```
GSE16522 ANTI CD3CD28 STIM VS UNSTIM NAIVE CD8 TCELL DN, GSE16522 ANTI CD3CD28 STIM VS UNSTIM NAIVE CD8 TCELL DN
                                                                                                                     GSE16450_CTRL_VS_IFNA_6H_STIM_MATURE_NEURON_CELL_LINE_DN, GSE16450_CTRL_VS_IFNA_6H_STIM_MATURE_NEURON_CELL_LINE_DN
                                                                                                                     GSE45365_WT_VS_IFNAR_KO_CD8A_DC_MCMV_INFECTION_UP, GSE45365_WT_VS_IFNAR_KO_CD8A_DC_MCMV_INFECTION_UP
                                                                                                                     GSE16385_UNTREATED_VS_12H_ROSIGLITAZONE_IL4_TREATED_MACROPHAGE_UP, GSE16385_UNTREATED_VS_12H_ROSIGLITAZONE_IL4_TREATED_MACROPHAGE_UP
                                                                                                                     HALLMARK_DNA_REPAIR, HALLMARK_DNA_REPAIR
                                                                                                                     GSE22589_HEALTHY_VS_SIV_INFECTED_DC_UP, GSE22589_HEALTHY_VS_SIV_INFECTED_DC_UP
                                                                                                                     GSE22886_TCELL_VS_BCELL_NAIVE_UP, GSE22886_TCELL_VS_BCELL_NAIVE_UP
                                                                                                                     GSE7831_UNSTIM_VS_CPG_STIM_PDC_1H_UP, GSE7831_UNSTIM_VS_CPG_STIM_PDC_1H_UP
                                                                                                                    GOBP_REGULATION_OF_SIGNAL_TRANSDUCTION_BY_P53_CLASS_MEDIATOR, GOBP_REGULATION_OF_SIGNAL_TRANSDUCTION_BY_P53_CLASS_MEDIATOR
                                                                                                                    GSE10239_NAIVE_VS_KLRG1HIGH_EFF_CD8_TCELL_UP, GSE10239_NAIVE_VS_KLRG1HIGH_EFF_CD8_TCELL_UP
                                                                                                                    GSE6259_DEC205_POS_DC_VS_CD8_TCELL_UP, GSE6259_DEC205_POS_DC_VS_CD8_TCELL_UP
                                                                                                                    GSE9601_UNTREATED_VS_PI3K_INHIBITOR_TREATED_HCMV_INF_MONOCYTE_UP, GSE9601_UNTREATED_VS_PI3K_INHIBITOR_TREATED_HCMV_INF_MONOCYTE_UP
                                                                                                                    GSE15330_WT_VS_IKAROS_KO_LYMPHOID_MULTIPOTENT_PROGENITOR_DN, GSE15330_WT_VS_IKAROS_KO_LYMPHOID_MULTIPOTENT_PROGENITOR_DN
                                                                                                                     GSE15624_CTRL_VS_3H_HALOFUGINONE_TREATED_CD4_TCELL_DN, GSE15624_CTRL_VS_3H_HALOFUGINONE_TREATED_CD4_TCELL_DN
                                                                                                                     GSE8921_UNSTIM_VS_TLR1_2_STIM_MONOCYTE_24H_DN, GSE8921_UNSTIM_VS_TLR1_2_STIM_MONOCYTE_24H_DN
                                                                                                                    GSE17721_0.5H_VS_24H_LPS_BMDC_UP, GSE17721_0.5H_VS_24H_LPS_BMDC_UP
                                                                                                                    GSE6259_BCELL_VS_CD4_TCELL_UP, GSE6259_BCELL_VS_CD4_TCELL_UP
                                                                                                                    GSE3982_DC_VS_EFF_MEMORY_CD4_TCELL_DN, GSE3982_DC_VS_EFF_MEMORY_CD4_TCELL_DN
                                                                                                                    GSE45739_UNSTIM_VS_ACD3_ACD28_STIM_WT_CD4_TCELL_DN, GSE45739_UNSTIM_VS_ACD3_ACD28_STIM_WT_CD4_TCELL_DN
                                                                                                                    GOBP_DNA_TEMPLATED_TRANSCRIPTION_ELONGATION, GOBP_DNA_TEMPLATED_TRANSCRIPTION_ELONGATION
                                                                                                                     ACOSTA_PROLIFERATION_INDEPENDENT_MYC_TARGETS_UP, ACOSTA_PROLIFERATION_INDEPENDENT_MYC_TARGETS_UP
                                                                                                                    GSE43863_NAIVE_VS_LY6C_LOW_CXCR5NEG_CD4_EFF_TCELL_D6_LCMV_DN, GSE43863_NAIVE_VS_LY6C_LOW_CXCR5NEG_CD4_EFF_TCELL_D6_LCMV_DN
                                                                                                                     GSE22886_CD8_TCELL_VS_BCELL_NAIVE_UP, GSE22886_CD8_TCELL_VS_BCELL_NAIVE_UP
                                                                                                                    MODULE 257, MODULE 257
                                                                                                                    GSE21380_TFH_VS_GERMINAL_CENTER_TFH_CD4_TCELL_DN, GSE21380_TFH_VS_GERMINAL_CENTER_TFH_CD4_TCELL_DN
                                                                                                                    GSE5589_UNSTIM_VS_45MIN_LPS_STIM_MACROPHAGE_DN, GSE5589_UNSTIM_VS_45MIN_LPS_STIM_MACROPHAGE_DN
                                                                                                                    GOCC_RNA_POLYMERASE_COMPLEX, GOCC_RNA_POLYMERASE_COMPLEX
                                                                                                                    BROWNE_HCMV_INFECTION_14HR_UP, BROWNE_HCMV_INFECTION_14HR_UP
                                                                                                                     GSE3039_ALPHAALPHA_CD8_TCELL_VS_B2_BCELL_UP, GSE3039_ALPHAALPHA_CD8_TCELL_VS_B2_BCELL_UP
                                                                                                                     GSE20715_WT_VS_TLR4_KO_6H_OZONE_LUNG_DN, GSE20715_WT_VS_TLR4_KO_6H_OZONE_LUNG_DN
                                                                                                                    GSE17721_CTRL_VS_LPS_0.5H_BMDC_DN, GSE17721_CTRL_VS_LPS_0.5H_BMDC_DN
                                                                                                                    SCHLOSSER_SERUM_RESPONSE_AUGMENTED_BY_MYC, SCHLOSSER_SERUM_RESPONSE_AUGMENTED_BY_MYC
                                                                                                                    REACTOME_TRANSCRIPTION_COUPLED_NUCLEOTIDE_EXCISION_REPAIR_TC_NER, REACTOME_TRANSCRIPTION_COUPLED_NUCLEOTIDE_EXCISION_REPAIR_TC_NER
                                                                                                                    REACTOME_RNA_POLYMERASE_I_TRANSCRIPTION, REACTOME_RNA_POLYMERASE_I_TRANSCRIPTION
                                                                                                                    GSE10325_BCELL_VS_MYELOID_UP, GSE10325_BCELL_VS_MYELOID_UP
                                                                                                                    GOBP_TRANSCRIPTION_COUPLED_NUCLEOTIDE_EXCISION_REPAIR, GOBP_TRANSCRIPTION_COUPLED_NUCLEOTIDE_EXCISION_REPAIR
                                                                                                                     GSE27786 NKCELL VS NKTCELL DN, GSE27786 NKCELL VS NKTCELL DN
                                                                                                                     GSE17721_CPG_VS_GARDIQUIMOD_16H_BMDC_DN, GSE17721_CPG_VS_GARDIQUIMOD_16H_BMDC_DN
                                                                                                                     GSE21927_SPLEEN_VS_TUMOR_MONOCYTE_BALBC_DN, GSE21927_SPLEEN_VS_TUMOR_MONOCYTE_BALBC_DN
                                                                                                                     GOBP_REGULATION_OF_BIOLOGICAL_PROCESS_INVOLVED_IN_SYMBIOTIC_INTERACTION, GOBP_REGULATION_OF_BIOLOGICAL_PROCESS_INVOLVED_IN_SYMBIOTIC_INTERACTION
                                                                                                                     GOBP_TRANSCRIPTION_ELONGATION_FROM_RNA_POLYMERASE_II_PROMOTER, GOBP_TRANSCRIPTION_ELONGATION_FROM_RNA_POLYMERASE_II_PROMOTER
                                                                                                                     GOCC_RNA_POLYMERASE_II_TRANSCRIPTION_REGULATOR_COMPLEX, GOCC_RNA_POLYMERASE_II_TRANSCRIPTION_REGULATOR_COMPLEX
                                                                                                                     AIZARANI_LIVER_C34_MHC_II_POS_B_CELLS, AIZARANI_LIVER_C34_MHC_II_POS_B_CELLS
                                                                                                                     GSE27291_0H_VS_6H_STIM_GAMMADELTA_TCELL_UP, GSE27291_0H_VS_6H_STIM_GAMMADELTA_TCELL_UP
                                                                                                                    GSE43955_10H_VS_60H_ACT_CD4_TCELL_UP, GSE43955_10H_VS_60H_ACT_CD4_TCELL_UP
                                                                                                                     GSE21546_WT_VS_ELK1_KO_DP_THYMOCYTES_DN, GSE21546_WT_VS_ELK1_KO_DP_THYMOCYTES_DN
                                                                                                                     GOBP_VESICLE_TARGETING, GOBP_VESICLE_TARGETING
                                                                                                                     HP NARROW PALATE, HP NARROW PALATE
                                                                                                                     MODULE_356, MODULE_356
                                                                                                                     GSE39152 SPLEEN CD103 NEG VS BRAIN CD103 POS MEMORY CD8 TCELL UP, GSE39152 SPLEEN CD103 NEG VS BRAIN CD103 POS MEMORY CD8 TCELL UP
                                                                                                                     REACTOME_TP53_REGULATES_TRANSCRIPTION_OF_DNA_REPAIR_GENES, REACTOME_TP53_REGULATES_TRANSCRIPTION_OF_DNA_REPAIR_GENES
                                                                                                                     REACTOME_DUAL_INCISION_IN_TC_NER, REACTOME_DUAL_INCISION_IN_TC_NER
                                                                                                                     MODULE_195, MODULE_195
                                                                                                                    GOBP_AUTOPHAGY_OF_MITOCHONDRION, GOBP_AUTOPHAGY_OF_MITOCHONDRION
                                                                                                                     GSE17721_PAM3CSK4_VS_GADIQUIMOD_4H_BMDC_UP, GSE17721_PAM3CSK4_VS_GADIQUIMOD_4H_BMDC_UP
                                                                                                                     PID_P53_REGULATION_PATHWAY, PID_P53_REGULATION_PATHWAY
                                                                                                                     GSE17721_LPS_VS_CPG_2H_BMDC_DN, GSE17721_LPS_VS_CPG_2H_BMDC_DN
                                                                                                                     GNF2_CD53, GNF2_CD53
                                                                                                                     REACTOME_FORMATION_OF_RNA_POL_II_ELONGATION_COMPLEX, REACTOME_FORMATION_OF_RNA_POL_II_ELONGATION_COMPLEX
                                                                                                                    REACTOME_FORMATION_OF_TC_NER_PRE_INCISION_COMPLEX, REACTOME_FORMATION_OF_TC_NER_PRE_INCISION_COMPLEX
                                                                                                                     GOMF_CHAPERONE_BINDING, GOMF_CHAPERONE_BINDING
                                                                                                                    MORF_ARAF1, MORF_ARAF1
                                                                                                                     JIANG_HYPOXIA_CANCER, JIANG_HYPOXIA_CANCER
                                                                                                                     MODULE_147, MODULE_147
                                                                                                                     REACTOME_POTENTIAL_THERAPEUTICS_FOR_SARS, REACTOME_POTENTIAL_THERAPEUTICS_FOR_SARS
                                                                                                                    GSE3982_CTRL_VS_LPS_1H_NEUTROPHIL_DN, GSE3982_CTRL_VS_LPS_1H_NEUTROPHIL_DN
                                                                                                                     MODULE_576, MODULE_576
                                                                                                                     MODULE_503, MODULE_503
                                                                                                                     LENAOUR_DENDRITIC_CELL_MATURATION_UP, LENAOUR_DENDRITIC_CELL_MATURATION_UP
                                                                                                                     GOCC_TRANSCRIPTION_ELONGATION_FACTOR_COMPLEX, GOCC_TRANSCRIPTION_ELONGATION_FACTOR_COMPLEX
                                                                                                                     GSE29164_UNTREATED_VS_CD8_TCELL_AND_IL12_TREATED_MELANOMA_DAY7_DN, GSE29164_UNTREATED_VS_CD8_TCELL_AND_IL12_TREATED_MELANOMA_DAY7_DN
                                                                                                                    GOBP_VESICLE_TARGETING_TO_FROM_OR_WITHIN_GOLGI, GOBP_VESICLE_TARGETING_TO_FROM_OR_WITHIN_GOLGI
                                                                                                                     MCM2_TARGET_GENES, MCM2_TARGET_GENES
                                                                                                                    SENGUPTA_EBNA1_ANTICORRELATED, SENGUPTA_EBNA1_ANTICORRELATED
                                                                                                                    KEGG B CELL RECEPTOR SIGNALING PATHWAY, KEGG B CELL RECEPTOR SIGNALING PATHWAY
                                                                                                                    GOCC TRANSCRIPTION REPRESSOR COMPLEX, GOCC TRANSCRIPTION REPRESSOR COMPLEX
                                                                                                                     GSE7548_NAIVE_VS_DAY28_PCC_IMMUNIZATION_CD4_TCELL_DN, GSE7548_NAIVE_VS_DAY28_PCC_IMMUNIZATION_CD4_TCELL_DN
                                                                                                                    GOBP_CHAPERONE_MEDIATED_PROTEIN_FOLDING, GOBP_CHAPERONE_MEDIATED_PROTEIN_FOLDING
                                                                                                                     AGCTCCT MIR28, AGCTCCT MIR28
                                                                                                                    GNF2_HLA_C, GNF2_HLA_C
                                                                                                                     DACOSTA_UV_RESPONSE_VIA_ERCC3_TTD_UP, DACOSTA_UV_RESPONSE_VIA_ERCC3_TTD_UP
                                                                                                                     MIR7110_5P, MIR7110_5P
                                                                                                                     GSE17721_CTRL_VS_POLYIC_0.5H_BMDC_DN, GSE17721_CTRL_VS_POLYIC_0.5H_BMDC_DN
                                                                                                                    REACTOME_HIV_ELONGATION_ARREST_AND_RECOVERY, REACTOME_HIV_ELONGATION_ARREST_AND_RECOVERY
                                                                                                                     HP_ANAL_ATRESIA, HP_ANAL_ATRESIA
                                                                                                                     REACTOME_HIV_TRANSCRIPTION_ELONGATION, REACTOME_HIV_TRANSCRIPTION_ELONGATION
                                                                                                                     GSE15659_NAIVE_CD4_TCELL_VS_NONSUPPRESSIVE_TCELL_UP, GSE15659_NAIVE_CD4_TCELL_VS_NONSUPPRESSIVE_TCELL_UP
                                                                                                                     GSE24634_NAIVE_CD4_TCELL_VS_DAY10_IL4_CONV_TREG_UP, GSE24634_NAIVE_CD4_TCELL_VS_DAY10_IL4_CONV_TREG_UP
                                                                                                                     PID_CDC42_PATHWAY, PID_CDC42_PATHWAY
                                                                                                                    GSE18281_SUBCAPSULAR_CORTICAL_REGION_VS_WHOLE_CORTEX_THYMUS_DN, GSE18281_SUBCAPSULAR_CORTICAL_REGION_VS_WHOLE_CORTEX_THYMUS_DN
                                                                                                                     MODULE_484, MODULE_484
                                                                                                                     HP_DERMAL_ATROPHY, HP_DERMAL_ATROPHY
                                                                                                                     MODULE 350, MODULE 350
                                                                                                                     CRGAARNNNNCGA_UNKNOWN, CRGAARNNNNCGA_UNKNOWN
                                                                                                                     MODULE_430, MODULE_430
                                                                                                                     RAPA_EARLY_UP.V1_DN, RAPA_EARLY_UP.V1_DN
                                                                                                                     REACTOME RNA POLYMERASE I TRANSCRIPTION INITIATION, REACTOME RNA POLYMERASE I TRANSCRIPTION INITIATION
                                                                                                                     GOBP_REGULATION_OF_VIRAL_TRANSCRIPTION, GOBP_REGULATION_OF_VIRAL_TRANSCRIPTION
                                                                                                                    GOBP_REGULATION_OF_ATPASE_ACTIVITY, GOBP_REGULATION_OF_ATPASE_ACTIVITY
                                                                                                                     VERHAAK_GLIOBLASTOMA_CLASSICAL, VERHAAK_GLIOBLASTOMA_CLASSICAL
                                                                                                                     GOBP_MRNA_SPLICE_SITE_SELECTION, GOBP_MRNA_SPLICE_SITE_SELECTION
                                                                                                                     GSE21927_EL4_VS_MCA203_TUMOR_MONOCYTES_UP, GSE21927_EL4_VS_MCA203_TUMOR_MONOCYTES_UP
                                                                                                                     GOBP_MACROMOLECULE_DEACYLATION, GOBP_MACROMOLECULE_DEACYLATION
                                                                                                                    GAO_STOMACH_24W_C1_PROCRPOS_MULTIPOTENT_PROGENITOR, GAO_STOMACH_24W_C1_PROCRPOS_MULTIPOTENT_PROGENITOR
                                                                                                                     MIR6842 5P, MIR6842 5P
                                                                                                                    GOBP_POSITIVE_REGULATION_OF_VIRAL_TRANSCRIPTION, GOBP_POSITIVE_REGULATION_OF_VIRAL_TRANSCRIPTION
                                                                                                                    REACTOME_SIGNALING_BY_FGFR2, REACTOME_SIGNALING_BY_FGFR2
                                                                                                                    GSE17721_POLYIC_VS_GARDIQUIMOD_0.5H_BMDC_UP, GSE17721_POLYIC_VS_GARDIQUIMOD_0.5H_BMDC_UP
                                                                                                                    GNF2_TYK2, GNF2_TYK2
                                                                                                                    GOBP_PEPTIDYL_PROLINE_MODIFICATION, GOBP_PEPTIDYL_PROLINE_MODIFICATION
                                                                                                                    PID ERBB1 RECEPTOR PROXIMAL PATHWAY, PID ERBB1 RECEPTOR PROXIMAL PATHWAY
                                                                                                                    MIR1291, MIR1291
                                                                                                                    GCCNNNWTAAR_UNKNOWN, GCCNNNWTAAR_UNKNOWN
                                                                                                                    GCM_VAV1, GCM_VAV1
                                                                                                                     HP_OSTEOSARCOMA, HP_OSTEOSARCOMA
                                                                                                                     STAMBOLSKY_TARGETS_OF_MUTATED_TP53_UP, STAMBOLSKY_TARGETS_OF_MUTATED_TP53_UP
                                                                                                                    GNF2_CBFB, GNF2_CBFB
                                                                                                                    GOBP_PROTEIN_K63_LINKED_UBIQUITINATION, GOBP_PROTEIN_K63_LINKED_UBIQUITINATION
                                                                                                                    ROVERSI_GLIOMA_COPY_NUMBER_UP, ROVERSI_GLIOMA_COPY_NUMBER_UP
                                                                                                                     NIKOLSKY_BREAST_CANCER_20Q12_Q13_AMPLICON, NIKOLSKY_BREAST_CANCER_20Q12_Q13_AMPLICON
                                                                                                                     MEDINA_SMARCA4_TARGETS, MEDINA_SMARCA4_TARGETS
                                                                                                                     NIKOLSKY_BREAST_CANCER_11Q12_Q14_AMPLICON, NIKOLSKY_BREAST_CANCER_11Q12_Q14_AMPLICON
                                                                                                                     GOMF_PROTEIN_PHOSPHORYLATED_AMINO_ACID_BINDING, GOMF_PROTEIN_PHOSPHORYLATED_AMINO_ACID_BINDING
                                                                                                                     HP_VERTEBRAL_SEGMENTATION_DEFECT, HP_VERTEBRAL_SEGMENTATION_DEFECT
                                                                                                                     REACTOME_EPHB_MEDIATED_FORWARD_SIGNALING, REACTOME_EPHB_MEDIATED_FORWARD_SIGNALING
                                                                                                                     GSE17721_CTRL_VS_CPG_0.5H_BMDC_DN, GSE17721_CTRL_VS_CPG_0.5H_BMDC_DN
                                                                                                                     WP_G13_SIGNALING_PATHWAY, WP_G13_SIGNALING_PATHWAY
                                                                                                                     GSE26928_EFF_MEMORY_VS_CXCR5_POS_CD4_TCELL_UP, GSE26928_EFF_MEMORY_VS_CXCR5_POS_CD4_TCELL_UP
                                                                                                                     HP_HALLUX_VALGUS, HP_HALLUX_VALGUS
                                                                                                                     AKT_UP.V1_DN, AKT_UP.V1_DN
                                                                                                                     HP_APLASIA_HYPOPLASIA_OF_THE_FEMUR, HP_APLASIA_HYPOPLASIA_OF_THE_FEMUR
                                                                                                                     GOBP_PROTEIN_PEPTIDYL_PROLYL_ISOMERIZATION, GOBP_PROTEIN_PEPTIDYL_PROLYL_ISOMERIZATION
                                                                                                                     GOBP_CHAPERONE_COFACTOR_DEPENDENT_PROTEIN_REFOLDING, GOBP_CHAPERONE_COFACTOR_DEPENDENT_PROTEIN_REFOLDING
                                                                                                                     BANDRES_RESPONSE_TO_CARMUSTIN_MGMT_48HR_DN, BANDRES_RESPONSE_TO_CARMUSTIN_MGMT_48HR_DN
                                                                                                                     GACAGGG_MIR339, GACAGGG_MIR339
                                                                                                                     HP_ABNORMAL_NUMBER_OF_ERYTHROID_PRECURSORS, HP_ABNORMAL_NUMBER_OF_ERYTHROID_PRECURSORS
                                                                                                                     WP_ENVELOPE_PROTEINS_AND_THEIR_POTENTIAL_ROLES_IN_EDMD_PHYSIOPATHOLOGY, WP_ENVELOPE_PROTEINS_AND_THEIR_POTENTIAL_ROLES_IN_EDMD_PHYSIOPATHOLOGY
                                                                                                                     GOBP_TRANSCRIPTION_INITIATION_FROM_RNA_POLYMERASE_I_PROMOTER, GOBP_TRANSCRIPTION_INITIATION_FROM_RNA_POLYMERASE_I_PROMOTER
                                                                                                                    FAELT_B_CLL_WITH_VH3_21_UP, FAELT_B_CLL_WITH_VH3_21_UP
S_TYPE_2_DIABETES_PBMC_AT_DX_UP, GSE9006_TYPE_1_VS_TYPE_2_DIABETES_PBMC_AT_DX_UP
                                                                                                                     GOCC_PRERIBOSOME_LARGE_SUBUNIT_PRECURSOR, GOCC_PRERIBOSOME_LARGE_SUBUNIT_PRECURSOR
                                                                                                                     GSE46606_DAY1_VS_DAY3_CD40L_IL2_IL5_STIMULATED_IRF4_KO_BCELL_UP, GSE46606_DAY1_VS_DAY3_CD40L_IL2_IL5_STIMULATED_IRF4_KO_BCELL_UP
                                                                                                                     GOBP_ACTIN_NUCLEATION, GOBP_ACTIN_NUCLEATION
                                                                                                                     HP_ABNORMAL_ERYTHROCYTE_ENZYME_LEVEL, HP_ABNORMAL_ERYTHROCYTE_ENZYME_LEVEL
                                                                                                                     HP_OVERLAPPING_TOE, HP_OVERLAPPING_TOE
                                                                                                                     BIOCARTA_GH_PATHWAY, BIOCARTA_GH_PATHWAY
                                                                                                                     GOBP_ENDONUCLEOLYTIC_CLEAVAGE_INVOLVED_IN_RRNA_PROCESSING, GOBP_ENDONUCLEOLYTIC_CLEAVAGE_INVOLVED_IN_RRNA_PROCESSING
                                                                                                                     GOBP_FATTY_ACYL_COA_BIOSYNTHETIC_PROCESS, GOBP_FATTY_ACYL_COA_BIOSYNTHETIC_PROCESS
                                                                                                                     HP_NORMOCHROMIC_ANEMIA, HP_NORMOCHROMIC_ANEMIA
                                                                                                                     GOMF_CHOLESTEROL_BINDING, GOMF_CHOLESTEROL_BINDING
                                                                                                                     GOBP_CYTOPLASMIC_SEQUESTERING_OF_PROTEIN, GOBP_CYTOPLASMIC_SEQUESTERING_OF_PROTEIN
                                                                                                                      HU_GENOTOXIC_DAMAGE_24HR, HU_GENOTOXIC_DAMAGE_24HR
                                                                                                                     HP_BARREL_SHAPED_CHEST, HP_BARREL_SHAPED_CHEST
                                                                                                                      HP_MUSCLE_FIBER_ATROPHY, HP_MUSCLE_FIBER_ATROPHY
                                                                                                                     HP_PERSEVERATION, HP_PERSEVERATION
                                                                                                                     WEIGEL_OXIDATIVE_STRESS_BY_TBH_AND_H2O2, WEIGEL_OXIDATIVE_STRESS_BY_TBH_AND_H2O2
                                                                                                                     BANDRES_RESPONSE_TO_CARMUSTIN_WITHOUT_MGMT_48HR_DN, BANDRES_RESPONSE_TO_CARMUSTIN_WITHOUT_MGMT_48HR_DN
                                                                                                                    ZA_UNIPROT_Q9UM89_UNREVIEWED_TARGET_GENES, ZA_UNIPROT_Q9UM89_UNREVIEWED_TARGET_GENES
                                                                                                                     GOBP_CELLULAR_RESPONSE_TO_GAMMA_RADIATION, GOBP_CELLULAR_RESPONSE_TO_GAMMA_RADIATION
                                                                                                                    REACTOME_SIGNALING_BY_NTRK3_TRKC, REACTOME_SIGNALING_BY_NTRK3_TRKC
                                                                                                                     MODULE_4, MODULE_4
                                                                                                                    GOMF_STEROID_BINDING, GOMF_STEROID_BINDING
                                                                                                                    MARKS_HDAC_TARGETS_UP, MARKS_HDAC_TARGETS_UP
                                                                                                                    HP_PALPEBRAL_EDEMA, HP_PALPEBRAL_EDEMA
                                                                                                                    HP_THORACIC_SCOLIOSIS, HP_THORACIC_SCOLIOSIS
                                                                                                                    MUELLER_COMMON_TARGETS OF AML_FUSIONS_UP, MUELLER_COMMON_TARGETS OF AML_FUSIONS_UP
                                                                                                                     HP_ABNORMAL_AORTIC_VALVE_CUSP_MORPHOLOGY, HP_ABNORMAL_AORTIC_VALVE_CUSP_MORPHOLOGY
                                                                                                                     MODULE_419, MODULE_419
                                                                                                                    GOBP_PROTEIN_REFOLDING, GOBP_PROTEIN_REFOLDING
                                                                                                                    TERAO_AOX4_TARGETS_HG_UP, TERAO_AOX4_TARGETS_HG_UP
                                                                                                                    GOBP_REGULATION_OF_DNA_DAMAGE_RESPONSE_SIGNAL_TRANSDUCTION_BY_P53_CLASS_MEDIATOR, GOBP_REGULATION_OF_DNA_DAMAGE_RESPONSE_SIGNAL_TRANSDUCTION_BY_P53_CLASS_MEDIATOR
                                                                                                                    GOMF_STEROL_TRANSPORTER_ACTIVITY, GOMF_STEROL_TRANSPORTER_ACTIVITY
                                                                                                                    GOBP_CELLULAR_SENESCENCE, GOBP_CELLULAR_SENESCENCE
                                                                                                                    GSE15659_RESTING_TREG_VS_NONSUPPRESSIVE_TCELL_UP, GSE15659_RESTING_TREG_VS_NONSUPPRESSIVE_TCELL_UP
                                                                                                                    MODULE_9, MODULE_9
                                                                                                                    GOMF_CIS_TRANS_ISOMERASE_ACTIVITY, GOMF_CIS_TRANS_ISOMERASE_ACTIVITY
                                                                                                                     BIOCARTA_P53HYPOXIA_PATHWAY, BIOCARTA_P53HYPOXIA_PATHWAY
                                                                                                                     HP_RETICULOCYTOPENIA, HP_RETICULOCYTOPENIA
                                                                                                                     MELLMAN_TUT1_TARGETS_UP, MELLMAN_TUT1_TARGETS_UP
                                                                                                                     HP_BROAD_TOE, HP_BROAD_TOE
                                                                                                                     HP_POOR_APPETITE, HP_POOR_APPETITE
                                                                                                                     HP_PROMINENT_OCCIPUT, HP_PROMINENT_OCCIPUT
                                                                                                                     MIR609, MIR609
                                                                                                                     REACTOME_FORMATION_OF_SENESCENCE_ASSOCIATED_HETEROCHROMATIN_FOCI_SAHF, REACTOME_FORMATION_OF_SENESCENCE_ASSOCIATED_HETEROCHROMATIN_FOCI_SAHF
                                                                                                                     BUCASAS_PBMC_FLUARIX_FLUVIRIN_CAUCASIAN_MALE_AGE_18_40YO_HIGH_RESPONDERS_1DY_TOP_FUNCTIONAL_NETWORK_POSITIVE, BUCASAS_PBMC_FLUARIX_FLUARIX_FLUVIRIN_CAUCASIAN_MALE_AGE_18_40YO_HIGH_RESPONDERS_1DY_TOP_FUNCTIONAL_NETWORK_POSITIVE, BUCASAS_PBMC_FLUARIX_FLUARIX_FLUVIRIN_CAUCASIAN_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_FLUARIX_
                                                                                                                     BIOCARTA_EPO_PATHWAY, BIOCARTA_EPO_PATHWAY
                                                                                                                     GOBP_REGULATION_OF_RUFFLE_ASSEMBLY, GOBP_REGULATION_OF_RUFFLE_ASSEMBLY
                                                                                                                    GOBP_BLASTOCYST_FORMATION, GOBP_BLASTOCYST_FORMATION
                                                                                                                     NAGY_TFTC_COMPONENTS_HUMAN, NAGY_TFTC_COMPONENTS_HUMAN
                                                                                                                     GSE15659 CD45RA NEG CD4 TCELL VS ACTIVATED TREG UP, GSE15659 CD45RA NEG CD4 TCELL VS ACTIVATED TREG UP
                                                                                                                    JAZAERI_BREAST_CANCER_BRCA1_VS_BRCA2_UP, JAZAERI_BREAST_CANCER_BRCA1_VS_BRCA2_UP
                                                                                                                     MIR4446_3P, MIR4446_3P
                                                                                                                     REACTOME_TP53_REGULATES_TRANSCRIPTION_OF_ADDITIONAL_CELL_CYCLE_GENES_WHOSE_EXACT_ROLE_IN_THE_P53_PATHWAY_REMAIN_UNCERTAIN, REACTOME_TP53_REGULATES_TRANSCRIPTION_OF_ADDITIONAL_CELL_CYCLE_GENES_WHOSE_TP53_REGULATES_TRANSCRIPTION_OF_ADDITIONAL_CELL_CYCLE_GENES_WHOSE_TP53_REGULATES_TRANSCRIPTION_OF_ADDITIONAL_CELL_CYCLE_GENES_WHOSE_TP53_REGULATES_TRANSCRIPTION_OF_ADDITIONAL_CELL_CYCLE_GENES_WHOSE_TP53_REGULATES_TRANSCRIPTION_OF_ADDITIONAL_CELL_CYCLE_GENES_WHOSE_TP53_REGULATES_TRANSCRIPTION_OF_ADDITIONAL_CELL_CYCLE_GENES_WHOSE_TP53_REGULATES_TRANSCRIPTION_OF_ADDITIONAL_CELL_CYCLE_GENES_TRANSCRIPTION_OF_ADDITIONAL_CELL_CYCLE_GENES_TRANSCRIPTION_OF_ADDITIONAL_CELL_CYCLE_GENES_T
                                                                                                                    GOBP_REGULATION_OF_ACTIN_NUCLEATION, GOBP_REGULATION_OF_ACTIN_NUCLEATION
                                                                                                                     HP_LACK_OF_SKIN_ELASTICITY, HP_LACK_OF_SKIN_ELASTICITY
                                                                                                                     REACTOME CONSTITUTIVE SIGNALING BY LIGAND RESPONSIVE EGFR CANCER VARIANTS, REACTOME CONSTITUTIVE SIGNALING BY LIGAND RESPONSIVE EGFR CANCER VARIANTS
                                                                                                                    GOMF_5S_RRNA_BINDING, GOMF_5S_RRNA_BINDING
                                                                                                                     ZHAN MULTIPLE MYELOMA LB DN, ZHAN MULTIPLE MYELOMA LB DN
                                                                                                                     BIOCARTA_IL2RB_PATHWAY, BIOCARTA_IL2RB_PATHWAY
                                                                                                                     LOPEZ_TRANSLATION_VIA_FN1_SIGNALING, LOPEZ_TRANSLATION_VIA_FN1_SIGNALING
                                                                                                                    GOBP_REGULATION_OF_LIPID_KINASE_ACTIVITY, GOBP_REGULATION_OF_LIPID_KINASE_ACTIVITY
                                                                                                                     HP_ARNOLD_CHIARI_TYPE_I_MALFORMATION, HP_ARNOLD_CHIARI_TYPE_I_MALFORMATION
                                                                                                                    COLLIS_PRKDC_SUBSTRATES, COLLIS_PRKDC_SUBSTRATES
                                                                                                                     HP_SLEEP_APNEA, HP_SLEEP_APNEA
                                                                                                                    REACTOME_SIGNALING_BY_ERBB2_IN_CANCER, REACTOME_SIGNALING_BY_ERBB2_IN_CANCER
                                                                                                                     HP_CHRONIC_MUCOCUTANEOUS_CANDIDIASIS, HP_CHRONIC_MUCOCUTANEOUS_CANDIDIASIS
                                                                                                                     GOMF_ALCOHOL_BINDING, GOMF_ALCOHOL_BINDING
                                                                                                                     MIR328_3P, MIR328_3P
                                                                                                                     ZMYND11 TARGET GENES, ZMYND11 TARGET GENES
                                                                                                                     SRF_01, SRF_01
                                                                                                                     SIG_REGULATION_OF_THE_ACTIN_CYTOSKELETON_BY_RHO_GTPASES, SIG_REGULATION_OF_THE_ACTIN_CYTOSKELETON_BY_RHO_GTPASES
                                                                                                                     GOBP_PROTEIN_NEDDYLATION, GOBP_PROTEIN_NEDDYLATION
                                                                                                                     HP HYPOKALEMIA, HP HYPOKALEMIA
                                                                                                                     YAO_TEMPORAL_RESPONSE_TO_PROGESTERONE_CLUSTER_16, YAO_TEMPORAL_RESPONSE_TO_PROGESTERONE_CLUSTER_16
                                                                                                                     HP_HYPOPLASTIC_HEART, HP_HYPOPLASTIC_HEART
                                                                                                                     PID_RAS_PATHWAY, PID_RAS_PATHWAY
                                                                                                                     WP_ARYL_HYDROCARBON_RECEPTOR_NETPATH, WP_ARYL_HYDROCARBON_RECEPTOR_NETPATH
                                                                                                                     GOBP_POSITIVE_REGULATION_OF_NEURON_APOPTOTIC_PROCESS, GOBP_POSITIVE_REGULATION_OF_NEURON_APOPTOTIC_PROCESS
                                                                                                                     PACHER_TARGETS_OF_IGF1_AND_IGF2_UP, PACHER_TARGETS_OF_IGF1_AND_IGF2_UP
                                                                                                                     GOMF_DISULFIDE_OXIDOREDUCTASE_ACTIVITY, GOMF_DISULFIDE_OXIDOREDUCTASE_ACTIVITY
                                                                                                                     HP_CONGENITAL_MALFORMATION_OF_THE_LEFT_HEART, HP_CONGENITAL_MALFORMATION_OF_THE_LEFT_HEART
                                                                                                                     BIOCARTA_ECM_PATHWAY, BIOCARTA_ECM_PATHWAY
                                                                                                                     GOBP_ESTABLISHMENT_OF_GOLGI_LOCALIZATION, GOBP_ESTABLISHMENT_OF_GOLGI_LOCALIZATION
                                                                                                                     GOBP_CYTOPLASMIC_SEQUESTERING_OF_TRANSCRIPTION_FACTOR, GOBP_CYTOPLASMIC_SEQUESTERING_OF_TRANSCRIPTION_FACTOR
                                                                                                                     BIOCARTA_IL3_PATHWAY, BIOCARTA_IL3_PATHWAY
                                                                                                                     BIOCARTA_PML_PATHWAY, BIOCARTA_PML_PATHWAY
                                                                                                                     GOBP_PEROXISOME_PROLIFERATOR_ACTIVATED_RECEPTOR_SIGNALING_PATHWAY, GOBP_PEROXISOME_PROLIFERATOR_ACTIVATED_RECEPTOR_SIGNALING_PATHWAY
                                                                                                                     HP_DEEP_PALMAR_CREASE, HP_DEEP_PALMAR_CREASE
                                                                                                                     HP_ABNORMAL_BLOOD_POTASSIUM_CONCENTRATION, HP_ABNORMAL_BLOOD_POTASSIUM_CONCENTRATION
                                                                                                                     REACTOME_SIGNALING_BY_ERBB2_ECD_MUTANTS, REACTOME_SIGNALING_BY_ERBB2_ECD_MUTANTS
                                                                                                                     GOBP_ANOIKIS, GOBP_ANOIKIS
                                                                                                                    GOBP_MITOTIC_CELL_CYCLE_ARREST, GOBP_MITOTIC_CELL_CYCLE_ARREST
                                                                                                                     GOCC_NURD_COMPLEX, GOCC_NURD_COMPLEX
                                                                                                                    REACTOME_SIGNALING_BY_EGFR_IN_CANCER, REACTOME_SIGNALING_BY_EGFR_IN_CANCER
                                                                                                                     GOBP_GOLGI_LOCALIZATION, GOBP_GOLGI_LOCALIZATION
                                                                                                                     GOCC_TRANSCRIPTION_FACTOR_TFTC_COMPLEX, GOCC_TRANSCRIPTION_FACTOR_TFTC_COMPLEX
                                                                                                                    OUYANG_PROSTATE_CANCER_PROGRESSION_UP, OUYANG_PROSTATE_CANCER_PROGRESSION_UP
                                                                                                                     REACTOME_EFFECTS_OF_PIP2_HYDROLYSIS, REACTOME_EFFECTS_OF_PIP2_HYDROLYSIS
                                                                                                                    XU_CREBBP_TARGETS_DN, XU_CREBBP_TARGETS_DN
                                                                                                                     REACTOME_INTERLEUKIN_37_SIGNALING, REACTOME_INTERLEUKIN_37_SIGNALING
                                                                                                                    OVSYANNIKOVA_PBMC_FLUARIX_AGE_55_64YO_RESPONDERS_VS_NONRESPONDERS_0DY_UP, OVSYANNIKOVA_PBMC_FLUARIX_AGE_55_64YO_RESPONDERS_VS_NONRESPONDERS_0DY_UP
                                                                                                                     HP_ABNORMAL_URINE_CARBOHYDRATE_LEVEL, HP_ABNORMAL_URINE_CARBOHYDRATE_LEVEL
                                                                                                                     HP_ABNORMALITY_OF_EXOCRINE_PANCREAS_PHYSIOLOGY, HP_ABNORMALITY_OF_EXOCRINE_PANCREAS_PHYSIOLOGY
                                                                                                                    GOMF_U3_SNORNA_BINDING, GOMF_U3_SNORNA_BINDING
                                                                                                                    GOBP_ENTRAINMENT_OF_CIRCADIAN_CLOCK, GOBP_ENTRAINMENT_OF_CIRCADIAN_CLOCK
                                                                                                                     GOCC_IMMUNOLOGICAL_SYNAPSE, GOCC_IMMUNOLOGICAL_SYNAPSE
                                                                                                                    MIR342_5P, MIR342_5P
                                                                                                                    GSE6092_UNSTIM_VS_IFNG_STIM_AND_B_BURGDORFERI_INF_ENDOTHELIAL_CELL_DN, GSE6092_UNSTIM_VS_IFNG_STIM_AND_B_BURGDORFERI_INF_ENDOTHELIAL_CELL_DN
                                                                                                                    GOBP_HISTONE_H2B_UBIQUITINATION, GOBP_HISTONE_H2B_UBIQUITINATION
                                                                                                                    GOBP_NEGATIVE_REGULATION_OF_NEURAL_PRECURSOR_CELL_PROLIFERATION, GOBP_NEGATIVE_REGULATION_OF_NEURAL_PRECURSOR_CELL_PROLIFERATION
                                                                                                                    HP_IMPAIRED_T_CELL_FUNCTION, HP_IMPAIRED_T_CELL_FUNCTION
                                                                                                                    BIOCARTA_RAS_PATHWAY, BIOCARTA_RAS_PATHWAY
                                                                                                                    CUI_DEVELOPING_HEART_RIGHT_ATRIAL_CARDIOMYOCYTE, CUI_DEVELOPING_HEART_RIGHT_ATRIAL_CARDIOMYOCYTE
                                                                                                                    HP_STRIAE_DISTENSAE, HP_STRIAE_DISTENSAE
                                                                                                                     BLANCO_MELO_MERS_COV_INFECTION_MCR5_CELLS_DN, BLANCO_MELO_MERS_COV_INFECTION_MCR5_CELLS_DN
                                                                                                                    WP_CYTOSOLIC_DNASENSING_PATHWAY, WP_CYTOSOLIC_DNASENSING_PATHWAY
                                                                                                                    MIR3151_5P, MIR3151_5P
                                                                                                                     GOBP_MRNA_TRANSCRIPTION, GOBP_MRNA_TRANSCRIPTION
                                                                                                                    MIR4664_5P, MIR4664_5P
                                                                                                                    GOBP_NATURAL_KILLER_CELL_DEGRANULATION, GOBP_NATURAL_KILLER_CELL_DEGRANULATION
                                                                                                                    GOMF_ARYL_HYDROCARBON_RECEPTOR_BINDING, GOMF_ARYL_HYDROCARBON_RECEPTOR_BINDING
                                                                                                                    REACTOME_CONSTITUTIVE_SIGNALING_BY_EGFRVIII, REACTOME_CONSTITUTIVE_SIGNALING_BY_EGFRVIII
                                                                                                                    REACTOME_MET_ACTIVATES_RAS_SIGNALING, REACTOME_MET_ACTIVATES_RAS_SIGNALING
                                                                                                                    GOBP_ACTIN_FILAMENT_SEVERING, GOBP_ACTIN_FILAMENT_SEVERING
                                                                                                                    HP_FACIAL_ERYTHEMA, HP_FACIAL_ERYTHEMA
                                                                                                                    GOCC_GROWTH_CONE_MEMBRANE, GOCC_GROWTH_CONE_MEMBRANE
                                                                                                                     GOMF_DOLICHYL_PHOSPHATE_MANNOSE_PROTEIN_MANNOSYLTRANSFERASE_ACTIVITY, GOMF_DOLICHYL_PHOSPHATE_MANNOSE_PROTEIN_MANNOSYLTRANSFERASE_ACTIVITY
                                                                                                                    GOCC_POST_MRNA_RELEASE_SPLICEOSOMAL_COMPLEX, GOCC_POST_MRNA_RELEASE_SPLICEOSOMAL_COMPLEX
                                                                                                                     HP_VELOPHARYNGEAL_INSUFFICIENCY, HP_VELOPHARYNGEAL_INSUFFICIENCY
                                                                                                                    HP_POLAR_CATARACT, HP_POLAR_CATARACT
                                                                                                                    GOBP_NEGATIVE_REGULATION_OF_HEMATOPOIETIC_PROGENITOR_CELL_DIFFERENTIATION, GOBP_NEGATIVE_REGULATION_OF_HEMATOPOIETIC_PROGENITOR_CELL_DIFFERENTIATION
                                                                                                                    ZNF16_TARGET_GENES, ZNF16_TARGET_GENES
                                                                                                                     BIOCARTA_RHO_PATHWAY, BIOCARTA_RHO_PATHWAY
                                                                                                                     GOBP_REGULATION_OF_PROTEIN_DEACETYLATION, GOBP_REGULATION_OF_PROTEIN_DEACETYLATION
                                                                                                                     GOBP_RHYTHMIC_BEHAVIOR, GOBP_RHYTHMIC_BEHAVIOR
                                                                                                                     REACTOME_CONSTITUTIVE_SIGNALING_BY_OVEREXPRESSED_ERBB2, REACTOME_CONSTITUTIVE_SIGNALING_BY_OVEREXPRESSED_ERBB2
                                                                                                                     GOBP_PHOTOPERIODISM, GOBP_PHOTOPERIODISM
                                                                                                                    HP_DEEP_PLANTAR_CREASES, HP_DEEP_PLANTAR_CREASES
                                                                                                                     HP_FOOT_OLIGODACTYLY, HP_FOOT_OLIGODACTYLY
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GOBP_ENDONUCLEOLYTIC_CLEAVAGE_IN_5_ETS_OF_TRICISTRONIC_RRNA_TRANSCRIPT_SSU_RRNA_LSU_RRNA, GOBP_ENDONUCLEOLYTIC_CLEAVAGE_IN_5_ETS_OF_TRICISTRONIC_RRNA_TRANSCRIPT_SSU_RRNA_LSU_RRNA

GOBP_NEGATIVE_REGULATION_OF_ANTIGEN_RECEPTOR_MEDIATED_SIGNALING_PATHWAY, GOBP_NEGATIVE_REGULATION_OF_ANTIGEN_RECEPTOR_MEDIATED_SIGNALING_PATHWAY

GSE9006_TYPE_1_DIABETES_AT_DX_VS_1MONTH_POST_DX_PBMC_UP, GSE9006_TYPE_1_DIABETES_AT_DX_VS_1MONTH_POST_DX_PBMC_UP

GSE6269_HEALTHY_VS_E_COLI_INF_PBMC_UP, GSE6269_HEALTHY_VS_E_COLI_INF_PBMC_UP

GSE21670_UNTREATED_VS_TGFB_IL6_TREATED_STAT3_KO_CD4_TCELL_DN, GSE21670_UNTREATED_VS_TGFB_IL6_TREATED_STAT3_KO_CD4_TCELL_DN