```
GSE22886_NAIVE_BCELL_VS_BM_PLASMA_CELL_UP, GSE22886_NAIVE_BCELL_VS_BM_PLASMA_CELL_UP
                                                                                                                           GSE19888_CTRL_VS_A3R_ACT_TREATED_MAST_CELL_PRETREATED_WITH_A3R_INH_DN, GSE19888_CTRL_VS_A3R_ACT_TREATED_MAST_CELL_PRETREATED_WITH_A3R_INH_DN
                                                                                                                           GSE25087_TREG_VS_TCONV_ADULT_DN, GSE25087_TREG_VS_TCONV_ADULT_DN
                                                                                                                           GSE17974_CTRL_VS_ACT_IL4_AND_ANTI_IL12_2H_CD4_TCELL_UP, GSE17974_CTRL_VS_ACT_IL4_AND_ANTI_IL12_2H_CD4_TCELL_UP
                                                                                                                           GSE3994_WT_VS_PAC1_KO_ACTIVATED_MAST_CELL_DN, GSE3994_WT_VS_PAC1_KO_ACTIVATED_MAST_CELL_DN
                                                                                                                           GSE2405_HEAT_KILLED_LYSATE_VS_LIVE_A_PHAGOCYTOPHILUM_STIM_NEUTROPHIL_24H_DN, GSE2405_HEAT_KILLED_LYSATE_VS_LIVE_A_PHAGOCYTOPHILUM_STIM_NEUTROPHIL_24H_
                                                                                                                           GSE5503 MLN DC VS PLN DC ACTIVATED ALLOGENIC TCELL DN, GSE5503 MLN DC VS PLN DC ACTIVATED ALLOGENIC TCELL DN
                                                                                                                           GSE27786_NKCELL_VS_NKTCELL_DN, GSE27786_NKCELL_VS_NKTCELL_DN
                                                                                                                           GSE22886_NAIVE_CD4_TCELL_VS_MONOCYTE_UP, GSE22886_NAIVE_CD4_TCELL_VS_MONOCYTE_UP
                                                                                                                           GSE8621_UNSTIM_VS_LPS_PRIMED_AND_LPS_STIM_MACROPHAGE_DN, GSE8621_UNSTIM_VS_LPS_PRIMED_AND_LPS_STIM_MACROPHAGE_DN
                                                                                                                           GSE22886_NAIVE_CD8_TCELL_VS_MONOCYTE_UP, GSE22886_NAIVE_CD8_TCELL_VS_MONOCYTE_UP
                                                                                                                           GSE17974_0H_VS_4H_IN_VITRO_ACT_CD4_TCELL_UP, GSE17974_0H_VS_4H_IN_VITRO_ACT_CD4_TCELL_UP
                                                                                                                           GSE11057_NAIVE_VS_MEMORY_CD4_TCELL_UP, GSE11057_NAIVE_VS_MEMORY_CD4_TCELL_UP
                                                                                                                           GSE26495_NAIVE_VS_PD1HIGH_CD8_TCELL_UP, GSE26495_NAIVE_VS_PD1HIGH_CD8_TCELL_UP
                                                                                                                           LAKE_ADULT_KIDNEY_C4_PROXIMAL_TUBULE_EPITHELIAL_CELLS_S2, LAKE_ADULT_KIDNEY_C4_PROXIMAL_TUBULE_EPITHELIAL_CELLS_S2
                                                                                                                           LAKE ADULT KIDNEY C15 CONNECTING TUBULE, LAKE ADULT KIDNEY C15 CONNECTING TUBULE
                                                                                                                           MIR6513_3P, MIR6513_3P
                                                                                                                           MIR190B_3P, MIR190B_3P
                                                                                                                           LAKE_ADULT_KIDNEY_C11_THIN_ASCENDING_LIMB, LAKE_ADULT_KIDNEY_C11_THIN_ASCENDING_LIMB
                                                                                                                           GSE7764_IL15_TREATED_VS_CTRL_NK_CELL_24H_DN, GSE7764_IL15_TREATED_VS_CTRL_NK_CELL_24H_DN
                                                                                                                           GSE37301 COMMON LYMPHOID PROGENITOR VS RAG2 KO NK CELL DN, GSE37301 COMMON LYMPHOID PROGENITOR VS RAG2 KO NK CELL DN
                                                                                                                           DACOSTA_UV_RESPONSE_VIA_ERCC3_XPCS_DN, DACOSTA_UV_RESPONSE_VIA_ERCC3_XPCS_DN
                                                                                                                           LAKE_ADULT_KIDNEY_C20_COLLECTING_DUCT_INTERCALATED_CELLS_TYPE_A_CORTEX, LAKE_ADULT_KIDNEY_C20_COLLECTING_DUCT_INTERCALATED_CELLS_TYPE_A_CORTEX
                                                                                                                           GSE21033_CTRL_VS_POLYIC_STIM_DC_6H_DN, GSE21033_CTRL_VS_POLYIC_STIM_DC_6H_DN
                                                                                                                           LAKE_ADULT_KIDNEY_C13_THICK_ASCENDING_LIMB, LAKE_ADULT_KIDNEY_C13_THICK_ASCENDING_LIMB
                                                                                                                           LAKE_ADULT_KIDNEY_C28_INTERSTITIUM, LAKE_ADULT_KIDNEY_C28_INTERSTITIUM
                                                                                                                           HP_CEREBRAL_CALCIFICATION, HP_CEREBRAL_CALCIFICATION
                                                                                                                           HP_EARLY_ONSET_OF_SEXUAL_MATURATION, HP_EARLY_ONSET_OF_SEXUAL_MATURATION
                                                                                                                           HP_POSTURAL_TREMOR, HP_POSTURAL_TREMOR
                                                                                                                           LAKE_ADULT_KIDNEY_C16_COLLECTING_SYSTEM_PRINCIPAL_CELLS_CORTEX, LAKE_ADULT_KIDNEY_C16_COLLECTING_SYSTEM_PRINCIPAL_CELLS_CORTEX
                                                                                                                           GENTILE_UV_LOW_DOSE_DN, GENTILE_UV_LOW_DOSE_DN
                                                                                                                           EBAUER_TARGETS_OF_PAX3_FOXO1_FUSION_UP, EBAUER_TARGETS_OF_PAX3_FOXO1_FUSION_UP
                                                                                                                           GAL_LEUKEMIC_STEM_CELL_UP, GAL_LEUKEMIC_STEM_CELL_UP
                                                                                                                           ACTACCT_MIR196A_MIR196B, ACTACCT_MIR196A_MIR196B
                                                                                                                           CRX NRL DN.V1 UP, CRX NRL DN.V1 UP
                                                                                                                           HP_PLAGIOCEPHALY, HP_PLAGIOCEPHALY
                                                                                                                            LAKE_ADULT_KIDNEY_C29_UNKNOWN_NOVEL_PT_CFH_POS_SUBPOPULATION_S2, LAKE_ADULT_KIDNEY_C29_UNKNOWN_NOVEL_PT_CFH_POS_SUBPOPULATION_S2
                                                                                                                            MIR3911, MIR3911
                                                                                                                            MIR12117, MIR12117
                                                                                                                           REACTOME OPIOID SIGNALLING, REACTOME OPIOID SIGNALLING
                                                                                                                            MIR876_5P, MIR876_5P
                                                                                                                            MODULE_248, MODULE_248
                                                                                                                           HP_RELATIVE_MACROCEPHALY, HP_RELATIVE_MACROCEPHALY
                                                                                                                           GOBP_REGULATION_OF_CELL_MATRIX_ADHESION, GOBP_REGULATION_OF_CELL_MATRIX_ADHESION
                                                                                                                            MIR219A_2_3P, MIR219A_2_3P
                                                                                                                            MIR4489, MIR4489
                                                                                                                            MIR4329, MIR4329
                                                                                                                           GSE20727_DNFB_ALLERGEN_VS_ROS_INH_AND_DNFB_ALLERGEN_TREATED_DC_UP, GSE20727_DNFB_ALLERGEN_VS_ROS_INH_AND_DNFB_ALLERGEN_TREATED_DC_UP
                                                                                                                           GOBP_SODIUM_ION_TRANSMEMBRANE_TRANSPORT, GOBP_SODIUM_ION_TRANSMEMBRANE_TRANSPORT
                                                                                                                           MIR3144 3P, MIR3144 3P
                                                                                                                           PID_ENDOTHELIN_PATHWAY, PID_ENDOTHELIN_PATHWAY
                                                                                                                           GOBP_POSITIVE_REGULATION_OF_CELL_SUBSTRATE_ADHESION, GOBP_POSITIVE_REGULATION_OF_CELL_SUBSTRATE_ADHESION
I_STIM_IMMATURE_NEURON_CELL_LINE_UP, GSE16450_CTRL_VS_IFNA_12H_STIM_IMMATURE_NEURON_CELL_LINE_UP
                                                                                                                           GCM_MAP1B, GCM_MAP1B
                                                                                                                           GOCC_INTRINSIC_COMPONENT_OF_GOLGI_MEMBRANE, GOCC_INTRINSIC_COMPONENT_OF_GOLGI_MEMBRANE
                                                                                                                           HP_ABNORMALITY_OF_THE_UPPER_ARM, HP_ABNORMALITY_OF_THE_UPPER_ARM
                                                                                                                            REACTOME_TRANSPORT_OF_INORGANIC_CATIONS_ANIONS_AND_AMINO_ACIDS_OLIGOPEPTIDES, REACTOME_TRANSPORT_OF_INORGANIC_CATIONS_ANIONS_AND_AMINO_ACIDS_OLI
                                                                                                                            MIR6895_3P, MIR6895_3P
                                                                                                                           GSE22601_DOUBLE_NEGATIVE_VS_CD8_SINGLE_POSITIVE_THYMOCYTE_UP, GSE22601_DOUBLE_NEGATIVE_VS_CD8_SINGLE_POSITIVE_THYMOCYTE_UP
                                                                                                                            DAVICIONI_TARGETS_OF_PAX_FOXO1_FUSIONS_DN, DAVICIONI_TARGETS_OF_PAX_FOXO1_FUSIONS_DN
                                                                                                                            MIR3192_3P, MIR3192_3P
                                                                                                                            MIR376A_5P, MIR376A_5P
                                                                                                                           GOBP_REGULATION_OF_PLATELET_ACTIVATION, GOBP_REGULATION_OF_PLATELET_ACTIVATION
                                                                                                                            MIR3151_3P, MIR3151_3P
                                                                                                                           HP_THICK_NASAL_ALAE, HP_THICK_NASAL_ALAE
                                                                                                                           REACTOME_G_ALPHA_Z_SIGNALLING_EVENTS, REACTOME_G_ALPHA_Z_SIGNALLING_EVENTS
                                                                                                                           GOBP_POSITIVE_REGULATION_OF_CELL_MATRIX_ADHESION, GOBP_POSITIVE_REGULATION_OF_CELL_MATRIX_ADHESION
                                                                                                                            KEGG_MELANOGENESIS, KEGG_MELANOGENESIS
                                                                                                                           GOBP_POSITIVE_REGULATION_OF_EXTRINSIC_APOPTOTIC_SIGNALING_PATHWAY_IN_ABSENCE_OF_LIGAND, GOBP_POSITIVE_REGULATION_OF_EXTRINSIC_APOPTOTIC_SIGNALING_PATH
                                                                                                                           HP_BOWING_OF_THE_ARM, HP_BOWING_OF_THE_ARM
                                                                                                                           HP_ABNORMALITY_OF_THE_GLABELLA, HP_ABNORMALITY_OF_THE_GLABELLA
                                                                                                                           DESCARTES_FETAL_ADRENAL_SLC26A4_PAEP_POSITIVE_CELLS, DESCARTES_FETAL_ADRENAL_SLC26A4_PAEP_POSITIVE_CELLS
                                                                                                                           SILIGAN BOUND BY EWS FLT1 FUSION, SILIGAN BOUND BY EWS FLT1 FUSION
                                                                                                                           ZNF488_TARGET_GENES, ZNF488_TARGET_GENES
                                                                                                                           HP_RADIAL_BOWING, HP_RADIAL_BOWING
                                                                                                                           BIOCARTA_PDZS_PATHWAY, BIOCARTA_PDZS_PATHWAY
                                                                                                                           GOBP_NEGATIVE_REGULATION_OF_WOUND_HEALING, GOBP_NEGATIVE_REGULATION_OF_WOUND_HEALING
                                                                                                                           FINETTI_BREAST_CANCER_KINOME_GREEN, FINETTI_BREAST_CANCER_KINOME_GREEN
                                                                                                                           HP_SPEECH_ARTICULATION_DIFFICULTIES, HP_SPEECH_ARTICULATION_DIFFICULTIES
                                                                                                                           HP_AGENESIS_OF_INCISOR, HP_AGENESIS_OF_INCISOR
                                                                                                                           DOANE BREAST CANCER CLASSES UP, DOANE BREAST CANCER CLASSES UP
                                                                                                                           TCCGTCC_MIR184, TCCGTCC_MIR184
                                                                                                                           GOBP_CARDIAC_MUSCLE_CELL_ACTION_POTENTIAL_INVOLVED_IN_CONTRACTION, GOBP_CARDIAC_MUSCLE_CELL_ACTION_POTENTIAL_INVOLVED_IN_CONTRACTION
                                                                                                                           GOBP FUCOSE CATABOLIC PROCESS, GOBP FUCOSE CATABOLIC PROCESS
                                                                                                                           BUCKANOVICH_T_LYMPHOCYTE_HOMING_ON_TUMOR_UP, BUCKANOVICH_T_LYMPHOCYTE_HOMING_ON_TUMOR_UP
                                                                                                                           HP_AXIAL_DYSTONIA, HP_AXIAL_DYSTONIA
                                                                                                                           HP_FACIAL_HEMANGIOMA, HP_FACIAL_HEMANGIOMA
                                                                                                                           BIOCARTA_CARDIACEGF_PATHWAY, BIOCARTA_CARDIACEGF_PATHWAY
                                                                                                                           GOBP_AZOLE_TRANSMEMBRANE_TRANSPORT, GOBP_AZOLE_TRANSMEMBRANE_TRANSPORT
                                                                                                                           HARALAMBIEVA_PBMC_TIV_AGE_50_74YO_CORRELATED_WITH_MEMORY_B_CELL_RESPONSE_3DY_POSITIVE, HARALAMBIEVA_PBMC_TIV_AGE_50_74YO_CORRELATED_WITH_MEMORY_B_0
                                                                                                                           HP_NARROW_PALM, HP_NARROW_PALM
                                                                                                                           WP_REGULATION_OF_APOPTOSIS_BY_PARATHYROID_HORMONERELATED_PROTEIN, WP_REGULATION_OF_APOPTOSIS_BY_PARATHYROID_HORMONERELATED_PROTEIN
                                                                                                                           GOBP_REPLACEMENT_OSSIFICATION, GOBP_REPLACEMENT_OSSIFICATION
                                                                                                                           GOBP_REGULATION_OF_NMDA_RECEPTOR_ACTIVITY, GOBP_REGULATION_OF_NMDA_RECEPTOR_ACTIVITY
                                                                                                                           GOMF_CATION_CATION_ANTIPORTER_ACTIVITY, GOMF_CATION_CATION_ANTIPORTER_ACTIVITY
                                                                                                                           FAN_EMBRYONIC_CTX_EX_2_EXCITATORY_NEURON, FAN_EMBRYONIC_CTX_EX_2_EXCITATORY_NEURON
                                                                                                                           GOMF_METAL_ION_PROTON_ANTIPORTER_ACTIVITY, GOMF_METAL_ION_PROTON_ANTIPORTER_ACTIVITY
                                                                                                                           GOMF POTASSIUM ION ANTIPORTER ACTIVITY, GOMF POTASSIUM ION ANTIPORTER ACTIVITY
                                                                                                                           HP_ABNORMAL_PR_INTERVAL, HP_ABNORMAL_PR_INTERVAL
                                                                                                                           HP_URETHRAL_STRICTURE, HP_URETHRAL_STRICTURE
                                                                                                                           GOBP_VENTRICULAR_CARDIAC_MUSCLE_CELL_ACTION_POTENTIAL, GOBP_VENTRICULAR_CARDIAC_MUSCLE_CELL_ACTION_POTENTIAL
                                                                                                                           REACTOME_RAS_ACTIVATION_UPON_CA2_INFLUX_THROUGH_NMDA_RECEPTOR, REACTOME_RAS_ACTIVATION_UPON_CA2_INFLUX_THROUGH_NMDA_RECEPTOR
                                                                                                                           ZHONG_PFC_MAJOR_TYPES_EXCITATORY_NEURON, ZHONG_PFC_MAJOR_TYPES_EXCITATORY_NEURON
                                                                                                                           GOMF_PHOSPHATIDYLCHOLINE_FLIPPASE_ACTIVITY, GOMF_PHOSPHATIDYLCHOLINE_FLIPPASE_ACTIVITY
                                                                                                                           GOBP_POSTSYNAPTIC_SPECIALIZATION_ORGANIZATION, GOBP_POSTSYNAPTIC_SPECIALIZATION_ORGANIZATION
                                                                                                                           GSE13887_RESTING_VS_ACT_CD4_TCELL_UP, GSE13887_RESTING_VS_ACT_CD4_TCELL_UP
                                                                                                                           chr2p24, chr2p24
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GOBP\_FOREBRAIN\_MORPHOGENESIS, GOBP\_FOREBRAIN\_MORPHOGENESIS

HP\_RETICULAR\_HYPERPIGMENTATION, HP\_RETICULAR\_HYPERPIGMENTATION

MIR6774\_3P, MIR6774\_3P

MIR302A\_5P, MIR302A\_5P

GSE41176\_UNSTIM\_VS\_ANTI\_IGM\_STIM\_BCELL\_6H\_UP, GSE41176\_UNSTIM\_VS\_ANTI\_IGM\_STIM\_BCELL\_6H\_UP

GSE17974\_CTRL\_VS\_ACT\_IL4\_AND\_ANTI\_IL12\_6H\_CD4\_TCELL\_UP, GSE17974\_CTRL\_VS\_ACT\_IL4\_AND\_ANTI\_IL12\_6H\_CD4\_TCELL\_UP

GSE16385\_ROSIGLITAZONE\_IL4\_VS\_IL4\_ALONE\_STIM\_MACROPHAGE\_12H\_DN, GSE16385\_ROSIGLITAZONE\_IL4\_VS\_IL4\_ALONE\_STIM\_MACROPHAGE\_12H\_DN

GSE16450\_IMMATURE\_VS\_MATURE\_NEURON\_CELL\_LINE\_UP, GSE16450\_IMMATURE\_VS\_MATURE\_NEURON\_CELL\_LINE\_UP

GSE7460\_FOXP3\_MUT\_VS\_WT\_ACT\_WITH\_TGFB\_TCONV\_DN, GSE7460\_FOXP3\_MUT\_VS\_WT\_ACT\_WITH\_TGFB\_TCONV\_DN