, VALK_AML_CLUSTER_9
 PRDM12_TARGET_GENES, PRDM12_TARGET_GENES
 GOBP_POSITIVE_REGULATION_OF_MONONUCLEAR_CELL_MIGRATION, GOBP_POSITIVE_REGULATION_OF_MONONUCLEAR_CELL_MIGRATION
 HP_PROXIMAL_MUSCLE_WEAKNESS_IN_LOWER_LIMBS, HP_PROXIMAL_MUSCLE_WEAKNESS_IN_LOWER_LIMBS
 REACTOME_UPTAKE_AND_ACTIONS_OF_BACTERIAL_TOXINS, REACTOME_UPTAKE_AND_ACTIONS_OF_BACTERIAL_TOXINS
 XU_CREBBP_TARGETS_DN, XU_CREBBP_TARGETS_DN
 HP_PROXIMAL_MUSCLE_WEAKNESS_IN_UPPER_LIMBS, HP_PROXIMAL_MUSCLE_WEAKNESS_IN_UPPER_LIMBS
 BCAT_BILD_ET_AL_UP, BCAT_BILD_ET_AL_UP
 LEE_LIVER_CANCER_MYC_UP, LEE_LIVER_CANCER_MYC_UP
 GOBP_EMBRYONIC_HEART_TUBE_MORPHOGENESIS, GOBP_EMBRYONIC_HEART_TUBE_MORPHOGENESIS
 HP_DECREASED_MUSCLE_MASS, HP_DECREASED_MUSCLE_MASS
 GOBP_EMBRYONIC_CRANIAL_SKELETON_MORPHOGENESIS, GOBP_EMBRYONIC_CRANIAL_SKELETON_MORPHOGENESIS
 HP_LIMB_MYOCLONUS, HP_LIMB_MYOCLONUS
 ZHONG_PFC_C2_SOX5_BCL11B_POS_EXCITATORY_NEURON, ZHONG_PFC_C2_SOX5_BCL11B_POS_EXCITATORY_NEURON
 HUANG_FOXA2_TARGETS_UP, HUANG_FOXA2_TARGETS_UP
 SNF5_DN.V1_DN, SNF5_DN.V1_DN
 GOBP_SPECIFICATION_OF_SYMMETRY, GOBP_SPECIFICATION_OF_SYMMETRY
 GOMF_RETINOID_X_RECEPTOR_BINDING, GOMF_RETINOID_X_RECEPTOR_BINDING
 GOBP_CRANIAL_SKELETAL_SYSTEM_DEVELOPMENT, GOBP_CRANIAL_SKELETAL_SYSTEM_DEVELOPMENT
 REACTOME_BASIGIN_INTERACTIONS, REACTOME_BASIGIN_INTERACTIONS
 GOBP_EMBRYONIC_HEART_TUBE_DEVELOPMENT, GOBP_EMBRYONIC_HEART_TUBE_DEVELOPMENT
 HP_ANHIDROSIS, HP_ANHIDROSIS
 HP_HYPERPARATHYROIDISM, HP_HYPERPARATHYROIDISM
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5H_VS_8H_CPG_BMDC_UP, GSE17721_0.5H_VS_8H_CPG_BMDC_UP

MIR7106_3P, MIR7106_3P TRAYNOR_RETT_SYNDROM_DN, TRAYNOR_RETT_SYNDROM_DN

GOBP_PROTEIN_ACTIVATION_CASCADE, GOBP_PROTEIN_ACTIVATION_CASCADE GOBP_ADENYLATE_CYCLASE_INHIBITING_G_PROTEIN_COUPLED_RECEPTOR_SIGNALING_PATHWAY, GOBP_ADENYLATE_CYCLASE_INHIBITING_G_PROTEIN_COUPLED_RECEPTOR_ GOMF_STEROID_DEHYDROGENASE_ACTIVITY, GOMF_STEROID_DEHYDROGENASE_ACTIVITY GOMF_TRIGLYCERIDE_LIPASE_ACTIVITY, GOMF_TRIGLYCERIDE_LIPASE_ACTIVITY WP_GABA_RECEPTOR_SIGNALING, WP_GABA_RECEPTOR_SIGNALING HP_BILE_DUCT_PROLIFERATION, HP_BILE_DUCT_PROLIFERATION

HP_OLIGOSPERMIA, HP_OLIGOSPERMIA

HP_SCAPHOCEPHALY, HP_SCAPHOCEPHALY

ELLWOOD_MYC_TARGETS_UP, ELLWOOD_MYC_TARGETS_UP

REACTOME_GABA_RECEPTOR_ACTIVATION, REACTOME_GABA_RECEPTOR_ACTIVATION

GOBP_NEUROTRANSMITTER_BIOSYNTHETIC_PROCESS, GOBP_NEUROTRANSMITTER_BIOSYNTHETIC_PROCESS

GOMF_INSULIN_LIKE_GROWTH_FACTOR_BINDING, GOMF_INSULIN_LIKE_GROWTH_FACTOR_BINDING

GSE46606_UNSTIM_VS_CD40L_IL2_IL5_3DAY_STIMULATED_IRF4HIGH_SORTED_BCELL_DN, GSE46606_UNSTIM_VS_CD40L_IL2_IL5_3DAY_STIMULATED_IRF4HIGH_SORTED_BCELL_DN

MCMURRAY_TP53_HRAS_COOPERATION_RESPONSE_UP, MCMURRAY_TP53_HRAS_COOPERATION_RESPONSE_UP

GOCC_INTRINSIC_COMPONENT_OF_SYNAPTIC_MEMBRANE, GOCC_INTRINSIC_COMPONENT_OF_SYNAPTIC_MEMBRANE

GOBP_NEUROTRANSMITTER_METABOLIC_PROCESS, GOBP_NEUROTRANSMITTER_METABOLIC_PROCESS

GOBP NEGATIVE REGULATION OF AMINO ACID TRANSPORT, GOBP NEGATIVE REGULATION OF AMINO ACID TRANSPORT

GOCC_PARALLEL_FIBER_TO_PURKINJE_CELL_SYNAPSE, GOCC_PARALLEL_FIBER_TO_PURKINJE_CELL_SYNAPSE

HP_SPARSE_BONE_TRABECULAE, HP_SPARSE_BONE_TRABECULAE

HP_STENOSIS_OF_THE_EXTERNAL_AUDITORY_CANAL, HP_STENOSIS_OF_THE_EXTERNAL_AUDITORY_CANAL

CAR_MYST2, CAR_MYST2

GOMF_FILAMIN_BINDING, GOMF_FILAMIN_BINDING

HP_ENLARGEMENT_OF_THE_ANKLES, HP_ENLARGEMENT_OF_THE_ANKLES GOCC_POSTSYNAPTIC_SPECIALIZATION_MEMBRANE, GOCC_POSTSYNAPTIC_SPECIALIZATION_MEMBRANE