Gene Set
REACTOME＿RESPIRATORY＿ELECTRON＿TRANSPORT
REACTOME＿－＿ESSIRATORY＿ELECTRON＿＿TRANSPORT＿ATP＿SYNTHESIS＿BY＿ REACTOME＿CITRIC＿ACID＿CYCLE＿TCA＿CYCLE KEGG＿CITRATE＿CYCLE＿TCA＿CYCLE REACTOME＿TCA＿CYCLE＿AND＿RESPIRATORY＿ELECTRON＿TRANSPORT MOOTHA＿TCA
KEGG＿PARKINSONS＿D
MOOTHA＿VOXPHOS
KEGG＿OXIDATVE＿PHOSPHORYLATION REACTOME＿FORMATION＿OF＿ATP＿BY＿CHEMIOSMOTIC＿COUPLING REACTOME＿PYRUVATE＿METABOLSM＿AND＿CITRIC＿ACID＿TCA＿CYCLE KEGG＿HUNTINGTONS＿DISEASE
PID＿TCR＿CALCIUM＿PATHWAY KEGG＿BUTANOATE＿METABOLISM
KEGG PYRUVATE＿METABOUSM ST＿B＿CEL＿ANTIGEN＿RECEPTOR BIOCARTA＿TGFB＿PATHWAY
SIG＿PPI＿SIGNALING＿IN＿B＿LYMPHOCYTES WEBER＿METHYLATED＿HCP＿N
BIOCARTA＿FCERI PATHWAY
SIG＿ILIRECEPTOR＿IN＿B＿LYPHOCTTE
AMIT＿EGF＿RESPONSE＿－2
PID＿FCER1＿PATHWAY
REACTOME＿GPVI＿MED
TED＿ACTVATION＿CASCAD
ZHU＿CMV＿24＿HR＿DN
suzukl＿response＿To＿TSA＿AND＿DECITABINE＿1B
SHIN＿B＿CELL＿LYMPHOMA＿CLUSTER＿2
REACTOME＿OTHER＿SEMAPHORIN＿INTERACTIONS PID＿SMAD2＿3PATHWAY
KYNG＿ENVIRONMENTAL＿STRESS＿RESPONSE＿NOT＿BY＿UV＿IN＿OLD PID＿RANBP2＿PATHWAY
VANDESLUIS＿NORMAL＿EMBRYOS＿DN
SHIN＿B＿CELL＿LYMPHOMA＿CLUSTER＿8
BIOCARTA＿ERYTH＿PATHWAY
BLLANGES＿SERUM＿SENSTIVE＿VIA＿TSC1
MODY＿HIPPOCAMPUS＿NEONATAL
PID＿EPO＿PATHWAY
SCIAN＿INVERSED TARGETS＿O＿TP53 AND＿TP73 DN PHONG＿TNF＿RESPONSE＿VIA＿P38＿PARTIAL
DEBOSSCHER＿NFKB＿TARGETS＿REPRESSED＿BY＿GLUCOCORTICOIDS ZHENG＿FOXP3＿TARGETS＿IN＿THYMUS＿DN BROWNE＿HCMV＿INFECTION
BIOCARTA＿EF4 PATHWAY
BIOCARTA＿EFF＿＿PATHWH＿TARGET＿OF＿RUNX1＿RUNX1T1＿FUSION＿SUSTAINED＿IN MON BIOCARTA＿NKT＿PATHWA
ONO AMLI TARGETS UP
PID＿SIP＿SIP4＿PATHWA
AbAHAM＿ALPC＿VS＿MULTIPLE＿MYELOMA＿DN
NGUYEN＿NOTCH1＿TARGETS＿DN
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UZONYI＿RESPONSE＿TO＿LEUKOTRIENE＿AND＿THROMBI JECHLINGER＿EPITHELIAL＿TO＿MESENCHYMAL＿TRANSITION＿DN DELASERNA＿MYOD＿TARGETS＿D
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169 | 47 |
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239
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0.0986741 ${ }_{0}^{0.106067}$ 0.113781
0.121494 0.121494
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CHEN_HOXA5_TARGETS_6HR_UP
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BIOCARTA_IL7PPATHWAY EACTOME IL 35 AND GM CSE SIGNAUIO CROONQUIST STROMAL_STIMULATION UP EYSTRYKH_HEMATOPOIESIS_STEM_CEL_SCPP_QTL_TRANS REACTOME_COPI_MEDAATED_TRANSPORT
EGG_PROSTATE_CANCER
EACTOME_RIP_MEDIATED_NFKB_ACTIVATION_VIA_DA U_GENOTOXIC_DAMAGE_24HR
AKEDA_TARGETS_OF_NUP98_HOXA9_FUSION_6HR_DN
TRACEY_RESISTANCE_TO_IFNAZ_D
ID_LIL1_STATA_PATHWAY
locarta_Insulin_pathway
REACTOME_SEMAPHORIN_INTERACTIONS
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ICCALUGA_ANGIOIMMUNOBLASTIC_LYMPHOMA_D
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tromal_stimulation_dn
HANG_POU5F1_TARGETS_UP
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VECCHI_GASTRIC_CANCER_ADVANCED_VS_EARLY_UP REACTOME_IL_-_ISIGNALING
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WANG_PROSTATE_CANCER_ANDROGEN_INDEPENDEN
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FLLCHNER_PBL_KIDNEY_TRANSPLANT_OK_Vs_DONOR_UP BIOCARTA_NFKB_PATHWAY
DORN_ADENOVIRUS_INFECTION_12HR_DN
REACTOME_METAL_ION_SLC_TRANSPORTERS
WEIGEL_OXIDATVE_STRESS_BY_HNE_AND_TBH
BIOCARTA_GLEEVEC_PATHWAY
PID_TOLL_ENDOGENOUS_PATHWAY
SOUCEK_MYC_TARGETS
GALIE_TUMOR_ANGIOGENESIS
PID_KIT_PATHWAY
REACTOME_ACTIVATION_OF_RAC
PETRETTO_BLOOD_PRESSURE_D
GERY_CEBP_TARGETS
DORN_ADENOVIRUS_INFECTION_IBHR_D
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WEBER_METHYLATED_LCP_IN_FIBROBLAST_DN
RIZKI_TUMOR_INVASIVENESS_2D_UP
REACTOME_CELL_SURFACE_INTERACTIONS_AT_THE_VASCULAR_WAL MOROSETTI_FACIOSCAPULOHUMER
BASSO HAIRY CELL LEUKEMIA DN

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FAELT_B_CLL_WITH_VH_REARRRANGEMENTS_U
KEGG_HYPERTROPHIC_CARDIOMYOPATHY_HCM KATSANOU_ELAVLI_TARGETS_DN ANASTASSIOU_CANCER_MESENCHYMAL_TRANSITION_SIGNATURE ZHU_SKLL_TARGETS_UP
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BRUECKNER_TARGETS_OF_MIRLETTAB_DN
MCCLUNG_CREB1_TARGETS_DN
MATTHEWS_AP1_TARGETS
RICKMAN_HEAD_AND_NECK_CANCER_F
MAHAJAN_RESPONSE_TO_ILIA_UP
HEIDENBLAD_AMPLIFIED_IN_BONE_CANCER
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VERHAAK_AML_WITH_NPM1_MUTATED_UP
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SA_B_CEL_RECEPTOR_COMPL
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SHIP_-DLEEL_VS_OLLICULAR_LYMPHOMA_DN BIOCARTA_HDAC_PATHWAY
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KORKOLA_EMBRYONAL_CARCINOMA_D SCHAEFFER_SOX9_TARGES__IN_PROSTATE_DEVELOPMENT_DN LEONARD_HYPOXIA
MANN_RESPONSE_TO_AMIFOSTINE_UP
CLIMENT_BREAST_CANCER_COPY_
KEGG_ALDOSTERONE_REGULATED_SODIUM_REABSORPTIO REACTOME_IL_RECEPTOR_SHC_SIGNALING SEITZ_NEOPLASTIC_TRANSFORMATION_BY_8P_DELETION_UP LEE_NEURAL_CREST_STEM_CELLUP
LIEN_BREAST_CARCINOMA METAPLASTIC
PID_SIP_S1P1_PATHWA
WANG_RESPONSE_TO_BEXAROTENE_U REACTOME_N_GLYCA
PID_IGF1_PATHWAY
GAVIN_FOXPS TARGETS Cluster_
GENTLES_LEUKEMIC_STEM_CELI_UP
PID_NETRIN_PATHW
BIOCARTA_MAPK_PATHWAY
TENEDINI_MEGAKARYOCYTE_MARKERS
PID_NEPHRIN_NEPH1_PATHWAY
SMIRNOV_RESPONSE_TO_RR_2HR_DN REACTOME_ACTIVATION_OF_IRF3_IRF7_MEDIATED_BY TBK1_IKK_ EPSU BIOCARTA_SET_PATHWAY
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JAZAERI_BREAST_CANCER_BRCA1_VS_BRCA2_D
GILMORE_CORE_NFKB_PATHW
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ST_TYPE_IINTERERERON PATHW
CAVARD_LIVER_CANCER_MALIGNANT_Vs_BENIGN
ROPERO_HDAC2_TARGETS
YAGUE_PRETUMOR_DRUG_RESISTANCE_DN
BROWN_MYELOID_CELL_DEVELOPMENT_UP
PID_ERBB1_RECEPTOR_PROXIMAL_PATHW
GRADE_COLON_VS_RECTAL_CANCER_DN
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RODRIGUES_THYROI__CARCINOMA_D
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GHANDHI_DIRECT_IRRADIATION_UP
KAMIKUBO_MYELOD_CEBPA_NETWORK
TOMIDA_METASTASIS_UP
HIRSCH_CELUULAR_TRANSFRRMATION_SIGNATURE_DN
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KEGG_PHENYLALANIIE_METABOLISM
TSAI_DNABA_TARGETS_DN
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KEGG_VIBRIO_CHOLERAE_INFECTION
PID_II2 PATHWMY
PID_LILZ_PATHWAY
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PID_P53_REGULATION_
REACTOME_P75_NTR_RECEPTOR_MEDIATED_SIGNALIING
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RUIZ_TNC_TARGETS_UP
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LI_LUNG_CANCER
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KYNG_RESPONSE_TO_H2O2_VIA_ERCC6 hoelzel_Nf1_TARGETS_DN
BIOCARTA_CDUO_PATHWAY
DORSEY_GABZ_TARGETS
BOYAULT_LIVER_CANCER_SUBCLASS_G56_DN
MANTOVANI_VIRAL_GPCR_SIGNALING_U
YANG_BREAST_CANCER_ESR1_BULK_UP
BIOCARTA_CDK5_PATHWAY

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BIOCARTA_RHO_PATHWAY
PID_P38_ALPHA_BETA_ PATHWA
HOFFMAN_CLOCK_TARGETS_DN
REACTOME_ACTVATION_OF_CHAPERONE_GENES_BY_ATF6_ALPHA AMIT_EGF_RESPONSE_20_MCF10A
REACTOME_INTEGRIN_CELL_SURFACE_INTERACTION
REACTOME_G_PROTEIN BETA_GAMMA SIGNALING

## DAZARD RESPONSE_TO_UV_SCC_DN

PID_LIZ_PATHWAY
sminno_circulating_EnDOthelocytes_in_Cancer_up
VERRECCHIA_RESPONSE_TO_TGFB1_C2 LIU_LIB_PRIMING_MODEL
GAUSSMANN_MLL_AF4_FUSION_TARGETS_F_U BAKER_HEMATOPOIESIS_STAT3_TARGETS HOFMANN_MYELODYSPLASTIC_SYNDROM_LOW_RISK_UP ZHENG_FOXP3_TARGETS_IN_T_LYMPHOCYTE_DN BARRIER_CANCER_RELAPSE_NORMAL_SAMPLE_DN
KEGG_LEUKOCYTE TRANSENDOTHELALLMIGRATION KYNG_ENVIRONMENTAL_STRESS_RESPONSE_DN Gentile_uv_response_ciuster_ds FUHII_YBX1_TARGETS_U

BOYAULT_LIVER_CANCER_SUBCLASS G1 U hernandez_mitotic_Arrest_by docetaxel_1_dN ROSS_AML_WITH_PML_RARA_FUSION
MCCABE_HOXC6_TARGETS_CANCER_U
BIOCARTA_MEF2D_PATHW
KORKOLA_SEMINOMA_UP
LOPEZ MESOTHELIOMA SURVIVAL OVERALL_DN dUAN_PRDM5_TARGET PID_TNF_PATHAY
HINATA_MFK__IARGETS__FBROBLAST_U REACTOME_PROTEIN_FOLDING PID_THROMBIN_PAR4_PATHWA KYNG_ENVIRONMENTAL_STRESS_RESPONSE_NOT_BY_UV_IN_WS RUTIERREZ_CHRONIC_LYMPHOCYTIC_LEU KEMIA AMUNDSON DNA DAMAGE RESPONSE TP53 PID_NCADHERIN_PATHWAY
REACTOME_N_GLYCAN_ANTENNAE_ELONGATION MASRI_RESIITANCE_TO_TAMOXIFEN_AND_AROMATASE_INHIBITORS_D REACTOME_P130CAS_LINKAGE_TO_MAPK_SIGNALING_FOR_INTEGRINS GRAHAM_CML_DVIIDING_VS_NORMAL_DIVIDING_UP
ERASOR_RESPONSE-TO_-E
SASSON_SHH_RESPONSE
MAHADEVAN_IIST_MORPHOLOGICAL_SWITCH
ROSS_LEUKEMIA_WTH_MLL_FUSIONS BURTON_ADIPOGENESIS_1
HUMMERICH_SKIN_CANCER_PROGRESSION_UP TAVAZOIE_METASTASIS
KASLLER_HDACZ_TARGETS_1_UP
GROSS_HYPOXIA_VIA HEIA
SNIDERS_AMPLIFED_IN_HEAD_AND_NECK TUMORS GHANDHI_BYSTANDER_IRRADIATION_U DAZARD_UV_RESPONSE_CLUSTER_G24 KEGG_PRION_DISEASES HAHTOLA_MYCOSIS_FUNGOIDES_DN ZHONG_SECRETOME_OF_LUNG_CANCER_AND_ENDOTHELIUM Pen_
 CORRE_MULTIPLE_MYELOMA_
MARKS_HDAC_TARGETS_UP
AMT_EGF_RESPONSE_60_HELA
REACTOME_NRAGE_SIGNALS_DEATH_THROUGH_IN BURTON_ADIPOGENESIS_9
REACTOME_NEGATVE REGULATION_OE THE_PIZK_AIT_NETWORK LU_THYROID_CANCER_CLUSTER_2
BROWNE_HCMV_INFECTION_14HR_
REACTOME_INTEGRIN_ALPHAIIB_BETA3_SIGNALING
TURIANSKI_MAPR8_AND_MAPK9_TARGETS
TURASHVILI_BREAST_LOBULAR_CARCINOMA_VS_DUCTAL_NORMAL_U HOSHIDA_LIVER_CANCER_SURVVVAL_U
GENTILE UV_RESPONSE_CLUSTER D6
MIIHRA_CARCINOMA_ASSOCIATED_FIBROBLAST_DI
MURAKAMI_UV_RESPONSE_1HR_DN
BIOCARTA_IL__PATHWA
LIANG_SILENCED_BY_METHYLATION_2

reactome_downregulation_of_tGf beta receptor_ signaling REACTOME_SIGNALING_BY_EGFR_IN_CANCER

PIDCRHOA_PATHWAY
REACTOME_SIGNALING_BY_RHo_GTPASE
JIANG_AGING_CEREBRAL_CORTEX_UP
FONTAINE_THYROID_TUMOR_UNCERTAIN_MALIGNANCY_UP WEIGEL_OXIDATIVE_STRESS_BY_HNE_AND_H2O2
HoEGERKORP_CD44_TARGETS_DIRECT_DN LEE_CALORIE_RESTRICTION_MUSCLE_UP
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BIOCARTA_LYM_PATHWAY
CALVE_IRINOTECAN_SENSITVE_Vs_RESITTANT_DN TONKS_TARGETS_OF_RUNX1_RUNX1T1_FUSION_ERYTHROCYTE_UP DASU_IL6_SIGNALING_DN
FLOTHO_PEDIATRIC_ALL_THERAPY_RESPONSE_UP HEIN_ALL_GLUCOCORTICOID
REACTOME_GRB2 SOS PROVIDES LINKAGE TO MAPK SIGNALING FOR EUJIWARA_PARK2_IN_LIVER_CANCER_UP
ZAID_OSTEOBLAST_TRANSCRIPTION_FACTORS
SCHAEFER PROSTATE DEVELOPMENT_12HR_UP
SCHAEFFER_PROSTATE_DEVELO
ONDER_CDH1_TARGESS_3_DN
ONDER_CDH1_TARGETS_3_DN
OEGERKORP_CO44_TARGETS_TEMPORAL_UP
KEGG_TOLL_LIIKERECEEPTOR_SIGNALING_PATHWAY
Tonks targets of runx1 Runxiti_fusion sustained in mone CROMER_TUMORIGENESI_UP
DORN_ADENOVIRUS_INFECTION_32HR_DN
HELLEBREEERS_SILENCED_DURING_TUMOR_ANGIOGENESIS KUMAR_AUTOPHAGY_NETWORK
LEE_LVER_CANCER_MYC_TGFA_U
LPUECH_FOXO3_TARGETS_U
ADERI-BREAST CANCER PROGNOSIS DN
AY_TUMORIGENESIS_BY ERBB2_CDC25A_D
LLECHNER_PBL_KIDNEY_TRANSPLANT_REIECTED_Vs_OK_dN SHIPP_DLBCL_CURED_VS_FATAL_UP
ZHAN_MULTIPLE_MYELOMA_CD1_AND_CD2_DN
BANDRES_RESPONSE_TO_CARMUSTIN_MGMT_24HR_DN CDOWELL_ACUTE_LUNG_INURY_UP hofmann_cell_lymphoma up
bIocarta_Granulocytes_pathwa
WANG_RECURRENT_LIVER_CANCER_DN
PEPPER_CHRONIC_LYMPHOCYTIC_LEUKEMIA_UP
EACTOME_RNA_POL_I_TRANSCRIPTION ross_elk3_TARGETS_UP
OURNER_ACINAR_DEVELOPMENT_LATE_DN
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SUH_COEXPRESSED_WITH_ID1_AND_ID2_
TORCHIA_TARGETS_OF_EWSR1_FLI__USION_TOP2O_DN
REACTOME_SIGNALING_BY_NODAL
SPIRA_SMOKERS_UNG_CANCER_UP
SPIRA_SMOKERS_LUNG_CANCER_U
LIAN_LIPA_TARGETS_3M
MORI_EMU_MYC_LYMPHOMA_BY_ONSET_TIME_DN
GARGALOVIC RESPONSE_TO OXIDIZED PHOSPHOLIPIDS MAGENTA UP haslinger_b_CLL_WITH_MUTATED_VH_GENES ST_STAT3_PATHWAY
REACTOME_CHEMOKINE_RECEPTORS_BIND_CHEMOKINES
GAUSSMANN_MLL_AFA_-FUSION_TARGETS_B_DN
MISHRA_CARCINOMA_ASSOCIATED_FIBROBLAST_U
MARSON_FOXP3_TARGETS_UP
EE_LIVER_CANCER_MYC_DN
TAKEDA_TARGETS_OF_NUP98_HOXA9_FUSION_16D_DN PD_ILI_STAT5_PATHWAY
REACTOME_MUSCLE_CONTRACTION
PEDERSEN_METASTASI_BY_ERBB2_ISOFORM_ AMMORA_NOS2_TARGETS_DN
KKINAKIIS_METHIONINE_DEPRIVATION_48HR_U BOCARTA TNFR1 PATHWAY REACTOME_3_UTR_MEDIATED_TRANSLATIONAL_REGULATION BIOCARTA_P53HYPOXIA_PATHWAY
ROWNE_HCMV_INFECTION_16HR_DN
HO_ATF5_TARGETS_DN
IOCARTA_TCYTOTOXIC_PATHW
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SESTO_RESPONSE_TO_UV_C
REACTOME_PRE_NOTCH_TRANSCRIPTION_AND_TRANSLATIO
MARCHIN_TRABECTEDIN_RESITTANCE_DN
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http://www.broadinstitute.org/gsea/msigdb/cards/HASLINGER_B_CLL_WITH_MUTATED_VH_GENES http://www.broadinstitute.org//seal/msigdb/cards/ST_STAT3_PATHWAY
$\mathrm{http}: / /$ www.broadinstitute.org/ssea/msigdb/cards/REACTOME_CHEMOKINE_RECEPTORS_BIND_CHEMOK 70 http ///wwww.broadinstitute.org/gsea/msigdb/cards/GAUSSMANN_MLL_AFA_FUSSION_TARGETS_B_DN http://www.broadinstitute.org/ssea/msigdb/cards/MISHRA_CARCINOMA_ASSOCIATED_FIBROBLAST_U $\mathrm{http}: / /$ www.broadinstitute.org $/$ /gea $/ \mathrm{msigdb} /$ cards/ $/$ MARSON_FOXP3_TARGETS_UP http://www.broadinstitute.org/gsea/msigdb/cards/LEE_LIVER_CANCER_MYC_DN http://www.broadinstitute.org/gsea/msigdb/cards/TAKEDA_TARGETS_OF_NUP98_HOXA9_FUSION_16D http $/ / /$ www.broadinstitute.org/gsea/ $/ \mathrm{msigd}$ db/cards/PDD_LLI__STAT5_PATHWAY
http://www.broadinstitute.org/gsea/msigdb/cards/REACTOME_MUSCLE_CONTRACTION $\mathrm{http}: / / \mathrm{www}$. broadinstitute.org/gsea/ msigd d//cards/PEDERSEN_METASTASIS_BY_ERBB2_ISOFORM_5 http://www.broadinstitute.org/gsea/msigdb/cards/ZAMORA_NOS2_TARGETS_DN
 http://www.broadinstitute.org/gsea/msigdb/cards/BloCARTA_TNFR1_PATHWAY http://www.broadinstitute.org//sea/msigdb/cards/REACTOME_3_UTR_MEDIATED_TRANSLATIONAL_REG http://www.broadinstitute.org/ssea/msigdb/cards/BIOCARTA_P53HYPOXIA_PATHWAY http://www.broadinstitute.org/ssea/msigdb/cards/BROWNE_HCMV_INFECTION_16HR_DN
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http://www.broadinstitute.org/gsea/msigdb/cards/CHNG_MULTIPLE_MYELOMA_HYPERPLOID_UP




| -0.309681 | -125,487 | 0.179337 | 0.771357 | Increased Expression with Increasing Exponent |
| :---: | :---: | :---: | :---: | :---: |
| -0.291227 | -118,257 | 0.217822 | 0.771374 | Increased Expression with Increasing Exponent |
| -0.401766 | -135,109 | 0.125714 | 0.771383 | Increased Expression with Increasing Exponent |
| -0.410834 | $-152,242$ | 0.0558882 | 0.771392 | Increased Expression with Increasing Exponent |
| -0.289186 | -123,408 | 0.176125 | 0.771405 | Increased Expression with Increasing Exponent |
| -0.329731 | -117,337 | 0.226721 | 0.771405 | Increased Expression with Increasing Exponent |
| -0.428558 | -123,167 | 0.213018 | 0.771422 | Increased Expression with Increasing Exponent |
| -0.362459 | -122,853 | 0.226121 | 0.771424 | Increased Expression with Increasing Exponent |
| -0.343337 | -123,929 | 0.198807 | 0.771425 | Increased Expression with Increasing Exponent |
| -0.26268 | -117,702 | 0.208015 | 0.771439 | Increased Expression with Increasing Exponent |
| -0.338729 | -118,751 | 0.258755 | 0.771449 | Increased Expression with Increasing Exponent |
| -0.317984 | -11,835 | 0.28169 | 0.771481 | Increased Expression with Increasing Exponent |
| -0.568417 | -139,647 | 0.176245 | 0.771484 | Increased Expression with Increasing Exponent |
| -0.454038 | $-120,146$ | 0.276639 | 0.771491 | Increased Expression with Increasing Exponent |
| -0.310516 | -117,273 | 0.282101 | 0.771507 | Increased Expression with Increasing Exponent |
| -0.482579 | -122,373 | 0.25 | 0.771511 | Increased Expression with Increasing Exponent |
| -0.470953 | -151,589 | 0.0990291 | 0.771519 | Increased Expression with Increasing Exponent |
| -0.419174 | -152,403 | 0.0793037 | 0.771524 | Increased Expression with Increasing Exponent |
| -0.385652 | -163,964 | 0.00772201 | 0.77153 | Increased Expression with Increasing Exponent |
| -0.410888 | -137,245 | 0.0702811 | 0.771562 | Increased Expression with Increasing Exponent |
| -0.466991 | $-125,018$ | 0.22093 | 0.771583 | Increased Expression with Increasing Exponent |
| -0.545379 | -166,482 | 0.0271318 | 0.771586 | Increased Expression with Increasing Exponent |
| -0.278693 | -117,792 | 0.218254 | 0.77159 | Increased Expression with Increasing Exponent |
| -0.360613 | -120,014 | 0.258824 | 0.771598 | Increased Expression with Increasing Exponent |
| -0.38345 | -115,633 | 0.298625 | 0.771605 | Increased Expression with Increasing Exponent |
| -0.344271 | -135,385 | 0.131783 | 0.771629 | Increased Expression with Increasing Exponent |
| -0.331559 | -137,838 | 0.111753 | 0.77164 | Increased Expression with Increasing Exponent |
| -0.39469 | -137,935 | 0.114563 | 0.771659 | Increased Expression with Increasing Exponent |
| -0.401517 | -119,663 | 0.318447 | 0.771698 | Increased Expression with Increasing Exponent |
| -0.364431 | -12,463 | 0.233068 | 0.771699 | Increased Expression with Increasing Exponent |
| -0.333171 | $-12,004$ | 0.259259 | 0.771712 | Increased Expression with Increasing Exponent |
| -0.291023 | -121,932 | 0.173824 | 0.771713 | Increased Expression with Increasing Exponent |
| -0.330821 | $-12,227$ | 0.217308 | 0.771723 | Increased Expression with Increasing Exponent |
| -0.329787 | -124,907 | 0.203523 | 0.77176 | Increased Expression with Increasing Exponent |
| -0.411392 | -135,901 | 0.176238 | 0.771784 | Increased Expression with Increasing Exponent |
| -0.439807 | -124,022 | 0.273267 | 0.771802 | Increased Expression with Increasing Exponent |
| -0.261112 | -122,298 | 0.129225 | 0.771855 | Increased Expression with Increasing Exponent |
| -0.314095 | -118,704 | 0.23913 | 0.771877 | Increased Expression with Increasing Exponent |
| -0.32157 | -122,394 | 0.194932 | 0.771896 | Increased Expression with Increasing Exponent |
| -0.29552 | -117,287 | 0.225681 | 0.771904 | Increased Expression with Increasing Exponent |
| -0.360709 | -130,138 | 0.166667 | 0.771906 | Increased Expression with Increasing Exponent |
| -0.459739 | -13,599 | 0.171875 | 0.771949 | Increased Expression with Increasing Exponent |
| -0.285593 | -121,041 | 0.148893 | 0.771956 | Increased Expression with Increasing Exponent |
| -0.306517 | $-118,763$ | 0.216418 | 0.771959 | Increased Expression with Increasing Exponent |
| -0.469274 | -117,498 | 0.319231 | 0.77199 | Increased Expression with Increasing Exponent |
| -0.489199 | -146,925 | 0.0865191 | 0.772003 | Increased Expression with Increasing Exponent |
| -0.298572 | -118,668 | 0.216797 | 0.772015 | Increased Expression with Increasing Exponent |
| -0.365436 | -122,974 | 0.25813 | 0.772019 | Increased Expression with Increasing Exponent |
| -0.37753 | -122,456 | 0.224242 | 0.772063 | Increased Expression with Increasing Exponent |
| -0.526759 | -124,652 | 0.285141 | 0.7721 | Increased Expression with Increasing Exponent |
| $-0.337868$ | -118,258 | 0.2751 | 0.77216 | Increased Expression with Increasing Exponent |
| -0.435772 | -137,327 | 0.13447 | 0.772178 | Increased Expression with Increasing Exponent |
| -0.503316 | -138,077 | 0.153693 | 0.772184 | Increased Expression with Increasing Exponent |
| -0.425842 | -137,376 | 0.107943 | 0.772214 | Increased Expression with Increasing Exponent |
| -0.369529 | -121,064 | 0.229703 | 0.772233 | Increased Expression with Increasing Exponent |
| -0.357518 | -122,621 | 0.254509 | 0.77226 | Increased Expression with Increasing Exponent |
| -0.435392 | -12,503 | 0.293996 | 0.772267 | Increased Expression with Increasing Exponent |
| -0.279828 | -118,811 | 0.194 | 0.772316 | Increased Expression with Increasing Exponent |
| -0.457801 | -135,502 | 0.169884 | 0.772328 | Increased Expression with Increasing Exponent |
| -0.396424 | $-12,208$ | 0.26087 | 0.772334 | Increased Expression with Increasing Exponent |
| -0.36348 | -123,409 | 0.226531 | 0.772372 | Increased Expression with Increasing Exponent |
| -0.409525 | -122,312 | 0.226121 | 0.772375 | Increased Expression with Increasing Exponent |
| -0.434763 | -122,854 | 0.2846 | 0.772381 | Increased Expression with Increasing Exponent |
| -0.430138 | -115,395 | 0.298387 | 0.77242 | Increased Expression with Increasing Exponent |
| -0.497537 | -139,203 | 0.143701 | 0.772429 | Increased Expression with Increasing Exponent |
| -0.323394 | -121,938 | 0.235052 | 0.772463 | Increased Expression with Increasing Exponent |
| -0.392503 | -135,314 | 0.126923 | 0.77251 | Increased Expression with Increasing Exponent |
| -0.306841 | -119,664 | 0.225243 | 0.772547 | Increased Expression with Increasing Exponent |
| -0.270297 | -115,298 | 0.236434 | 0.772555 | Increased Expression with Increasing Exponent |
| -0.341996 | -122,406 | 0.210425 | 0.77257 | Increased Expression with Increasing Exponent |
| -0.322323 | -1,235 | 0.193294 | 0.772655 | Increased Expression with Increasing Exponent |
| -0.610598 | -152,546 | 0.0492424 | 0.772678 | Increased Expression with Increasing Exponent |
| -0.31466 | -135,118 | 0.108738 | 0.772681 | Increased Expression with Increasing Exponent |
| -0.298072 | -11,827 | 0.266925 | 0.772688 | Increased Expression with Increasing Exponent |
| -0.346643 | -124,667 | 0.200803 | 0.772701 | Increased Expression with Increasing Exponent |
| -0.350359 | -122,466 | 0.243461 | 0.772713 | Increased Expression with Increasing Exponent |
| -0.422941 | -118,766 | 0.342574 | 0.772728 | Increased Expression with Increasing Exponent |
| -0.40771 | -135,261 | 0.1409 | 0.772733 | Increased Expression with Increasing Exponent |
| -0.347919 | -137,412 | 0.116505 | 0.772756 | Increased Expression with Increasing Exponent |
| -0.505385 | $-136,013$ | 0.150602 | 0.772766 | Increased Expression with Increasing Exponent |
| -0.575546 | -138,112 | 0.178218 | 0.772795 | Increased Expression with Increasing Exponent |
| -0.355782 | -130,151 | 0.147638 | 0.772815 | Increased Expression with Increasing Exponent |
| -0.327535 | -125,046 | 0.18125 | 0.772835 | Increased Expression with Increasing Exponent |
| -0.319528 | -124,696 | 0.167689 | 0.772837 | Increased Expression with Increasing Exponent |
| -0.420496 | -137,258 | 0.15261 | 0.772854 | Increased Expression with Increasing Exponent |
| -0.356124 | -122,766 | 0.242366 | 0.772855 | Increased Expression with Increasing Exponent |
| -0.456063 | -123,425 | 0.282353 | 0.772865 | Increased Expression with Increasing Exponent |
| -0.384161 | -151,723 | 0.0481928 | 0.772876 | Increased Expression with Increasing Exponent |
| -0.325404 | -119,552 | 0.232246 | 0.772882 | Increased Expression with Increasing Exponent |
| $-0.478242$ | -123,458 | 0.290631 | 0.772887 | Increased Expression with Increasing Exponent |
| -0.47456 | -137,054 | 0.13215 | 0.772892 | Increased Expression with Increasing Exponent |
| -0.463904 | -147,251 | 0.0912621 | 0.772912 | Increased Expression with Increasing Exponent |
| -0.385841 | -115,315 | 0.329457 | 0.772924 | Increased Expression with Increasing Exponent |
| -0.483081 | -135,441 | 0.173077 | 0.772934 | Increased Expression with Increasing Exponent |
| -0.356592 | -135,914 | 0.119374 | 0.772946 | Increased Expression with Increasing Exponent |
| -0.43267 | -119,581 | 0.32008 | 0.772961 | Increased Expression with Increasing Exponent |
| -0.498106 | -122,899 | 0.269581 | 0.773046 | Increased Expression with Increasing Exponent |
|  |  |  |  |  |

PID_P53_DOWNSTREAM_PATHWAY
COULOUARN_TEMPORAL_TGFB1_SIGNATURE HOFFMANN_SMALL_PRE_BII_TO_IMMATURE_B_LYMPHOCYTE_DN TIAN_TNF_SIGNALING_VIA_NFI REACTOME_TRANSPORT_TO THE_GOLGI_AND_SUBSEQUENT_MODIFIC GENTILE_UV_RESPONSE_CLUSTER_D5
NEMETH_INFLAMMATORY_RESPONSE_LPS_UP
REACTOME_SPHINGOLPID_DE_NOVO_BIOSY
REACTOME_CELL_DEATH_SIGNALLING_VIA_NRAGE_NRIF_AND_NADE BROWNE_HCMV_INFECTION_1OHR_U
BIOCARTA_HSP27_PATHWA
DACOSTA_LOW_DOSE_UV_RESPONSE_VIA_ERCC3_XPCS_DN LENAOUR_DENDRITIC_CELLMAT
reactome_thrombin_igigaling_through_proteinase_Activai Yanagihara_esxi_targets
PID_P73PATHWAY
HOWLIN_PUBERTAL_MAMMARY_GLAND
REACTOME_ACYL_CHAIN_REMODELLING_OF_R
BIOCARTA_CELLCELL_PATHW
GENTLLE_UV_HIGH_DOSE_UP
LINDGREN_BLADDER_CANCER_HIGH_RECUREENCE ELVIDGE_HYPOXIA_UP
WOO_LIVER_CANCER_RECURRENCE_UP
REACTOME_SIGNALING_BY_SCF_K
XU_RESPONSE-TO_TRETINOIN_DI
GARGALOVII_RESPONSE_TO_OXIDIZED_PHOSPHOLIPIDS_BLUE_UP LIZSPER_LYMPHATC_VESSELS_DURING_METASTASIS_DN LIndVall_IMmortalzed_by_tert_up Hernandez_mitotic_ARREST_BY_DOCEAAXEL_2_DN BANDRES_RESPONSE_TO_CARMUSTIN_WITHOUT_MGMT_48HR_DN SESTO_RESPONSETO_UV_C FREDERICK_PRKCI_TARGETS
VALK AML_CUSTTR 16
PID_MEI_PATHWAY
ONO_FOXP3_TARGETS_DN
ELVIDGE_HFIA_AND_HIF2A_TARGETS_DN wU_HBX_TARGETS_3_U
REACTOME_SIGNALING_BY_FGFR1_FuSION_MUTANTS ALONSO_MEAASTASIS_EMT_UP
BOYLAN MULTIPLE MYELOMA C D KUUSELO_PANCREATIC_CANCER_19Q13_AMPLIFICATION PODAR_RESPONSE_TO_ADAPHOSTIN_UP
ZAMORA_NOS2_TARGETS_UP
BASSO_CDDO_SIGNALIN
GILDEA_METASTASIS
WEBER METHY_OF_PRKCA_AND_-tS1_U
PID_INSULIN_PATHWAY
SATO_SILENCED_BY_DEACETYLATION_In_PANCREATIC_CANCE LEE_AGING_MUSCLE_UP
TONKS_TARGETS_OF_RUNX1_RUNX1T1_FUSION_ERYTHROCYTE_D GAUSSMANN_ML_AF4_FUSION_TARGETS_E_DN BIOCARTA_CTLA4_PATHWAY REACTOME SIGNALING BY ERBB2 SA_MMP_CYTOKINE_CONNECTION SAFFORD_T_LYMPHOCYTE_ANERGY PID_CXCR3_PATHWAY LEE_SP4_THYMOCYT
ENGELMANN_CANCER_PROGENTTORS_DN PID_AR_NONGENOMIC_PATHW
NUT_GBM VS AO GLIOMA_ U
KEGG_JAK_stat__IIGNaling_pa
KEGG_COLORECTAL_CANCER
CHENG_RESPONSE_TO_NICKEL_ACETATE
GYORFFY_MITOXANTRONE_RESITTANCE VAGI_AML_FAB_MARKER OUILETTE_CLL_13Q14_DELETION_U CHANGOLKAR HZAAFY TARGETS IN MARSON_FOXP3_TARGETS_STIMULATED_U MOOTHA_ROS
zembutsu_sensitivity_to_methotrexat
PLASARI_TGFB1_TARGETS_10HR_U
REACTOME_PECAM1_INTERACTION
LEE_CALORIE_RESTRICTION_NEOCORTEX_
SUZUKI AMPIIFIED IN ORAL CANCER
BICCARTA_GPCR_PATHWAY
KEGG_LEISHMANIA INFECTIO
CAIRO_PML_TARGETS_BOUND_BY_MYC_U
BIOCARTA_IGF1R_PATHWAY
ITO_PTTG1_TARGETS_U
CHIARADONNA_NEOPLASTK_TRANSFORMATION_CDC25_U BILANGES_SERUM_AND_RAPAMYCIN_SENSITIVE_GEN
WATANABE UUCERATVE_COLIIS WITHCANCER_UP
HWANG PROSTATE_CANCER_MARKERS
LeE_LIVER_CANCER_DENA_UP
KYNG_ENVIRONMENTAL_STRESS_RESPONSE_NOT_BY_4NQO_IN_WS
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Itp://www.broadinstitute.org/gsea/msigdb/cards/COULOUARN_TEMPORAL_TGFB1_SIGNATURE UP 307 ttp //Mww.broadinstitute.org/gsea/msigdb/cards/HOFFMANN_SMALL_PRE_BII_TO_IMMATURE_B_LYMI 121
 htp ://www.broadinstitute.org/gsea/msigdb/cards/REACTOME_TRANSPORT_TO_THE_GOLGI_AND_SUBSI 8 ttp $/ / /$ www.broadinstitute.org/gsea/msigdb/cards/GENTLE_UV_RESPONSE_CLUSTER_D5
 Atp//wwwbroadinstitute.org/gsea/msigdb/cards/REACTOME_SPHINGOLPID_DE NOVO_LPS_UP $\mathrm{http}: / / \mathrm{www} . \mathrm{broadinstitute} .0 \mathrm{or} / \mathrm{gsea} / \mathrm{msiggd} /$ /ards/DACOSTA_ERCC3_ALLELE_XPCS_VS_TD_DN http $/ /$ www.broadinstitute.org/geaz/misidb/cards/REACTOME_CELI_DEATH_SIGNALLING_VIA_NRAGE_N 188 http://www.broadinstitute.org/ssea/msigdb/card//BROWNE_HCMV_INFECTION_10HR_UP $\mathrm{rtp} / / / \mathrm{www}$. broadinstitute.org/gsea/msigdb/ards/BIOCARTA_HSP27_PATHWAY htp://www.broadinstitute.org/gsea/msigdb/cards/DACOSTA LOW_DOSE UU_RESPONSE_VIA_ RPCC3_3 thp://www.broadinstitute.ory/gssea/msigigb/cards/BlIOCARTA_IGF1MTOR_PATHWA tip $/ /$ Mww.broadinstute.org/ $/$ www http://www.broadinstitute.org/gsea/msigdb/cards//ANAGIHARA_ESX1_TARGETS http://www.broadinstitute.org/gsea/msigdb/cards/PID_P73PATHWAY
http://www.broadinstitute.org/gsea/msigdb/cards/HOWLIN_PU BERTAL_MAMMARY_GLAND http:/www.broadinstitute.org/gsea/msigdb/cards/REACTOME_ACYL_CHAIN_REMOODELING_OF_P http://www.broadinstitute.org/ $/$ seal/msigdb/cards/B/BIOCARTA_CELLLCELL_PATHWAY
ttp://www.broadinstitute.org/ssea/ $/ \mathrm{msigd} /$ /cards/GENTLE UV HIGH_DOSE UP ttt://www.broadinstitute.org/gsea//migdb//ards/LINDGREN_BLADDER_CANCER_HIGH_RECU RRENCE tttp://www.broadinstitute.org/gsea/msigdb/cards/ELVIDGE_HYPOXIA_UP
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Itp://www.broadinstitute.org/gsea/msigdb/card//GARGALOVIC_RESPONSE_TO_OXIDIIE_ 40 thp.//www.broadinstitute.org/gse/migdd/cards/CLASPER_LYMPHATIC_VESSELS_DURING_METASTASIS 9 http://www.broadinstitute.org/gsea/msigdb/cards/LINDVALL_IMMORTALIZED_BY_TERT_UP
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$\mathrm{http}: / / \mathrm{www}$. broadinstitute.org/gsea/ $/ \mathrm{msigd}$ b/cards/BASSO_CDUO_SIGNALING
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ttp: ///www.broadinstitute.org/ssea/msigdb/cards/NETTER_TARGETS_OO_PRKCA_AND_TSI_U
http://www.broadinstitute.org/gsea/msigdb/cards/PID_INSULIN_PATHWAY
$\mathrm{htp}: / / \mathrm{www.broadinstitute.org/gsea/msigdb/cards/SATO} \mathrm{SILENCED} \mathrm{\_BY} \mathrm{DEACETYLATION} \mathrm{\_IN} \mathrm{PANCREAT}$
http://www.broadinstitute.org/gsea/msigdb/cards/LEE_AGING_MUSCLE_UP
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http://www.broadinstitute.org/ssea/msigdb/cards/TONKS_TARGETS_OF_RUNX1_RUNX1T1_FUSION_ERY1 2 $\mathrm{htp}: / / \mathrm{www}$. broadinstitute.org/ssea/msigd $/$ /ards $/ G A \cup S S M A N N \_M L \_$_AF4_FUSION_TARGETS_E_DN

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ttp://www.broadinstitute.org/gsea/msigdb/cards/SA_MMP_CYTOKINE_CONNECTIO
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htp $/ / /$ www.broadinstitute.org/gsea/ $/$ migdb $/$ /ards/ $/$ PID_CXCR3_ PATHWA
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HUPER BREAST BASAL
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KEGG_RENIN_ANGIITENSIN_SSSTE
BROCKE_APOPTOSIS_REV
NUMATA_CSF3_SIGNALING_VIA_STAT3
PYEON_HPV_POSTTVE_TUMORS_DN
SCHEIDEREIT_IKK_INTERACTING_PROTEINS
HOCARTA_ILIR_PATHWA
BROWNE_HCMV_INFECTION_2OHR_DN
GAZDA_DIAMOND_BLACKFAN_ANEMIA_MYELOID_DN ZHAN_MULTIPLE_MYELOMA_DN YAO_TEMPORAL_RESPONSE_TO_PROGESTERONE_CLUSTER_2 NATSUME_RESPONSE_TO_INTERFERON_BETA_UP WANG_NEOPLASTIC_TRANSFORMATION_BY_CCND1_MYC MARSON_FOXP3_TARGETS_DN GRAHAM_CML_QUIESCENT_VS_NORMAL_QUIESCENT_DN PID_CIRCADIAN_PATHWAY
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ONGUSAHA_TP53 TARGETS
WANG_RESPONSE_TO_PACLITAXEL_VIA_MAPK8_U
JEON_SMADG_TARGETS_UP
CHIBA_RESPO NSE_TO_TSA_DN
HUTTMANN_B_CLL_POOR_SURVIVAL_DN
BIOCARTA_MET PATHWAY
LIEN_BREAST CARCINOMA METAPLASTIC_VS DUCTAL_UP
NOJIMA_SFRP2_TARGETS_DN
KAAB_FALLED_HEART_VENTRICLE_DN
ZHU_SKIL_TARGETS_DN
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ST_INTEGRIN SIGNALING_PATHW
EGG DORS__PRE_BII_LYMPHOCYTE_UP
TOMLINS_PROSTATE CANCER
JAZAG_TGFBB_SIGNALING_VIA_SMADA_UP
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ZERBIN_RESPONSE_TO_SULINDAC_UP
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NABA_COLLAGENS
REACTOME_CD28_CO_STIMULATIO
ZHOU_TNF_SIGNALING_4HR
VERRECCHAA_DELAYYD_RESPONSE_TO_TGFB1
kANG_AR_TARGETS_DN
BIOCARTA_TNFRZ_PATHWA
FERRANDO_TALI_MEIGHBORS
TURIANSK_MAPK1_AND_MAPKZ_TARGETS
TURJANSKI_MAPK1_AND_M
BOQUEST_STEM_CEL_CULTURED_VS_FRESH_ hUANG_GATA2_TARGETS_U
PID_ATF2_PATHWAY
VERRECCHIA_EARLY_RESPONSE_TO_TGFB1
PASTURAL_RIZ1_TARGETS_D
CROMER_METASTASISU
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http://www.broadinstitute.or//gsea/msigdb/cards/RUAN_RESPONSE_TO_TROGLTTAZONE_DN
ttp $/ / /$ www.broadinstitute.org/sseal/msigdb/cards/WANG_ESOPHAGUS_CANCER_VS_NORMAL ttp://www.broadinstitute.org/gsea/msigdb/cards/WAKABAYASHI_ADIPOGENESIS_PPARG_BOUND_36HP http://www.broadinstitute.org/gsea/msigdb/cards/LEE_LIVER_CANCER_ACOX1_UP
http://www.broadinstitute.orr/gsea/msigdb/cards/PID_TAP63_PATHWAY
http://www.broadinstitute.org/gsea/msigdb/cards/KYNG_NORMAL_AGING_U
http://www.broadinstitute.org/ssea/msigdb/cards/BloCARTA_MPR_PATHWA
ttp://www.broadinstitute.org/gsea/msigdb/cards/REACTOME_EXTRACELLULAR_MATRIX_ORGANIZATIO
TtD//www broadinstitute org/ssea/msigd b/cards/REACTOME MEIOTCC R_CIL_CIS_D
$\mathrm{ttp} / / / \mathrm{www}$. broadinstitute.org/gsea/msigdb/cards/LUCAS_HNF4A_TARGETS_DN
tttp://www.broadinstitute.org/gsea/msigdb/cards/LLU_S0X4_TARGETS_U
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$\mathrm{ttp} \cdot / / \mathrm{www} . \mathrm{broadinstitute.org//ssea/migdb/cards/SUNG} \mathrm{\_METASTASIS} \mathrm{\_STROMA} \mathrm{\_U}$


| -0.328717 | -112,925 | 0.283976 | 0.779723 | Increased Expression with Increasing Exponent |
| :---: | :---: | :---: | :---: | :---: |
| -0.278772 | -109,647 | 0.327968 | 0.779729 | Increased Expression with Increasing Exponent |
| -0.37122 | -109,226 | 0.376238 | 0.779733 | Increased Expression with Increasing Exponent |
| -0.245597 | -107,238 | 0.335922 | 0.779742 | Increased Expression with Increasing Expon |
| -0.357081 | -11,233 | 0.327236 | 0.779758 | Increased Expression with Increasing Exponent |
| -0.352108 | -11,346 | 0.318275 | 0.779774 | Increased Expression with Increasing Exponent |
| -0.274258 | -107,134 | 0.358566 | 0.779813 | Increased Expression with Increasing Exponent |
| -0.445848 | -154,127 | 0.043152 | 0.779832 | Increased Expression with Increasing Exponent |
| -0.377548 | -112,022 | 0.341102 | 0.779854 | Increased Expression with Increasing Exponent |
| -0.288745 | -112,267 | 0.355499 | 0.779858 | Increased Expression with Increasing Exponent |
| -0.290687 | -107,156 | 0.396794 | 0.779894 | Increased Expression with Increasing Exponent |
| -0.310952 | -109,192 | 0.338086 | 0.779901 | Increased Expression with Increasing Exponent |
| -0.292525 | -107,304 | 0.366197 | 0.77992 | Increased Expression with Increasing Exponent |
| -0.353779 | -136,232 | 0.0853659 | 0.779923 | Increased Expression with Increasing Exponent |
| -0.297874 | -109,294 | 0.341847 | 0.77995 | Increased Expression with Increasing Exponent |
| -0.289939 | -107,253 | 0.356108 | 0.779964 | Increased Expression with Increasing Exponent |
| $-0.32339$ | -113,138 | 0.302326 | 0.779967 | Increased Expression with Increasing Exponent |
| -0.297057 | -109,348 | 0.347328 | 0.779968 | Increased Expression with Increasing Exponent |
| -0.033644 | -107,329 | 0.349421 | 0.779993 | Increased Expression with Increasing Exponent |
| -0.314167 | -109,263 | 0.337812 | 0.780067 | Increased Expression with Increasing Exponent |
| -0.25229 | -109,605 | 0.293307 | 0.780108 | Increased Expression with Increasing Exponent |
| -0.24971 | -108,202 | 0.320388 | 0.780148 | Increased Expression with Increasing Exponent |
| -0.428874 | -112,063 | 0.375 | 0.780162 | Increased Expression with Increasing Exponent |
| -0.268827 | -112,283 | 0.283333 | 0.780163 | Increased Expression with Increasing Exponent |
| -0.232528 | -107,092 | 0.333333 | 0.780171 | Increased Expression with Increasing Exponent |
| -0.388373 | -112,877 | 0.326653 | 0.780179 | Increased Expression with Increasing Exponent |
| -0.328216 | -109,655 | 0.363817 | 0.780183 | Increased Expression with Increasing Exponent |
| -0.372001 | -107,014 | 0.423625 | 0.780252 | Increased Expression with Increasing Exponent |
| -0.241153 | -107,703 | 0.30426 | 0.780263 | Increased Expression with Increasing Exponent |
| -0.412548 | -106,962 | 0.422535 | 0.780263 | Increased Expression with Increasing Exponent |
| -0.270207 | -108,459 | 0.339882 | 0.7803 | Increased Expression with Increasing Exponent |
| -0.334549 | -154,288 | 0.00753296 | 0.780322 | Increased Expression with Increasing Exponent |
| -0.275432 | -109,355 | 0.351738 | 0.780411 | Increased Expression with Increasing Exponent |
| -0.311975 | -112,925 | 0.298137 | 0.780419 | Increased Expression with Increasing Exponent |
| -0.341955 | -112,025 | 0.34638 | 0.780448 | Increased Expression with Increasing Exponent |
| -0.583776 | -166,502 | 0.0445344 | 0.780474 | Increased Expression with Increasing Exponent |
| $-0.277114$ | -106,802 | 0.367063 | 0.780498 | Increased Expression with Increasing Exponent |
| -0.300065 | -112,076 | 0.313253 | 0.780541 | Increased Expression with Increasing Exponent |
| -0.341508 | -108,212 | 0.379921 | 0.780546 | Increased Expression with Increasing Exponent |
| -0.4212 | -107,716 | 0.390291 | 0.780575 | Increased Expression with Increasing Exponent |
| -0.270749 | -10,733 | 0.373984 | 0.780578 | Increased Expression with Increasing Exponent |
| -0.331722 | -112,103 | 0.317365 | 0.780584 | Increased Expression with Increasing Exponent |
| -0.439212 | -108,473 | 0.378641 | 0.780597 | Increased Expression with Increasing Exponent |
| -0.566154 | $-145,767$ | 0.119626 | 0.78062 | Increased Expression with Increasing Exponent |
| -0.294041 | -10,969 | 0.326733 | 0.780632 | Increased Expression with Increasing Exponent |
| $-0.22521$ | -106,971 | 0.32613 | 0.780655 | Increased Expression with Increasing Exponent |
| -0.672452 | -154,457 | 0.0866142 | 0.780699 | Increased Expression with Increasing Exponent |
| -0.379083 | -109,659 | 0.384314 | 0.780736 | Increased Expression with Increasing Exponent |
| -0.367587 | -109,982 | 0.347826 | 0.780742 | Increased Expression with Increasing Exponent |
| -0.32167 | -109,367 | 0.377143 | 0.780748 | Increased Expression with Increasing Exponent |
| -0.255573 | -109,712 | 0.295635 | 0.780767 | Increased Expression with Increasing Exponent |
| -0.283628 | -106,914 | 0.372984 | 0.780771 | Increased Expression with Increasing Exponent |
| -0.435004 | -109,417 | 0.389105 | 0.780786 | Increased Expression with Increasing Exponent |
| -0.334565 | -110,036 | 0.329317 | 0.780788 | Increased Expression with Increasing Exponent |
| -0.291523 | -110,007 | 0.352827 | 0.7808 | Increased Expression with Increasing Exponent |
| -0.261925 | -107,014 | 0.342052 | 0.780835 | Increased Expression with Increasing Exponent |
| -0.424042 | -154,365 | 0.046332 | 0.780851 | Increased Expression with Increasing Exponent |
| -0.397064 | -108,487 | 0.397541 | 0.780864 | Increased Expression with Increasing Exponent |
| $-0.31611$ | -106,834 | 0.356589 | 0.780901 | Increased Expression with Increasing Exponent |
| -0.327439 | -106,809 | 0.406615 | 0.780911 | Increased Expression with Increasing Exponent |
| -0.284785 | -10,734 | 0.352 | 0.780916 | Increased Expression with Increasing Exponent |
| -0.420002 | -112,169 | 0.373796 | 0.780973 | Increased Expression with Increasing Exponent |
| -0.283068 | -11,214 | 0.316 | 0.781017 | Increased Expression with Increasing Exponent |
| -0.212907 | -110,077 | 0.222 | 0.781073 | Increased Expression with Increasing Exponent |
| -0.250665 | -107,357 | 0.314629 | 0.781105 | Increased Expression with Increasing Exponent |
| -0.275618 | -107,027 | 0.388889 | 0.781112 | Increased Expression with Increasing Exponent |
| -0.318372 | -109,429 | 0.368526 | 0.781114 | Increased Expression with Increasing Exponent |
| -0.297909 | -112,109 | 0.314066 | 0.781121 | Increased Expression with Increasing Exponent |
| -0.345287 | -112,186 | 0.341085 | 0.781215 | Increased Expression with Increasing Exponent |
| -0.419589 | -145,883 | 0.0802469 | 0.781222 | Increased Expression with Increasing Exponent |
| -0.350989 | -109,452 | 0.357002 | 0.781224 | Increased Expression with Increasing Exponent |
| -0.549805 | -145,485 | 0.140684 | 0.781248 | Increased Expression with Increasing Exponent |
| -0.292897 | -109,372 | 0.354776 | 0.781254 | Increased Expression with Increasing Exponent |
| -0.343215 | -10,684 | 0.387283 | 0.78135 | Increased Expression with Increasing Exponent |
| -0.226213 | -109,714 | 0.250996 | 0.781364 | Increased Expression with Increasing Exponent |
| -0.279427 | -110,093 | 0.322957 | 0.781371 | Increased Expression with Increasing Exponent |
| -0.253571 | -107,423 | 0.328897 | 0.781372 | Increased Expression with Increasing Exponent |
| $-0.286814$ | -110,037 | 0.31992 | 0.781398 | Increased Expression with Increasing Exponent |
| -0.362364 | -107,465 | 0.392505 | 0.781562 | Increased Expression with Increasing Exponent |
| -0.258534 | -107,358 | 0.336032 | 0.781662 | Increased Expression with Increasing Exponent |
| -0.266318 | -107,436 | 0.353535 | 0.781681 | Increased Expression with Increasing Exponent |
| -0.269946 | -109,915 | 0.313883 | 0.781705 | Increased Expression with Increasing Exponent |
| -0.255521 | -107,484 | 0.333981 | 0.781726 | Increased Expression with Increasing Exponent |
| -0.333843 | -109,887 | 0.33526 | 0.781727 | Increased Expression with Increasing Exponent |
| -0.294742 | -107,507 | 0.390385 | 0.781804 | Increased Expression with Increasing Exponent |
| $-0.23132$ | -106,843 | 0.330661 | 0.781848 | Increased Expression with Increasing Exponent |
| -0.304153 | -107,605 | 0.366224 | 0.781901 | Increased Expression with Increasing Exponent |
| $-0.300027$ | -109,853 | 0.356137 | 0.781926 | Increased Expression with Increasing Exponent |
| -0.275632 | -109,716 | 0.336016 | 0.781955 | Increased Expression with Increasing Exponent |
| -0.275845 | -107,575 | 0.329609 | 0.781985 | Increased Expression with Increasing Exponent |
| $-0.29855$ | -109,742 | 0.322 | 0.78199 | Increased Expression with Increasing Exponent |
| -0.345789 | -110,093 | 0.364542 | 0.781999 | Increased Expression with Increasing Exponent |
| -0.321375 | -110,118 | 0.348606 | 0.782052 | Increased Expression with Increasing Exponent |
| -0.324912 | -107,365 | 0.387097 | 0.782087 | Increased Expression with Increasing Exponent |
| -0.413048 | -107,44 | 0.373518 | 0.782133 | Increased Expression with Increasing Exponent |
| -0.225348 | -107,516 | 0.28373 | 0.782208 | Increased Expression with Increasing Exponent |
| -0.349946 | -109,744 | 0.355865 | 0.782594 | Increased Expression with Increasing Exponent |
| $-0.375334$ | -145,913 | 0.0725191 | 0.782658 | Increased Expression with Increasing Expone |

KUROZUM_RESPONSE_TO_ONCOCYTIC_VIRUS_AND_CYCLIC_RGD WATELLAUTONOMOUS_THYROID_ADENOMA_DN BIOCARTA_DGGD_PATHWA
HINATA_NFKB_TARGETS_KERATINOCYTE_D
ZHOU_TNE SIGNALING_ ZHOU_TNF_SIGNALING_30MIN
MA_MYELOID_DIFFERENTIATION UP WESTON_VEGFA_TARGETS_12HR
CHUANG_OXIDATIVE_STRESS_RESPONSE_UP
SANSOM_APC_TARGETS_UP
PID_UPA_UPAR_PATHWAY
ABBUD_LIF_SIGNALING_1_DN
FOURNIER_ACINAR_DEVELOPMENT_EARIY_DN DORSAM_HOXA9_TARGETS_DN
PID_LIL_PATHWAY
BIOCARTA_CDC42RAC_PATHWAY
TIAN_TNF_SIGNALING_NOT_VIA_NFKB
FERRARI_RESPONSE_TO_FENRETINIDE_
BURTON_ADIPOGENESIS_PEAK_AT_2H
VALK_AML_CLUSTER_2
CORRE_MULTIPLE_MYELOMA_DN BOCASTI_ROS
REACTOME_SIGNAL_AMPLIFCATION GAUTSCHI_SRC_SIGNALING
REACTOME_REGULATION_OF_KIT_SIGNALING SCH PID_PDGFRA_PATHWAY BIOCARTA_RACCYCD_PAT HAN_INK_SINGALING_UP REACTOME_LICAM_INTERACTIONS KEGG_N_GLYCAN_BIOSYNTHESII
BIOCARTA_MYOSIN_PATHWAY REACTOME_ZINC_TRANSPORTERS
REACTOME_P75NTR_SIGNALS_VIA_NFKB KEGG_CYTOSOLIC_DNA_SENSING_PATHWA PAPASPYRIDONOS_UNSTABLE_ATEROSCLEROTIC_PLAQUE_DN PID_IL23_PATHWAY
berenenon_transformed_by_rhoa_reversibly_u CHIN_BREAST_CANCER_COPY_NUMBER_U

FIGUEROA_AML_METHYLATION_CLUSTER_4_U NAKAMURA_ADIPOGENESIS_EARLY_UP Zhang_TARGETS_OF_EWSR1_FLI_Fusion KORKOLA_EMBRYONAL_CARCINOMA_UP NICK_RESPONSE_TO_PROC_TREATMENT_D BIOCARTA_TCRA_PATHWAY MATTIOLI_MGUS_VS_MULTIPLE_MYELOM BHATI_G2M_ARREST_BY_2METHOXYESTRADIOL U REACTOME_SIGNAL_TRANSDUCTION_BY_L NAKAMURA_ADIPOGENESSI_LATE_UP REACTOME_TRAFFICKING_OF_AMPA_RECEPTORS BOSCO_ALLLERGEN_INDUCED_TH2_ASSOCIATED_MODUL FIGUEROA_AML_METHYLATION_CLUSTER_Z XU_GH1_AUTOCRINE_TARG
HOLLEMAN_VINCRISTINE_RESITANCE_B_ALL_DN
LUI_TARGETS_OF_PAX8_PPARG_FUSIO
MEISSNER_NPC_ICP_WTH_HZK4ME3
AMIT_SERUM_RESPONSE_40_MCF10A
SASSON_RESPONSE_TO_GONADOTROPHINS_D
DARKEE_TRRT_TARGETS_D
MLL_PSEUDOPODIA_CHEMO
PID_ESDOTHELIN_PATHWAY
HEDENFALK_BREASTCANCER_BRCAI_VS_BRCAZ
ZIRN_TRETINOIN_RESPONSE_U
VERRECCHIA_RESPONSE_TO_TGFB1_C
SHIRAISHI_PLZFF_TARGETS_DN
DIRMEIER_LMP1_RESPONSE_EARLY
REACTOME_SIGNALING_BY_FGFR
NUNODA_RESPONSE_TO_DASATINB_IMATINIB_UP FIRESTEIN_CTNNB1_PATHWA CHASSOT_SKIN_WOUND
PIEPOLI_LGII_TARGETS_DN
GARGALOVIC_RESPONSE_TO_OXIDIZED_PHOSPHOLPIDS_BLLE_DN BIOCARTA_SPPA_PATH
ZHU CMV 8 HR UP
COURTOIS_SENESCENCE_TRIGGERS KENNY_CTNNB1_TARGETS_DN MIL_PSEUDOPODIA
MALONEY_RESPONSE_TO_17AAG_UP MORI_SMALL_PREBEII_LYMPHOCYTE_DI REACTOME_NEPHRIN_INTERACTIO YIH_RESPONSE_TO_ARSENTE_C4
KEGG_RIBOSOME
ST_INTERLEukin_4_PATHWA
ODONNELL_TARGETS_OF_MYC_AND_TFRC_UP
LOPEL_MESOTELIOMA_SURVVIAL_TIMM
http://www.broadinstitute.org/gsea/ msigab/cards/KUROZUMI_RESPONSE_TO_ONCOCYTIC_VIRUS_AND_ 26 http://www.broadinstitute.org/gsea/migigdb/cards/WATEL_AUTONOMOUS_THYFO http $/ / /$ www.broadinstitute.ore/gseal $/$ msigdd $/$ /cards $/$ HINATA _NFKB TARGETS_KERATINOCYTE_DN htp $: / /$ www.broadinstitute.org/ $/ \mathrm{sea} / \mathrm{msigd}$ b/cards $/$ /HOU_TNF_SIGNALING_30MIN
 http///www.broadinstitute.org/gsea/msigdb/cards/WESTON_VEGFA_TARGETS_12HR http://www.broadinstitute.org/gsea/msigdb/cards/CHUANG_OXIDATIVE_STRESS_RESPONSE_UP $\mathrm{http}: / /$ www.broadinstitute.org/ $/ \mathrm{sea} / \mathrm{msigdb} /$ /ardsd/SANSOM_APC_TARGETS_UP $\mathrm{http}: / / / /$ www.broadinstitute.org/ $/$ sead $/ \mathrm{msigigb} /$ /cards//PID_UPA_UPAR_PATHWAY http://www.broadinstitute.org/gsea/msigdb/cards/FOURNIER_ACINAR_DEVELOPMENT_EARLY_DN ttp://www.broadinstitute.org/gsea/msigdb/cards/DORSAM_HOXA9_TARGETS_D
 http ://www.broadinstitute.org/ gsea/msigdd/cards/BIOCARTA_CDC42RAC_PATHWA http://www.broadinstitute.org/gsea/msigdb/cards/TIAN_TNF_SIGNALING_NOT_VIA_NFKB http://www.broadinstitute.org/ssea/msigdb/cards//FRRRARI_RESPONSE_TT_FENRETINIDE_U htp ://www.broadinstitute.org//gea/msigdb/cards/BURTON_ADIPOGENESIS_PEAK_AT_2HR

http://www.broadinstitute.org/gsea/msigdb/cards/CORRE_MULTIPLE_MYELOMA_DN $\mathrm{ttp}: / / \mathrm{www}$. broadinstitute.org/gsea//msigdb/cards/BIOCARTA_RAC1_PATHWAY http://www.broadinstitute.org/gsea/msigdb/cards/HOUSTIS_ROS
http://www.broadinstitute.org/ssea/msigdb/cards/REACTOME_SIGNAL_AMPLIFICATION $\mathrm{ttp}: / / \mathrm{www}$. broadinstitute.org/gsea/ $/ \mathrm{msigd}$ / $/$ ards/ $/ G A U T S C H I \_$SRC_SIIGNALING ttp://www.broadinstitute.org/gsea/msigdb/cards/REACTOME_REGULATION_OF_KIT_SIGNALING
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http://www.broadinstitute.org/ gsea/msigdb/cards/RODRIGUES_NTN1 AND_ OCC TARGETS http://www.broadinstitute.org//sea//msigdb/cards/REACTOME_CRMPS_IN_SEMA3A_SIGNALING $\mathrm{htp}: / / / \mathrm{www}$. broadinstitute.org/gsea/ $/ \mathrm{msigd} /$ /ards/FIGUEROA_AML_METHYLATION_CLUSTER 4 UP http://www.broadinstitute.org/gsea/msigdb/cards//NAKAMURA_ADIPOGENESIS_EARLY_UP http://www.broadinstitute.org/gsea/msigdb/cards//HANG_TARGETS_OF_EWSR1_FLII_FUSION
http://www.broadinstitute.org/ssea/msigdb/cards/KORKOLA EMBRYONAL_CARCINOMA UP http://www.broadinstitute.org/gsea/msigdb/cardd/KORKOLA_EMBRYONAL_CARCINOMA_UP http://www.broadinstitute.org/sea/msigdb/cards/NICK_RESPONSE_TO_PROC_TREATMENT_D $\mathrm{ttp} / / /$ www.broadinstitute.org/gsea/msigdb/cards//BIOCARTA_TCRA_PATHWAY http://www.broadinstitute.org/gsea//migddb/cards/MATTIOLI_MGUS_VS_MULTIPLE_MYELOMA http://www.broadinstitute.org/gsea/msigdb/cards/BHATI_G2M_ARREST_BY 2METHOXYESTRADIOL_ http://www.broadinstitute.org/gsea/msigdb/cards/REACTOME_SIGNAL_TTANSDUCTION_BY_L1 $\mathrm{htp}: / /$ www.broadinstitute.org//ssea/ msigdb/cards/NAKAMURA_ADIPOGENESIS_LATE_U
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htp://www.broadinstitute.or/g/gsea/migigd//ards/HEDENFALK_BREAST_CANCER_BRCA1_V5_BRCA2 http://www.broadinstitute.org/gsea/msigdb/cards/PID_TXAZPATHWAY
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http://www.broadinstitute.org/gsea/msigdb/cards/MORI_SMALL_PRE_BII_LYMPHOCYTE_DN http ://www.broadinstitute.org/ssea/msigdb/cards/REACTOME_NEPHRIN_INTTRACTION
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http://www.broadinstitute.org/gsea/msigdb/cards/ST_INTERLEUKIN_4 PATHW
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STAMBOLSKY_TARVTT_TO_NIMUSTINE MA_MYELOID_DIFEREENTATION_DN IKEDA_MIR3O_TAR
SIG_CHEMOTAXIS
SIG_CHEMOTAXIS
MURAKAMI_UV_RESPONSE_GHR_DN
DARWICHE_PAPILLOMA_RISK_HIGH
KEGG_P53_SIGNALING_PATHWAY
REACTOME_NGE_SIGNALLING_VIA_TRKA_RROM_THE_PLASMA_MEMBR REACTOME-THE_NLRP3_INLAMMMASOME WILCOX_RESPONSE-TO_PRO BIOCARTA_PPARA_PATHWA
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LABBE_TARGETS_OF_TGEB1_AND_WNT3A KEGG_CHRONIC_MYELOID_LEUKEMIA STEGER_ADIPOGENESIS_UP DAZARD_UV_RESPONSE_CLUSTER_G28
REACTOME_NFKB_IS_ACTVATED_AND_SIGNALS_SURVVIVAL LEE_LVVER_CANCER_MYC_E2F1_DN
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CLIMENT_BREAST_CANCER_COPY_NUMBER_U REACTOME SOS MEDIATED SIGNAMING
HOFMANN_CELL_LYMPHOMA_DN NIELSEN_LEIOMYOSARCOMA_U
PARK_OSTEOBLAST_DIFFERENTIATION_BY_PHENYLAMIL_UP
OPEZ_TRANSLATION_VIA_FN1_SIGNALING
PDD_ALPHA_SYNUCLEIN_PATHW
XU_CREBBP_TARGETS_D
GAUSSMANN_MLL_AF4_FUSION_TARGETS_B_U
A_CASPASE_CASCADE
MUNSHI MULTIPLE MYELOMA UP
SHAFFER_IRF4_TARGETS_IN_PLASMA_CELL_VS_MATURE_B_LYMPHOC bertucci_INVASVE_CARCINOMA_DUCTAL_VS_LOBULAR_D UI_THYROID_CANCER_PAX8_PPARG_DN CHEN_NEUROBLASTOMA_COP
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KU_HGF_TARGTS_REPRE
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SHAFFER_IRF4_TARGETS_I_MYELOMA_VS_MATURE_B_LYMPHOCYTE YNG_DNA_DAMAGE_BY_GAMMA_AND_UV_RADIATIO ILANGES RAPAMYCIN SENSITVE GENES IOCARTA_ARAP_PATHWAY
BYSTRYKH_HEMATOPOIESIS_STEM_CELL_AND_BRAIN_QTL_TRANS URUKAWA_DUSP6_TARGETS_PCIB5_UP
REACTOME_CTLA4_INHIBTTORY_SIGNALIN
MIKKELSEN_MEF_LCP_WITH_H3K4ME3
EACTOME TRIE MEDATED TLRZ SIGNAL
OXFORD_RALA_TARGETS_UP
schuringa_statsa_targets_dn
E_SKI_TARGETS_DN
SCHMIDT_POR_TARGES__IN_LIMB_BUD_DN DAVIES_MULTIPLE_MYELOMA_VS_MGUS_DN HALMOS_CEBPA_TARGETS_UP
DACOSTA ERCCZ Allele xpcs vs TD up UNG_ILZ_SIGNALING_1
YOSHIOKA_LIVER_CANCER_EARLY_RECURRENCE_UP
ZHANG_ANTVIRAL_RESPONSE_TO_RIBAVIRIN_DN EGG_VIRAL_MYOCARDITIS
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HAN_MULTIPLE_MYELOMA_UP
REACTOME_SIGNALING_BY_CONSTTUUTVELY_ACTVE_EGFR STEIN_ESRRA_TARGETS_DN
_Bil_LYMPHOCYTE_DN TSAI_DNABB4_TARGETS_UP
AZARE_STAT3_TARGETS
GAVIN_FOXP3_TARGETS_CLUSTER_P2
PEDERSEN_TARGETS_OF_611CTF_ISOFORM_OF_ERBB2 KIM_HYPOXIA
UENTHER_GROWTH_SPHERICAL_VS_ADHERENT_D
MURATA_VIRULENCE_OF_H_PILORI
REACTOME_SYNTHESIS_OF_BILE_ACIDS AND_BLLE SALTS VIA_7ALPHA
REACTOME_SYNTHESI_OF_BLLE_ACIDS_AND_BLLE_SALTS
POMEROY_MEDULLOBLASTOMA_DESMOPLASIC_VS_CLASSIC_D
KRIEG_HYPOXIA_VIA_KDM3A
EACTOME_PURINE_CATABOLISM
T_ERK1_ERK2_MAPK_PATHWAY


REACTOME_NCAM_SIGNALING_FOR_NEURITE_OUT_GROWTH
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BERENUNN_ROCK_SIGNALING_NOT_VIA_RHOA_U
RESPONSE_TO_LPS_WTH_MECHANICAL_VENTLLATION BROWNE_HCMV_INFECTION_12HR_UP
TSAI_RESPONSE_TO_RADIATION_THERA
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RAMASWAMY_METASTASIS_DN
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REACTOME_NOTCH1_INTRACELLULAR_DOMAIN_REGULATES_TRANSCRIPT

BIOCARTA CCASPASE PASTHW
RICKMAN_TUMOR_DIFFERENTIATED_MODERATELY_VS_POORLY_UP YAO_TEMPORAL_RESPONSE_TO_PROGESTERONE_CLUSTER_5 REACTOMEADP SIGNALINGG_RADAATION_5 REACTOME_TRAFFICKING_AND_PROCESSING_OF_ENDOSOMAL_TLR REACTOME_TGF_BETA_RECEPTOR_SIGNALING_IN_EMT_EPTHELIAL_TO JU_AGING_TERC_TARGETS_U DE_MY1_TARGETS_UP
LENAOUR_DENDRITIC_CELL_MATURATION CAFFAREL_RESPONSE_TO_THC_24R_3_U
KRIEG_KDM 3 _TARGETS_NOT HYPOXIA ACOSTA_PROLIFERATION_INDEPENDENT_MYC_TARGETS_DN YAMASHITA_METHYLATED_IN_PROSTATE_CANCER AbBuD_LF_IIGNALING_2_UP
NIKOLSKY_BREAST_CANCER_12Q13_Q21_AMPLICON ZHAN_VZ_LATE_DIFFRENTIATION_GENES
SERVITIA_LIVER_HNFIA_TARGETS_
PECE_MAMMARY_STEM_CELL_UP
DACOSTA_LOW_DOSE_UV_RESPONSE_VIA_ERCC3_XPCS_UP PID_LPAA_PATHWAY
ROLEF_GLIIS_TARGETS
DORSAM HOXAQ TARGETS
DACOSTA_UV_RESPONSE_VIA_ERCC3_XPCS_DN RICKMAN_HEAD_AND_NECK_CANCER_C KEGG_VASCULAR_SMOOTH_MUSCLE_CONTRACTION patterson_docetaxel_res
FOSTER_TOLERANT_MACROPHAGE_UP
CARD_MIR302A_TARGETS
WESTON_VEGFA_TARGETS
REACTOME_SHC1_EVENTS_IN_EGFR_SIGNALIN PID_SHP2_PATHWAY
MYLLYICZEK TREAS_AMPLIFICATION_HOT_SPOT_22
schramm_inhba_Targets dn
REACTOME_AQUAPORIN_MEDIATED_TRANSPORT
PID_RHOA_REG_PATHWAY
KEGG_SPLICEOSOME
BIOCARTA_CBL_PATHWAY
WINNEPENNINCKX_MELANOMA_METASTASIS_DN
TAKEDA TARGETS OE NUPG8 HOXAO FUSIOND_TSC
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LANDIS_BREAST_CANCER_PROGRESSION_DN
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REACTOME RNA POLI_ RNA POLII AND MTOCHONDRAA - TRA REACTOME_RNA_POLI_RNA_POL_IIIIAND_M
REACTOME_G_ALPHA_I_SIGNALING_EVENTS
KEGG NATURAL KILLER_CELL MEDIATED CYTOTOXICTY
mantovanl_Nfkb_TARGETS_UP
REACTOME_NEGATIVE_REGULATION_OF_FGFR_SIGNALING
OSADA_ASCLI_TARGETS_DN
BROWNE_HCMV_INFECTION_24HR
RAY__ARGETS_OP_P210_CCR_ABL_FUSION_DN KAUFFMANN_MELANOMA_RELAPSE_D
PETROVA_PROX1_TARGETS_DN
SHEDDEN_LUNG_CANCER_GOOD_SURVIVAL_AS
REACTOME_G_ALPHA_Z_SIGNALING_EVENTS
HADDAD_T_LYMPHOCYTE_AND_NK_PROGENTOR_
SESTO_RESPONSE_TO_UV_CI
PID_ARF_SPATHWAY
LINDSTEDT_DENDRTTIL_CELL_MATURATION_D
GROSS_HYPOXIA_VIA_ELKK__D
HoElzEL_NE1_TARGETS_UP
REACTOME_REGULATON_OF_COMPLEMENT_CASCADE
PID_INTEGRIN_CS_PATHWA
REACTOME_FORMATION_OF_THE_TERNARY_COMPLEX_AND_SUBSEQU YAO_HOXA10_TARGETS_VIA_PROGESTERONE_DN
SENGUPTA_MASOPHARYNGEAL_CARCINOMA_WITH_LMP1_DN
TSENG ADIPOGENIC POTENTIAL_UP
BIOCARTA_CXCR4_PATHWA
ROSS_AML_WITH_AMLI_ETO_FUSION
GRAEE-COLON_AND_RECTAL_CANCER_DN BIICARTA_CALCINEURIN PATHWAY ZHU_CMV_24_HR_UP
reactome_hyaluronan_metabolism
SCHAEFER_PROSTATE_DEVELOPMENT
REACTOME_DEPOSITION_OF_NEW_CENPA_CONTAIIING_NUCLEOSOMES REACTOME_PRE_NOTCH-
BIOCARTA IL4 PATHWAY
CCAM_L__-Athway TAKEDA_TARGETS_OF_NUP BIOCARTA_TOLL_PATHWAY TONIS__ QI_HYPOXIA_TARGETS_OF_HF1A_AND_FOXA2 reactome_keratan_Sulfate_degradation PHONG_TNF_TARGETS_DN
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| :---: | :---: | :---: | :---: | :---: |
| -0.202199 | -0.961681 | 0.52952 | 0.829885 | Increased Expression with Increasing Exponent |
| -0.309911 | -0.960273 | 0.489109 | 0.829973 | Increased Expression with Increasing Exponent |
| -0.2356 | -0.960698 | 0.527778 | 0.830047 | Increased Expression with Increasing Exponent |
| -0.270226 | -0.962315 | 0.498016 | 0.830058 | Increased Expression with Increasing Exponent |
| -0.192361 | -0.959029 | 0.548583 | 0.83006 | Increased Expression with Increasing Exponent |
| -0.275982 | -0.955488 | 0.504237 | 0.830157 | Increased Expression with Increasing Exponent |
| -0.417922 | -0.962717 | 0.521739 | 0.830222 | Increased Expression with Increasing Exponent |
| -0.312734 | -0.961971 | 0.508671 | 0.830288 | Increased Expression with Increasing Exponent |
| -0.359626 | -0.957284 | 0.502901 | 0.830295 | Increased Expression with Increasing Exponent |
| -0.290588 | -0.962417 | 0.501953 | 0.83036 | Increased Expression with Increasing Exponent |
| -0.258458 | -0.961684 | 0.50501 | 0.83037 | Increased Expression with Increasing Exponent |
| -0.352665 | -0.9603 | 0.514463 | 0.830408 | Increased Expression with Increasing Exponent |
| -0.217058 | -0.959814 | 0.49692 | 0.830413 | Increased Expression with Increasing Exponent |
| -0.253022 | -0.959092 | 0.485549 | 0.830423 | Increased Expression with Increasing Exponent |
| -0.27909 | -0.962866 | 0.493952 | 0.830425 | Increased Expression with Increasing Exponent |
| -0.30385 | -0.960742 | 0.50289 | 0.830444 | Increased Expression with Increasing Exponent |
| -0.366647 | -0.963735 | 0.521657 | 0.8306 | Increased Expression with Increasing Exponent |
| -0.284611 | -0.96302 | 0.490946 | 0.830607 | Increased Expression with Increasing Exponent |
| -0.233115 | -0.955497 | 0.535354 | 0.830621 | Increased Expression with Increasing Exponent |
| -0.236374 | -0.955932 | 0.479371 | 0.830679 | Increased Expression with Increasing Exponent |
| -0.281035 | -0.953627 | 0.508671 | 0.830686 | Increased Expression with Increasing Exponent |
| -0.336701 | -0.957317 | 0.520161 | 0.83073 | Increased Expression with Increasing Exponent |
| -0.303421 | -0.957532 | 0.483101 | 0.830752 | Increased Expression with Increasing Exponent |
| -0.277495 | -0.955623 | 0.522727 | 0.830843 | Increased Expression with Increasing Exponent |
| -0.231067 | -0.963142 | 0.527831 | 0.83085 | Increased Expression with Increasing Exponent |
| -0.230568 | -0.959098 | 0.478599 | 0.830897 | Increased Expression with Increasing Exponent |
| -0.243537 | -0.9633 | 0.508637 | 0.831001 | Increased Expression with Increasing Exponent |
| -0.235266 | -0.955984 | 0.50924 | 0.831055 | Increased Expression with Increasing Exponent |
| -0.227915 | -0.956222 | 0.512346 | 0.831081 | Increased Expression with Increasing Exponent |
| -0.264986 | -0.953195 | 0.522449 | 0.831095 | Increased Expression with Increasing Exponent |
| -0.234854 | -0.953878 | 0.51277 | 0.831122 | Increased Expression with Increasing Exponent |
| -0.243472 | -0.954785 | 0.514852 | 0.831148 | Increased Expression with Increasing Exponent |
| -0.237923 | -0.95363 | 0.505859 | 0.831167 | Increased Expression with Increasing Exponent |
| -0.280779 | -0.951728 | 0.501938 | 0.831276 | Increased Expression with Increasing Exponent |
| -0.227 | -0.952836 | 0.537864 | 0.831348 | Increased Expression with Increasing Exponent |
| -0.657657 | $-188,952$ | 0.00595238 | 0.831368 | Increased Expression with Increasing Exponent |
| -0.3969 | -0.959102 | 0.525253 | 0.83138 | Increased Expression with Increasing Exponent |
| -0.260131 | -0.951894 | 0.520468 | 0.831405 | Increased Expression with Increasing Exponent |
| -0.249882 | -0.95394 | 0.507157 | 0.831457 | Increased Expression with Increasing Exponent |
| -0.226459 | -0.95202 | 0.530815 | 0.831634 | Increased Expression with Increasing Exponent |
| -0.316027 | -0.952169 | 0.53719 | 0.831797 | Increased Expression with Increasing Exponent |
| -0.304034 | -0.952368 | 0.53629 | 0.831854 | Increased Expression with Increasing Exponent |
| -0.274528 | -0.953941 | 0.498016 | 0.831941 | Increased Expression with Increasing Exponent |
| -0.283765 | -0.95415 | 0.497099 | 0.831967 | Increased Expression with Increasing Exponent |
| -0.235864 | -0.950935 | 0.519348 | 0.832414 | Increased Expression with Increasing Exponent |
| -0.280298 | -0.944495 | 0.542977 | 0.832847 | Increased Expression with Increasing Exponent |
| -0.271529 | -0.950403 | 0.535211 | 0.833067 | Increased Expression with Increasing Exponent |
| -0.294113 | -0.945239 | 0.532164 | 0.833176 | Increased Expression with Increasing Exponent |
| -0.317041 | -0.944544 | 0.560575 | 0.833218 | Increased Expression with Increasing Exponent |
| -0.31452 | -0.944753 | 0.53484 | 0.833251 | Increased Expression with Increasing Exponent |
| -0.255262 | -0.949611 | 0.511858 | 0.833268 | Increased Expression with Increasing Exponent |
| -0.237348 | -0.950041 | 0.505791 | 0.833358 | Increased Expression with Increasing Exponent |
| -0.249777 | -0.944922 | 0.514113 | 0.833386 | Increased Expression with Increasing Exponent |
| -0.259909 | -0.949727 | 0.493724 | 0.833522 | Increased Expression with Increasing Exponent |
| -0.243709 | -0.945285 | 0.53629 | 0.833559 | Increased Expression with Increasing Exponent |
| -0.310172 | -0.949101 | 0.505976 | 0.833871 | Increased Expression with Increasing Exponent |
| -0.201683 | -0.945364 | 0.572597 | 0.833876 | Increased Expression with Increasing Exponent |
| -0.250237 | -0.943763 | 0.558522 | 0.833917 | Increased Expression with Increasing Exponent |
| -0.260078 | -0.946231 | 0.51503 | 0.834036 | Increased Expression with Increasing Exponent |
| -0.327027 | -0.945982 | 0.51277 | 0.834047 | Increased Expression with Increasing Exponent |
| -0.285151 | -0.946442 | 0.518145 | 0.834057 | Increased Expression with Increasing Exponent |
| -0.25963 | -0.945719 | 0.531873 | 0.834107 | Increased Expression with Increasing Exponent |
| -0.24765 | -0.945473 | 0.532673 | 0.834132 | Increased Expression with Increasing Exponent |
| -0.218202 | -0.9466 | 0.556 | 0.834196 | Increased Expression with Increasing Exponent |
| -0.24148 | -0.943259 | 0.524558 | 0.834524 | Increased Expression with Increasing Exponent |
| -0.269756 | -0.946657 | 0.500931 | 0.834577 | Increased Expression with Increasing Exponent |
| -0.284047 | -0.940868 | 0.509881 | 0.834766 | Increased Expression with Increasing Exponent |
| -0.21218 | -0.946746 | 0.525151 | 0.834863 | Increased Expression with Increasing Exponent |
| -0.436374 | -171,553 | 0.0213178 | 0.834897 | Increased Expression with Increasing Exponent |
| -0.219589 | -0.941181 | 0.550696 | 0.835089 | Increased Expression with Increasing Exponent |
| -0.37689 | -0.94022 | 0.510763 | 0.835092 | Increased Expression with Increasing Exponent |
| -0.299199 | -0.940935 | 0.515385 | 0.835102 | Increased Expression with Increasing Exponent |
| -0.330085 | -0.942753 | 0.525194 | 0.835121 | Increased Expression with Increasing Exponent |
| -0.341163 | -0.940428 | 0.532946 | 0.835149 | Increased Expression with Increasing Exponent |
| -0.236564 | -0.946809 | 0.557087 | 0.835209 | Increased Expression with Increasing Exponent |
| -0.230067 | -0.941259 | 0.559671 | 0.835394 | Increased Expression with Increasing Exponent |
| -0.249529 | -0.947175 | 0.535433 | 0.835449 | Increased Expression with Increasing Exponent |
| -0.273885 | -0.946902 | 0.528942 | 0.835504 | Increased Expression with Increasing Exponent |
| -0.226894 | -0.941346 | 0.528046 | 0.835704 | Increased Expression with Increasing Exponent |
| -0.205384 | -0.947207 | 0.54649 | 0.83587 | Increased Expression with Increasing Exponent |
| -0.312962 | -0.947846 | 0.507307 | 0.836001 | Increased Expression with Increasing Exponent |
| -0.271767 | -0.94758 | 0.513458 | 0.836036 | Increased Expression with Increasing Exponent |
| -0.260427 | -0.941367 | 0.528184 | 0.836141 | Increased Expression with Increasing Exponent |
| -0.331821 | -0.947224 | 0.518812 | 0.83631 | Increased Expression with Increasing Exponent |
| -0.381842 | -0.941423 | 0.535124 | 0.83649 | Increased Expression with Increasing Exponent |
| -0.291984 | -0.938567 | 0.52505 | 0.836539 | Increased Expression with Increasing Exponent |
| -0.320555 | -0.939289 | 0.490982 | 0.836558 | Increased Expression with Increasing Exponent |
| -0.233254 | -0.941615 | 0.527383 | 0.83658 | Increased Expression with Increasing Exponent |
| -0.653781 | -178,476 | 0.00986193 | 0.836636 | Increased Expression with Increasing Exponent |
| -0.242774 | -0.938923 | 0.489443 | 0.836829 | Increased Expression with Increasing Exponent |
| -0.249945 | -0.938658 | 0.550696 | 0.836845 | Increased Expression with Increasing Exponent |
| -0.248281 | -0.937976 | 0.494141 | 0.836845 | Increased Expression with Increasing Exponent |
| -0.364319 | -0.935216 | 0.545809 | 0.836851 | Increased Expression with Increasing Exponent |
| -0.292387 | -0.937202 | 0.52495 | 0.837001 | Increased Expression with Increasing Exponent |
| -0.388488 | -0.941636 | 0.540952 | 0.837017 | Increased Expression with Increasing Exponent |
| -0.335381 | -0.93488 | 0.538462 | 0.837074 | Increased Expression with Increasing Exponent |
| -0.210825 | -0.935337 | 0.559184 | 0.837093 | Increased Expression with Increasing Exponent |

FUJIWARA_PARK2_HEPATOCYTE_PROLIFERATION_DN
BOGN_TREATMENT_RELATED_MYELODD_LEUKEMIA_U GOZGIT_ESR1_TARGETS_U
SIG_CDUOPATHWAYMAP
BIOCARTA_BIOPEPTIDES_PATH
IOCARTA_BIOPEPTIDES_PATHWAY YIH_RESPONSE_TO_ARSENITE_C5 PIH_RESPONSE_TO_ARSENITE_C5 REACTOME_TRANSCRIPTION
BACOLOD_RESITTANCE_TO_ALLYYLATING_AGENTS_DN
STEIN ESRRA TARGETS RESPONSVVETO STEIN_ESRRA_TARGETS_RESPONSIVE_TO_ESTROGEN_U WINZEN_DEGRADED_VIA_KHSRP
PDD_FAS_PATHWAY
tonks targets of run RII ERYTHROID_DIF_FERENXI_RUNXIT1_FUSION_GRANULOCYTE_UP MARZEC_LIZ_SIGNALING_UP
BAKER_HEMATOPOESIS_STATS_TARGETS
TAKEDA_TARGETS_OF_NUP98_HOXA9_FUSION_3D_DN
APPIERTO_RESPONSE_TO_FENRETINIDE_U
BOUDOUKHA_BOUND_BY_IGF2BP2
MILICL_-_ HA MIA TARGETS DN
L_CYTIDINE_ANALOGS_CYCTOTOXICITY
blocarta_III_Pathway
BIocarta_mCalpain_pathway
BEIER_GLIOMA_STEM_CEL_DN
BIOCARTA_ASBCELL_PATHWAY
CROCNQUIST_NRAS_SIGNALI
CHIARADONNA_NEOPLASTIC_TRANSFORMATION_KRAS_DN BIDUS_METASTASIS_DN
PID_LYSOPHOSPHOLIPID_PATHWAY
REACTOME_CLASS_B_2_SECRETIN_FAMLY_RECEPTORS PID_ERA_GENOMIC_PATHWAY
XU_GH1_EXOGENOUS_-
WEl MIR34A TARGETS
JOSEPH_RESPONSE_TO_S
OSEPH_RESPONSE_TO_SODIUM_BUTYRATE_U
reactome_glucagon_signaling_In_metabolic_regulation AMIT_EG_RESPONSE_120_HELA
OSHD__LIER_CANCER_SURVVAL_DN REACTOME_ACTIVATION_OF_GENES_BY_ATF4 TIKOLSKY BREAST_CANCER_14OA2 ONGUSAHA_BRCA1_TARGETS_DN
FONTAINE_PAPILLARY_THYROID_CARCINOMA_UP REACTOME_RETROGRADE_NEUROTROPHIN_SIGNALLIN BICCARTA_FAS_PATHWA
ASTON_MANOR_DEPRESSIVE_DISORDER_UP
SMID_BREAST_CANCER_RELAPSE_IN_PLLUURA_DN SANSOM_WNT_PATHWAY_REQUIR
LU_THYROD_CANCER_CLUSTER_4
SCHAEFFER_PROSTATE_DEVELOPMENT REACTOME_POST_TRANSLATIONAL_PROTEIN_MODIFICATION
GENTLIE_UV_LOW_DOSE_DN
HOQUE_METHYLATED_IN_CANCE
BIOCARTA_LONGEVTTYPATHWA
NIELSEN LEIOMYOSARCOMA CNN1 UP
BIOCARTA_CSK_PATHWAY
demagalhaes_Aging_dn
INAMURA_LUNG_CANCER_SCC_SUBTYPES_UP
HUMMERICH_SKIN_CANCER_PROGRESSION_DN
MEISSNER_BRAIN_LP_WITH_HzK4ME3
HOLLEMAN_ASPARAGINASE_RESITTANCE_ALL_U
IANG_HEMATOPOIESIS_STEM_CELL_NUMBER_SMALL_VS_HUGE_DN MYLIYKANGAS_AMPLIFICATION_HOT_SPOT_13
MARCHIN__TRABECTEDIN_RESITTANCE_UP
MARIADASON_REGULATED_BY_HISTONE_ACETYLATION_DN
ONO_AML1_TARGETS_DN
PID_BETA_CATENIN_DEG_PATHWAY
REACTOME_SIGNALNG_BY_FGFR_MUTANTS
WESTON VEGFA TARGETS $3 H R$
MATTIOLI_MULTIPLE_MYELOMA_WITH_14Q32 TRANSLOCATIONS IIUUKA_LVER_CANCER_PROGRESSION_LO_L1_U
VAO__TEMPORAL_LESPONSE_TO_PROGESTERONE_CLUSTER_ FIRESTEIN_CTNNB1_PATHWAY_AND_PROLIFERATION BYSTRYKH_HEMATOPOIESIS_STEM_CELL_OTL_CIS ST_WNT_BETA_CATENIN_PATHWAY
CHIARADONNA_NEOPLASTL_TRANSFORMATION_KRAS_CDC25_UP KEGG_B_CEL_RECEPTOR_SIGNALING_PATHWA BIOCARTA_MITOCHONDRIA_PATHWAY LI_ADIPOGENESIS_BY_ACTVATED_PPARG HOFFMAN_CLOCK_TARGETS_UP
MYLYKANGAS_AMPLIFCATION_HOT_SP
REACTOME PPRKK REGULATEDY-
RASHI RESPONSETO TONIZING RADIATIONS TAKEDA_TARGETS_OF_NUP98_HOXA9_FUSION_10D_D MEISSNER_ES_ICP_WITH_HzK4ME3
OKAWA_NEUROBLASTOMA_1P36_31_DELETION
http://wwww.broadinstitute.org/gsea/msigdb/cards/FUIWARA_PARK2_HEPATOCYTE_PROLIFERATION_DN 22 $\mathrm{http} / / / \mathrm{www}$. broadinstintitute.org $/ \mathrm{gsea} / \mathrm{msigdb} /$ /cards $/$ GOZGEIT_ESERL_TARGETS_UP tp $/ / / \mathrm{www}$.broadinstitute.or $/$ /ssea/msigdb/cards/s/s_CD4OPATHWAYMAP
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$\mathrm{http}: / / \mathrm{www}$.broadinstitute.org/gsea/msigd b/cards/BACOLOD_RESISTANCE_TO_ALKYLATING_AGENTS_DN ${ }^{472}$ http://www.broadinstitute.org/ssea/msigdb/cards/STEIN_ESSRRA_TARGETS_RESPONSIVE_TO_ESTROGEN_ ttp://www.broadinstitute.org/gsea/msigdb/cards/WINZEN_DEGRADED_VIA_KHSRP htp://www.broadinstitute.org/gsea/ msigdb/cards/PID_FAS_PATHWA $\mathrm{htpp} / / / \mathrm{www}$.broadinstitute.org/gsea/msigdb/cards/TONKS_TARGETS_OF_RUNX1_RUNX1T1 FUSION GRA 16 $\mathrm{ttp}: / / \mathrm{www}$.broadinstitute.org/gsea/msigdb/cards/RIZ_ERYTHROID_DIFFERENTIATION HBZ 109 http:///www.broadinstitute.org/gsea/msigdb/cards/MARZEC_IL2_SIGNALING_UP
$\mathrm{http} / / / \mathrm{www}$.broadinstitute.org/ /ssea/ migdd $/$ Cards $/$ BAKER_HEMATOPOESII_STAT5_TARGETS http://www.broadinstitute.org/ssea/msigdb/cards/TAKEDA_TARGETS_OF_NUP98_HOXAQ_FUSION_3D_D 7 $\mathrm{http}: / /$ www.broadi institute.ore $/$ /geaz $/$ msigdb/cards/APPIERTO_RESPONSE_TO_FENRETIN
 $\mathrm{http}: / / \mathrm{www}$.broadinstitute.org/gsea/msigdb/cards/EEVVIDGE_HIFIA _TARGETS_DN _-POLYPOSIS_UP $\mathrm{http}: / / \mathrm{www}$. broadinstitute.org/gsea/migigh/cards/LI_CYTIDINE_ANALOGS_CVCTOTOXICITY http: $/ / /$ www.broadinstitute.orr/gsea/msigdb/cards/BIOCARTA_L12_PATHWAY http: $/ /$ www.broadinstitute.orr//ssea/msigdd $/$ cards $/$ BIOCARTA_MCALPAIN_PATHWAY http://www.broadinstitute.org/gsea/msigdb/cards/BEIER_GLIOMA_STEM_CELL_DN
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htt:///www.broadinstitute.or/gssea/msigdb/cards/REACTOME_CLASS_B_2_SECRREIN_FAMLY_RECEPTO http:///www.broadinstitute.org/ssea//msigdb/cards/PID_ERA_GENOMIC_PATHWAY $h$ ttp: $/ / /$ www.broadinstitute.org/ $/$ ssea $/$ msigdd $/$ /ardd $/$ /XU_GHI_EXOGENOUS_TARGETS_DN $\mathrm{http}: / / \mathrm{www}$.broadinstitute.org/gsea/msigdb/cards/WEL_M1R34A_TARGETS
 http://www.broadinstitute.org/gsea/msigdb/cards/REACTOME_GLUCAGON_SIGNALI

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$\mathrm{http}: / / \mathrm{www}$. broadinstitute.org/gsea//msigdb/cards/NIKOLSKY_BREAST_CANCER_14Q22_AMPLCON
 http://www.broadinstitute.org/ssea//migdb/cards//FONTAINE_PAPILLARY_THYROID_CARCINOMA_UP htt://www.broadinstitute.org/gsea/msigdb/cards//EACTOME_RETROGRADE_NEUROTROPHIN_SIGNALLI $\mathrm{http}: / / \mathrm{www}$.broadinstitute. org $/$ gsea/ $/ \mathrm{msigdb} /$ cards/ $/$ BIOCARTA_FAS_PATHWAY
$\mathrm{httr}_{\mathrm{h}: / / \mathrm{www} . \text { broadinstitute.org/gsea/ } / \text { msigdb//ardd/ASTON_MAJOR_DEPRESSIVE_DISORDER_UP }}$ http://www.broadinstitute.ors/gsea//msigdb/cards/SMID_BREAST_CANCER_RELAPSE_IN_PLEURA_DN

http://www.broadinstitute.org/sesea/msigdb/cards/LUI_THYROID_CANCER_CLUSTER_4 6 $\mathrm{http} / / / \mathrm{Www} . \mathrm{broad}$ institute.or//gsea/msigdb/ardd/MEISNER_BRAIN_HCP_WITH_H3K4ME2 http://www.broadinstitute.org/gsea/msigdb/cards/REACTOME_POST_TRANSLATIONAL_PROTEIN_MODIFI 3 http://www.broadinstitute.ore/gsea/msigdb/cards/GENTLE_UV_LOW_DOSE_DN
http://www.broadinstitute.org/gsea/msigdb/cards/HOQUE_METHYLATED_IN_CANCER
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$\mathrm{http} / / / \mathrm{www}$. broadinstitute.org/ssea//msigdb//ardd/CAIRO_HEPATOBLASTOMA_POOR_SURVVVAL
http:///www.broadinstitute.or $/$ /ssea/msiddb/cards/MYLYYKANGAS_AMPLIFCATION_HOT_SPOT_ http://www.broadinstitute.orgg gsea/msigdb/cards/MARCHIN_TRABECTEDIN_RESISTANCE UP http://www.broadinstitute.org/ssea/msigdb/cards/MARIADASON_REGULATED_BY_HISTONE_ACETYLATIC http://www.broadinstitute.org/ssea/msigdb/cards/ONO_AMLI_TARGETS_DN

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$\mathrm{http}: / / / \mathrm{wwww.broadininstitute.org} /$ gsea/ $/ \mathrm{msigdb} /$ /cards $/$ /WESTON_VEGFA_TARGETS_3HR
http://www.broadinstitute.org/gsea/msigdb/cards/MATTIOL_MULTIPLE_MYELOMA_WITH_14Q32_TRA

http:///www.broadinstitute.org/ ssea/msigdb/cards//AO_TEMPORAL_RESPPONSE_TO_PROGESTERONE_CLI 30
http://www.broadinstitute.orr/gsea/msigdb/cards/FIRESTEIN_CTNNB1_PATHWAY_AND_PROLIFERATION 3

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http://www.broadinstitute.org/gsea/msigdb/cards/CHIARADONNA_NEOPLASTIC_TRANSFORMATION_KRA
http://www.broadinstitute.org/gsea/msigdb/card//KEGG_B_CELL_RECEPTOR_SIGNALING_PATHWAY
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$\mathrm{http}: / /$ www.broadinstitute.org/sesea/msigdb/cards/MYLYKANGAS_AMPLIFCATION_HOT_SPOT
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 $\mathrm{http}: / / \mathrm{www}$.broadinstitute.org/gsea/msigd $/$ cards $/ \mathrm{MEISSNER}$ _ES_ICP_WITH_H3K4ME3 ttp://www.broadinstitute.org/gsea//msigdb/cards//OKAWA_NEUROBLASTOMA_1P36_31_DELETION 6

| 515 | -0.938037 | 0.521318 | 0.837165 | Increased Expression with Increasing Exponent |
| :---: | :---: | :---: | :---: | :---: |
| 2507 | -0.937325 | 537255 | 0.837221 | Increased Expression with Increasing Exponent |
| -0.21263 | -0.935456 | 0.564 | 0.837296 | Increased Expression with Increasing Exponent |
| -0.233975 | -0.936543 | 0.555556 | 0.837413 | Increased Expression with Increasing Exponent |
| $-0.245387$ | -0.937393 | 0.540084 | 0.837536 | Increased Expression with Increasing Exponent |
| -0.240832 | -0.936678 | 0.541322 | 0.837611 | Increased Expression with Increasing Exponent |
| -0.351733 | -0.936195 | 0.524655 | 0.837647 | Increased Expression with Increasing Exponent |
| 26695 | -0.935484 | 0.547389 | 0.837707 | Increased Expression with Increasing Exponent |
| -0.255561 | -0.935569 | 0.506 | 0.837988 | Increased Expression with Increasing Exponent |
| -0.23609 | -0.935643 | 0.538776 | 0.838305 | Increased Expression with Increasing Exponent |
| $-0.265707$ | -0.932968 | 0.524752 | 0.8386 | Increased Expression with Increasing Exponent |
| -0.248231 | -0.933146 | 0.539048 | 0.838685 | Increased Expression with Increasing Exponent |
| -0.228336 | - 932278 | 0.543478 | 0.839107 | Increased Expression with Increasing Exponent |
| -0.325496 | -0.933166 | 0.561368 | 0.839122 | Increased Expression with Increasing Exponent |
| -0.215015 | -0.932436 | 0.59499 | 0.839256 | Increased Expression with Increasing Exponent |
| -0.265618 | -0.933499 | 0.51927 | 0.839364 | Increased Expression with Increasing Exponent |
| $-0.231338$ | -0.933176 | 0.551102 | 0.839574 | Increased Expression with Increasing Exponent |
| -0.331789 | -0.931795 | 0.545635 | 0.839597 | Increased Expression with Increasing Exponent |
| -0.317555 | -0.931042 | 0.530242 | 0.839772 | Increased Expression with Increasing Exponent |
| -0.246225 | -0.931263 | 0.540117 | 0.839779 | Increased Expression with Increasing Exponent |
| -0.222508 | -0.931343 | 0.565476 | 0.840082 | Increased Expression with Increasing Exponent |
| $-0.341261$ | -0.930487 | 0.535714 | 0.840433 | Increased Expression with Increasing Exponent |
| -0.27261 | -0.929493 | 0.513834 | 0.840557 | Increased Expression with Increasing Exponent |
| -0.281059 | -0.929665 | 0.563147 | 0.840674 | Increased Expression with Increasing Exponent |
| -0.284205 | -0.929144 | 0.558882 | 0.840788 | Increased Expression with Increasing Exponent |
| -0.255522 | -0.929681 | 0.545272 | 0.841113 | Increased Expression with Increasing Exponent |
| -0.246895 | -0.929898 | 0.528827 | 0.841141 | Increased Expression with Increasing Exponent |
| -0.368995 | -0.9271 | 0.53 | 0.842176 | Increased Expression with Increasing Exponent |
| $-0.298548$ | -0.926876 | 0.525562 | 0.842178 | Increased Expression with Increasing Exponent |
| $-0.564148$ | -172,253 | 0.00202429 | 0.842327 | Increased Expression with Increasing Exponent |
| $-0.230772$ | -0.927815 | 0.557957 | 0.842591 | Increased Expression with Increasing Exponent |
| -0.233208 | -0.927126 | 0.521912 | 0.842591 | Increased Expression with Increasing Exponent |
| -0.234094 | -0.927309 | 0.560669 | 0.842691 | Increased Expression with Increasing Exponent |
| -0.218284 | -0.927906 | 0.587549 | 0.842881 | Increased Expression with Increasing Exponent |
| -0.219341 | -0.927423 | 0.561886 | 0.842914 | Increased Expression with Increasing Exponent |
| -0.190573 | -0.921421 | 0.662264 | 0.843023 | Increased Expression with Increasing Exponent |
| -0.210743 | -0.926168 | 0.586745 | 0.843189 | Increased Expression with Increasing Exponent |
| $-0.288945$ | -0.921491 | 0.522158 | 0.843358 | Increased Expression with Increasing Exponent |
| -0.53722 | -175,143 | 0.0134875 | 0.843452 | Increased Expression with Increasing Exponent |
| -0.256676 | -0.921844 | 0.529293 | 0.843549 | Increased Expression with Increasing Exponent |
| 258528 | -0.921523 | 0.531373 | 0.843758 | Increased Expression with Increasing Exponent |
| -0.195917 | -0.922125 | 0.608961 | 0.843937 | Increased Expression with Increasing Exponent |
| -0.284354 | -0.92186 | 0.548323 | 0.843977 | Increased Expression with Increasing Exponent |
| $-0.217426$ | -0.920219 | 0.556213 | 0.844101 | Increased Expression with Increasing Exponent |
| -0.358219 | -0.920602 | 0.536735 | 0.844252 | Increased Expression with Increasing Exponent |
| $-0.315476$ | -0.922159 | 0.571429 | 0.844338 | Increased Expression with Increasing Exponent |
| $-0.208274$ | -0.923276 | 0.590994 | 0.844399 | Increased Expression with Increasing Exponent |
| $-0.309686$ | -0.920236 | 0.568507 | 0.844534 | Increased Expression with Increasing Exponent |
| $-0.263306$ | -0.922237 | 0.537988 | 0.844634 | Increased Expression with Increasing Exponent |
| -0.227569 | -0.923371 | 0.559838 | 0.844669 | Increased Expression with Increasing Exponent |
| $-0.305797$ | -0.92382 | 0.543307 | 0.844702 | Increased Expression with Increasing Exponent |
| 224899 | -0.924437 | 0.585859 | 0.848834 | Increased Expression with Increasing Exponent |
| $-0.319399$ | -0.923514 | 0.540755 | 0.848848 | Increased Expression with Increasing Exponent |
| -0.279308 | -0.923964 | 0.521127 | 0.844853 | Increased Expression with Increasing Exponent |
| $-0.317776$ | -0.922294 | 0.529297 | 0.845001 | Increased Expression with Increasing Exponent |
| $-0.235483$ | -0.92502 | 0.543434 | 0.84503 | Increased Expression with Increasing Exponent |
| -0.223352 | -0.919515 | 0.566191 | 0.845038 | Increased Expression with Increasing Exponent |
| -0.208672 | -0.924052 | 0.60521 | 0.845135 | Increased Expression with Increasing Exponent |
| -0.533814 | -176,823 | 0.0118343 | 0.845168 | Increased Expression with Increasing Exponent |
| -0.267833 | -0.924445 | 0.528112 | 0.845289 | Increased Expression with Increasing Exponent |
| $-0.291437$ | -0.919123 | 0.531187 | 0.845373 | Increased Expression with Increasing Exponent |
| -0.257198 | -0.922311 | 0.560878 | 0.845436 | Increased Expression with Increasing Exponent |
| $-0.333183$ | -0.92253 | 0.545455 | 0.845443 | Increased Expression with Increasing Exponent |
| $-0.306277$ | -0.924549 | 0.52505 | 0.845555 | Increased Expression with Increasing Exponent |
| -0.195524 | -0.918214 | 0.626415 | 0.845842 | Increased Expression with Increasing Exponent |
| $-0.236041$ | -0.917834 | 0.60274 | 0.846142 | Increased Expression with Increasing Exponent |
| -0.277759 | -0.918217 | 0.555769 | 0.846296 | Increased Expression with Increasing Exponent |
| -0.233834 | -0.918223 | 0.563771 | 0.846743 | Increased Expression with Increasing Exponent |
| -0.300505 | -0.916812 | 0.566191 | 0.846869 | Increased Expression with Increasing Exponent |
| -0.387131 | -0.916512 | 0.555769 | 0.847015 | Increased Expression with Increasing Exponent |
| -0.259849 | -0.917138 | 0.589595 | 0.847114 | Increased Expression with Increasing Exponent |
| -0.221043 | -0.916899 | 0.581213 | 0.847143 | Increased Expression with Increasing Exponent |
| -0.259887 | -0.915843 | 0.539062 | 0.847463 | Increased Expression with Increasing Exponent |
| -0.262514 | -0.915936 | 0.576699 | 0.847739 | Increased Expression with Increasing Exponent |
| -0.266886 | -0.915115 | 0.545776 | 0.84803 | Increased Expression with Increasing Exponent |
| -0.219888 | -0.91524 | 0.598778 | 0.84824 | Increased Expression with Increasing Exponent |
| -0.493018 | -171,622 | 0.00931099 | 0.848401 | Increased Expression with Increasing Exponent |
| -0.217589 | -0.914397 | 0.611881 | 0.84901 | Increased Expression with Increasing Exponent |
| -0.257861 | -0.912721 | 0.576687 | 0.849704 | Increased Expression with Increasing Exponent |
| $-0.277404$ | -0.91351 | 0.585366 | 0.849867 | Increased Expression with Increasing Exponent |
| -0.286461 | -0.912191 | 0.577068 | 0.849901 | Increased Expression with Increasing Exponent |
| -0.290155 | -0.913013 | 0.581673 | 0.849996 | Increased Expression with Increasing Exponent |
| $-0.334069$ | -0.913673 | 0.579381 | 0.850004 | Increased Expression with Increasing Exponent |
| -0.200482 | -0.912799 | 0.586826 | 0.850006 | Increased Expression with Increasing Exponent |
| $-0.224172$ | -0.912263 | 0.597077 | 0.850215 | Increased Expression with Increasing Exponent |
| -0.222729 | -0.913081 | 0.567308 | 0.850298 | Increased Expression with Increasing Exponent |
| -0.264707 | -0.9111 | 0.559252 | 0.850687 | Increased Expression with Increasing Exponent |
| -0.431041 | -177,879 | 0.00371747 | 0.850812 | Increased Expression with Increasing Exponent |
| -0.268045 | -0.911234 | 0.556436 | 0.850893 | Increased Expression with Increasing Exponent |
| -0.333764 | -0.911363 | 0.574713 | 0.85111 | Increased Expression with Increasing Exponent |
| -0.629849 | -171,836 | 0.00790514 | 0.851473 | Increased Expression with Increasing Exponent |
| -0.600087 | -177,094 | 0.0155039 | 0.852309 | Increased Expression with Increasing Exponent |
| -0.220247 | -0.910011 | 0.565923 | 0.852349 | Increased Expression with Increasing Exponent |
| -0.277242 | -0.909495 | 0.545809 | 0.852893 | Increased Expression with Increasing Exponent |
| $-0.224806$ | -0.907729 | 0.556701 | 0.853167 | Increased Expression with Increasing Exponent |
| $-0.247279$ | -0.908589 | 0.539048 | 0.853346 | Increased Expression with Increasing Exponent |
| $-0.221386$ | -0.9078 | 0.639113 | 0.853477 | Increased Expression with Increasing Exponent |
| -0.328074 | -0.90888 |  |  |  |

CADWEL_ATG16L1_TARGETS_UP REACTOME_SMADZ_SMAD3_SMAD4_H
LUU_TARGETS_O_V_VMYB_VS_CMYB_DN LIU_TARGETS_OF_VMYB_VS_CMYB_DN REACTOME_CREB_PHOSPI_ N_THROUGH_THE_ACTVATION_O REACTOME PEEPTIDE LIGAND BINDING_RECEPTO KOBAYASHI EGFR SIGNALING 24 HR UP REACTOME_TRANSPORT_OF_GUCOSE_AND_OTHE
RAMIAUN_AROPTOSIS_BY_TGFBI_VIA_MAPK1_UP SENESE_HDAC2_TARGETS_D
BIOCARTA_CYTOKINE_PATHWA
DIRMEER_LMPI_RESPONSE_LATE_
MIKKELSEN_DEDIFFERENTATED_STATE_DN
HAHTOLA_MYCOSSS FUNGOIDES CDA_DN REACTOME_SIGNALING BY INSULIN RECEPTO huang_foxAz_TARGets_up
MARIADASON_RESPONSE_TO_BUTYRATE_CURCUMIN_SULINDAC_TSA MIDORIKAWA_AMPLIFIED_IN_LVER_CANCER MCMURRAV_TP53_HRAS_COOPERATION_RESPONSE_D JIION_SICKLE_CELL_DISEASE_UP
WORSCHECH_TUMOR_EVASION AND_TOLEROGENICITY DN SETLUR_PROSTATE_CANCER_TMPRSS2_ERG_FUSION_DN GARGALOVIC_RESPONSE_TO_OXIDIZED_PHOSPHOLIPDS_BLACK_DN CHEOK_RESPONSE_TO_MERCAPTOPURINE_DN ELLWOOD_MYC_TARGETS_UP NIELSEN_GIST_VS_SYNOVIAL_SARCOMA_U KYNG_RESPONSE_TO_H2O2_VIA_ERCC6_D LINDGREN_BLALDER_CANCER_WTH_LOH_IN_CHR9 gentile_Uv_Response_cluster_d
SMI__BREAST_CANCER_RELAPSE_IN_LUNG_D CHIARADONNA_NEOPLASTIC_TRANSFORMATION_KRAS_UP TESAR_ALK_TARGETS_EPISC_LD_UP HUANG_DASATINB_RESISTANCE_U REACTOME_SYNTHESIS_OF_PIPS_AT_THE_PLASMA_MEMBRANI BENNETT_SSTEMMIC_UPUS_
GRANDVAUX_IFN_RESPONSE_NOT VIAIRE3 GRAHAM_CML_QUUESCENT_VS_NORMAL_DIVIDING_DN FIGUEROA_AML_METHYLATION_CLUSTER_3_DN REACTOME_PASSIVE_TRANSPORT_BY_AQUAPORIN GRAHAM_CML_QUIESCENT_VS_NORMAL_DVIIDING_UP
LOPEZMESOTHELOMA_SURVVIVL_WORST_VS_BEST_DN LOPEZ_MESOTHELOMA
GU PDEF TARGETS DN
WACKER_HYPOXIA_TARGES_OF_
PD HDAC CASSI PATHAY
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KANG_FLUOROURACIL_RESISTANCE_UP
KORKOLA CHORIOCARCINOMA UP
CHANG_IMMORTALIZED_BY_HPV31_D
GENTLLE_RESPONSE_CLUSTER_D
GARGALOVIC_RESPONSE_TO_OXIDIZED_PHOSPHoLIPIDS_GREEN_UP AMI_EGF_RESPONSE_40 HELA
STEGMEIER_PRE-MITOTLC_CELL_CYCLE_REGULATORS ITO_PTTG1_TARGETS_DN
MYLYKANGAS_AMPLIFICATION_HOT_SPOT_2 BIOCARTA_NDKDYNAMIN_PATHWA
KANG_IMMORTALIZED_BY_TERT_UP
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REACTOME_KERATAN_SULFATE_BIOSYNTHESIS
ST_JNK_MAPK_PATHWAY
MEISSNER_BRAIN_HCP_WITH_H3K4ME2_AND_HЗK27ME3 BIOCARTA_P27_PATHWAY
GAUSSMANN_MLL_AF4_-UUSION_TARGETS_C_U SCHAEFFER_PROSTATE_DEVELOPMENT_AND_CANCER_BOX2_U MUNSHI_MULTIPLE_MYELOMA_DN
EBAUER_MYOGENIC_TARGETS_OF_PAX3__FOXO1_FUSION RODRIGUES_NTNI_TARGETS_DN
MAGRANGEAS_MULTIPLE MYELOMA_IGLL VS_IGLK DN RAHMAN_TP53_TARGETS_PHOSPHORYLATED LOPEZ_MESOTHELIOMA_SURVVVAL_UP
TAKEDA_TARGETS_OF_NUP98_HOXA9_FUSION_8D_UP PID_ERB_GENOMIC_PATHWAY
REACTOME_REGULATION_OF_INSULIN LIKE GROWTH_FACTOR_IGE_A DAZARD_UV_RESPONSE_CLUSTER_G5 LU_THYROID_CANCER_CLUSTER_1 PEART_HDAC_PROLIFRATION_CLUSTER_UP gu_pDEF_TARGETS_UP
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HILION_HMGAL_TARGETS
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SANCHEZEMDM2_TARGETS
. REACTOME SYNTHESIS OF BLIE ACDS AND Ble SA Gross_hypoxi_lia_Elk ONIY
WESTON_VEGAA_TARGETS_6HI
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 PRoveñanl_measials
REACTOME_ROLE_OF_DCC_IN_REGULATNG_APOPTOSIS reatrome_opioid_IINáling
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Houleman_vincirstine_resitance_b_all_U REACTOME_TRAN__GOLG_NETWORE_VESCLIE_BUODIN BYSTRYKH_HEMATO
CONRAD STEMCELI
HUMMERCH BENIGN SKIN TUMOR UP hUAN__FOXAZ_TARGETS_DN
DER_IN_ALPHA_-RESPONSE_DN

GAUSSMANN_MLI_AF4_FUSION_TARGETS_F_D MCBBYAN_PUBERTAL_BREAST___swK_DN | KEGG_PROPANOA |
| :--- |
| KEGG_APOPTOSIS |

MODY HIPPOCCMUUS PRENATA
WIERENGA STATSA TARGETS D
HCCARCINOGENESIS_BY_KRAS_AN__TK11_UP
SANSOM_APC_TARGETS
MUUELLER_COMMON_TARGETS_O_AML_-_USIIONS_DN
REACTOME_RNA_POL_IILCHAIN_ELONGATION
VILMAS_NOTCHI TARGEESS UP
TURASHVII_BreasT_NORMAL_DUCTAL_VS_LOBULAR_DN
VALK_AML_WTL__11023_REARRANGED
SCHAEFFER_PROSTATE_DEVELOPMENT_AND_CANCER_BOXG_U COLIN_PLOCCTIC_ASTROCTTOMA_VS_GLIOBLASTOMA_DN BOWIE_RESPONSE_TO_TAMOXIFE

GOUB_ALLVSSAML_D
INVASVE_Vs_LIPP_DN CHOW_RASSFI_TAAGGTS_U REACTOMEMAPK_TARGETS NUCLEAR AMT_SERUM_RESSONSE_20_MCFF10. REACOME_SHCL_EVEVNTS_IN_ERB4__SIINALING REACTOME_PBK_CASCADE

kang_MMORTALLZE_BY_TERT_D
WTANAEERECTAL CANCER RADIOTHERAPPY reEPPONSVE_UP REACTOME_LIONGATIN_ARREST_AND_RECOVERY
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REACTOME_CYTOSOLI__SULIFONATION_OF_SMALL_MOLECULEE




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COLIIS_PRKDC_REGULATORS
BARI_THYROID_CANCER_DN
BHAT_ESR1_TARGEIS_VAA_AKT1_D BROWNE_HCMV_INFECTION_48HR_U REACTOME_FORMATION_OF_RNA_POL_II_ELONGATION_COMPLEX PID_IL4_2PATHWAY
DUTERTRE_ESTRADIOL_RESPONSE_6HR_DN
PETRETTO_BLOOD_PRESSURE_UP
ROSS_AML_OF_FAB_MT_TYPE
STARK_BRAIN_22011_DEIETION
STARK_BRAIN_22QII_DELETION DANG_REGULATED_BY_MYC_UP
MAHAIAN RESPONSE_TO
SASSON_RESPONSE_TO_GONADOTROPHINS_U QI_HYPOXIA
GARGALOVIC_RESPONSE_TO_OXIDIZED_PHOSPHOLIPIDS_RED_DN welch_gatal_target
TOOKER_GEMCITABINE_RESISTANCE
Props_n motarget_u
ZHAN MUUTIPLEMYE_BY_ERBB2_ISOFORM
GEIS__RESPONSE_TO_DSRNA_DN REACTOME_RNA_POL_II_PRE_TRANSCRIPTION_EVENTS BIOCARTA_INTEGRIN_PATHWAY BIOCARTA_STRESS_PATHWA
ZHENG_IL22_SIGNALING_DN REACTOME LATENT INEECTION becker_tamoxifen_resistance_d ZHAN_MULTIPLEMYELOMA_CD1_VS_CD2_UP zwang_EGF_INTERVAL_DN MATTIOLIMULTIPLE_MYELOMA_SUBGROUPS GARGALOVIC_RESPONSE_TO_OXIDIZED_PHOSPHOLIPIDS_RED_UP WALLACE_PROSTATE_CANCER BIOCARTA_COMP_PATHWAY
BOHN PRIMARY IMMUNODE
PEACTOME SIGNA NG TO RIENCY_SYNDROM_up VALK_AML_CLUSTER_3
WANG_CISPLATIN_RESPONSE_AND_XPC_UP BIOCARTA_VEGF_PATHWAY STAEGE_EWING_FAMLY_TUMO SANA_RESPONSE_TO_IFNG_DN SCIAN CELL YYCLE TARGETS OF TP53 SCIAN_CELL_CYCLE_TARGETS_OF_TP53_AND_TP73_UP
MILCIC FAMILAA ADENOMATOUS_POOYPOSIS_DN MIKKELSEN_NPC_ICP_WITH_H3K27ME3 REACTOME_MEMBRANE_TRAFFICKING LEE_CALORIE_RESTRICTION_NEOCORTEX_D TSENG_ADPOGENIC_POTENTIAL_DN KEGG_CYTOKINE_CYTOKINE_RECEPTOR_INTERACTION KEGG_CYTOKINE_CYTOKINE_RECEP
BIOCARTA SALMONELLA PATHWAY SILIGAN_TARGETS_OF_EWS_FLI_FUSION_ BOYLAN_MULTIPLE_MYELOMA_PCA1_UP KEGG_CIRCADIAN_RHYTHM_MAMMAL KASLER_HDAC7_TARGETS_2_DN KORKOLA_SEMINOMA_ NABA_ECM_AFFILIATED MCDOWELL_ACUTE_LUNG_INURY_DN CARMUSTIN_MGMT_48HR_dN BIOCARTA_EPONFKB_PATHWA
GAUSSMANN_MLL_AF4_FUSION_TARGETS_A_DN ST_P38_MAPK_PATHWAY
PID_ERBB1_DOWNSTREAM_PATHWAY
RIZ_ERYTHROID_DIFFERENTIATION_HEMGN REACTOME_ENERGY_DEPENDENT_REGULATION_OF_MTOR_BY_KBB1_AM EXIN_REPULIION_SIGNALING_BY_INHIBTIING WAMUNYOKOLI_OVARIAN_CANCER_GRADES_1_2_DN BOYLAN_MULTIPLEMYELOMA_D_DN BERENIENO_TRANSFORMED_BY_RHOA_FOREVER_U WATANABE_COLON_CANCER_MSI_VS_MSS_DN MCCABE_HOXC6_TARGETS
BIOCARTA IL17 PATHWAY
DAZARD RESPONSE TO UV ScC PID_FOXM1_PATHWAY
REACTOME_FORMATION_O_-IIBRIN_CLOT_CLOTTING_CASCAD REACTOME_NRI_SIGNALS_CELL_DEATH_FROM_THE_NUCLEUS ST_JAK_STAT_PATHWAY TURUANSKI_MAFK7_TARGETS
REACTOME_GOLGI_ASSOCIATED_VESICLE_BIOGENESIS
 CHEOK_RESPONSE_TO_MERCAPTOPURINE_AND_LD_MTX_UP HANN_RESISTANCETO_BCLI_INHBBTOR_UP
PLASARI_TGFB1_SIGNALING_VIA_NFIC_1HR_D YANG_BREAST_CANCER_ESR1_DN GRAESSMANN_RESPONSE_TO_MC_AND_SERUM_DEPRIVATION_DN ZHAN_MULTIPLE MYELOMA LB
XU_HGF_SIGNALING_NOT_VIA_AKT1_ Abdelmohsen_elavl4_targets BROWN_MYELOID_CELL_DEVELOPMENT_DN
LANDIS_ERBB2_BREAST_TUMORS_324_DN
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REACTOME_G_BETA_GAMMA_SIGNALLING_THROUGH_PLC_BETA KIM_GERMINAL_CENTER_T_HELPER_UP PID_RAC1_PATHWAY
DARWICHE_PAPILLOMA_RISK_LOW_UP
Chessen_ lotarget_And SERUM_RESPONSE_U
VELSH_-
tIAn_bHLHA15_TARGETS
PID_SYNDECAN_4_PATHWAY
REACTOME_FORMATION_OF_INCISION_COMPLEX_IN_GG_NER LI_AMPLIFIED_IN_LUNG_CANCER
REACTOME_PROCESSING_OF_CAPPED_INTRON_CONTAINING_PRE MRI RAMPON_ENRICHED_LEARNING_ENVIRONMENT_EARLY_UP
BIICARTA_AGR_PATHW
matzuk_spermatocyte
REACTOME_UNBLOCKING_OF_NMDA_RECEPTOR_GLUTAMATE_BINDIN KYNG_DNA_DAMAGE_BY_U borczuk_MAlignant_Mesothelioma_dn CHANG_IMMORTALIZED_BY_HPV31_U
FRASOR TAMOXIEEN_RESPONSE UPP
GEORGANTAS HSC_MARKERS
LIM_MAMMARY_LUMINAL_PROGENTOR U REACTOME_APOPTOTIC_EXECUTION_PHASE
HOFFMANN_SMALL_PRE_BII_TO_IMMATURE_B_LYMPHOCYTE_UP LY_AGING_MIDDLE_DN
FONTAINE_FOLLICULAR_THYROID_ADENOMA_DN EE_AGING_CEREBELLUM_DN
CAFFAREL_RESPONSE_TO_THC_24HR_5_UP
GAUSSMANN MLLAFA_ FUSION TARGETS BIOCARTA_ETC_PATHWAY
Lee_LVER_CANCER_CIPROFIBRATE
REACTOME_THE_ROLE_OF_NEF_IN_HIV1_REPLICATION_AND_DISEASE ROETH_TERT_TARGETS_UP
KRISHNAN_FURIN_TARGETS_UP
ZHAN_MULTPLE_MYELOMA_CD1_Vs_CD2_DN
MELIMAN TUT1 TARGETS DN-
CHENG_IMPRINTED_BY_ESTRADIO
BHAT_ESR1_TARGETS_NOT_VIA_AkT1_U
VANDESLUIS_COMMD1_TARGETS_GROUP_3_DN DOANE__RREAST_CANCER_CLASSES_DN RASOR TAMOXIEN RESPONSE_DN RAMIAUN_APOPTOSIS_BY_TGFB1_VIA_MAPK1_DN 1 WILMS TUMOR VS FETAL KIDNEY 2 DN REACTOME_FORMATION_OF_TRANSCRIPTION_COUPLED_NER_TC_NER_R REACTOME_GAMMA_CARBOXYLATION_TRA BIOCARTA_CCRB_PATHWA
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LANDIS_ERBB2_BREAST_PRENEOPLASTIC_UP
KONDO_PROSTATE_CANCER_HCP_WITH_HBK27ME
CHIARADONNA NEOPLASTIC PID_IL12_2PATHWAY
GARGALOVIC_RESPONSE_TO_OXIIIZED_PHOSPHOLIPIDS_BLACK_U STANELLE_E2F1_TARGETS
bIOCARTA_CTL_PATHWA
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MYLIVKANGAS_AMPLIFICATION_HOT_SPOT_25
KEGG_CEL_ADHESION_MOLECULES_CAMS
BIOCARTA_DEATH_PATHWA
PID_RAC1_REG_PATHWAY
NAKAMURA_METASTASIS_MODEL_UP
MOREAUX_B_LYMPHOCYTE_MATURATION_BY_TACI_U
CHEOK_RESPONSE_TO_MERCAPTOPURINE_AND_LD_MTX_DN
IVANOVSKA_MIR106B_TARGETS
KYNG_WERNER_SYNDROM_DN
Holleman_VINCRISTINE_RESITTANCE_ALL_DN
LaIHO_COLORECTAL_CANCER_SERRATED_D
Grabarczyk_bclini
RICKMAN_TUMOR_DIFFERENTIATED_WELL_VS_MODERATELY_UP SHAFFER_RFF4_MULTIPLE_MYELOMA_PROGR
SABATES COLORECTAL ADENOMA SIZE DN
BOYLAN_MULTIPLE MYELOMA C UP
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KUROKAWA_LIVER_CANCER_CHEMOTHERAPY_DN
ZHAN_MULTIPLE_MYELOMA_MS_UP
ingram_shi_targets_up
SCHLOSSER_SERUM RESPONSE AUGMENTED BY MYC PID_SYNDECAN_3_PATHWA

PPRESSION BY SMAD1 AND SMADS UP REACTOME_ION_TRANSPORT_BY_P_TYPE_ATPASES
SCHLOSSER_SERUM_RESPONSE_UP
LINDSTEDT_DENDRITIC_CELL_MATURATION_B
STARK_HYPPOCAMPUS_22Q11_DELETION_D PID_BMP_PATHWAY
TIEN_INTESTINE_PROBIOTICS_6HR_UP
REACTOME_CHYLOMICRON_MEDIATED_LIPI_TRANSPORT PID_TRKR_PATHWAY
PUUANA_BREAST_CANCER_LIT_INT_NETWORK
HADDAD_T_LYMPHOCYTE_AND_NK_PROGENTIOR_DN
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| -0.247098 | -0.829074 | 0.716327 | 0.89135 | Increased Expression with Increasing Exponent |
| :---: | :---: | :---: | :---: | :---: |
| -0.209252 | -0.824848 | 0.719844 | 0.891399 | Increased Expression with Increasing Exponent |
| -0.208814 | -0.825308 | 0.662551 | 0.891425 | Increased Expression with Increasing Exponent |
| $-0.177547$ | -0.824127 | 0.775047 | 0.891427 | Increased Expression with Increasing Exponent |
| -0.25276 | -0.822649 | 0.649378 | 0.891542 | Increased Expression with Increasing Exponent |
| -0.209432 | -0.824946 | 0.657315 | 0.891646 | Increased Expression with Increasing Exponent |
| $-0.241547$ | -0.821133 | 0.699399 | 0.89176 | Increased Expression with Increasing Exponent |
| $-0.256281$ | -0.822674 | 0.696787 | 0.891924 | Increased Expression with Increasing Exponent |
| -0.268742 | . 822835 | 0.633267 | 0.89206 | Increased Expression with Increasing Exponent |
| -0.287152 | -0.820672 | 0.686992 | 0.892148 | Increased Expression with Increasing Exponent |
| $-0.202584$ | -0.818085 | 0.710579 | 0.892151 | Increased Expression with Increasing Exponent |
| $-0.267937$ | -0.822944 | 0.650924 | 0.892271 | Increased Expression with Increasing Exponent |
| $-0.254277$ | -0.820309 | 0.662338 | 0.892367 | Increased Expression with Increasing Exponent |
| -0.193857 | -0.820041 | 0.788054 | 0.892419 | Increased Expression with Increasing Exponent |
| $-0.347678$ | -0.818145 | 0.656189 | 0.892456 | Increased Expression with Increasing Exponent |
| -0.18489 | -0.817561 | 0.78501 | 0.892629 | Increased Expression with Increasing Exponent |
| -0.273398 | -0.817096 | 0.659229 | 0.89264 | Increased Expression with Increasing Exponent |
| $-0.197818$ | -0.81936 | 0.734375 | 0.892775 | Increased Expression with Increasing Exponent |
| -0.197314 | -0.818182 | 0.768775 | 0.892793 | Increased Expression with Increasing Expon |
| $-0.178589$ | -0.816756 | 0.8125 | 0.892814 | Increased Expression with Increasing Exponent |
| -0.208259 | -0.818331 | 0.705653 | 0.89293 | Increased Expression with Increasing Exponent |
| -0.227253 | -0.81622 | 0.67004 | 0.892936 | Increased Expression with Increasing Exponent |
| -0.243953 | -0.817112 | 0.701613 | 0.893023 | Increased Expression with Increasing Exponent |
| -0.186568 | -0.815926 | 0.806706 | 0.893036 | Increased Expression with Increasing Exponent |
| $-0.216765$ | -0.818933 | 0.673152 | 0.893098 | Increased Expression with Increasing Exponent |
| $-0.383185$ | -0.816345 | 0.615686 | 0.893119 | Increased Expression with Increasing Exponent |
| $-0.192012$ | -0.815402 | 0.756863 | 0.893128 | Increased Expression with Increasing Exponent |
| -0.184058 | -0.818447 | 0.832016 | 0.893138 | Increased Expression with Increasing Exponent |
| -0.241028 | -0.819365 | 0.667351 | 0.893181 | Increased Expression with Increasing Exponent |
| $-0.240722$ | -0.818619 | 0.713462 | 0.893248 | Increased Expression with Increasing Exponent |
| 0.62868 | 177,985 | 0.0116732 | 0.893362 | Decreased Expression with Increasing Expone |
| -0.20969 | -0.813777 | 0.757937 | 0.893499 | Increased Expression with Increasing Exponent |
| -0.23092 | -0.815403 | 0.676768 | 0.893537 | Increased Expression with Increasing Exponent |
| -0.376092 | -0.813849 | 0.641237 | 0.893783 | Increased Expression with Increasing Exponent |
| -0.24194 | -0.813302 | 0.687873 | 0.893919 | Increased Expression with Increasing Exponent |
| $-0.187962$ | -0.813877 | 0.802846 | 0.894146 | Increased Expression with Increasing Exponent |
| -0.234505 | -0.814517 | 0.675728 | 0.894261 | Increased Expression with Increasing Exponent |
| $-0.20023$ | -0.813992 | 0.777778 | 0.894352 | Increased Expression with Increasing Exponent |
| -0.16977 | -0.812576 | 0.885602 | 0.894355 | Increased Expression with Increasing Exponent |
| $-0.165215$ | -0.812063 | 0.878669 | 0.894393 | Increased Expression with Increasing Exponent |
| -0.229593 | -0.812785 | 0.725451 | 0.894406 | Increased Expression with Increasing Exponent |
| -0.231551 | -0.814194 | 0.716867 | 0.894406 | Increased Expression with Increasing Exponent |
| -0.240142 | -0.809932 | 0.687023 | 0.894432 | Increased Expression with Increasing Exponent |
| $-0.286743$ | -0.811727 | 0.677866 | 0.894588 | Increased Expression with Increasing Exponent |
| $-0.302029$ | -0.810056 | 0.692615 | 0.894612 | Increased Expression with Increasing Exponent |
| $-0.237417$ | -0.812173 | 0.685484 | 0.894618 | Increased Expression with Increasing Exponent |
| $-0.247544$ | -0.811479 | 0.686235 | 0.894626 | Increased Expression with Increasing Exponent |
| $-0.306007$ | -0.808823 | 0.707415 | 0.894735 | Increased Expression with Increasing Exponent |
| $-0.177998$ | -0.808571 | 0.827935 | 0.894791 | Increased Expression with Increasing Exponent |
| -0.229046 | -0.810636 | 0.679537 | 0.894832 | Increased Expression with Increasing Exponent |
| -0.261255 | -0.809445 | 0.675403 | 0.894853 | Increased Expression with Increasing Exponent |
| $-0.25416$ | -0.808998 | 0.708171 | 0.894857 | Increased Expression with Increasing Exponent |
| 173609 | -0.810343 | 0.875244 | 0.894918 | Increased Expression with Increasing Exponent |
| -0.199373 | -0.810067 | 0.678351 | 0.895003 | Increased Expression with Increasing Exponent |
| $-0.208148$ | -0.81101 | 0.684631 | 0.895008 | Increased Expression with Increasing Exponent |
| -0.256194 | -0.809102 | 0.681188 | 0.89507 | Increased Expression with Increasing Exponent |
| -0.22157 | -0.810663 | 0.719298 | 0.895199 | Increased Expression with Increasing Exponent |
| 210963 | -0.807945 | 0.726899 | 0.895478 | Increased Expression with Increasing Exponent |
| $-0.343755$ | -0.807555 | 0.654 | 0.895725 | Increased Expression with Increasing Exponent |
| -0.430768 | -172,644 | 0.0211132 | 0.896362 | Increased Expression with Increasing Exponent |
| -0.26746 | -0.806169 | 0.698444 | 0.896848 | Increased Expression with Increasing Exponent |
| $-0.356808$ | -0.80628 | 0.65587 | 0.89706 | Increased Expression with Increasing Exponent |
| -0.202759 | -0.806468 | 0.678227 | 0.897155 | Increased Expression with Increasing Exponent |
| -0.23109 | -0.805263 | 0.69246 | 0.897186 | Increased Expression with Increasing Exponent |
| -0.204312 | -0.805431 | 0.77757 | 0.897306 | Increased Expression with Increasing Exponent |
| -0.219928 | -0.805659 | 0.687623 | 0.897336 | Increased Expression with Increasing Exponent |
| $-0.195669$ | -0.804785 | 0.784585 | 0.897574 | Increased Expression with Increasing Exponent |
| -0.227999 | -0.803454 | 0.751866 | 0.899039 | Increased Expression with Increasing Exponent |
| $-0.269924$ | -0.803515 | 0.751046 | 0.899347 | Increased Expression with Increasing Exponent |
| $-0.183494$ | -0.802723 | 0.832323 | 0.899898 | Increased Expression with Increasing Exponent |
| $-0.211249$ | -0.799878 | 0.756 | 0.900592 | Increased Expression with Increasing Exponent |
| $-0.255236$ | -0.801255 | 0.702595 | 0.90074 | Increased Expression with Increasing Exponent |
| -0.210372 | -0.801469 | 0.69697 | 0.900778 | Increased Expression with Increasing Exponent |
| -0.18269 | -0.801629 | 0.819444 | 0.900919 | Increased Expression with Increasing Exponent |
| -0.18265 | -0.799881 | 0.795367 | 0.90099 | Increased Expression with Increasing Exponent |
| -0.236184 | -0.799314 | 0.681542 | 0.90117 | Increased Expression with Increasing Exponent |
| -0.256494 | -0.800263 | 0.716216 | 0.901172 | Increased Expression with Increasing Exponent |
| $-0.205312$ | -0.799979 | 0.748016 | 0.901244 | Increased Expression with Increasing Exponent |
| -0.222604 | -0.801649 | 0.742366 | 0.901287 | Increased Expression with Increasing Exponent |
| $-0.200343$ | -0.800416 | 0.77439 | 0.901315 | Increased Expression with Increasing Exponent |
| $-0.215183$ | -0.800458 | 0.702259 | 0.901649 | Increased Expression with Increasing Exponent |
| -0.205854 | -0.797263 | 0.706767 | 0.902154 | Increased Expression with Increasing Exponent |
| $-0.253212$ | -0.793508 | 0.705155 | 0.902259 | Increased Expression with Increasing Exponent |
| $-0.184231$ | -0.797283 | 0.799611 | 0.902528 | Increased Expression with Increasing Exponent |
| -0.241342 | -0.793595 | 0.707724 | 0.902529 | Increased Expression with Increasing Exponent |
| $-0.187638$ | -0.796769 | 0.807843 | 0.902595 | Increased Expression with Increasing Exponent |
| -0.181368 | -0.797446 | 0.814286 | 0.902665 | Increased Expression with Increasing Exponent |
| $-0.203568$ | -0.798179 | 0.806911 | 0.902687 | Increased Expression with Increasing Exponent |
| $-0.172547$ | -0.792242 | 0.825743 | 0.902689 | Increased Expression with Increasing Exponent |
| -0.2321 | -0.793746 | 0.671756 | 0.902691 | Increased Expression with Increasing Exponent |
| $-0.284508$ | -0.792432 | 0.663883 | 0.90277 | Increased Expression with Increasing Exponent |
| $-0.206383$ | -0.791922 | 0.767619 | 0.902829 | Increased Expression with Increasing Exponent |
| $-0.205058$ | -0.797845 | 0.684959 | 0.902831 | Increased Expression with Increasing Exponent |
| -0.22439 | -0.794126 | 0.679283 | 0.902851 | Increased Expression with Increasing Exponent |
| $-0.284723$ | -0.79259 | 0.71097 | 0.90292 | Increased Expression with Increasing Exponent |
| $-0.19297$ | -0.790412 | 0.781008 | 0.902929 | Increased Expression with Increasing Exponent |
| -0.215261 | -0.792839 | 0.66998 | 0.90294 | Increased Expression with Increasing Exponent |
| $-0.230096$ | -0. | 0.716832 | 0.90301 |  |

LIANG_HEMATOPOIESIS_STEM_CELL_NUMBER_LARGE_VS_TINY_DN REACTOME_RRSZ_MEDAATED_CASCAD MCCLUNG_COCAINE_REWARD_5D HOEGERKOR_CDA4_TARGETS_TEMPORAL_DN
 LANG_MYB FAMILY TARGETS
BURTON_ADIPOGENESIS PEAK AT 8H REACTOME_A_Tterasaccharide_linker_sequence_Is_required_for MCGARVEV_SILENCED_BY_MEHYLATION_IN_COLON_CANCER KONDO_PROSTATE_CANCER_WITH_H3K27M KUNINGER_IGFI_VS_PDGFB_TARGETS_-
 IN_NPASA_TARGETS_D MOOTHA_GLYCOLYSIS
REACTOME_NOTCH HLH TRANSCRIPTION_PATHW BIICARTA_STEM_PATHWAY
CHEN_LIVER_METABOLISM_OTL
LEE_AGING_CEREBELLUM_
PID_TCR RAS PATHWAY
IZUKA LIVER CANCER PROGRESSION G2 G3
MATZUK_MEIOTIC_AND_DNA_REPAIR
QI_PLASMACYTOMA_DN
DER_IIN_BETA_RESPONSE_U TIEN_GTESTINE MA_COTY_NUMBER_d MASSARWEH RESPONSE TO_ ESTR_DN
MAHADEVAN_IMATINIB_RESITANCE_U
ALONSO_METASTASIS_UP
ancalovic_RESPONSE_TO_OXIIIZED_PHOSPHOLIPIDS_YELLOW_UP REACTOME_CELL_EXTRACE YAO_TEMPORAL_RESPONSE
BIOCARTA_RAS_PATHWAY KAAB_FAILED_HEART_ATRIUM_DN
CHANG POUEFE_MYELOMA_MF
KEGG_SPHINGOLIPID_ME-
REACTOME_MAP_KINASE_ACTIVATION_IN_TLR_CASCADE FIGUEROA_AML_METHYLATION_CLUSTER_6_UP BENPORATH_NOS_TARGETS
XU_HGF_TARGES_REPRESSED_BY_AKT1_DN
PEACTOME SVNTHESSIS
 _SULFATE_KERATIN_METABOLISM
KIM ALL_DISORDERS_CALB1_CORB_ 4
WEST_ADRENOCORTICAL_CARCINOMA_VS_ADENOMA_DN TRAYNOR_RETT_SYNDROM_DN VALK_AML_CLUSTER_15
REACTOME_GRB2_EVENTS_IN_ERBB2_SIGNALING WORSCHECH_TUMOR_REICCTOO
PID_RELIN_PATHWAY
DANG_MYC_TARGETS_D
fridman_immortalization_dn REACTOME_SIGNALING_BY_NOTCH1 REACTOME_CELL_CELL_COMMUNICATIO KEGG_DIPCYTOK_NE SIGNANGT1_UUSION_GRANULOCYTE_DN reactome_gaba_receptor_Actvation MARTINEZ_RESPONSE-TO_TRABECTEDIN_U
ZHENG_RESPONSE_TO_ARSENITE_U
OSADA_ASCLI_TARGETS_UP
ZHONG_RESPONSE_TO_AZACTITIINE_AND_TSA_DN RIZ_ERTTHROID_DIFFERENTIATION_12
REACTOME_CLASS_A1_RHODOPSIN_LIKE_RECEPTOR
REACTOME_SIGNALING_BY BMP
GAVIN_FOXP3_TARGETS_CLUSTER
PAPASPYRIDONOS_UNSTABLE_ATEROSCLLROTIC_PLAQUE_UP KREPPEL_CDO9_TARGETS_DN
TANG_SENESCENCE_TP53_TARGETS_ halmos_cebpa_targets_dn
TORCHIA_TARGET_OF_EWSR1_FL1_ FUSION TOP2O U
HE_PTEN_TARGETS_DN
ZHANG_TLX_TARGES_DN
KEGG_PRIMARY_IMMUNODEFICIENCY
PANGAS TUMOR _UUPPRESSION_BY_SMAD1_AND_SMADS_DN PANGAS_TUMOR_SUPPRESSIO
ROSS_AML_WITH_CBFB_MYH11_EUSION
gavin_pdeze_targets
PLASARI_TGFB1_TARGETS_1HR_UP
DASU_LIL_SIGNALING_SCA
KEGG_MELANOGENESIS
KEGG_MELANOGENESIS PID_THROMBIN_PAR1_PATHWAY TAVOR_CEBPA_TARGETS_DN
GERHOLD ADIPOGENESIS
AANG CLASSIC_ADIPOGENIC_TARGETS
BROWNE_HCMV_INFECTION_10HR_DN
KEGG_PANTOTHENATE_AND_COA_BIOSYNTHESIS
KEGG_ENDOCYTOSIS
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| -0.203091 | -0.797451 | 0.748988 | 0.903062 | Increased Expression with Increasing Exponent |
| :---: | :---: | :---: | :---: | :---: |
| -0.195735 | -0.789023 | 0.832031 | 0.90313 | Increased Expression with Increasing Exponent |
| -0.181631 | -0.79419 | 0.866405 | 0.90314 | Increased Expression with Increasing Exponent |
| -0.238088 | $-0.794435$ | 0.745491 | 0.903146 | Increased Expression with Increasing Exponent |
| -0.219659 | -0.790764 | 0.721774 | 0.903158 | Increased Expression with Increasing Exponent |
| -0.261252 | -0.790498 | 0.697228 | 0.903193 | Increased Expression with Increasing Exponent |
| -0.224508 | -0.795619 | 0.718504 | 0.903268 | Increased Expression with Increasing Exponent |
| -0.220305 | -0.79581 | 0.721689 | 0.903353 | Increased Expression with Increasing Exponent |
| -0.242019 | -0.788634 | 0.712575 | 0.903361 | Increased Expression with Increasing Exponent |
| -0.219307 | -0.789361 | 0.742331 | 0.903388 | Increased Expression with Increasing Exponent |
| -0.204606 | -0.794547 | 0.770138 | 0.903391 | Increased Expression with Increasing Exponent |
| -0.200144 | -0.789111 | 0.77131 | 0.903399 | Increased Expression with Increasing Exponent |
| -0.172793 | -0.795275 | 0.874752 | 0.903403 | Increased Expression with Increasing Exponent |
| -0.207384 | -0.794737 | 0.730539 | 0.903485 | Increased Expression with Increasing Exponent |
| -0.197614 | -0.790799 | 0.784861 | 0.903504 | Increased Expression with Increasing Exponent |
| $-0.264213$ | -0.788271 | 0.686 | 0.903538 | Increased Expression with Increasing Exponent |
| -0.231831 | -0.795921 | 0.748454 | 0.903567 | Increased Expression with Increasing Exponent |
| $-0.27281$ | -0.794898 | 0.687631 | 0.903598 | Increased Expression with Increasing Exponent |
| -0.278063 | -0.789477 | 0.715128 | 0.903614 | Increased Expression with Increasing Exponent |
| -0.200867 | -0.7877 | 0.732558 | 0.903641 | Increased Expression with Increasing Exponent |
| -0.193323 | -0.787886 | 0.769539 | 0.903742 | Increased Expression with Increasing Exponent |
| -0.237497 | -0.790882 | 0.736842 | 0.903784 | Increased Expression with Increasing Exponent |
| -0.220684 | -0.789556 | 0.741736 | 0.903895 | Increased Expression with Increasing Exponent |
| -0.206069 | -0.791007 | 0.777778 | 0.903969 | Increased Expression with Increasing Exponent |
| -0.199589 | -0.787159 | 0.747012 | 0.904093 | Increased Expression with Increasing Exponent |
| -0.232943 | -0.785151 | 0.692632 | 0.904206 | Increased Expression with Increasing Exponent |
| -0.223264 | -0.785314 | 0.705202 | 0.904319 | Increased Expression with Increasing Exponent |
| $-0.18121$ | -0.785432 | 0.818 | 0.904495 | Increased Expression with Increasing Exponent |
| -0.192538 | -0.785436 | 0.818713 | 0.904887 | Increased Expression with Increasing Exponent |
| -0.223767 | $-0.786278$ | 0.798781 | 0.905084 | Increased Expression with Increasing Exponent |
| -0.196726 | -0.785495 | 0.760081 | 0.905191 | Increased Expression with Increasing Exponent |
| -0.220984 | -0.784223 | 0.740079 | 0.905358 | Increased Expression with Increasing Exponent |
| -0.287037 | -0.785576 | 0.689788 | 0.905457 | Increased Expression with Increasing Exponent |
| -0.282377 | -0.785792 | 0.696538 | 0.905506 | Increased Expression with Increasing Exponent |
| -0.194306 | -0.783292 | 0.773279 | 0.906477 | Increased Expression with Increasing Exponent |
| -0.22896 | -0.782739 | 0.758285 | 0.906593 | Increased Expression with Increasing Exponent |
| -0.200917 | -0.78289 | 0.733198 | 0.906759 | Increased Expression with Increasing Exponent |
| -0.221679 | -0.781505 | 0.742063 | 0.906943 | Increased Expression with Increasing Exponent |
| -0.268778 | -0.780788 | 0.709552 | 0.907285 | Increased Expression with Increasing Exponent |
| -0.234033 | $-0.781003$ | 0.712551 | 0.90734 | Increased Expression with Increasing Exponent |
| $-0.20416$ | -0.781506 | 0.719368 | 0.90734 | Increased Expression with Increasing Exponent |
| -0.158767 | -0.78193 | 0.948669 | 0.907455 | Increased Expression with Increasing Exponent |
| -0.168542 | -0.781529 | 0.87674 | 0.907698 | Increased Expression with Increasing Exponent |
| -0.177241 | -0.780122 | 0.846918 | 0.907943 | Increased Expression with Increasing Exponent |
| -0.331899 | -0.779038 | 0.690249 | 0.908035 | Increased Expression with Increasing Exponent |
| -0.255585 | -0.779085 | 0.744283 | 0.908353 | Increased Expression with Increasing Exponent |
| -0.228293 | -0.779213 | 0.739464 | 0.908561 | Increased Expression with Increasing Exponent |
| -0.267089 | -0.778124 | 0.734104 | 0.908705 | Increased Expression with Increasing Exponent |
| -0.230326 | -0.777832 | 0.743689 | 0.908764 | Increased Expression with Increasing Exponent |
| -0.254428 | -0.77928 | 0.690945 | 0.908855 | Increased Expression with Increasing Exponent |
| -0.257217 | -0.778177 | 0.687251 | 0.909006 | Increased Expression with Increasing Exponent |
| -0.220489 | -0.777121 | 0.762475 | 0.909533 | Increased Expression with Increasing Exponent |
| -0.200193 | -0.776584 | 0.823985 | 0.91 | Increased Expression with Increasing Exponent |
| -0.205134 | -0.775195 | 0.789784 | 0.911005 | Increased Expression with Increasing Exponent |
| $-0.28875$ | -0.774901 | 0.729084 | 0.911071 | Increased Expression with Increasing Exponent |
| -0.211066 | -0.775267 | 0.743434 | 0.91129 | Increased Expression with Increasing Exponent |
| -0.215948 | -0.775482 | 0.742126 | 0.911344 | Increased Expression with Increasing Exponent |
| -0.258658 | -0.774215 | 0.7154 | 0.911381 | Increased Expression with Increasing Exponent |
| -0.181737 | -0.773901 | 0.848837 | 0.911509 | Increased Expression with Increasing Exponent |
| -0.171687 | -0.774379 | 0.884086 | 0.911518 | Increased Expression with Increasing Exponent |
| -0.278617 | -0.773056 | 0.695122 | 0.91246 | Increased Expression with Increasing Exponent |
| -0.185145 | -0.772415 | 0.854086 | 0.912677 | Increased Expression with Increasing Exponent |
| -0.220922 | -0.772627 | 0.718563 | 0.912718 | Increased Expression with Increasing Exponent |
| -0.198469 | -0.771022 | 0.780392 | 0.912882 | Increased Expression with Increasing Exponent |
| -0.285327 | -0.771524 | 0.700803 | 0.912911 | Increased Expression with Increasing Exponent |
| -0.197413 | -0.771159 | 0.826848 | 0.913053 | Increased Expression with Increasing Exponent |
| -0.223849 | -0.771671 | 0.721545 | 0.913072 | Increased Expression with Increasing Exponent |
| -0.193489 | -0.771869 | 0.803213 | 0.913143 | Increased Expression with Increasing Exponent |
| -0.212502 | -0.769949 | 0.761905 | 0.913395 | Increased Expression with Increasing Exponent |
| -0.241457 | -0.770164 | 0.732 | 0.91344 | Increased Expression with Increasing Exponent |
| -0.228847 | -0.76958 | 0.754032 | 0.913581 | Increased Expression with Increasing Exponent |
| -0.185371 | -0.769272 | 0.80396 | 0.913668 | Increased Expression with Increasing Exponent |
| -0.275342 | -0.769002 | 0.680244 | 0.913699 | Increased Expression with Increasing Exponent |
| $-0.283646$ | -0.770214 | 0.706587 | 0.913753 | Increased Expression with Increasing Exponent |
| -0.222163 | -0.768098 | 0.747059 | 0.913931 | Increased Expression with Increasing Exponent |
| $-0.204372$ | -0.768351 | 0.794059 | 0.91395 | Increased Expression with Increasing Exponent |
| -0.248382 | -0.768514 | 0.772277 | 0.914083 | Increased Expression with Increasing Exponent |
| -0.280098 | -0.767372 | 0.710794 | 0.91424 | Increased Expression with Increasing Exponent |
| -0.177569 | -0.766836 | 0.857143 | 0.914316 | Increased Expression with Increasing Exponent |
| -0.179732 | -0.76704 | 0.844358 | 0.91438 | Increased Expression with Increasing Exponent |
| -0.24497 | $-0.766034$ | 0.724272 | 0.914416 | Increased Expression with Increasing Exponent |
| -0.251981 | -0.76742 | 0.687764 | 0.914562 | Increased Expression with Increasing Exponent |
| -0.166995 | -0.766096 | 0.901235 | 0.914717 | Increased Expression with Increasing Exponent |
| -0.187415 | -0.7663 | 0.849794 | 0.914783 | Increased Expression with Increasing Exponent |
| -0.257906 | -0.765246 | 0.632296 | 0.914833 | Increased Expression with Increasing Exponent |
| $-0.287812$ | -0.765433 | 0.678501 | 0.914938 | Increased Expression with Increasing Exponent |
| -0.541623 | -172,698 | 0.0277228 | 0.91508 | Increased Expression with Increasing Exponent |
| -0.218773 | -0.761552 | 0.797665 | 0.915425 | Increased Expression with Increasing Exponent |
| -0.178149 | -0.764579 | 0.843373 | 0.915484 | Increased Expression with Increasing Exponent |
| -0.210642 | -0.764207 | 0.779528 | 0.91565 | Increased Expression with Increasing Exponent |
| -0.206751 | -0.76061 | 0.780583 | 0.915651 | Increased Expression with Increasing Exponent |
| -0.249513 | -0.76159 | 0.731707 | 0.915761 | Increased Expression with Increasing Exponent |
| -0.210234 | -0.763876 | 0.792415 | 0.915783 | Increased Expression with Increasing Exponent |
| -0.246921 | -0.761046 | 0.757752 | 0.915806 | Increased Expression with Increasing Exponent |
| -0.191157 | -0.763595 | 0.856867 | 0.915812 | Increased Expression with Increasing Exponent |
| -0.18778 | -0.760772 | 0.846 | 0.915827 | Increased Expression with Increasing Exponent |
| -0.249805 | -0.761677 | 0.74902 | 0.916014 | Increased Expression with Increasing Exponent |
|  |  |  |  |  |

NGUYEN_NOTCH1_TARGETS_U
GOTZMANN_EPTHLTPLE_MYELOMA_IGL__VS_IGLK_UP REICHERT_MITOSIS_LING_TARGETS
ZERNARD_PPAPDCLB_IAREETS_DN
Bhatacharya embryonic stem_cel
SESTO_RESPONSE_TO_UV_CO
GALI_TP53_TARGETS_APOPTOTIC_DN
REACTOME_RNA_POL_IIITTAANCRIPTION_INITIATION_FROM_TTPE_3 LIN_MELANOMA_COPY_NUMBER_UP REACTOME_PROSTANOID_HGAND PECCPTOIS
REACTOME_ACTVATED_TAK1_MEDIATES_P38_MAPK_ACTIVATION REACTOME HIGHLY CHIBA_RESPONSE_TO_TSA REACTOME_TRANSPORT_OF_MATURE_TRANSCRIPT_TO_CYTOPLASM BOYERINAS_ONCOFETAL_TARGETS_OF_LET7A1 KANNAN_TP53_TARGETS_D KANNAN_TP53_TARGETS_U WU_APOPTOSIS_BY_CDKN1A_NOT_VIA_TP5 NUNODA_RESPONSE-TO_DASATINIB_IMATINIB PASQUALUCCI_LYMPHOMA_BY_GC_STAGE_DN
MARTORIATI_MDM4_TARGETS_FEAL_LIVER_U
WANG_IMMORTALIZED_BY_HOXA9_AND_MEIS1_DN KLEI__PRIMARY_EFFUSION_LYMPHOMA_U SHEPARD_CRUSH_AND_BURN_MUTANT_DN
BUCKANOVICH T_LYMPHOCYTE HOMING_ON_TUMOR_U BUCKANOVICH_T_LYMPHOCYTE_HO
WIELAND UP BY HBV INEETION
REACTOME_PLL_BETA_MEDIATED_EVENTS
REACTOME_INSULIN_RECEPTOR_RECYCLING
REACTOME_REGULATION_OF_IFNA_SIGNALING
KEGG_HEDGEHOG_SIGNALING_PATHWAY
REACTOME_ADENYLATE_CYCLASE_ACTVATING_PATHWAY LEE_LIVER_CANCER_MYC_TGFA_DN SMITH_TERT_TARGETSUP
HOFFMANN PRE BITO LOARGE
LARGE_PRE_BII_LYMPHOCYTE_DN sChLESINGER_METHYLATED_DE_NOVO_IN_CANCER KEGG_INOSTIOL_PHOSPHATE_METABOLISM REACTOME_RIG_LMDA5_MEDIATED_INDUCTION_OF_IFN_ALPHA_BETA WATEL_AUTONOMOUS_THYROID_ADENO HASLINGER_B_CLL_W
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KUROKAWA_LIVER_CANCER_CHEMOTHERAPY_UP SMITH_TERT_TARGETS_DN
LIN_MELANOMA_COPY_NUMBER_DN
BANDRES_RESPONSE_TO_CARMUSTIN_MGMT_48HR_UP WUNDER_INLLAMMATORY_RESPONSE_AND_CHOLESTEROL_U EHRLCCH_ICF_SYNDROM_DN REACTOME_INTEREERON_SIG

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\begin{aligned}
& \text { PID_PIK__PCC.TRK_PATHWA } \\
& \text { MIKKELSEN MCV6 ICP WWTH }
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CERVERA_SDHB_TARGETS_2
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VERNELLRETNOBLATIOMA_PATHWAY_DN BIOCARTA_VITCB_PATHWAY
JOHNSTONE_PARVB_TARGETS_2_UP OHGUCHI_LVER_HNF4A_TARGETS_DN WEST_ADRENOCORTICAL_TUMOR_MARKERS_UP YAO_TEMPORAL_RESPONSE_TO_PROGESTERONE CLUSTER_1 W- WS TUMOR VS FETAL KIDNEY_U BHAT_ESR1_TARGETS_NOT VIA_AKT1_DN BIOCARTA_GLYCOLYSIS_PATHWAY KONDO_COLON_CANCER_HCP_WITH_H3K27ME1 REACTOMEINTERFERON_GAMMA_SIGNAL SA_REG_CASCADE_OF_CYCLIN_EXPR TANG_SENESCENCE-TP53_TARGETS_DN NAKAIMA_MAST_CELI
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WU_HBX_TARGETS_3_DN
CHARAFE_BREAST_CANCER_BASAL_VS_MESENCHYMAL_U BIOCARTA_EIF2_PATHWAY

NATSUME_RESPONSE_TO INTEREERON BETA HUMMERICH_MALIGNANT_SKIN_TUMOR UP REACTOME_BIOSYNTHESII_OF_THE_N_GLYCAN_PRECURSOR_DOLICHO GOBERT_CORE_OLIGODENDROCYTE_DIFFERENTIATION OUYANG_PROSTATE_CANCER_MARKER REACTOME_METABOLISM_OF_VITAMINS_AND COFACTO ZHOU_PANCREATIC_EXOCRINE_PROGENIT
IKEDA_MIR3O_TARGETS_DN
FARDIN_HYPOXIA_11
MALIK_REPRESSED_BY_ESTROGEN SHAFFER_RFF_TARGETS_IN_ACTVATED_DENDRTIIC_CELL YOSHIOKA_LVER_CANCER_EARLY_RECURRENCE_D HOEGERKORP_CD44_TARGETS_M KATSA N_IN_PANCREATIC_CANCER_ intan_Madi_AAgensom BOYLAN_MULTPLE MYELOMA D_CLUSTER UP
BROWNE_INTERFERON_RESPONSIVE_GENES REACIOME_ACTVATION_OF_BH3_ONLY_PROTEINS
ST_G_ALPHA_S_PATHWAY
PID ॥I_CXCR2 PATHWAY
HOSHIDA_LIVER_CANCER_SUBCLASS_SZ
Yokoe CANCER TESTIS ANTIGENS
SCHLINGEMANN SKIN_CARCINOGENESIS TPA UP hedenfalk_breast_CAncer_herediary_vs_sporadic REACTOME_GLUCURONIDATION KEGG PURINE METABAU
TESAR_ALK_TARGETS_EPISC_3D_U WINTER_HYPOXIA_UP
PID_MYC_ACTIV_PATHWAY
BOYAULT_LIVER_CANCER_SUBCLASS_G12_UP
WONG_ENDMETRIUM_CANCER_DN
XU_HGF_TARGETS_INDUCED_BY_AKT1_48HR
XU_AGTOME_TARGETS_INDSUCISIOD_BY_ACROSS_CHEMICAL_SYNAPSE RALK_AML_CLUSTER_8
MIKKELSEN_ES_ICP_WITH_H3K4ME3_AND_H3K27ME3 WANG_BARRETTS_ESOPHAGUS_AND_ESOPHAGUS_CANCER_D

REACTOME_O_LINKED_GLYCOSYLATION_OF_MUCIN
YANG_BREAST_CANCER_ESRR_LASER_DN
AIYAR_COBRA1_TARGETS_
RECKER_IFNBE_RA_TARGETS
AKL_HTLV1_INFECTION_DN
REACTOME_PHOSPHOLIPID_MEABOLISM
wotton_rund_TARGETs_U
TARTE_PLASMA_CELL_VS_B_LYMPHOCYTE_U
HEDENFALL_BREAST_CANCER_BRACX_U
SCHLESINGER_H3K27ME3_IN_NORMAL_AND_METHYLATED_IN_CANCER LIN_NPASA_TARGETS_U
GRANDVAUX_IRF3_TARGETS_U
REACTOME_REGULATON_OF_INSULIN_SECRETION_BY_GLUCAGON_LIK MARKEY_RB1_CHRONIC_LOF_DAUER_STAT3_TARGETS_D
REACTOME_METABOLISM_OF_POLYAMINES
LEE LIVER_CANCER E2F1_DN LEE_LIVER_CANCER_E2F1_D
REACTOME PIKA_MEDIATED Phosphorlation_of_creb HSIAO_LIVER_SPELIFIC_GENES
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RESPONSE TRANSLATIO
REACTOME_TRANSLOCATION_OF_ZAP_70_TO_IMMUNOLOGICAL_SYNAPS KEGG_GLYOXVLATE_AND_DICARBOXYLATE_METABOLISM REACTOME_BLLE_SALT_AND_ORGANIC_ANION_SLC_TRANSPORTERS



0.933861 0.934117
0.934192 0.934192
0.934225 0.934225
0.934269 0.934367
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REICHERT_G1S PEGULED_BY_HISTONE_ACETYLATION_U REICHERT_G1S_REGULATORS_AS_PIIK_TARG reactome_INTERFERON_ALPHA_BETA_SIGNALING SCHAEFFER_PROSTATE_DEVELOPMENT_6HR_UP REACTOME_ACYL_CHAIN_REMODELING_OF_PC REACTOME_INSULIN_SYNTHESIS_AND_PROCESSING Chebotalv_GR_TARGETS_DN
REACTOMEIRON_UPTAKE_AND_TRANSP
KYNG_NORMAL_AGING_DN
VARELA_ZMPSTE24_TARGETS D
SCHAEFFER_PROSTATE_DEVELOPMENT_AND_CANCER_BOX5_DN BOYAULT_LIVER_CANCER_SUBCLASS_G6_DN BAFNA_MUC4_TARGETS_U
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BIOCARTA_PARKIN_PATHWAY MASRI_RESISTANCE_TO_TAMOXIEN_AND_AROMATASE_INHIBITORS KEGG_GLYCOSAMINOGLYCAN_BIOSYNTHESIS_KERATAN_SULFATE RAMIAUN_APOPTOSIS_BY_TGFB1_VIA_SMAD4_UP REACTOME_NUCLEAR_EVENTS_KINASE_AND_TRANSCRIPTION_FACTO JEON_SMADE_TARGETS_DN
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1_AND_DAX1_UP
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SHIPP_DLBCL_CURED_VS_FATAL_DN
RASHI_RESPONSE_TO_IONIZING_RADIATION 4
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SHIN_B_CELL_YMPHOMA_CIUSTER_5
MKKELSEN_MEF_LCP_WITH_HKK4ME3_AND_H3K27ME3 REACTOME_SLBP_DEPENDENT_PROCESSING_O__REPLICATION_DEPEND NIKOLSKY_BREAST_CANCER_6P24_P22_AMPLICON

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MYLIYKANGAS_AMPLIFICATION_HOT_SPOT_21
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KEGG_TYPE_IDIABETES_MELITUS
RICKMAN_TUMOR_DIFFERENTATED_MODERATELY_VS_POORLY_DN KEGG_AUTOIMMUNE_THYROID_DIIEAS
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tp://www.broadinstitute.org/gsea/ msigdb/cards/wU_HBX_TARGETS___DN

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$\mathrm{http}: / / \mathrm{www}$.broadinstitute.ors/gsea/msigd $/$ /cards $/$ KOINUMA_COLON_CANCER_MS_UP


[^1]0.200312-0.200312
-0.157742
-0.215235

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BOYAULT_LIVER_CANCER_SUBCLASS_G3_UP
REACTOME_TRAFA_DEPNDENT_IRF_ACTVATION_PATHWAY ZHAN_MULTIPLE_MYELOMA_HP_DN
KEGG_ANTIGEN_PROCESSING_AND_PRESENTATION VERHAAK_GLIOBLASTOMA_PRONEURAL
WYLLIMAMS_ESR1 TARGETS_DN
XU_AKT1_TARGETS_GHR
MIKKELSEN_DEDIFFERENTIATED_STATE_UP
PID_AURORA_B_PATHWAY
SCIBETTA KDM5B TARGETS
SCIBETTA_KDMSB_TARGETS_DN
XU_RESPONSE_TO_TRETINOIN_AND_NSC682994_U
REACTOME_CGMP_EFFECTS
DER_IFN_GAMMA_RESPONSE_U
VANDESLUI_COMMD1_TARGET
PUJANA_BREAST_CANCER_WITH_BRCA1_MUTATED_U YAMASHITA_LIVER_CANCER_WIH_EPCAM_DN
REACTOME_LYSOSOME_VESCLLE_BIOGENESIS
RAFFEL_VEGFA_TARGETS_U
PEACTOME PROCESSING OE CAPPED_NTRONLESS PRE MRN EINAV INTEREERON SIGNATURE IN CANCE REACTOME_CALNEXIN_CALRETICULIN CYCL REACTOME_DARPP_32_EVENTS
MULLIGAN_NTF_S_IGNALING_VIA_INSR_AND_IGF1R_U KEGG_ALLOGRAFT_REIECTIO
BARRIER_COLON_CANCER_RECURRENCE_U
SARRIO EPITHELAAL_MESENCHYMAL_TRANSITION_U ZHAN_V1_LATE_DIFFERENTIATION_GENES_DN SHIPC_DLBCL_VS_FOLLLC
ZUCCHI_METASTAIS_U
REACTOME_YAP1_AND_WWTR1_TAZ_STIMULATED_GENE_EXPRESSIO NIKOLSKY_BREAST_CANCER_7Q21_Q22_AMPLICON ROETH_TERT_TARGETS_DN
bosco_interferon_INduced_Antiviral_module BIOCARTA_AKAP13_PATHWAY
Le_neuronal_difererntiation
MOSERLE_IFNA_RESPONSE
RANkI_ANGIogenic_targets_Of_Vhl_hifza_dn NAKAMURA_BRONCHIAL_AND_BRONCHIOLAR_EPTHELIA LIU_IL13_MEMORY_MC
KONG_E2F3_TARGES
REACTOME PROCESSING OF INTRONLESS PRE MPNAS REACTOME_N_GLYCAN_TRIMMING_IN_THE_ER_AND_CALNEXIN CALRG KEGG_SNARE_INTERACTIONS_IN_VESICULAR_TRANSPORT
STEIN_ESRRA_TARGETS_RESPONSIVE_TO_ESTROGEN_D
CASORELLI_APL_SECONDARY_VS_DE_NOVO_DN
BOWIE_RESPONSE_TO_EXTRACELULLAR_MATRIX
BALLI_DEVELOPMENTAL_DISABLLTYYP16_P12_DELetION
RADAEVA_RESPONSE_TO_IFNA1_UP
SANA_RESPONSE_TO_IFNG_UP
UROSEVIC_RESPONSETO_IMIQUIMOD
LEE_METASTASIS_AND_RNA_PROCESSING_
KEGG PENTOSE PHOSPHATE PATHWA
KEGG_PENTOSE_AND_GLUCURONATE_INTERCONVERSIONS
KEGG FRUCTOSE AND MANNOSE METABOUSM
KEGG_GALACTOSE_METABOLISM
KEGG_ASCORBATE_AND_ALDARATE_METABOLISM
KEGG_FATTY_ACID_METABOLIS
KEGG__STERODD_BIOSYNTHESIS
KEGG Prim
KEGG_ALANINE_ASPARTATE_AND_GLUTAMATE_METABOLISM
KEGG_GLYCINE_SERINE AND THREONINE METABOLISM
KEGG-_ALINE_LEUCINE_AND_ISOLEUCINE_DEGRADATI
KEGG_LYSINE_DEGRADATIO
KEGG_ARGIIINE_AND_PROLINE_METABOLISM KEGG_HISTIDINE_METABOLISM
KEGG_TRYPTOPHAN_METABOLSM
KEGG_BETA ALANINE_METABOLISM
KEGG_TAURINE_AND_HYPOTAURINE METABOLISM
KEGG_CELNOAMINO_ACID_METABO
KEGG_STARCH_AND_SUCROSE_MEIABOLIS
kEGG_OTHER_GLYCAN_DEGRADATION
KEGG_AMINO_SUGAR_AND_NUCLEOTIDE_SUGAR_METABOLISM KEGG_GLICOSAMNOLCA_DEGRADATIO
KEGG_GYCOSAMINOGYCA_ BOSYNHESSIS_CHONDROITIN_SULFATE kEGG_GLYCEROLIPID_METABOLISM
KEGG_GLYCCSYLPHOSPHATIDYLINOSITOL_GPI_ANCHOR_BBOSYNTHESIS
KEGG_GLYCEROPHOSPHOLIPID_ME
KEGG_ARACHIDONIC_ACID_METABOL
KEGG_LINOLEIC_ACID_METABOLISM KEGG_GYCOSPHNGLIPD_BIOSYNTHESIS_LACTO_AND_NEOLACTO_SE KEGG_GIYCOSPHINGOLPID_BIOSTNTHESIS_GLOBO_SERIES
KEGG_ONE_CARBON_POOL_BY_FOLATE
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http://www.broadinstitute.or/g/gsea/msigdb/cards/REACTOME_TRAF3_DEPENDENT_IRF_ACTVATION_PA 33 http $/ / /$ www.broadinstitute.org/gsea/msigdb/cards/ZHAN_MULTIPLE_MYELOMA_HP_DN http $/ / /$ www.broadinstitute.org/gsea/msigdb/cards/KEGG_ANTIGEN_PROCESSING_AND_PRESENTATION http://www.broadinstitute.org/ssea/msigd b/cards/NERHAAK_GLIOBLASTOMA_PRONEURAL
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 ttp://www.broadinstitute.org/gsea/msiigd//cards/REACTOME_CALNEXIN_CALREICULIN_CYCLE htp: //www.broadinstitute.org/gsea/msigdb/cards/REACTOME_DARPP_32_EVENTS
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| -0.154372 | -0.520179 | 0.956967 | 0.990785 | Increased Expression with Increasing Exponent |
| :---: | :---: | :---: | :---: | :---: |
| -0.165119 | -0.521009 | 0.983871 | 0.990877 | Increased Expression with Increasing Exponent |
| -0.138336 | -0.484097 | 0.991984 | 0.991501 | Increased Expression with Increasing Exponent |
| -0.150329 | -0.484731 | 0.957576 | 0.991711 | Increased Expression with Increasing Exponent |
| -0.18175 | -0.485818 | 0.86558 | 0.991801 | Increased Expression with Increasing Exponent |
| -0.217813 | -0.514839 | 0.938124 | 0.991875 | Increased Expression with Increasing Exponent |
| -0.19156 | -0.51362 | 0.960707 | 0.991906 | Increased Expression with Increasing Exponent |
| -0.155097 | -0.493573 | 0.978131 | 0.99201 | Increased Expression with Increasing Exponent |
| -0.170886 | -0.485855 | 0.980916 | 0.992154 | Increased Expression with Increasing Exponent |
| -0.146331 | -0.476184 | 0.975104 | 0.992252 | Increased Expression with Increasing Exponent |
| -0.138862 | -0.497915 | 0.979592 | 0.992292 | Increased Expression with Increasing Exponent |
| -0.19076 | -0.493783 | 0.926316 | 0.992321 | Increased Expression with Increasing Exponent |
| -0.165877 | -0.474151 | 0.969008 | 0.992346 | Increased Expression with Increasing Exponent |
| -0.262771 | -0.498813 | 0.867327 | 0.992408 | Increased Expression with Increasing Exponent |
| -0.155351 | -0.496015 | 0.939331 | 0.992443 | Increased Expression with Increasing Exponent |
| -0.182509 | -0.48586 | 0.936884 | 0.992515 | Increased Expression with Increasing Exponent |
| -0.187177 | -0.494163 | 0.874739 | 0.992575 | Increased Expression with Increasing Exponent |
| -0.16468 | -0.476306 | 0.981443 | 0.992585 | Increased Expression with Increasing Exponent |
| -0.150631 | -0.488104 | 0.983871 | 0.992661 | Increased Expression with Increasing Exponent |
| -0.175455 | -0.499044 | 0.97955 | 0.992702 | Increased Expression with Increasing Exponent |
| -0.156386 | -0.486157 | 0.990329 | 0.992797 | Increased Expression with Increasing Exponent |
| -0.172991 | -0.476966 | 0.969325 | 0.992804 | Increased Expression with Increasing Exponent |
| -0.197696 | -0.488775 | 0.859155 | 0.99286 | Increased Expression with Increasing Exponent |
| -0.192714 | -0.499733 | 0.925703 | 0.992862 | Increased Expression with Increasing Exponent |
| -0.153766 | -0.509325 | 0.991453 | 0.992879 | Increased Expression with Increasing Exponent |
| -0.155246 | -0.50083 | 0.99031 | 0.992891 | Increased Expression with Increasing Exponent |
| -0.200243 | -0.503892 | 0.855446 | 0.99309 | Increased Expression with Increasing Exponent |
| -0.153771 | -0.466939 | 0.980119 | 0.993133 | Increased Expression with Increasing Exponent |
| -0.135309 | -0.501224 | 1 | 0.993151 | Increased Expression with Increasing Exponent |
| -0.149994 | -0.507154 | 0.93763 | 0.993199 | Increased Expression with Increasing Exponent |
| -0.16703 | -0.502282 | 0.99 | 0.993203 | Increased Expression with Increasing Exponent |
| -0.158857 | -0.504123 | 0.950311 | 0.993394 | Increased Expression with Increasing Exponent |
| -0.131515 | -0.467276 | 0.994036 | 0.993434 | Increased Expression with Increasing Exponent |
| -0.140063 | -0.504684 | 0.989837 | 0.993588 | Increased Expression with Increasing Exponent |
| 0.505282 | 174,462 | 0.0265306 | 0.995912 | Decreased Expression with Increasing Exponent |
| -0.174076 | -0.444371 | 0.976048 | 0.996006 | Increased Expression with Increasing Exponent |
| -0.151353 | -0.438837 | 0.993827 | 0.996078 | Increased Expression with Increasing Exponent |
| -0.14012 | -0.445286 | 0.96008 | 0.996229 | Increased Expression with Increasing Exponent |
| -0.148983 | -0.440304 | 0.991753 | 0.996235 | Increased Expression with Increasing Exponent |
| -0.149596 | -0.446044 | 0.991886 | 0.996467 | Increased Expression with Increasing Exponent |
| -0.195363 | -0.413722 | 0.890438 | 0.997307 | Increased Expression with Increasing Exponent |
| -0.153068 | -0.40939 | 0.979466 | 0.99738 | Increased Expression with Increasing Exponent |
| -0.174081 | -0.419825 | 0.988395 | 0.997382 | Increased Expression with Increasing Exponent |
| -0.133618 | -0.400153 | 1 | 0.997475 | Increased Expression with Increasing Exponent |
| -0.143028 | -0.402727 | 0.949799 | 0.997613 | Increased Expression with Increasing Exponent |
| -0.154795 | -0.414113 | 0.987755 | 0.997626 | Increased Expression with Increasing Exponent |
| -0.145405 | -0.37685 | 0.989899 | 0.997673 | Increased Expression with Increasing Exponent |
| -0.118128 | -0.419968 | 0.997942 | 0.997733 | Increased Expression with Increasing Exponent |
| -0.136191 | -0.384893 | 0.985597 | 0.997891 | Increased Expression with Increasing Exponent |
| -0.152712 | -0.37706 | 0.986166 | 0.998022 | Increased Expression with Increasing Exponent |
| -0.204121 | -0.420381 | 0.923379 | 0.998052 | Increased Expression with Increasing Exponent |
| -0.146765 | -0.385797 | 0.992233 | 0.998202 | Increased Expression with Increasing Exponent |
| 0.139597 | 0.403393 | 0.969171 | 0.999291 | Decreased Expression with Increasing Exponent |
| 0.139195 | 0.392343 | 0.991853 | 0.999397 | Decreased Expression with Increasing Exponent |
| -0.141335 | -0.314758 | 0.979839 | 0.999407 | Increased Expression with Increasing Exponent |
| 0.122279 | 0.33531 | 0.991903 | 0.999756 | Decreased Expression with Increasing Exponent |
| 0.127576 | 0.282467 | 0.985887 | 0.999768 | Decreased Expression with Increasing Exponent |
| 0.139815 | 0.405603 | 0.997959 | 0.99988 | Decreased Expression with Increasing Exponent |
| 0.298749 | 104,166 | 0.384766 | 1 | Decreased Expression with Increasing Exponent |
| 0.164729 | 0.521454 | 0.981818 | 1 | Decreased Expression with Increasing Exponent |
| 0.303762 | 0.924071 | 0.562753 | 1 | Decreased Expression with Increasing Exponent |
| 0.230177 | 0.81232 | 0.702913 | 1 | Decreased Expression with Increasing Exponent |
| 0.282798 | 0.946176 | 0.518595 | 1 | Decreased Expression with Increasing Exponent |
| 0.426392 | 123,259 | 0.225989 | 1 | Decreased Expression with Increasing Exponent |
| 0.461025 | 15,532 | 0.0478088 | 1 | Decreased Expression with Increasing Exponent |
| 0.394358 | 10,321 | 0.449219 | 1 | Decreased Expression with Increasing Expone |
| 0.272465 | 0.920014 | 0.538144 | 1 | Decreased Expression with Increasing Expon |
| 0.257841 | 0.986862 | 0.473684 | 1 | Decreased Expression with Increasing Exponent |
| 0.238946 | 0.892874 | 0.618 | 1 | Decreased Expression with Increasing Exponent |
| 0.440378 | 152,796 | 0.061753 | 1 | Decreased Expression with Increasing Exponent |
| 0.525801 | 164,408 | 0.0356436 | 1 | Decreased Expression with Increasing Exponent |
| 0.53756 | 143,623 | 0.114851 | 1 | Decreased Expression with Increasing Exponent |
| 0.345992 | 130,673 | 0.137725 | 1 | Decreased Expression with Increasing Exponent |
| 0.362953 | 129,085 | 0.150515 | 1 | Decreased Expression with Increasing Exponent |
| 0.363245 | 127,535 | 0.186139 | 1 | Decreased Expression with Increasing Exponent |
| 0.31557 | 111,925 | 0.300199 | 1 | Decreased Expression with Increasing Exponent |
| 0.39119 | 130,357 | 0.159533 | 1 | Decreased Expression with Increasing Expone |
| 0.334569 | 0.996668 | 0.463074 | 1 | Decreased Expression with Increasing Exponent |
| 0.36867 | 133,354 | 0.123732 | 1 | Decreased Expression with Increasing Exponent |
| 0.329434 | 11,449 | 0.280488 | 1 | Decreased Expression with Increasing Exponent |
| 0.21688 | 0.743842 | 0.814346 | 1 | Decreased Expression with Increasing Exponent |
| 0.320323 | 0.88421 | 0.579592 | 1 | Decreased Expression with Increasing Expone |
| 0.221168 | 0.737485 | 0.77732 | 1 | Decreased Expression with Increasing Expone |
| 0.237575 | 0.696058 | 0.770961 | 1 | Decreased Expression with Increasing Exponent |
| 0.413034 | 142,077 | 0.0727273 | 1 | Decreased Expression with Increasing Exponent |
| 0.205174 | 0.744999 | 0.808594 | 1 | Decreased Expression with Increasing Exponent |
| 0.413259 | 149,254 | 0.0547945 | 1 | Decreased Expression with Increasing Expone |
| 0.397539 | 129,859 | 0.171315 | 1 | Decreased Expression with Increasing Expone |
| 0.256073 | 106,895 | 0.350701 | 1 | Decreased Expression with Increasing Exponent |
| 0.184131 | 0.635673 | 0.916836 | 1 | Decreased Expression with Increasing Exponent |
| 0.197791 | 0.685148 | 0.863821 |  | Decreased Expression with Increasing Expone |
| 0.290402 | 0.918983 | 0.56513 | 1 | Decreased Expression with Increasing Expon |
| 0.201441 | 0.61265 | 0.920949 | 1 | Decreased Expression with Increasing Expone |
| 0.163902 | 0.595875 | 0.970817 | 1 | Decreased Expression with Increasing Exponent |
| 0.318932 | 101,243 | 0.453252 | 1 | Decreased Expression with Increasing Expone |
| 0.247607 | 0.802358 | 0.764948 | 1 | Decreased Expression with Increasing Expone |
| 0.272027 | 0.997655 | 0.44382 | 1 | Decreased Expression with Increasing Exp |
| 0.243345 | 0.845472 | 0.658824 | 1 | Decreased Expression with Increasing Exp |

KEGG_FOLATE_BIOSYNTHESIS KEGG_RETINOL_METABOLISM KEGG_PORPHYRIN_AND_CHLOROPHYLL_METABOLISM KEGG_TERPENOID_BACKBONE_BIOSYNTHESIS
KEGG_LMONENE AND PINENE DEGRADATIO KEGG_SULIUUR MEABBOLISM
KEGG_METABOLSM_OF XENOBIOTICS_BY_CYTOCHROME_P45 KEGG_DRUG_METABOLISM_CYTOCHROME_P450
KEGG_DRUG_METABOLISM_OTHER_ENZYMES
KEGG_BIOSYNTHESIS_OF_UNSATURATED_FATTY_ACIDS
KEGG_ABC_TRANSPORTERS
KEGG_RNA_DEGRADATION
KEGG_RNA_POLYMERASE
KEGG_BASAL_TRANSCRIP
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KEGG_PROTEIN_EXPORT
KEGG_PPAR_IIGNALING_PATHWAY
KEGG_BAEE_EECIISION_REPAIR
KEGG NUCLEOTIDE EXCIION
KEGG_NUCLEOTIDEEEXCISION_REPAII
KEGG_MISMATCH_REPAIR
KEGG_MISMATCH_REPAI
KEGG_NON_HOMOLOGOUS_END JOININ
KEGG_CALCIUM SIGNA PATHWAY
KEGG_OOCYTE_MEIOSIS
KEGG_REGULATION_OF_AUTOPHAGY
KEGG_PEROXISOME
KEGG_CARDAC_MUSCLE_CONTRACTIO
KEGG_NOTCH_SIGNALING_PATHWAY
KEGG_RIG_-_LIE_RECEPTOR_SIGNALING_PATHWA
KEGG_OLIFACTORY_TRANSDUCTION
KEGG_TASTE_TRANSDUCTION
KEGG_INSULIN_IIGNALING_PATHWA
KEGG_MATURITY_ONSET_DIABETES_OF_THE_YOUNG
KEGG_VASOPRESSIN_REGULATED_WATER_REABSORPTION
KEGG_ALZHEIMERS DISEASE
KEGG_AMYOTROPHIC_LAT
KEGG_THYROID_CANCER
KEGG_BASAL_CELL_CARCINOMA
BIOCARTA_NO1_PATHWAY BIOCARTA_SRCRPTP_PATHWA BIOCARTA_AMI_PATHWAY
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PID_P3__ALPHA_BETA_DOWNSTREAM_PATHWAY
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REACTOME_OXYGEN_DEPENDENT PROLINE HYDROXYLATION OF HYPOX REACTOME_SYNTHESIS_OF_PIPS_AT THE_LATE_ENDOSOME_MEMBRANE REACTOME_CHONDROITIN_SULEATE_BIOSYNTHESIS REACTOME_THE_ACTVATION_OF_ARYISULFATASES
htp $/ / /$ www.broadinstitute.org/gsea/ $/ \mathrm{msigdd} /$ /cards/REACACTOME_SYNTHESSIS OF PIPS AT THE LATE ENDC 3 REACTOME_SIGNALING_BY_ACTVATED_POINT_MUTANTS_OF_FGFR1 REACTOME_ABACAVIR_TRANSPORT_AND_METABOLISM EEACTOME_CHONDROTTIN_SULFATE_DERMATAN_SULEATE_METABOUS REACTOME_MHC_CLASS_II_ANTIGEN_PRES

Pp.///www.broadinstitute.org/ ssea/ / miigdb/cards/REACTOME_CHONDROITIN_SULFATE_BIOSYNTHESIS
http://www.broadinstitute.org/gsea/msigdb/cards/REACTOME_THE_ACTVATION_OF_ARYLSULFATASES 21 ttp $/ / /$ www.broadinstitute.or $/$ /sseal/msigdb/cards/REACTOME_SIGNALING_BV_ACTIVATED_POINT_MUT/24 $\mathrm{http}: / /$ www.broadinstitute.org/ssea/msigdb/card//REACTOME_ABACAVIR_TRANSPORT_AND_METABOLIS 16 http://www.broadinstitute.org/gsea/msigdb/cards/REACTOME_SIGNALING_BY_FGFR3_MUTANTS REACTOME_MHC_CLASS_II_ANTIGEN_PRESENTATIO
REACTOME GLYCEROPHOSPHOLIPIDBIOSYNTHESIS
http://www.broadinstitute.org/gsea/msigdb/cards/REACTOME_MHC_CLASS_II_ANTIGEN_PRESENTATION 207



| 98803 | 0.720154 | 0.79681 |
| :---: | :---: | :---: |
| 0.188196 | 0.749534 | 0.85458 |
| 0.145011 | 0.528597 | 0.99180 |
| 0.228187 | 0.916616 | 0.59191 |
| 0.235768 | 0.807311 | 0.71784 |
| 0.196774 | 0.801731 | 0.77362 |
| 0.302062 | 11,466 | 0.25656 |
| 0.204664 | 0.869472 | 0.68473 |
| 0.244149 | 101,521 | 0.42094 |
| 0.23977 | 103,396 | 0.38784 |
| 0.174176 | 0.691965 | 0.9033 |
| 0.434567 | 119,019 | 0.2905 |
| 0.214621 | 0.789182 | 0.75623 |
| 0.349415 | 117,085 | 0.25760 |
| 0.160521 | 0.558003 | 0.97 |
| 0.186342 | 0.809379 | 0.7874 |
| 0.116535 | 0.410385 | 0.9979 |
| 0.261734 | 0.76 | 0.73084 |
| 0.231954 | 0.78685 | 0.76247 |
| 0.211904 | 0.80089 | 0.79565 |
| 0.313601 | 0.987905 | 0.49618 |
| 0.211471 | 0.793938 | 0.74636 |
| 0.265386 | 100,128 | 0.4647 |
| 0.225895 | 0.781964 | 0.74137 |
| 0.172268 | 0.628992 | 9979 |
| 0.235319 | 0.781958 | 0.71543 |
| 0.426078 | 121,023 | 0.27799 |
| 0.297523 | 0.820923 | 0.667373 |
| 0.442954 | 125,613 | 0.24590 |
| 0.351229 | 0.822977 | 0.67893 |
| 0.158781 | 0.505544 | 0.98004 |
| 0.195907 | 0.801845 | 0.76587 |
| 0.310269 | 0.780979 | 0.64761 |
| 0.203211 | 0.568822 | 0.9092 |
| 0.186332 | 0.5433 | 0.96230 |
| 0.230304 | 0.712741 | 0.82996 |
| 0.367663 | 100,036 | 0.47736 |
| 0.280486 | 101,816 | 0.42015 |
| 0.169312 | 0.526566 | 0.9494 |
| 0.396959 | 137,621 | 9236 |
| 0.257816 | 0.672799 | 0.81578 |
| 0.321135 | 0.983571 | 0.48197 |
| 0.212649 | 0.739194 | 0.81904 |
| 0.229105 | 0.736619 | 0.7324 |
| 0.479148 | 132,332 | 0.18388 |
| 0.508275 | 103,128 | 0.48676 |
| 0.250119 | 0.672256 | 0.785448 |
| 0.330153 | 101,397 | 0.45640 |
| 0.218864 | 0.603836 | 0.84090 |
| 0.332428 | 113,794 | 0.30204 |
| 0.36511 | 105,667 | 0.3853 |
| 0.298467 | 0.949225 | 0.5 |
| 0.272903 | 0.864217 | 0.61284 |
| 0.262038 | 0.769204 | 0.73673 |
| 0.347471 | 106,895 | 0.40337 |
| 0.242366 | 0.855449 | 0.662 |
| 0.24231 | 0.874707 | 0.6190 |
| 0.292849 | 0.929723 | 0.55511 |
| 0.226707 | 0.643764 | 0.84294 |
| 0.429231 | 107,235 | 0.41263 |
| 0.352631 | 0.977821 | 0.522 |
| 0.258362 | 108,953 | 0.32375 |
| 0.265082 | 0.875491 | 0.57056 |
| 0.179679 | 0.780364 | 0.82435 |
| 0.369466 | 0.934146 | 0.52723 |
| 0.449721 | 143,521 | 0.14 |
| 0.140724 | 0.496481 | 0.99389 |
| 0.253971 | 0.738097 | 0.76015 |
| 0.249643 | 0.897591 | 5843 |
| 0.190789 | 0.64453 | 0.89300 |
| 0.220137 | 0.636516 | 0.87762 |
| 0.348491 | 121,775 | 0.18992 |
| 0.19325 | 0.550994 | 0.94012 |
| 0.318763 | 112,774 | 0.30784 |
| 0.231722 | 0.782198 | 0.73939 |
| 0.19321 | 0.645007 | 0.92468 |
| 0.314499 | 101,409 | 0.43027 |
| 0.239158 | 0.739068 | 0.74902 |
| 0.316717 | 0.986047 | 0.47731 |
| 0.245933 | 0.758036 | 0.74127 |
| 0.302364 | 0.947906 | 0.51378 |
| 0.291002 | 0.96305 | 0.48453 |
| 0.231613 | 0.824408 | 0.72857 |
| 0.268941 | 0.773163 | 0.72583 |
| 0.171604 | 0.526771 | 0.94693 |
| 0.301489 | 1,038 | 0.40275 |
| 0.406619 | 121,564 | 0.25667 |
| 0.320622 | 0.956083 | 0.49119 |
| 0.265136 | 0.816489 | 0.6754 |
| 0.25025 | 0.672914 | 0.82459 |
| 0.278739 | 0.828802 | 0.68507 |
| 0.413537 | 109,452 | 0.375 |
| 0.249239 | 0.939839 | 0.49899 |
| 0.460789 | 128,863 | 0.19038 |
| 0.167797 | 0.699548 | 0.91732 |
| 0.215221 | 0.87509 | 0.65922 |
| 0.321621 | 0.96629 | 0.50096 |
| 0.3 |  |  |

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REACTOME_MICRORNA_MIRNA_BIOGENESIS REACTOME_REGULATION_OF_PYRUVATE_DEHYDROGENASE_PDH_COMP REACTOME_GLUTAMATE_NEUROTRANSMITTER_RELEASE_CYCLE REACTOME_ERK_MAPK_TARGEI REACTOME_METABOLISM_OF_AMINO_ACIDS_AND_DERIVATVES REACTOME_FATTY_ACYI_COA_BOSYNTHES REACTOME_BIOLOGICAL OXIDATIONS REACTOME_REGULATED_PROTEOLYSIS_OF_P75NTR REACTOME_CASPASE_MEDATED_CLEAVAGE_OF_CTTOSKELETAL_PRO reactome_Xenobiotic
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REACTOME_REGULATION_OF_ORNITHINE_DECARBOXYLASE_ODC REACTOME_CYTOCHROME_P450_ARRANGED_BY_SUBSTRATE_TYPE
REACTOME_BASE_FREE SUGAR PHOSPHATE REMOVAL VIA_THE S REACTOME_APOPTOTIC_CLEAVAGE_OF_CEL_ADHESION_PROTEINS REACTOME_HDL_MEDIATED_LIPID_TRANSPORT REACTOME_REGULATION_OF_APOPTOSIS REACTOME_REGULATION_OF_BETA_CELL_DEVELOPMENT REACTOME_PHASE1_FUNCTIONALIZATION_OF_COMPOUND REACTOME_RNA_POL_IIITTRANSCRIPTION
REACTOME_ENDOGENOUS_STEROLS
REACTOME_REGULATION_OF_GENE_EXPRESSION_IN_BETA_CELLS REACTOME_PROCESSIVE_SYNTHESIS_ON_THE_LAGGING_STRAND REACTOME_MRNA_CAPPING
REACTOME_MITOCHONDRIAL_FATTY_ACID_BETA_OXIDATION ReActome_integration_OF_Energy_mitabolism REACTOME_GLUCONEOGENESIS
REACTOME_DOPAMINE_NEUROTRANSMITTER_RELEASE_CYCLE REACTOME_MITOCHONDRIAL_TRNA_AMINOACYLATION REACTOME_ACETYLCHOLINE_NEUROTRANSMITTER_RELEASE_CYCLE REACTOME_LOSS_OF_NLP_RROM_MITOTIC_CENTROSOMES REACTOME_CELL_CYCLE_CHECKPOINTS REACTOME_NOREPINEPHRINE_NEUROTRANSMITTER_RELEASE_CYCLE REACTOME_ACEYYCHOLINE_BINDING_AND_DOWNSTREAM_E REACTOME_ABC_FAMLY_PROTEINS_
REACTOME OLFACTOPY SIGNAUNG
REACTOME_STEROID_HORMONES
REACTOME_RECRUTMENT_OF_NUMA_TO_MITOTIC_CENTROSOMES REACTOME_AMINE_DERIVED_HORMONES REACTOME_NUCLEAR_RECEPTOR_TRANSCRIPTION_PATHWAY REACTOME_CYCLIN_E_ASSOCIATED_EVENTS_DURING_61_S_TRANSITIO REACTOME_G1_PHASE
REACTOME_ELEVATION_OF_CYTOSOLLC_CA2_LEVELS REACTOME_P53_DEPENDENT_G1_DNA_DAMAGE_RESPONSE REACTOME_TRANSCRIPTION_COUPLED_NER_TC_NER REACTOME_RNA_POL_II_TRANSCRIPTION_PRE_INITIATION_AND_PROMOT REACTOME_ASSOCIATION_OF_TRIC_CCT_WITH_TARGET_PROTEINS_DURII REACTOME_PEROXISOMAL_LIPDI_METABOLIS

reactome_serotonin_receptors REACTOME_CDCE_ASSOCIATIO
REACTOME_M_G1_TRANSTIION REACTOME_PURINE_RIBONUCLEOSIDE_MONOPHOSPHATE_BIOSYNTHESS. REACTOME_G1_S_RANSITIC
REACTOME_NUCLEOTIDE_EXCIIION_REPAIR $\qquad$ REACTOME_CLASS_C_3_METABOTROPIC_GLU UTAMA REACTOME_REGULATION_OF_INSUUIN _LERETION REACTOME_TRANSPORT_OF_MATURE_MRNA_DER
REACTOME_GLUCAGON_TYPE_LIGAND_RECEPTORS REACTOME_REGULATION_OF_INSULIN_SECRETION_BY_ACETVICHOLIIE REACTOME_FANCONI_ANEMIA_PATHWAY REACTOME_POST_TRANSLATIONAL_MODIFCATION_SYNTHESIS_OF_GPI_A REACTOME_PURINE SALVAGE
REACTOME_CELL_CELL_JUNCTION ORGANIZATIO REACTOME_TIGHT_JUNCTION_INTERACTIO REACTOME_TRANSPORT_OF_INORGANIC_CATIONS_ANIONS_AND_AMINO REACTOME_CDT_ASSOCIATION_WITH_THE_CDC6_ORC_ORI
REACTOME_BRANCHED_CHAIN_AMINO_ACID_CATABOLSM REACTOME_BRANCHED_CHAIN_AMINO_ACID_CATABOLIS REACTOME_REPAR_SYNTHESIS_FOR_GAP_FILIING_BY_DNA_POL_IN_TC_
REACTOME_SYNTHESIS OF DNA REACTOME_SYNTHESII_OF_DNA REACTOME_DEADENYLATION_OF_MRN
REACTOME_MRNA_DECAY_BY_5_TO_3_EXORIBONUCLEAS REACTOME_DOUBLE_STRAND_BREAK_REPAIR REACTOME_AUTODEGRADATION_OF_THE_E3_UBIQUITIN_LIGAEE_COP REACTOME_MRNA_DECAY_BY_3_TO_5_EXORIBONUCLEAS REACTOME_CELL_JUNCTION_ORGANIZATION REATOMEAMINE COMPOUND_SLC_TR REACTOME_PYRUVATE_METABOLISM REACTOME_MITOTLC_G1_G1_S_PHASES REACTOME_REGULATION_OF_MITOTIC_CELL_CYCLE REACTOME_MITOTLC_M_M_G1_PHASES REACTOME_ACTVATION_OF_KAINATE_RECEPTORS_UPON_GL REACTOME SYNTHESIS AND INTERCONVERSION OF NUCLEOTIDE DIAN REACTOME_SHC_MEDIATED_CASCADE REACTOME_REGULATION_O_-_LHEB_GTPAEEACTVIVTY_BY_AMPK REACTOME_DNA_REPAIR
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 http $/ / /$ www.broadinstitute.org $/ /$ seea/msigdb/cards/REACTOME_FATTY_ACYL_COA_BIOSYNTHESIS



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 http://mww.broadinstitute.org/gsea/msigdb/cards/REACTOME_PROCESSIVE_SYNTHESIS_ON_THE_LAGGIII http://www.broadinstitute.org/ssea/msigdb/cards/REACTOME_MRNA_CAPPING
http://www.broadinstitute.org/ssea/msigdb/cards/REACTOME_MITOCHONDRIAL_FATTY_ACID_BETA_OX 23 http:///www.broadinstitute.org/ssea/msigdb/cards/REAATOME_INTEGRATION_OF_ENERGY_METABOLISN 29 http:///www.broadinstitute.org/gsea/msigdb/cards/REACTOME_GLUCONEOGENESIS
$\mathrm{http}: / / /$ www.broadinstitute.org/ssea/msigdb/cards/REACTOME_DOPAMINE_NEUROTRANSMITTER_RELEA 24 $\mathrm{htp}: / / / \mathrm{www}$. broadinstitute.org/gsea/msigdb/cards/REACOOME_MITOCHONDRIAL_TRNA_AMINOACYLATIC 43
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ttp://www.broadinstitute.or//gsea/msigdb/cards/REACTOME_CELL_CELL_JUNCTION ORGANIZATION ${ }_{140}^{22}$

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$\mathrm{http}: / / \mathrm{www}$. broadinstiute.org/gsea/msigdb/cards/REACTOME_IONOTROPIC_ACTVITY_OF_KAINATE_REC 38 http://www.broadinstitute.org/ gsea/migdd/ards/REACTOME_IONOTROPIC_ACTVITY_OF_KAINATE_REC 38 $\mathrm{http}: / / \mathrm{www}$.broadinstitute.org/gsea/migigh/cards/REACTOME_SHC_MEDATED_CASCADE
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| 0.212258 | 0.664542 | 0.86990 |
| :---: | :---: | :---: |
| 0.420567 | 117,457 | 0.2975 |
| 0.186113 | 0.489236 | 0.9242 |
| 0.16996 | 0.557022 | 0.9463 |
| 0.306512 | 126,865 | 0.1507 |
| 0.312614 | 0.997339 | 0.47749 |
| 0.583706 | 133,174 | 0.21165 |
| 0.174327 | 0.668831 | 0.93374 |
| 0.295052 | 0.786934 | 08 |
| 0.214413 | 0.643902 | 0.875 |
| 0.287207 | 0.841853 | 0.608519 |
| 0.339506 | 10,244 | 0.44787 |
| 0.274846 | 0.962541 | 0.481 |
| 0.207435 | 0.63321 | 0.92 |
| 0.396613 | 109,537 | 0.36687 |
| 0.248931 | 0.759307 | 0.76796 |
| 0.273138 | 0.928254 | 0.51851 |
| 0.233945 | 0.860357 | 0.657 |
| 0.219461 | 0.791966 | 0.754 |
| 0.251661 | 0.872969 | 053 |
| 0.297517 | 0.88207 | 0.58458 |
| 0.340526 | 0.942943 | 0.530992 |
| 0.269353 | 0.868045 | 0.625 |
| 0.350579 | 0.906151 | 0.55513 |
| 0.222127 | 0.694328 | 0.84356 |
| 0.556802 | 149,117 | 0.09589 |
| 0.165324 | 0.716278 | 0.932563 |
| 0.377874 | 116,042 | 0.31048 |
| 0.503724 | 114,675 | 0.37787 |
| 0.25304 | 0.882199 | 0.575099 |
| 0.294745 | 0.87972 | 0.58 |
| 0.57226 | 130,711 | 0.24498 |
| 0.248655 | 0.845008 | 0.62549 |
| 0.273911 | 0.878876 | 0.553398 |
| 0.56739 | 131,328 | 0.22954 |
| 0.269706 | 0.757484 | 0.73265 |
| 0.267494 | 0.938462 | 0.54338 |
| 0.195645 | 0.620377 | 0.88565 |
| 0.19871 | 0.62658 | 0.87179 |
| 0.38695 | 130,185 | 0.16363 |
| 0.371269 | 10,103 | 0.45180 |
| 0.196987 | 0.547075 | 0.93673 |
| 0.301441 | 117,168 | 0.26283 |
| 0.272525 | 0.88103 | 0.57115 |
| 0.316069 | 0.951237 | 0.50583 |
| 0.237365 | 0.843667 | 0.66460 |
| 0.385477 | 104,226 | 0.40501 |
| 0.235057 | 0.76702 | 0.71485 |
| 0.255331 | 0.808711 | 0.65953 |
| 0.221031 | 0.735541 | 0.80923 |
| 0.342382 | 121,801 | 0.213018 |
| 0.273148 | 0.87269 | 0.59459 |
| 0.218827 | 0.791987 | 0.71673 |
| 0.297552 | 0.945886 | 0.506148 |
| 0.240593 | 0.666635 | 0.85062 |
| 0.472382 | 119,474 | 0.294798 |
| 0.313543 | 0.968678 | 0.485876 |
| 0.226428 | 0.576681 | 0.89768 |
| 0.28918 | 0.904804 | 0.55854 |
| 0.499184 | 126,505 | 0.25 |
| 0.270951 | 0.85832 | 0.618182 |
| 0.245614 | 0.669489 | 0.84265 |
| 0.168789 | 0.685253 | 0.92629 |
| 0.173777 | 0.575499 | 0.946 |
| 0.225417 | 0.847035 | 0.673428 |
| 0.165035 | 0.454158 | 0.96929 |
| 0.156751 | 0.45066 | 0.974708 |
| 0.2824 | 0.93436 | 0.55336 |
| 0.296123 | 0.684681 | 0.746479 |
| 0.239427 | 0.652941 | 0.866412 |
| 0.230217 | 0.963882 | 0.51024 |
| 0.363643 | 135,563 | 0.10629 |
| 0.192661 | 0.746953 | 0.82317 |
| 0.364252 | 109,911 | 0.38684 |
| 0.555894 | 160,571 | 0.04588 |
| 0.547532 | 12,435 | 0.280769 |
| 0.342207 | 10,452 | 0.4183 |
| 0.466789 | 140,051 | 0.12040 |
| 0.27547 | 0.870199 | 0.60985 |
| 0.252644 | 0.706057 | 0.79959 |
| 0.265669 | 0.821943 | 0.63064 |
| 0.34896 | 108,041 | 0.398422 |
| 0.192518 | 0.515447 | 0.92402 |
| 0.195953 | 0.642343 | 0.876 |
| 0.240221 | 0.962614 | 0.49789 |
| 0.381326 | 129,219 | 0.14693 |
| 0.352854 | 101,927 | 0.439919 |
| 0.265837 | 0.893654 | 0.55725 |
| 0.333382 | 110,932 | 0.362403 |
| 0.230072 | 0.763851 | 0.67167 |
| 0.191738 | 0.715479 | 0.8549 |
| 0.200172 | 0.720751 | 0.85 |
| 0.277615 | 0.878362 | 0.59662 |
| 0.304733 | 0.884621 | 0.58058 |
| 0.199909 | 0.696563 | 0.853306 |
| 0.225292 | 0.772956 | 0.70370 |
| 0.202561 | 0.604706 | 0.916342 |
| 0.201532 | 0.695 |  |

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REACTOME_ROLE_OF_SECOND_MESSENGERS_IN_NETRIN1_SIGNALING REACTOME_NETRIN1_SIGNALING
REACTOME_INTERACTION_BETWEEN_L_AND_ANKYRINS REACTOME_FATTY_ACID_TRIACYLGLYCCROL__AND_KETONE_BODY_ME REACTOME_PRESYNAPTIC NICOTINIC ACEYYLCHOLINE RECFPTOR REACTOME ORGANIC CATION ANION ZWITTERION TRANSPORT reactome_dcc_mediated_Attractive_signaling
REACTOME_ASSEMBLY_OF_THE_PRE_REPLCATVVE_COMPLEX REACTOME_GLOBAL_GENOMIC_NER_GG_NER REACTOME_AMINO_ACID_SYNTHESIS_AND_INTERCONVERSION_TR REACTOME_SYNTTESIS_SECRETION_AND_INACTVATION_OF_GIP REACTOME_RAP1_SIGNALIING
reactome_platelet calcium homeostasis REACTOME_GABA_SYNTHESIS_RELEASE_REUPTAKE_AND_DEGRADATI
REACTOME_INCREIN SYNTHESIS_SERETETION AND INACTIVATION REACTOME_INCRETIN_SYNTHESIS_SECRETION_AND_INACTVVATIO REACTOME_SYNTHESIS_SECRETION_AND_INACTVATION_OF_GLP1 REACTOME_TRAF6_MEDATED_IRF7_ACTIVATIO REACTOME_CIRCADIAN_CLOC reactome_gaba_a_receptor activatio tion

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 REACTOME_KINESINS
nondocytosis_and_recycling REACTOME_DSCAM_INTERACTIONS
REACTOME_DESTABILZATION_OF_MRNA_BY_AUF1_HNRNP_DD REACTOME_LIGAND_GATED_ION_CHANNEL_TRANSPORT REACTOME_ENDOSOMAL_SORTING_COMPLEX_REQUIRED_FOR_TRANSPO REACTOME_LAGGING_STRAND_SYNTHESII
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REACTOME_E2F_MEDIATED_REGULATION_OF_DNA_REPLCATION REACTOME_HORMONE_SENSITIVE_LIPASE_HSL_MEDIATED_TRIACYLG REACTOME_PURINE_METABOLSM REACTOME_APOPTOSIS

ESTION_MOBILZATION_AND_TRANSPORT REACTOME_HVV_INEECTION
REACTOME_HIV_LIFE_CYCLE
REACTOME_ABORTIVE_ELONGATION_OF_HIV1_TRANSCRIPT_IN_THE_AB REACTOME_EARLY_PHASE_OF_HV_LIFE_CYCLE


igation_complex REACTOME_LATE_PHASE_OF_HIV_LFE_CYCLE
REACTOME_INTERACTIONS_OF_VPR_WIH_HOST_CELLULAR_PROTEINS REACTOME_APC_C_CDH1_MEDIATED_DEGRADATION_OF_CDCZO_AND_O REACTOME_ACTVATION_OF_ATR_IN_RESPONSE_TO_REPLCATION_STRE REACTOME_UNWINDING_OF_DN REACTOME_APC_C_CDCLO_MEDATED_DEGRADATION_OF_MT REACTOME_AUTODEGRADATION_OF_CDH1_BY_CDH1_APC_ REACTOME_MITOTIC_PROMGIAPHASE
REACTOME_APC_C_CDC2O_MEDIATED_DEGRADATION_O__CYCLIN_B REACTOME_SCF_BETA_TRCP_MEDIATED_DEGRADATION_OF_EMII REACTOME_LIPOPROTEIN_METABOLISM
REACTOME_G1_S_SPECIFIC_TRANSCRIPTION
REACTOME_CONVERION FROM APC C CDC2
REACTOME_CONVERSION_ROM_APC_C_CDC2O_TO_APC_C_CDH1_IN reactome_integration_of_provirus REACTOME GLUTATHIONE CONUGATIO
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REACTOME_VOLTAGE_GATED POTASSIUM_CHANNELS REACTOME_ANTIGEN_PRESENTATION_FOLDING_ASSEMBLY_AND_PEPTIO REACTOME_POTASSIUM CHANNELS
REACTOME_CREATION_OF_C4 AND_C2 ACTIVATOR REACTOME_APC_CDC20_MEDATED_DEGRADATION_OF_NEK2A REACTOME_EXTENSION_OF_TELOMERES REACTOME_G2_M_CHECKPOINTS REACTOME_S_PHASE
REACTOME_SCFSKP2 MEDATED DEGRADATION OF P27 P21 REACTOME_DNA_STRAND_ELONGATION

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DOANE＿BREAST＿CANCER＿CLASSES＿UP
DOANE＿BREAST＿CANCER＿ESS1＿UP
DOANE＿BREAST＿CANCER＿ESR1＿DN
WANG＿RESPONSE TO ANDROGEN UP
WANG＿RESPONSE＿TO＿ANDROGEN＿UP
WANG RESPONSE TO FORSKOLIN＿DN
ROY＿WOUND＿BLOOD＿VESSEL＿DN
GRABARCZYK＿BCLI11B＿TARGETS＿DN
NEWMAN＿ERCC6＿TARGETS＿DN
GAL＿LEUKEMI＿STEM＿CELL＿UP
CHOI＿ATL＿CHRONIC＿VS＿ACUTE＿DN
WKMAN＿ASBESTOS＿LUNG＿CAN
VECCH GASTRIC CANCER ADVA

SLEBOS＿HEAD＿AND＿NECK＿CANCER＿WITH＿HPV＿U JAEGER＿METASTASIS＿UP
GINESTIER＿BREAST＿CANCER＿ZNF217＿AMPLIFIED＿UP GINESTIER＿BREAST＿CANCER＿20Q13＿AMPLIFICATION＿U GARGALOVIC＿RESPONSE＿TO＿OXIDIZED＿PHOSPHOLPIDS＿YELLOW＿DN GARGALOVIC＿RESPONSE＿TO＿OXIIIZED＿PHOSPHOLIPIDS MAGENTA＿DN GARGALOVIC＿RESPONSE－TO OXIDIZED PHOSPHOLPIDS LIGGTYEUCN GARGALOVIC＿RESPONSE＿TO＿OXIDIZED＿PHOSPHOLIPDS＿GREY＿DN RUNNE＿GENDER＿EFFECT＿UP
LOPEZ＿MESOTELIOMA＿SURVVAL＿TIME＿UP
bogni＿Treatment＿related＿myeloid＿leukemla＿d BLLBAN＿B＿CLL＿LPL＿UP
HOEBEKE LYMPHOID
PEPPER CHPONC＿L＿SEM＿CEL＿DN
MULLIGHAN＿NPM1＿MUTATED＿IGIGMATUPE＿LN
LOPEZ＿MESOTHELOMA＿SURVVVIVAL＿WORST＿VS＿BEST＿U DITTMER＿PTHLH＿TARGETS＿UP ODONNELL＿TRRC＿TARGETS＿DN
ODONNELL＿TARGETS＿OF＿MYC＿AND＿TFRC＿DN LEE＿NEURAL＿CREST＿STEM＿CELL＿DN
SABATES＿COLORECTAL＿ADENOMA＿UP
SCIBetTA＿KDM5B＿TARGET＿UP
ELVIDGE＿HYPOXIA＿DN
ELVIDGE＿HYPOXIA＿BY＿DMOG＿D EIVIDGE＿HIF1A＿TARGETS＿UP ELVIDGE＿HIF2A＿TARGETS＿UP
ELVIDGE＿HFIA＿AND＿HIF2A＿TARGETS＿UP MOROSETTI＿FACIOSCAPULOHUMERAL＿MUSCULAR DISTROPHY DN GRAHAM＿CML＿QUIESCENT＿VS＿CML＿DVIIDING＿UP GRAHAM＿CML＿QUIESCENT＿VS＿CML＿DVIDING＿DN
GRAAAM＿CML＿DIVIIING＿VS＿NORMAL＿QUIESCENT＿UP
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| 3384 | 0.530242 |
| :---: | :---: |
| 0.988116 | 0.467078 |
| 0.725089 | 0.935115 |
| 0.761471 | 0.895753 |
| 113，581 | 0.303327 |
| －196，451 | 0.002070 |
| 0.895529 | 0.588822 |
| 0.718994 | 0.844898 |
| 0.807008 | 0.651575 |
| 0.790718 | 0.745968 |
| 0.696643 | 0.682509 |
| 108，795 | 0.341897 |
| 0.527069 | 0.931818 |
| 0.738521 | 0.818182 |
| 0.877123 | 0.721545 |
| 0.946874 | 0.550607 |
| 0.889602 | 0.659574 |
| 0.837053 | 0.638507 |
| 0.705401 | 0.903162 |
| 0.683338 | 0.935091 |
| 110，029 | 0.35503 |
| 0.770259 | 0.830709 |
| 132，187 | 168986 |
| 0.834123 | 0.804264 |
| 0.784895 | 0.778443 |
| 0.859496 | 0.674699 |
| 111，493 | 0.256619 |
| 0.730246 | 0.837838 |
| 106，4 | 0.350877 |
| 0.641019 | 0.962745 |
| 135，456 | 0.151874 |
| 0.62836 | 0.907843 |
| 0.659575 | 0.957529 |
| 0.882783 | 0.61753 |
| 0.841338 | 0.869482 |
| 0.901037 | 0.58159 |
| 168，728 | 0.012371 |
| 0.813618 | 0.65415 |
| 88 | 0.26078 |
| 0.669605 | 0.928131 |
| 0.82246 | 0.669307 |
| 0.693556 | 0.847695 |
| 0.745016 | 0.805668 |
| 0.862311 | 0.644033 |
| ． 86032 | 0.968354 |
| 0.52648 | 0.944444 |
| 138，204 | 0.169697 |
| 0.830104 | 0.692157 |
| 0.694534 | 0.949698 |
| 116，155 | 0.378882 |
| 0.704472 | 0.731141 |
| 0.897802 | 0.59 |
| 0.851831 | 0.741483 |
| 0.867864 | 0.69084 |
| 10，049 | 0.44668 |
| 0.94 | 2216 |
| 10，313 | 0.429461 |
| 0.738447 | 0.821285 |
| 0.572876 | 0.907514 |
| 0.3429 | 0.994318 |
| 0.901654 | 0.636905 |
| 0.755272 | 0.728745 |
| 0.963516 | 0.496957 |
| 0.940905 | 0.546012 |
| 0.795544 | 0.726744 |
| 104，797 | 0.372361 |
| 0.632603 | 0.900778 |
| 112，867 | 0.343689 |
| 0.912051 | 0.55754 |
| 116，197 | 0.306911 |
| －198，888 | 0.001953 |
| 0.518302 | 0.932927 |
| 0.62302 | 0.766859 |
| 0.601887 | 0.761719 |
| 0.863875 | 0.685371 |
| 0.981115 | 0.483101 |
| 0.641552 | 0.888462 |
| 120，304 | 0.262846 |
| 0.835966 | 0.654959 |
| 0.734676 | 0.797101 |
| 0.703567 | 0.938398 |
| 124，519 | 0.180915 |
| 10，356 | 0.415507 |
| 0.908241 | 0.574553 |
| 0.685744 | 0.857692 |
| 0.779939 | 0.701375 |
| 155，794 | 0.037735 |
| 0.97445 | 0.474609 |
| 0.814322 | 0.717391 |
| 0.740488 | 0.784585 |
| 0.53519 | 0.997976 |
| 0.907528 | 0.579568 |
| 0.541436 | 0.9352 |
| 0.607429 | 0.845574 |
| 0.846085 | 0.742248 |
| 0.801375 | 0.729124 |
| 0.721459 | 0.830928 |

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CHOI＿ATL＿STAGE＿PREDICTOR
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0.248894

0.30471 | 0.30477 |
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0.425224 0.216602
0.264157 0.186625
0.235633
0.195586 0.195586
0.23275 0.233275
0.194395
0.369248 0.369248
0.357935 0.135792 0.194104
0.23601 0.354549 0.2807
0.24868
0.232131 0.232121
0.296477 0.256209
0.267726
0.242381 0.242381
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0.392518 0.325081
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0.34811 0.31041
0.194969 0.194969
0.231506
0.233372 0.233372
0.30889 0.308809
0.375833 0.262917
0.269552 0.269352
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### 0.206219 0.460194 0.193871

 0.1938710.211262 0.272922
0.270735 0.270735
0.224653 0.189611 0.402639 0.201013 0.223126
0.284087 0.389906
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## ${ }^{0.233057}$

### 0.652772 0.31826

0.409509
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### 0.152664 0.301369

 0.5244240.291241 0.291241
0.322663 0.420158
0.23216 0.299918 0.238651 0.223207 0.492938
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COLIIS＿PRKDC＿SUBSTRATES

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品品 0.327127
0.18542
0.34769 0.347869
0.274904 0.2743412
0.359921 0.2509214
0.302844 0.155429
0.274205 0.274205
0.16409 0.252634
0.308389 ${ }_{0}^{0.325347}$ 0.279498 0.193231
0.227861 0.426485
0.344465 0.2118203
0.225039 0.225039
0.28887
0 0.200598
0.18448
0 0.173764
0.191482 0.191482
0.221066 0.178873
0.25352 0.447374
0.281259 0.315337
0.170754
${ }^{0.40879}$ 0.472995
0.47505 0.366872
0.201919 0.231605
0.402549
0.210955 0.210955
0.20981 0.166211
0.273138
0 0.36042
0.238303
0.165954 0.165964
0.147266 0.475736
0.263973 0.420854
0.400568

| 0.738251 | 0.86785 |
| :---: | :---: |
| 122，514 | 0.193277 |
| 0.790652 | 0.766467 |
| 0.91749 | 0.53934 |
| 105，878 | 0.378906 |
| 100，914 | 0.442387 |
| 0.783174 | 0.72420 |
| 0.857577 | 0.668008 |
| 0.4403 | 0.928571 |
| 107，251 | 3415 |
| 0.776318 | 0.9196 |
| 103，068 | 0.409369 |
| 0.833337 | 0.6666 |
| 127，591 | 0.147239 |
| 0.613353 | 850 |
| 0.889419 | 0.609375 |
| 0.846902 | 0.697856 |
| 0.579716 | 0.87122 |
| 169，681 | 0.003824 |
| 1，324 | 392 |
| 0.831819 | 0.62130 |
| 0.638887 | 0.887814 |
| 0.813952 | 0.698347 |
| 0.774633 | 0.7251 |
| 0.514183 | 0.964215 |
| 0.567976 | 0.84719 |
| 0.784451 | 0.835671 |
| 0.811323 | 0.783838 |
| 0.74241 | 0.77142 |
| 0.604225 | 0.9258 |
| 0.985969 | 4903 |
| 149，227 | 0.056640 |
| 0.780707 | 0.756813 |
| 0.986599 | 0.483871 |
| 0.791269 | 0.674227 |
| 0.511003 | 0.881553 |
| 0.569404 | 0.852713 |
| 127，081 | 0.182711 |
| 12，534 | 0.231969 |
| 122，688 | 0.244821 |
| 133，957 | 1958 |
| 0.807183 | 2441 |
| 0.662483 | 0.905242 |
| 0.827 | 0.684631 |
| 11，183 | 0.3788 |
| 0.706517 | 0.82892 |
| 0.772956 | 0.767932 |
| 0.704483 | 0.927711 |
| 114，972 | 0.217923 |
| 0.856731 | 0.721212 |
| 121，493 | 0.231358 |
| 0.960048 | 0.51134 |
| 0.631164 | 0.8 |
| 0.6283 | 0.989837 |
| 13，748 | 0.0971 |
| 0.627136 | 0.75 |
| 120，234 | 0.238866 |
| 0.931784 | ． 553232 |
| 0.868343 | 0.6532 |
| 0.601903 | 0.8913 |
| 0.724494 | 0.71760 |
| 0.695501 | 0.7964 |
| 0.94676 | 0.577831 |
| 0.831242 | 0.689379 |
| 0.716074 | 0.820809 |
| 0.911382 | 0.589099 |
| 0.526803 | 0.961382 |
| 0.627147 | 0.913894 |
| 0.854259 | 0.673428 |
| 0.710201 | 0.820248 |
| 100，781 | 0.442424 |
| 0.736399 | 0.763265 |
| 0.558687 | 0.924303 |
| 100，479 | 0.428295 |
| 0.914428 | 0.54251 |
| 0.880147 | 0.642857 |
| 0.690274 | 0.852083 |
| 0.898366 | 0.567829 |
| 0.729788 | 0.794411 |
| 0.761959 | 0.7178 |
| 100，262 | 0.448485 |
| 0.499382 | 0.912621 |
| 0.706466 | 0.868263 |
| 0.594536 | 0.90 |
| 0.708605 | 0.893145 |
| 0.836507 | 689655 |
| 0.615395 | 0.926 |
| 107，203 | 0.368313 |
| 0.632325 | 0.9382 |
| 0.966257 | 0.50409 |
| 0.691345 | 0.847358 |
| 0.928339 | 0.529774 |
| 0.786863 | 0.809249 |
| 0.475951 | 0.89748 |
| 0.449018 | 0.9024 |
| 0.750168 | 0.731898 |
| 0.762333 | 0.73743 |
| 0.913103 | 0.595238 |

Decreased Expression with Increasing Exponent Decreased Expression with Increasing Exponent Decreased Expression with Increasing Exponent ecreased Expression with Increasing Exponent Decreased Expression with Increasing Exponen creased Expression with Increasing Exponen Decreased Expression with Increasing Exponen
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LEETARGETS_OF_PTCH1_AND_SUFU_U
KAUFFMANN_DNA_REPLICATION_GENES NIKOLSKY_BREAST_CANCER_1021_AMPLICON
NIKOLSKY BREAST_CANCER_5P1_AMPLCON NIKOLSKY_BREATTCANCER_5P15_AMPLICON NIKOLSKY_BREATTCANCER_P22_AMPLICON NIKOLSKY BREAST CANCER $8 P 12$ P11 AMPUCO NIKOLSKY_BREAST CANCER 8012 Q22 AMPLICON NIKOLSKY_BREAST_CANCER_8Q23_Q24_AMPLICO NIKOLSKY_BREAST_CANCER_10022_AMPLICON NIKOLSKY_BREAST_CANCER_110.12_Q14_AMPLICO NIKOLSKY_BREAST_CANCER_12Q24_AMPLICON NIKOLSKY_BREAST_CANCER_15Q26_AMPLICON NIKOLSKY_BREAST_CANCER_16024_AMPLICON NIKOLSKY BREAST CANCER_17P11 AMPLLCO NKOLSKY_BREAST_CANCER_20011_AMPLCON NIKOLSKY_BREAST_CANCER_20Q12_Q13_AMPLI NIKOLSKY_BREAST_CANCER_21022_AMPICON NIKOLSKY_MUTATED_AND_AMPLIFIED_IN_BREAST_CANC WHITEHURST_PACLITAXEL_SENSITVITY DING_LUNG_CANCER_MUTATED_FREQUENTLY ding_LUNG_CANCER_EXPRESSION_BY_COPY_NUMBER ONDER_CDH1_TARGETS_3_UP LE_EGR2_TARGETS_DN ROSS_ACUTE_MYELOID_LEUKEMIA_CBF
 PARK hSC vs Multipotent progenitors LEE_LIVER_CANCER_CIPROFIBRATE_DN CHESLER_BRAIN_D6MIT150_QTL_CIS BYSTRYKH_HEMATOPOIESIS_STEM_CEL_-FGF3 CHESLER_BRAIN_QTL_CIS
PENG_LEUCINE_DEPRIVATION_UP GOLDRATH_HOMEOSTATIC_PROLIFERATION
LAMB CCNDI TARGETS LAMB_CCND1_TARGETS Lee _lver_cancer_acoxi_din PENG_GLUCOSE_DEPRIVATION_UP menssen_myc_targets DER_IFN_ALPHA_RESPONSE_UP PENG_GLUTAMINE_DEPRIVATION_UP SHEPARD_BMYB_TARGETS SANA_INF_SIGNALING_DN IIZUKA_LIVER_CANCER_PROGRESSION_G1_G2_UP IIZUKA_LIVER_CANCER_PROGRESSION_G2_G3_DN CHEOK_RESPONSE_TO_MERCAPTOPURINE_ UEDA_PERIFERAL_CLOCK
 SMITH_LIVER_CANCER
POMEROY_MEDULLOBLASTOMA_PROGNOSIS_U SCHUHMACHER_MYC_TARGETS_UP MAGRANGEAS_MULTIPLE_MYELOMA_IGG_VS_IGA_UP LEE_LVVER_CANCER_DENA_DN VANTVEER_BREAST_CANCER_METASTASIS_UP COLLER_MYC_TARGE
WONG_IFNAZ_RESITTANCE_DN
RADAEVA_RESPONSE_TO_IFNA1 D
PEART_HDAC_PROLIFERATION_CIUSTER_DN FLECHNER_PBL_KIDNEY_TRANSPLANT_REIECTED_VS_OK_U GOLDRATH_IMMUNE_MEMORY
HASLINGER_B_CLL_WITH_17P13_DELLTIO
yu_MYc_targets_up
MOREAUX_B_LYMPHOCYTE_MATURATION_BY_TACI_DN ZhAN_MULTIPLE_MYELOMA_SPIKED Astier_INTEGRIN_SIGNALIN NADLER_OBESTTY-DN
FERRANDO_T_ALL_WTH_MLL_ENL_FUSION_DN GALE_APL_WITH_FLT3_MUTATED_DN ZHAN_MUTIPLEEMYEOMA_CDI_A _CD2_C ZhAN_MULTIPLE_MYELOMA PR UP WANG_TARGETS_OF_ML_CBP_FUSION_DN ABbud_LIF_sIGNALING_1_UP JAIN_NFKB_SIIGNALING
FAELT_B_CLL_WITH_VH_REARRANGEMENTS_DN VERNELL_RETINOBLASTOMA_PATHWAY_UP HESS TARGETS OF HOXAO AND MEIS1_ XU_RESPONSE_TO_TRETINOIN UP CROMER_METASTASIS_DN Yagl_AmL_SURVIVAL XU_CREBBP_TARGETS_UP MOREAUX_MULTIPLE_MYELOMA_BY_TACI_DN KAMMINGA_EZH2_TARGETS HASLINGER_B_CLL_WITH_6Q21_DELE NOUZOVA_TRETINOIN_AND_H4_ACETYLATION Petrova_proxi_TARGets_UP MARTINEZ_RESPONSE_TO_TRABECTEDIN TAKAO_RESPONSE_TO_UVB_RADIATION


| 0.161063 | 0.588055 | 0.968254 |
| :---: | :---: | :---: |
| 0.236471 | 0.902954 | 0.55773 |
| 0.236253 | 0.719922 | 0.709877 |
| 0.476502 | 138,936 | 0.129817 |
| 0.399484 | 122,451 | 0.24187 |
| 0.558086 | 105,757 | 0.473077 |
| 0.352697 | 121,078 | 0.262397 |
| 0.336863 | 110,835 | 0.380342 |
| 0.408937 | 148,589 | 0.054945 |
| 0.24954 | 0.557804 | 0.872917 |
| 0.230216 | 0.931192 | 0.51606 |
| 0.283214 | 0.886195 | 0.599609 |
| 0.257747 | 0.821582 | 0.677551 |
| 0.315673 | 114,576 | 0.280392 |
| 0.342169 | 120,709 | 0.246964 |
| 0.317368 | 0.720855 | 0.735178 |
| 0.447854 | 116,469 | 0.331992 |
| 0.364364 | 123,538 | 0.26572 |
| 0.269832 | 0.899878 | 0.568273 |
| 0.168817 | 0.790495 | 0.907328 |
| 0.243609 | 0.941315 | 0.518962 |
| 0.25634 | 0.934262 | 0.518072 |
| 0.192836 | 0.587744 | 0.923554 |
| 0.166848 | 0.578812 | 0.934292 |
| 0.217444 | 0.674548 | 0.858268 |
| 0.448788 | 126,945 | 0.232465 |
| 0.166396 | 0.609741 | 0.94274 |
| 0.167997 | 0.688535 | 0.950855 |
| 0.208094 | 0.708287 | 0.841699 |
| 0.188741 | 0.772876 | 0.765914 |
| 0.175425 | 0.593821 | 0.942574 |
| 0.220047 | 0.864356 | 0.702259 |
| 0.342585 | 0.951014 | 0.519763 |
| 0.276994 | 0.806503 | 0.674044 |
| 0.1912 | 0.89755 | 0.693878 |
| 0.188047 | 0.910347 | 0.652695 |
| 0.227843 | 0.952767 | 0.481625 |
| 0.186035 | 0.622966 | 0.920319 |
| 0.167496 | 0.747406 | 0.870155 |
| 0.191065 | 0.742723 | 0.855131 |
| 0.259823 | 105,237 | 0.352362 |
| 0.199157 | 0.697757 | 0.871893 |
| 0.135968 | 0.411839 | 0.984344 |
| 0.219996 | 0.859745 | 0.675835 |
| 0.226241 | 0.79498 | 0.688894 |
| 0.186507 | 0.735011 | 0.774011 |
| 0.179824 | 0.66287 | 0.873984 |
| 0.175312 | 0.661036 | 0.875717 |
| 0.184594 | 0.508697 | 0.934263 |
| 0.345266 | 0.895571 | 0.572874 |
| 0.199375 | 0.54387 | 0.950884 |
| 0.164127 | 0.763918 | 0.884232 |
| 0.198536 | 0.794711 | 0.820513 |
| 0.192103 | 0.642576 | 0.799611 |
| 0.226535 | 0.83501 | 0.674419 |
| 0.215298 | 0.8222 | 0.677104 |
| 0.18514 | 0.641838 | 0.868979 |
| 0.303147 | 0.970473 | 0.489195 |
| 0.237812 | 0.870411 | 0.646943 |
| 0.208052 | 0.864714 | 0.688129 |
| 0.279011 | 0.821235 | 0.642023 |
| 0.281276 | 0.759966 | 0.667992 |
| 0.275525 | 111,951 | 0.281314 |
| 0.353521 | 0.957502 | 0.504 |
| 0.194968 | 0.78037 | 0.747191 |
| 0.162883 | 0.68486 | 0.945892 |
| 0.204856 | 0.855932 | 0.672691 |
| 0.400692 | 12,911 | 0.195402 |
| 0.199906 | 0.796646 | 0.830339 |
| 0.191438 | 0.48748 | 0.872549 |
| 0.231802 | 0.76199 | 0.72179 |
| 0.153586 | 0.498198 | 0.9980 |
| 0.20653 | 0.892274 | 0.642586 |
| 0.334341 | 130,926 | 0.122772 |
| 0.197993 | 0.726054 | 0.779093 |
| 0.330981 | 0.91859 | 0.545455 |
| 0.183692 | 0.741356 | 0.86023 |
| 0.213463 | 0.899791 | 0.639376 |
| 0.409988 | 0.947601 | 0.555556 |
| 0.169423 | 0.650292 | 0.942801 |
| 0.229806 | 0.731088 | 0.770325 |
| 0.186622 | 0.726348 | 0.865424 |
| 0.227351 | 0.863061 | 0.662675 |
| 0.329954 | 0.999734 | 0.455577 |
| 0.146603 | 0.590026 | 0.982 |
| 0.180833 | 0.661153 | 0.911708 |
| 0.142352 | 0.406332 | 0.997899 |
| 0.233239 | 0.937294 | 0.545455 |
| 0.246319 | 114,669 | 0.206186 |
| 0.191197 | 0.581926 | 0.94152 |
| 0.240765 | 0.849137 | 0.606654 |
| 0.407886 | 104,544 | 0.453831 |
| 0.232409 | 0.693648 | 0.7912 |
| 0.220974 | 0.716184 | 0.82582 |
| 0.169892 | 0.674166 | 0.905622 |
| 0.199519 | 0.632203 | 0.870656 |
| 0.160096 | 0.630345 | 0.949698 |
| 0.239256 | 100,579 | 0.434343 |

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URS_ADPOCYTE_DIFERENTAATION_UP
LEE_AGING_NEOCORTEX_DN
MODY_HIPPOCAMPUS_POSTNATAL
BURTON_ADPOGENESIS 10 BURTON_ADIPOGENESIS_10
WEBER_METHYLATED_IN_COLON_CANCER SU_PANCREAS
RUAN_RESPONSE_TO_TROGITAZONE ruan_response_to_tnf_trogltazone_dn
SU_SALVARY_GLAND
KAYO_CALORIE_RESTRICTION_MUSCLE_DN MARIADASON_RESPONSE_TO_CURCUMIN_SULINDAC_ SESTO_RESPONSE_TO_UV_C
SU_TEST
PAL_PRMTS_TARGETS U
HEDENFALL_-_BREAST_CANCER_ BRACX_
JIANG_AGING_HYPOTHALAMUS_DN
MARIADASON_RESPONSE_TO_BUTYRATE_CURCUMIN_SULINDAC_TSA_ VISALA_RESPONSE_TO_HEAT_SHOCK_AND_AGING_UP
 vs_INDIRECT_24HR CUI_TCF21_TARGETS_D
KANG_FLUOROURACIL_RESITTANCE_DN KEEN_RESPONSE_TO_ROSIGLTAZONE_U RUAN_RESPONSE-TO_TNF_D KAYO_AGING_MUSCLE_DN RIELSEN_LIPOSARCOMA_U KANG_DOXORUBICIN_RESISTANCE UP MA_PITUITARY_FETAL_VS_ADULT_DN bURTON_ADIPOGENESIS_5 KIM_GASTRIC_CANCER_CHEMOSENSITVITY RHODES_UNDIFFERENTIATED_CANCE MACLACHLAN_BRCA1_TARG BURTON_ADIPOGENESIS_3 SU_KIDNEY
SAto_IILENCED_EPIGENEICALY_IN_PANCREATIC_CANCER MORERA_RESPONSE_TO_TSA_UP IVANOVA_HEMATOPOIESI__STEM_CELL_SHORT_TERM ZHANG_ANTIVIRAL_RESPONSE_TO_RIBAVIRIN_UR MARIADASON_RESPONSE_TO_BUTYRATE_SULINDAC_4 BURTON ADPPOGENESIS PEAK AT 2-HB KANG_DOXORUBIIIN_RESISTANCE_DN mcclung_CREB1_TARGETS_UP TSENG_ISS1_TARGETS_DN
BURTON ADIPOGENESIS 4
bURTON_ADIPOGENESIS_4
IVANOVA_HEMATOPOIESIS_INTERMEDIATE_PROGENTIOR SU_LIVER
BLALOCK_ALZHEIMERS_DISEASE_INCIPIENT_DN
SONG_TARGETS_OF_IE86_CMV_PROTE
WU_HBX_TARGETS_1_UP
LIANG_SILENCED_BY_METHYLATION_DN MOREIRA_RESPONSE-TO_TSA_DN WENG_POR_TARGETS_GLOBAL_DN SARTIP_BEUN_D_B_CNSUL_RESIITANCE_D BANDRES_RESPONSE_TO_CARMUSTIN_WTHOUT_MGMT_48HR_UP kALMA_E2F1_TARGETS
NIELSEN_GIST_AND_SYNOVIAL_SARCOMA_UP MARIADASON_RESPONSE_TO_CURCUMIN_SULINDAC_5 JIANG_HYPOXI_ JIANG_HYPOXIA_CANCER YIH_RESPONSE_TO_ARSENTTE_C WU_HBX_TARGETS_2_U MARIADASON RESPONSE_TO_BUTYRATE_SULINDAC_6 SARTIPY_NORMAL_AT_INSULIN_RESITTANCE_DN KRASNOSELSKAYA_ILF3_TARGETS_D J_RESPONSETO_-FSH_UP
LEE_CALORIE_RESTRICTION_MUSCLE_DN
 VIA_INSR_AND_IGFIR_DN CHEN_EVV_TARGETS_TESTIS JIANG_AGING_HYPOTHALAMUS_UP WENG_POR_TA
SU_PLACENTA
BURTON_ADPPOGENESIS
BURTON_ADIPOGENESIS_PEAK_AT_16HR
DURCHDEWALD_SKIN_CARCIINOGENESIS_U
KIM_LRRC3B_TARGETS
YANG_MUCZ_TARGETS_DUODENUM_3MO_DN YANG_MUCZ_TARGETS_DUODENUM_6MO_UP YANG_MUCZ_TARGETS_DUODENUM_6MO_DN YANG_MUCZ_TARGETS_COLON_3MO_DN MCCOLLUM_GELDANAM
SINGH_NFEZLI TARGETS
PELICCIOTTA HDAC IN ANTIGEN PRESENTATION_dN LOPES_METHYLATED_IN_COLON_CANCER_UP LOPES_METHYLATED_IN_COLON_CANCER_ HARRIS_BRAIN_CANCER_PROGENITORS TUOMISTO_TUMOR_SUPPRESSION_BY_COLI3A1_UP



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TUOMIITO_TUMOR_SUPPRESSION_BY_COLI3A1_DN
DACOSTA_UV_RESPONSE_VIA_ERCCB_COMMON_U
LEIN_NEURON_MARKERS
LEIN_ASTROCYTE_MARKERS
LEIN PONS MARKERS
LEIN_MEDULLA_MARKERS
LEI_LOCALIZED_TO_DISTAL_AND_PROXIMAL_DENDRTTES LEIN_LOCALIZED_TO_PROXIMAL_DENDRITES
GAVIN_FOXP3_TARGETS_CLUSTER_T
GAVIN_FOXP3_TARGETS_CLUSTER_-P
ZHENG FOXP3 TARGETS IN T YMPHOCYTE
ZHENG_FOXP3_TARGETS_UP
ZHENG_FOXP3_TARGETS_DN
SANSOM_APC_MYC_TARGE
SANSOM_APC_TARGETS_REQUIRE_MYC
YEGNASUBRAMANIAN_PROSTATE_CANC
RIGGINS_TAMOXIFEN_RESITTANCE_U
ECTED_N_BREAST_CANCER
TESAR_JAK_TARGETS_MOUSE_ES_D3_D
GAZIN_EPIGENETIC_SILENCING_BY KRAS
JEPSEN_SMRT_TARGETS
KYNG_DNA_DAMAGE_BY_GAMMA_RADIA
KYNG_DNA_DAMAGE BY - 4 NQO OR UV
KYNG_DNA_DAMAGE_BY_-4NQO_OR_UV
KONDO_COLON_CANCER_HCP_WTTH_HKK27M lee_liver_CANCER
KANG_CISPLATIN_RESITTANCE_U
KANG CISPLATIN RESISTANCE
claus pgr positive meningiom WONG_MITOCHONDRIA_GENE_MODU WONG_PROTEASOME_GENE_MODULE AMUNDSON_GAMMA_RADIATION_RESPONSE COATES_MAAROPHAGE_M1_VS_MI_DN LEE_METASTASIS_AND_ALTERNATIVE_SPLIIING_D FINETTI_BREAST_CANCER_KINOME_RED OUILLETTE_CLL_13Q14_DELETON_DN CAMPS_COLON_CANCER_COPY_NUMBER_U RIZKI_TUMOR_INVASIVENESS_2D_D POS_RESPONSE_TO_HISTAMINE_DN DAIRKEE_CANCER_PRONE_RESPONSE_BPA OUYANG_PROSTATE_CANCER_PROGRESSION_D
AMBROSINI FLAVOPIIDOO_TREATMENT TPS HANN RESISTANCE TO BCI INHBTOR DN MCCABE_HOXCG_TARGETS_UP
MOLENAAR_TARGETS_OF_CCND1_AND_CDK4_UP MOLENAAR_TARGETSO_O_CCND_AND_CDK_DN
ACEVEDO_NORMAL_TISSU_ADIACENT_TO_LVER_TUMOR_UP ACEVEDO_LVVER_CANCER_WITH_H3KMME3_DN SAGIV_CD24_TARGETS_UP
SMID_BREAST_CANCER_RELAPSE_IN_BRAIN_UP
SMID BREAST_CANCER RELAPSEIN BRAN SMID_BREAST_CANCER_RELAPSE_IN_BONE-UP SMID_BREAST_CANCER_RELAPSE_IN_LUNG_UP
SMID_BEEAST_CANCER_RELAPSE_IN_LVER_DN
SMID_BREAST_CANCER_LUMMNAL_B_U SMID_BREAST_CANCER_ERBB2_UP BONOME_OVARIAN_CANCER_POOR_SURVIVAL_UP
WILSON PROTEASES AT TUMOR BONE INTEREACE
WEBER_METHYLATED_HCP_IN_FIBROBLAST_DN
WEBER_METHYLATED_HCP_IN_SPERM_UP
basso_hairy_cell_leukemia_up
BERNARD_PPAPDC1B_TARGETS_UP
EHLERS_ANEUPLOIDY_DN
IONES TCOF1 TARGETS
JONES_TCOF1_TARGETS
MATZUK_IMPLANTATION_AND_UTERINE MATZUK_STEROIDOGENESIS matzuk_Luteal_genes MATZUK_PREOVULATORY_FOLIICLE MATZUK_MALE_REPRODUCT
MATZUK_SPERMATOGONIA MATZUK_SPERMATID_DIFEERENTAATIO MATZUK_SPERMATOZOA
CHUNG_BLISTER_CYTOTOXICITY_UP WHITEFORD_PEDIATRIC_CANCER_MARKERS GRADE_COLON_CANCER_DN
LABBE_TGFB1_TARGETS
LABBE_TGFBE_TARGETS_DN WEST_ADRENOCORTICAL_CARCINOMA_VS_ADENOMA_UP RAY_TUMORIGENESIS_BY_ERBB2_CDC25A_ CADWELI ATG16L1 TARGETS DN
bredemeyer_Rag_sIGnaling_Not_VIA_Atm_up BREDEMEYER_RAG_SIGNALING_NOT_VIA_ATM_DN huang_dasatinib_resitance_dn MATTHEWS_SKIN_CARCINOGENESIS_VIA_JUN TAYLOR_METHYLAATED_IN_ACUTE_LYMPHOBLASTIC_LEUKEMIA CHNG_MULTTPLE_MYELOMA_-HYPERPLOID_DN
Maloney response to 17AAG_dN
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KRISHNAN_FURIN_TARGETS_DN
YAuCH_HEDGEHOG_SIGNALING_PARACRINE_U ZHOU_PANCREATIC_ENDOCRINE_PROGENITOR ZHOU_PANCREATIC_BETA_CEL
JIANG_TIP3O_TARGETS_DN MIKI_COEXPRESSED_WITH_CYP19A1 LEE_LIVER_CANCER_SURVVIVAL_UP BOYLAN_MULTIPLE_MYELOMA_D_CLUSTER_DN BOYLAN_MULTPLE_MYELOMA_C_D_UP
TOOKER GEMCITABINE RESITANCE UP FLOTHO_PEDAATRIC_ALL_THERAPY_RESPONSE_DN SPIRA_SMOKERS_LUNG_CANCER_DN RAY_ALZHEIMERS_DISEASE
frasor response FRASOR_RESPONSE-TO_SERM_OR_FULVESTRANT_DN
ICHIBA_GRAFT_VERSUS_HOST_DISEASE_35D_D
MARSHALL_VRRAL_INFECTION_RESPONSE_D
MARTINELL_IMMATURE_NEUTROPHLL_U
NUT_GBM_VS_AO_GLIOMA_D
WU_ALZHEIMER_DISEASE UP
CHAN_INTERFERON_PRODUCING_DENDRITIC_CELL
RAY_TARGETS_OF_P210_BCR_ABL_FUSION_UP
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CHANG_CORE_SERUM_RESPONSE_UP CHANG_CYCLING_GENES
VANTVEER BREAST CANCER ESRI vantverr_breast cancer brcai up VANTVEER BREAST CANCER BRCA1_D wallace_Jakz_TARgets_u HOFFMANN_PRE_BITTO_LARGE_PRE_BII_LYMPHOCYTE_UP HOFFMANN_LARGE_TO_SMALL_PRE_BII_LYMPHOCTTE_UP HOFFMANN_IMMATURE_TO_MATURE_B_LYMPHOCYTE_DN HOFMANN_MYELODYSPLASTIC_SYNDROM_HIGH_RISK_UP LEE_EARLY_T_LYMPHOCYTE_UP LEE_DOUBLE_POLAR_THYMOCYTE BRUNEAU_SEPTATION_VENTRICULA ZHANG_TLX_TARGETS_UP MELIMAN_TUT1_TARGETS_U MIKKELSEN_PLURIPOTENT_STATEU MIIKELISEN Particur _MED_TO_PLURIPOTENCY
 MEISSNER_NPC_HCP_WITH_H3K27ME3 MEISSNER_NPC_HCP_WITH_H3K4ME3_AND_H3K27M MEISSNER_BRAIN_HCP_WITH_H3K27ME3 MEISSNER_BRAIN_HCP_WITH_HZ_UNMETHYLATED WENDT_COHESIN_TARGETS_UP
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VAL_- ML-WTH_-_8_21_TRANSLOCATIO VALK_AML_WITH_EVII
VALK_AML_WTH_CEBPA
POOLA_INVASIVE_BREAST_CANCER_DN ding_Lung_CAncer_Mutated_recurrentiy DING_LUNG_CANCER_BY_MUTATION_RATE BOYAULT_LIVER_CANCER_SUBCLASS_61_D BOYAULT_LIVER_CANCER_SUBCLASS_G3_D BOYAUUT_LVER_CANCER_SUBCLASS_G6_UP
BOYAULT_LVER_CANCER_SUBCLASS_G12_DN BOYAULT_LIVER_CANCER_SUBCLASS_G23_DN OOYOT_LINER_CANCER_SUBCLASS_G56_U BOYAULT LIVER CANCER SUBCLASS G123 CHIANG_LVER_CANCER_SUBCLASS_CTNNB1_U CHIANG_LVER_CANCER_SUBCLASS_PROLIFERATION_D CHIANG_LIVER_CANCER_SUBCLASS_POLYSOMY7_UP CHIANG_LIVER_CANCER_SUBCLASS_UNANNOTATED_D YAMASHITA_LIVER_CANCER_STEM_ELIL IP YAMASHITA_LIVER_CANCER_STEM_CELL_U WOO_LIVER_CANCER_RECURRENCE_DN YAMANAKA_GLIOBLASTOMA_SURVIVAL_DN MONTERO_THYROID_CANCER_POOR_SURVIVAL_UP MIKKELSEN_MCV__CP_WITH_H3K27ME3 MIKKELSEN MCV6_LCP WTH- H3K27ME MIKKELSEN MEF ICP WITH _H 3 K27ME3 MIKKELSEN_MEF_LCP_ WITH HzK27ME MIKKELSEN_IPS_HCP_WITH_H3_UNMETHYLATED MIKKELSEN_IPS_ICP_WITH_H3K27ME3 MIKKELSEN_IPS_LCP_WITH_H3K27ME3

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ONTAINE_PAPILLARY_THYROID_CARCINOMA_DN
IANG_HEMATOPOIESS__STEM_CELL_NUMBER_QTL
WEBER_METHYLATED_ICP_IN_FIBROBLAST
WEBER_METHYLATED_ICP_IN_SPERM_DN STEIN_ESR1_TARGETS
STEIN_ESTROGEN_RESPONSE_NOT_VIA_ESRRA BOYLAN_MULTIPLEMYELOMA_PCA1_D
CARO_LIVER_DEVELOPMENT_DN
GUTIERREZ_WALDENSTROEMS_MACR
gutierrez_Multiplemyeloma_d
WINNEPENNINCKX_MELANOMA_METASTASIS_UP
hahtola_ctcl_pathogenesis
VANTVER_BREAST_CANCER_POOR_PROGNOS
KYNG_WERNER_SYNDROM_UP
BYSTRYKH_HEMATOPOIESIS_STEM_CEIL_IIBRA
ZHAN_MULTPLE_MYELOMA_LB_DN
ZhAN_MULTPLE_MYELOMA_MF_D
ZHAN_MULTIPLE_MYILOMA_MS_D
NAKAYAMA_SOFT_TISSUE_TUMORS_PCA1_DN
MIKKELSEN_ES_HCP_WITH_HZ_UNMETHYLATED MIKKELSEN_ES_LCP_WITH_H3K4ME3 MIKKELSEN_NPC_HCP_WITH_HЗК4MEЗ_AND_HзK27ME3 MIKKELSEN_NPC_LCP WITH_HzK4ME3 MIKKELSEN_MEF_HCP_WITH_H3_UNMETHYLATED YAO_TEMPORAL_RESPONSE_TO_PROGESTERONE_CLUSTER_O YAO_TEMPORAL_RESPONSE_TO_PROGESTERONE_CLUSTER_ YAO_TEMPORAL_RESPONSE_TO_PROGESTERONE_CLUSTER_9 YAO_TEMPORAL_RESPONSE_TO_PROGESTERONE_CLUSTER_11
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[^1]:    㔛寺

