Pathologist major category
Pathologist grade
Resultant genotype
24988
26140
22925
23397
23467
28200
23823
23287
23021
26024
23288
25743
25504
25238
23463
28528
23527
28529
26143
25741
23786
26138
28208
25025
25690
23967
36184
36183
Pathologist major category
Nerve sheath tumors
Spindle and epithelioid tumors
Gliomas
Glioneuronal tumors
No evidence of disease
Pathologist grade
2
3
4
N
NED
Resultant genotype
nf1 KO; pten KO; ink KO; atrx KO
nf1 KO; pten KO; ink KO; atrx wt
nf1 wt; pten KO; ink KO; atrx KO
nf1 wt; pten wt; ink wt; atrx wt

Pathologic major category
Pathologic grade
Resultant grade
Pathologic major category
Normal sheath tumors
Glandular and epithelioid tumors
Lipomatous
Osteochondral tumors
No evidence of disease
Pathologic grade
2
3
4
NED
Resultant grade/stage
HD KD plant KD, mk KD, atrx KD
HD KD, plant KD, mk KD, atrx wt
HD wt, plant KD, mk KD, atrx KD
HD wt, plant KD, mk wt, atrx wt

Pathologic stage
Histology
Prostate status
Pathologic stage category
Stage I or IA
Stage II or IIA/IIB/IIC
Stage III or IIIA/IIIB/IIIC
Stage IV
Histological tumors
Adenocarcinoma
Ductal adenocarcinoma
Prostate status
TP
TN
Tumor
Normal
Gradient genotype
[0.57,-0.54]-[0.72,-0.57]
[0.72,-0.57]-[0.87,-0.59]
[0.87,-0.59]-[1.02,-0.62]
[1.02,-0.62]-[1.16,-0.64]

Pathologist major category
Pathologist grade
Resultant genotype
0.2
0.4
0.6
BIOCARTA_RANBP2_PATHWAY
BIOCARTA_NDKDYNAMIN_PATHWAY
BIOCARTA_BARRESTIN_SRC_PATHWAY
BIOCARTA_CREB_PATHWAY
BIOCARTA_IGF1R_PATHWAY
BIOCARTA_BARR_MAPK_PATHWAY
BIOCARTA_BARRESTIN_PATHWAY
BIOCARTA_CK1_PATHWAY
BIOCARTA_NOS1_PATHWAY
BIOCARTA_GABA_PATHWAY
BIOCARTA_FOSB_PATHWAY
BIOCARTA_PARKIN_PATHWAY
BIOCARTA_LIS1_PATHWAY
BIOCARTA_REELIN_PATHWAY
BIOCARTA_ERBB4_PATHWAY
BIOCARTA_TUBBY_PATHWAY
BIOCARTA_AGPCR_PATHWAY
BIOCARTA_CHREBP_PATHWAY
BIOCARTA_DREAM_PATHWAY
BIOCARTA_AKAPCENTROSOME_PATHWAY
BIOCARTA_MPR_PATHWAY
BIOCARTA_DSP_PATHWAY
BIOCARTA_PAR1_PATHWAY
BIOCARTA_ION_PATHWAY
BIOCARTA_PYK2_PATHWAY
BIOCARTA_CB1R_PATHWAY
BIOCARTA_ACETAMINOPHEN_PATHWAY
BIOCARTA_HBX_PATHWAY
BIOCARTA_PGC1A_PATHWAY
BIOCARTA_CACAM_PATHWAY
BIOCARTA_MALATEX_PATHWAY
BIOCARTA_AT1R_PATHWAY
BIOCARTA_RAB_PATHWAY
BIOCARTA_ACTINY_PATHWAY
BIOCARTA_MAL_PATHWAY
BIOCARTA_PTDINS_PATHWAY
BIOCARTA_PLCD_PATHWAY
BIOCARTA_CIRCADIAN_PATHWAY
BIOCARTA_PLCE_PATHWAY
BIOCARTA_CFTR_PATHWAY
BIOCARTA_CARM1_PATHWAY
BIOCARTA_VIP_PATHWAY
BIOCARTA_GPCR_PATHWAY
BIOCARTA_MEF2D_PATHWAY
BIOCARTA_VOBESITY_PATHWAY
BIOCARTA_PPARG_PATHWAY
BIOCARTA_AMAN_PATHWAY
BIOCARTA_HDAC_PATHWAY
BIOCARTA_P35ALZHEIMERS_PATHWAY
BIOCARTA_CDK5_PATHWAY
BIOCARTA_TRKA_PATHWAY
BIOCARTA_CCR3_PATHWAY
BIOCARTA_PITX2_PATHWAY
BIOCARTA_S1P_PATHWAY
BIOCARTA_MELANOCYTE_PATHWAY
BIOCARTA_CTBP1_PATHWAY
BIOCARTA_GATA3_PATHWAY
BIOCARTA_CYTOKINE_PATHWAY
BIOCARTA_IL5_PATHWAY
BIOCARTA_41BB_PATHWAY
BIOCARTA_AKAP13_PATHWAY
BIOCARTA_VITCB_PATHWAY
BIOCARTA_ACE2_PATHWAY
BIOCARTA_HES_PATHWAY
BIOCARTA_MRP_PATHWAY
BIOCARTA_PRC2_PATHWAY
BIOCARTA_FXR_PATHWAY
BIOCARTA_SPRY_PATHWAY
BIOCARTA_TERC_PATHWAY
BIOCARTA_INTRINSIC_PATHWAY
BIOCARTA_NUCLEARRS_PATHWAY
BIOCARTA_CPSF_PATHWAY
BIOCARTA_WNT_LRP6_PATHWAY
BIOCARTA_ASBCELL_PATHWAY
BIOCARTA_STEM_PATHWAY
BIOCARTA_INFLAM_PATHWAY
BIOCARTA_ERYTH_PATHWAY
BIOCARTA_LECTIN_PATHWAY
BIOCARTA_ALTERNATIVE_PATHWAY
BIOCARTA_IL17_PATHWAY
BIOCARTA_TOB1_PATHWAY
BIOCARTA_TALL1_PATHWAY
BIOCARTA_LONGEVITY_PATHWAY
BIOCARTA_GH_PATHWAY
BIOCARTA_AKT_PATHWAY
BIOCARTA_TFF_PATHWAY
BIOCARTA_CERAMIDE_PATHWAY
BIOCARTA_MITOCHONDRIA_PATHWAY
BIOCARTA_HCMV_PATHWAY
BIOCARTA_STRESS_PATHWAY
BIOCARTA_TEL_PATHWAY
BIOCARTA_CTCF_PATHWAY
BIOCARTA_TGFB_PATHWAY
BIOCARTA_DEATH_PATHWAY
BIOCARTA_P38MAPK_PATHWAY
BIOCARTA_MAPK_PATHWAY
BIOCARTA_PCAF_PATHWAY
BIOCARTA_ERK_PATHWAY
BIOCARTA_RAS_PATHWAY
BIOCARTA_GCR_PATHWAY
BIOCARTA_RARRXR_PATHWAY
BIOCARTA_ERK5_PATHWAY
BIOCARTA_PTEN_PATHWAY
BIOCARTA_RHO_PATHWAY
BIOCARTA_ACH_PATHWAY
BIOCARTA_MTA3_PATHWAY
BIOCARTA_SLRP_PATHWAY
BIOCARTA_ERBB3_PATHWAY
BIOCARTA_ARAP_PATHWAY
BIOCARTA_EEA1_PATHWAY
BIOCARTA_EGFR_SMRTE_PATHWAY
BIOCARTA_SHH_PATHWAY
BIOCARTA_PELP1_PATHWAY
BIOCARTA_TH1TH2_PATHWAY
BIOCARTA_NKT_PATHWAY
BIOCARTA_IL12_PATHWAY
BIOCARTA_CTLA4_PATHWAY
BIOCARTA_NO2IL12_PATHWAY
BIOCARTA_TCYTOTOXIC_PATHWAY
BIOCARTA_THELPER_PATHWAY
BIOCARTA_TCRA_PATHWAY
BIOCARTA_TCAPOPTOSIS_PATHWAY
BIOCARTA_CTL_PATHWAY
BIOCARTA_NKCELLS_PATHWAY
BIOCARTA_STATHMIN_PATHWAY
BIOCARTA_CSK_PATHWAY
BIOCARTA_CCR5_PATHWAY
BIOCARTA_NFAT_PATHWAY
BIOCARTA_BBCELL_PATHWAY
BIOCARTA_CXCR4_PATHWAY
BIOCARTA_BAD_PATHWAY
BIOCARTA_CREM_PATHWAY
BIOCARTA_SUMO_PATHWAY
BIOCARTA_EIF_PATHWAY
BIOCARTA_SET_PATHWAY
BIOCARTA_CELL2CELL_PATHWAY
BIOCARTA_PRION_PATHWAY
BIOCARTA_ERAD_PATHWAY
BIOCARTA_EPHA4_PATHWAY
BIOCARTA_MET_PATHWAY
BIOCARTA_IGF1_PATHWAY
BIOCARTA_RECK_PATHWAY
BIOCARTA_CD40_PATHWAY
BIOCARTA_RNA_PATHWAY
BIOCARTA_TNFR2_PATHWAY
BIOCARTA_IL2RB_PATHWAY
BIOCARTA_STAT3_PATHWAY
BIOCARTA_IL22BP_PATHWAY
BIOCARTA_MONOCYTE_PATHWAY
BIOCARTA_LYMPHOCYTE_PATHWAY
BIOCARTA_NEUTROPHIL_PATHWAY
BIOCARTA_BLYMPHOCYTE_PATHWAY
BIOCARTA_IL3_PATHWAY
BIOCARTA_IL2_PATHWAY
BIOCARTA_FMLP_PATHWAY
BIOCARTA_IL7_PATHWAY
BIOCARTA_FREE_PATHWAY
BIOCARTA_KERATINOCYTE_PATHWAY
BIOCARTA_IFNG_PATHWAY
BIOCARTA_IFNA_PATHWAY
BIOCARTA_CBL_PATHWAY
BIOCARTA_NGF_PATHWAY
BIOCARTA_NFKB_PATHWAY
BIOCARTA_RELA_PATHWAY
BIOCARTA_IL1R_PATHWAY
BIOCARTA_FCER1_PATHWAY
BIOCARTA_GSK3_PATHWAY
BIOCARTA_HIVNEF_PATHWAY
BIOCARTA_CASPASE_PATHWAY
BIOCARTA_D4GDI_PATHWAY
BIOCARTA_SODD_PATHWAY
BIOCARTA_NTHI_PATHWAY
BIOCARTA_PML_PATHWAY
BIOCARTA_TCR_PATHWAY
BIOCARTA_BCR_PATHWAY
BIOCARTA_EGF_PATHWAY
BIOCARTA_NPP1_PATHWAY
BIOCARTA_PLATELETAPP_PATHWAY
BIOCARTA_CARDIACEGF_PATHWAY
BIOCARTA_TSP1_PATHWAY
BIOCARTA_CHEMICAL_PATHWAY
BIOCARTA_FAS_PATHWAY
BIOCARTA_TNFR1_PATHWAY
BIOCARTA_ECM_PATHWAY
BIOCARTA_CALCINEURIN_PATHWAY
BIOCARTA_TOLL_PATHWAY
BIOCARTA_HER2_PATHWAY
BIOCARTA_EOSINOPHILS_PATHWAY
BIOCARTA_EICOSANOID_PATHWAY
BIOCARTA_IL4_PATHWAY
BIOCARTA_COMP_PATHWAY
BIOCARTA_CLASSIC_PATHWAY
BIOCARTA_AGR_PATHWAY
BIOCARTA_IGF1MTOR_PATHWAY
BIOCARTA_EIF4_PATHWAY
BIOCARTA_HSP27_PATHWAY
BIOCARTA_UCALPAIN_PATHWAY
BIOCARTA_MCALPAIN_PATHWAY
BIOCARTA_INTEGRIN_PATHWAY
BIOCARTA_EIF2_PATHWAY
BIOCARTA_MSP_PATHWAY
BIOCARTA_FBW7_PATHWAY
BIOCARTA_AKAP95_PATHWAY
BIOCARTA_RANMS_PATHWAY
BIOCARTA_G2_PATHWAY
BIOCARTA_SRCRPTP_PATHWAY
BIOCARTA_RB_PATHWAY
BIOCARTA_CDC25_PATHWAY
BIOCARTA_PTC1_PATHWAY
BIOCARTA_ATRBRCA_PATHWAY
BIOCARTA_SKP2E2F_PATHWAY
BIOCARTA_P27_PATHWAY
BIOCARTA_MCM_PATHWAY
BIOCARTA_VDR_PATHWAY
BIOCARTA_RACCYCD_PATHWAY
BIOCARTA_ARF_PATHWAY
BIOCARTA_TERT_PATHWAY
BIOCARTA_ETS_PATHWAY
BIOCARTA_EFP_PATHWAY
BIOCARTA_CELLCYCLE_PATHWAY
BIOCARTA_G1_PATHWAY
BIOCARTA_ATM_PATHWAY
BIOCARTA_P53_PATHWAY
BIOCARTA_BCELLSURVIVAL_PATHWAY
BIOCARTA_SAM68_PATHWAY
BIOCARTA_DNAFRAGMENT_PATHWAY
BIOCARTA_BTG2_PATHWAY
BIOCARTA_EXTRINSIC_PATHWAY
BIOCARTA_FIBRINOLYSIS_PATHWAY
BIOCARTA_RAC1_PATHWAY
BIOCARTA_EDG1_PATHWAY
BIOCARTA_PLC_PATHWAY
BIOCARTA_PKC_PATHWAY
BIOCARTA_CDMAC_PATHWAY
BIOCARTA_BIOPEPTIDES_PATHWAY
BIOCARTA_EPONFKB_PATHWAY
BIOCARTA_ARENRF2_PATHWAY
BIOCARTA_INSULIN_PATHWAY
BIOCARTA_IL6_PATHWAY
BIOCARTA_IL10_PATHWAY
BIOCARTA_EPO_PATHWAY
BIOCARTA_TPO_PATHWAY
BIOCARTA_PDGF_PATHWAY
BIOCARTA_GLEEVEC_PATHWAY
BIOCARTA_PEPI_PATHWAY
BIOCARTA_WNT_PATHWAY
BIOCARTA_HSWI_SNF_PATHWAY
BIOCARTA_PS1_PATHWAY
BIOCARTA_CDC42RAC_PATHWAY
BIOCARTA_NOTCH_PATHWAY
BIOCARTA_IRES_PATHWAY
BIOCARTA_MTOR_PATHWAY
36184
36183
28528
25741
28529
23527
26143
25025
23786
26138
28208
25690
23967
24988
26140
28200
23823
23287
23467
23397
22925
25238
23021
25743
23288
26024
25504
23463
Pathologist major category
Nerve sheath tumors
Spindle and epithelioid tumors
Gliomas
Glioneuronal tumors
No evidence of disease
Pathologist grade
2
3
4
N
NED
Resultant genotype
nf1 KO; pten KO; ink KO; atrx KO
nf1 KO; pten KO; ink KO; atrx wt
nf1 wt; pten KO; ink KO; atrx KO
nf1 wt; pten wt; ink wt; atrx wt

Primary Tumor
Metastatic Tumor
Normal Tissue
Tumor Stage
Stage I
Stage II
Stage III
Stage IV
Tumor Grade
Grade 1
Grade 2
Grade 3
Grade 4
Gender
Female
Male
Age
Age < 50
Age > 50
Primary Site
Breast
Colon
Lung
Prostate
Skin
Thyroid
Tissue Type

Pathologist major category
Nerve sheath tumors
Spindle and epithelioid tumors
Gliomas
Glioneuronal tumors
No evidence of disease
Pathologist grade
2
3
4
N
NED
Resultant genotype
nf1 KO; pten KO; ink KO; atrx KO
nf1 KO; pten KO; ink KO; atrx wt
nf1 wt; pten KO; ink KO; atrx KO
nf1 wt; pten wt; ink wt; atrx wt
Pathologist major category
Pathologist grade
Resultant genotype
36184
36183
23021
25743
26024
23288
25504
23463
25238
24988
23397
22925
28200
23823
23287
26140
23467
28528
25741
28529
23527
26143
23786
25025
26138
28208
25690
23967
0.2
0.0
-0.2
-0.4
-0.6
-0.8
WP_CYTOPLASMIC_RIBOSOMAL_PROTEINS
WP_REGULATION_OF_CARDIAC_HYPERTROPHY_BY_MIR208
WP_ACE_INHIBITOR_PATHWAY
WP_SPHINGOLIPID_METABOLISM_OVERVIEW
WP_SPHINGOLIPID_METABOLISM_INTEGRATED_PATHWAY
WP_TRIACYLGLYCERIDE_SYNTHESIS
WP_FATTY_ACID_BIOSYNTHESIS
WP_FATTY_ACID_BETAOXIDATION
WP_HYPOXIA_AND_P53_IN_CARDIOMYOCYTE_REGULATION
WP_HFE_EFFECT_ON_HEPCIDIN_PRODUCTION
WP_ECOSANOID_METABOLISM_VIA_CYCLOOXYGENASES_COX
WP_ECOSANOID_SYNTHESIS
WP_GLUTATHIONE_METABOLISM
WP_ECOSANOID_METABOLISM_VIA_LIPOXYGENASES_LOX
WP_GLUTATHIONE_DISULFIDE_BIOSYNTHESIS
WP_MITOCHONDRIAL_LONG_CHAIN_FATTY_ACID_BETAOXIDATION
WP_FATTY_ACID_OXIDATION
WP_SELENIUM_METABOLISM_SELENOPROTEINS
WP_METAPATHWAY_BIOTRANSFORMATION_AND_LIPID_HOMEOSTASIS
WP_GPCRS_ORPHAN
WP_AFLATOXIN_B1_METABOLISM
WP_GLUTATHIONE_AND_ONECARBON_METABOLISM
WP_ONECARBON_METABOLISM
WP_GDNF_RET_SIGNALING_AXIS
WP_STATIN_PATHWAY
WP_GLUTATHIONE_BIOSYNTHESIS_PATHWAYS
WP_WNT_SIGNALING_IN_KIDNEY_DISEASE
WP_OVARIAN_INFERTILITY
WP_MIR302367_PROMOTING_CARDIOMYOCYTE_PROLIFERATION
WP_TRANSCRIPTIONAL_ACTIVATION_BY_NFE2L2_IN_RESPONSE_TO_PHYTOCHEMICALS
WP_GPCRS_SMALL_LIGAND
WP_WHITE_FAT_CELL_DIFFERENTIATION
WP_ECTODYSPLASIN_A_SIGNALING_IN_HAIR_FOLLICLE_DEVELOPMENT
WP_HEDGEHOG_SIGNALING_PATHWAY
WP_HEART_DEVELOPMENT
WP_SYNTHESIS_AND_DEGRADATION_OF_KETONE_BODIES
WP_MIR127_IN_MESENDODERM_DIFFERENTIATION
WP_VITAMIN_B12_METABOLISM_RESULTING_IN_PRODUCTION_OF_ROS_BY_CYP2E1
WP_FATTY_ACID_OMEGAOXIDATION
WP_GLUCURONIDATION
WP_MICRORNAS_IN_CARDIOMYOCYTE_HYPERTROPHY
WP_TRYPTOPHAN_METABOLISM
WP_ESTROGEN_METABOLISM
WP_METHYLATION
WP_ESTROGEN_DEPENDENT_PROLIFERATION_OF_MYOBLASTS
WP_TRANSLATION_FACTORS
WP_VITAMIN_B6_METABOLISM
WP_OMEGA3_OMEGA6_FATTY_ACID_SYNTHESIS
WP_OMEGA9_FATTY_ACID_SYNTHESIS
WP_BIOTIN_BIOSYNTHESIS_PATHWAY
WP_PPAR_SIGNALING_PATHWAY
WP_OMEGA3_FATTY_ACID_SYNTHESIS
WP_WNT_SIGNALING_PATHWAY_AND_PLURIPOTENCY
WP_PTP1A_RELATED_REGULATORY_PATHWAY
WP_WNT_SIGNALING_PATHWAY
WP_DOPAMINERGIC_NEUROGENESIS
WP_GPCRS_CLASS_B_SECRETINLIKE
WP_EGFR1_SIGNALING_PATHWAY
WP_ESTROGEN_SIGNALING
WP_PENTOSE_PHOSPHATE_PATHWAY
WP_MONOHOMOLOGOUS_END_JOINING
WP_NONHOMOLOGOUS_EYE_CORE_GENERATION
WP_HOMOLOGOUS_RECOMBINATION
WP_MISMATCH_REPAIR
WP_SUGAR_BINDING_PROTEINS
WP_G1_TO_S_CELL_CYCLE_CONTROL
WP_RON_HOMEOSTASIS
WP_CHEMOKINE_SIGNALING_PATHWAY
WP_HISTONE_MODIFICATIONS
WP_TYPE_II_INTERFERON_SIGNALING_IFNG
WP_MICROGLIA_PATHOGEN_PHAGOCYTOSIS_PATHWAY
WP_IL3_SIGNALING_PATHWAY
WP_IL2_SIGNALING_PATHWAY
WP_MICROGLIA_NEUROTOXICITY_SIGNALING_PATHWAY_IN_MICROGLIA
WP_MACROPHAGE_MARKERS
WP_EPO_RECEPTOR_SIGNALING
WP_IL6_SIGNALING_PATHWAY
WP_EGFR1_SIGNALING_PATHWAY
WP_ECOSANOID_LIPID_SYNTHESIS_MAP
WP_OXIDATIVE_STRESS_RESPONSE
WP_FOLIC_ACID_NETWORK
WP_SELENIUM_MICRONUTRIENT_NETWORK
WP_INSULIN_SIGNALING
WP_HYPOXIADEPENDENT_SELFRENEWAL_OF_MYOBLASTS
WP_FOCAL_ADHESION_PIK4KTMTOR_SIGNALING_PATHWAY
WP_PROSTAGLANDIN_SYNTHESIS_AND_REGULATION
WP_ID_SIGNALING_PATHWAY
WP_ALPHA_6_BETA_4_INTEGRIN_SIGNALING_PATHWAY
WP_PRIMARY_FOCAL_SEGMENTAL_GLOMERULOSCLEROSIS_FSGS
WP_COMPLEMENT_ACTIVATION_CLASSICAL_PATHWAY
WP_APOPTOSIS
WP_IL7_SIGNALING_PATHWAY
WP_OSTEOCLAST_SIGNALING
WP_BURN_WOUND_HEALING
WP_COMPREHENSIVE_IL17A_SIGNALING
WP_FOCAL_ADHESION
WP_OSTEOBLAST_SIGNALING
WP_ADIPOGENESIS_GENES
WP_TOLLLIKE_RECEPTOR_SIGNALING
WP_KEGFR_RECEPTOR_SIGNALING_PATHWAY
WP_IL3_SIGNALING_PATHWAY
WP_APOE_AND_MIR146_IN_INFLAMMATION_AND_ATHEROSCLEROSIS
WP_FOLLICLE_STIMULATING_HORMONE_RECEPTOR_3_SIGNALING_PATHWAY
WP_LUNG_FIBROSIS
WP_OXIDATIVE_DAMAGE_RESPONSE
WP_NODULIKE_RECEPTOR_NLR_SIGNALING_PATHWAY
WP_FACTORS_AND_PATHWAYS_AFFECTING_INSULINLIKE_GROWTH_FACTOR_IGF1AKT_SIGNALING
WP_LEPTIN_AND_ADIPONECTIN
WP_ALPHA_6_BETA_4_INTEGRIN_SIGNALING_PATHWAY
WP_PRIMARY_FOCAL_SEGMENTAL_GLOMERULOSCLEROSIS_FSGS
WP_TARGETING_IN_INSULINPIK4KT_SIGNALING
WP_MIR222_IN_EXERCISEINDUCED_CARDIAC_GROWTH
WP_MITOCHONDRIAL_GENE_EXPRESSION
WP_ECOSANOID_METABOLISM_VIA_CYTOCHROME_P450_MONOOXYGENASES
WP_BLOOD_CLOTTING_CASCADE
WP_ONECARBON_METABOLISM_AND_RELATED_PATHWAYS
WP_CHOLESTEROL_METABOLISM_WITH_BLOCH_AND_KANDUTSCHRUSSELL_PATHWAYS
WP_ELONGATION_OF_VERY_LONG_CHAIN_FATTY_ACIDS
WP_MEOP2_AND_ASSOCIATED_RETT_SYNDROME
WP_DISTAL_CONVOLUTED_TUBULE_1_DCT1_CELL
WP_SIDS_SUSCEPTIBILITY_PATHWAYS
WP_BIOGENIC_AMINE_SYNTHESIS
WP_MONOAMINE_GPCRS
WP_ALANINE_AND_ASPARTATE_METABOLISM
WP_DRAVET_SYNDROME_SCN1A1789V_POINT_MUTATION_MODEL
WP_CALCIUM_REGULATION_IN_CARDIAC_CELLS
WP_G13_SIGNALING_PATHWAY
WP_OXIDATIVE_PHOSPHORYLATION
WP_GLYCEROLIPID_AND_GLYCEROPHOSPHOLIPID
WP_GLYCOLYSIS_AND_GLUCONEOGENESIS
WP_GLYCOGEN_METABOLISM
WP_PEROXIREDOXIN_2_INDUCED_OVARIAN_FAILURE
WP_CHOLESTEROL_BIOSYNTHESIS
WP_PURINE_METABOLISM
WP_ALZHEIMERS_DISEASE
WP_GPCRS_OTHER_A_RHODOPSINLIKE
WP_GLUTAMATERELATED_CYTOSKELETON
WP_ELECTRON_TRANSPORT_CHAIN
WP_GPCRS_PEPTIDE
WP_GPCRS_NONODORANT
WP_SEROTONIN_AND_ANXIETY
WP_NEUROTROPHIN_AND_ANXIETYRELATED_EVENTS
WP_GPCRS_CLASS_A_RHODOPSINLIKE
WP_GPCRS_OTHER
WP_G_PROTEIN_SIGNALING_PATHWAYS
WP_SYNAPTIC_PROTEINS
WP_MYOMETRIAL_RELAXATION_AND_CONTRACTION_PATHWAYS
WP_GLUTAMATE_PHEROMONE
WP_GLUTAMATE_HOMEOSTASIS_PATHWAYS
WP_GLUTAMATE_GABA_GLUTAMINE_CYCLE
WP_GLUTAMATE_GABA_GLUTAMINE_CYCLE_PATHWAYS

Pathologist major category

- Nerve sheath tumors
- Spindle and epithelioid tumors
- Gliomas
- Glioneuronal tumors
- No evidence of disease

Pathologist grade

- 2
- 3
- 4
- N
- NED

Resultant genotype

- nf1 KO; pten KO; ink KO; atrx KO
- nf1 KO; pten KO; ink KO; atrx wt
- nf1 wt; pten KO; ink KO; atrx KO
- nf1 wt; pten wt; ink wt; atrx wt

Pathologist major category
Pathologist grade
Resultant genotype
-0.5
0
0.5
NACC1_TARGET_GENES
TEAD2_TARGET_GENES
GLI2_TARGET_GENES
KLF6_TARGET_GENES
FOXD3_TARGET_GENES
GM14410_TARGET_GENES
ZC3H11A_TARGET_GENES
STFA1_TARGET_GENES
ZFP986_UNIPROT_L7MUC9_UNREVIEWED_TARGET_GENES
ZFP759_TARGET_GENES
ZFP938_TARGET_GENES
ZFP595_TARGET_GENES
ELK1_TARGET_GENES
NPM1_TARGET_GENES
ZBTB24_TARGET_GENES
SPEN_TARGET_GENES
PPARGC1A_TARGET_GENES
DNMT1_TARGET_GENES
SIRT1_TARGET_GENES
SMARCC2_TARGET_GENES
MSGN1_TARGET_GENES
GM14401_TARGET_GENES
CARM1_TARGET_GENES
ZFP990_TARGET_GENES
JMJD1C_TARGET_GENES
TWIST1_TARGET_GENES
ZFP932_TARGET_GENES
POU3F3_TARGET_GENES
SOX13_TARGET_GENES
ZFP273_TARGET_GENES
ZFP970_TARGET_GENES
HLF_TARGET_GENES
DZIP3_TARGET_GENES
GM6871_TARGET_GENES
ATAD2_TARGET_GENES
ZFP458_TARGET_GENES
GM14418_TARGET_GENES
UBN1_TARGET_GENES
MTA3_TARGET_GENES
UBN2_TARGET_GENES
ZFP652_TARGET_GENES
GRHL3_TARGET_GENES
TGIF2_TARGET_GENES
DLX2_TARGET_GENES
ZFP985_UNIPROT_Q5U4F7_UNREVIEWED_TARGET_GENES
TEX10_TARGET_GENES
GLI3_TARGET_GENES
VSX2_TARGET_GENES
HOXC9_TARGET_GENES
ZFP961_TARGET_GENES
RFX6_TARGET_GENES
CGAS_TARGET_GENES
PARP1_TARGET_GENES
GCM2_TARGET_GENES
ZFP961_TARGET_GENES
MYEF2_MYEF2L_TARGET_GENES
ZFP617_TARGET_GENES
DNAJC2_TARGET_GENES
FOXG1_TARGET_GENES
BCOR_TARGET_GENES
GM14412_TARGET_GENES
SOX30_TARGET_GENES
RFX2_TARGET_GENES
KLF15_TARGET_GENES
FOXN1_TARGET_GENES
SMCHD1_TARGET_GENES
CBX6_TARGET_GENES
EED_TARGET_GENES
BMI1_TARGET_GENES
ZFP467_TARGET_GENES
PHC1_TARGET_GENES
ZFP445_TARGET_GENES
PHF13_TARGET_GENES
ZFP534_TARGET_GENES
ZFP882_TARGET_GENES
MBD1_TARGET_GENES
ZFP268_TARGET_GENES
EHMT2_TARGET_GENES
PITX2_TARGET_GENES
CDYL_TARGET_GENES
HIRA_TARGET_GENES
ZFP987_TARGET_GENES
ZFP708_TARGET_GENES
ZFP979_UNIPROT_Q8K293_UNREVIEWED_TARGET_GENES
ZFP981_TARGET_GENES
ZFP984_TARGET_GENES
HOXA11_TARGET_GENES
ELK4_TARGET_GENES
ND5_UNIPROT_A0A023J5X2_UNREVIEWED_TARGET_GENES
UTP3_TARGET_GENES
SAP18_TARGET_GENES
LRRFIP1_TARGET_GENES
THAP11_TARGET_GENES
E4F1_TARGET_GENES
RCOR2_TARGET_GENES
MAFA_TARGET_GENES
BAZ1A_TARGET_GENES
NCOA1_TARGET_GENES
ZFP738_TARGET_GENES
PDX1_TARGET_GENES
TERF1_TARGET_GENES
REX2_TARGET_GENES
SMYD5_TARGET_GENES
PSIP1_TARGET_GENES
TNNI2_TARGET_GENES
ZFP42_TARGET_GENES
TARDBP_TARGET_GENES
MBTPS2_YY2_TARGET_GENES
HMCES_TARGET_GENES
SOX5_TARGET_GENES
THAP4_TARGET_GENES
RHOX11_TARGET_GENES
ELK3_TARGET_GENES
AHCY_AHCYL_TARGET_GENES
LMX1B_TARGET_GENES
HOXC10_TARGET_GENES
ASH1L_TARGET_GENES
GM14393_TARGET_GENES
SAP30_TARGET_GENES
ING1_TARGET_GENES
HNRNPK_TARGET_GENES
DDX5_TARGET_GENES
SATB2_TARGET_GENES
SOX7_TARGET_GENES
NFIC_TARGET_GENES
ZFP599_TARGET_GENES
HNF4G_TARGET_GENES
SMAD6_TARGET_GENES
TOX3_TARGET_GENES
MPND_TARGET_GENES
GM14443_UNIPROT_A2ARX0_UNREVIEWED_TARGET_GENES
HDAC4_TARGET_GENES
ZFP335_TARGET_GENES
ELL_TARGET_GENES
RXRG_TARGET_GENES
NLRC5_TARGET_GENES
ID2_TARGET_GENES
KDM4B_TARGET_GENES
ETV2_TARGET_GENES
ZFP456_TARGET_GENES
GM6710_GM14391_UNIPROT_Q8C1K5_UNREVIEWED_TARGET_GENES
BRD3_TARGET_GENES
MYB_TARGET_GENES
LHX6_TARGET_GENES
TBX20_TARGET_GENES
DMRTB1_TARGET_GENES
CCL5_TARGET_GENES
NFAT5_TARGET_GENES
CTR9_TARGET_GENES
AFF4_TARGET_GENES
HDGFL2_TARGET_GENES
ELL2_TARGET_GENES
SOX10_TARGET_GENES
PWWP2B_TARGET_GENES
ARID4B_TARGET_GENES
DLX1_TARGET_GENES
GM14296_TARGET_GENES
NDUFS2_TARGET_GENES
L3MBTL2_TARGET_GENES
OGT_TARGET_GENES
HELLS_TARGET_GENES
ZFP808_TARGET_GENES
ZFP429_TARGET_GENES
ZFP874A_TARGET_GENES
ZFP92_TARGET_GENES
GM14406_TARGET_GENES
ZFP457_TARGET_GENES
PCGF3_TARGET_GENES
SRSF1_TARGET_GENES
WDR5_TARGET_GENES
PRDM9_TARGET_GENES
DPF2_TARGET_GENES
ELL3_TARGET_GENES
ZFP493_TARGET_GENES
RUVBL2_TARGET_GENES
RUVBL1_TARGET_GENES
FEV_TARGET_GENES
PHF2_TARGET_GENES
MAU2_TARGET_GENES
ZFP810_TARGET_GENES
HSF2_TARGET_GENES
GM2004_GM14419_UNIPROT_A2ARL5_UNREVIEWED_TARGET_GENES
SOX6_TARGET_GENES
HOXC12_TARGET_GENES
NR1H2_TARGET_GENES
ZFP449_TARGET_GENES
H1_6_TARGET_GENES
ZFP64_TARGET_GENES
FOXJ2_TARGET_GENES
CHAF1A_TARGET_GENES
NR0B2_TARGET_GENES
NUCKS1_TARGET_GENES
ZFP709_TARGET_GENES
CTNNB1_TARGET_GENES
ZFP809_TARGET_GENES
MNX1_TARGET_GENES
CUX2_TARGET_GENES
FOXA3_TARGET_GENES
DUXBL1_TARGET_GENES
PROP1_TARGET_GENES
BRWD1_TARGET_GENES
DMRT1_TARGET_GENES
GM14326_TARGET_GENES
SALL1_TARGET_GENES
SMARCA2_TARGET_GENES
NFE2_TARGET_GENES
NFATC1_TARGET_GENES
ZFP965_ZFP973_TARGET_GENES
ZFP935_TARGET_GENES
ZFP953_TARGET_GENES
ZFP874B_TARGET_GENES
THRB_TARGET_GENES
RCOR1_TARGET_GENES
NFKB1_TARGET_GENES
NFATC2_TARGET_GENES
RELB_TARGET_GENES
LYL1_TARGET_GENES
SPIB_TARGET_GENES
CRELD1_TARGET_GENES
REL_TARGET_GENES
ZFP872_TARGET_GENES
TBX4_TARGET_GENES
BARX1_TARGET_GENES
ZKSCAN17_TARGET_GENES
MYO1C_TARGET_GENES
PCGF5_TARGET_GENES
RTF1_TARGET_GENES
NRD1_TARGET_GENES
TLX1_TARGET_GENES
MLLT3_TARGET_GENES
TRP73_TARGET_GENES
TAF10_TARGET_GENES
TOX2_TARGET_GENES
PML_TARGET_GENES
DDIT3_TARGET_GENES
CEBPG_TARGET_GENES
GADD45A_TARGET_GENES
SMYD2_TARGET_GENES
BCL11A_TARGET_GENES
RPA2_TARGET_GENES
ZFP991_TARGET_GENES
ZBTB16_UNIPROT_A3KMN0_UNREVIEWED_TARGET_GENES
CBX1_TARGET_GENES
NR5A1_TARGET_GENES
GLI1_TARGET_GENES
HAND1_TARGET_GENES
HSF1_TARGET_GENES
NKX3_2_TARGET_GENES
NFE2L1_TARGET_GENES
HOXD13_TARGET_GENES
GSK3B_TARGET_GENES
PEX2_TARGET_GENES
ZFP712_TARGET_GENES
ANP32E_TARGET_GENES
OVOL2_TARGET_GENES
LHX1_TARGET_GENES
ZKSCAN1_TARGET_GENES
TRPS1_TARGET_GENES
SP5_TARGET_GENES
NR2F2_TARGET_GENES
GM6710_GM14391_UNIPROT_A2ART0_UNREVIEWED_TARGET_GENES
IKZF3_TARGET_GENES
ZFP296_TARGET_GENES
HEXIM1_TARGET_GENES
ZFP319_TARGET_GENES
MSX1_TARGET_GENES
NR1I2_TARGET_GENES
SOX15_TARGET_GENES
DLX6_TARGET_GENES
SIX6_TARGET_GENES
ZBTB7B_TARGET_GENES
ZFP933_TARGET_GENES
ZFP322A_TARGET_GENES
ZFP58_TARGET_GENES
HHEX_TARGET_GENES
RALY_TARGET_GENES
ZFP989_UNIPROT_H3BLB0_UNREVIEWED_TARGET_GENES
GM20449_UNIPROT_E9Q3U2_UNREVIEWED_TARGET_GENES
NAA10_TARGET_GENES
24988
26140
28200
23823
23467
23287
23397
22925
25743
23021
26024
23288
25504
23463
25238
25690
23967
25741
28528
28529
26143
23786
23527
26138
25025
28208
36184
36183
Pathologist major category
Nerve sheath tumors
Spindle and epithelioid tumors
Gliomas
Glioneuronal tumors
No evidence of disease
Pathologist grade
2
3
4
N
NED
Resultant genotype
nf1 KO; pten KO; ink KO; atrx KO
nf1 KO; pten KO; ink KO; atrx wt
nf1 wt; pten KO; ink KO; atrx KO
nf1 wt; pten wt; ink wt; atrx wt

Pathologist major category
Pathologist grade
Resulted genotype
Pathologist major category
Meningiomas
Schwannomas
Spindle and epithelioid tumors
Gliomas
Glioneuronal tumors
No evidence of disease
Pathologist grade
2
3
4
NE
Resultant genotype
nf1 KO; pten KO; arix KO; atrx KO
nf1 KO; pten KO; arix KO; atrx wt
nf1 wt; pten KO; arix KO; atrx KO
nf1 wt; pten wt; arix wt; atrx wt
36184
36183
23307
23308
22505
26140
26139
28300
23087
23407
23521
23522
23524
23308
23309
23463
28528
28529
28527
28741
23786
23787
26138
25025
26139
26140
26600
23987
GOMF TRANSCRIPTION, COMPRESSION ACTIVITY
GOMF RNA POLYMERASE II, INTRONIC TRANSCRIPTION REGULATORY REGION SEQUENCE SPECIFIC DNA BINDING
GOMF RNA POLYMERASE II CORE PROMOTER PROXIMAL REGION DNA BINDING ACTIVITY
GOMF TRANSFER PHOSPHORUSCONTAINING GROUPS
GOMF PROTEIN CHANNEL ACTIVITY
GOMF VOLTAGE GATED CHLORIDE CHANNEL ACTIVITY
GOMF VOLTAGE GATED MONOATOMIC ANION CHANNEL ACTIVITY
GOMF RNA POLYMERASE II CORE PROMOTER PROXIMAL REGION DNA BINDING
GOMF UBIQUITIN LIKE PROTEIN READER ACTIVITY
GOMF UBIQUITIN LIKE PROTEIN LIGASE ACTIVITY
GOMF UBIQUITIN PROTEIN TRANSFERASE ACTIVITY
GOMF RNA POLYMERASE II C TERMINAL DOMAIN BINDING
GOMF PHOSPHOTRANSFERASE ACTIVITY ALCOHOL GROUP AS ACCEPTOR
GOMF PHOSPHOLIPIDE READER BINDING
GOMF PROTEIN SERINE/THREONINE KINASE ACTIVITY
GOMF UBIQUITIN LIKE PROTEIN SPECIFIC ENDOPEPTIDASE ACTIVITY
GOMF PROTEIN KINASE ACTIVITY
GOMF PROTEIN CYSTEINE S STRANDCYSTEINEDISTANCE ACTIVITY
GOMF PROTEIN CYSTEINE S MYRISTOYLTRANSFERASE ACTIVITY
GOMF PROTEIN BINDING
GOMF RNA 5 ADENOSYLRIBOSE LIGASE ACTIVITY
GOMF RNA POLYMERASE II CORE PROMOTER PROXIMAL REGION DNA BINDING
GOMF UBIQUITIN MODIFIED HISTONE READER ACTIVITY
GOMF RNA POLYMERASE II CORE PROMOTER BINDING
GOMF RNA POLYMERASE BINDING
GOMF ADENOSYLMETHIONINE ENZYME ENZYME BINDING
GOMF SUMO LIGASE ACTIVITY
GOMF RNA POLYMERASE II CORE PROMOTER PROXIMAL REGION SEQUENCE SPECIFIC DNA BINDING
GOMF PHOSPHATIDYLINOSITOL TRISPHOSPHATE PHOSPHATASE ACTIVITY
GOMF PHOSPHOTRANSFERASE ACTIVITY ALCOHOL GROUP
GOMF 5 3 EXORIBONUCLEASE NADPHLIKE ACTIVITY
GOMF PROTEIN DEACETYLASE ACTIVITY
GOMF RRNA BINDING
GOMF SECONDARY ACTIVE TRANSMEMBRANE TRANSPORTER ACTIVITY
GOMF SECONDARY ACTIVE SULFATE TRANSMEMBRANE TRANSPORTER ACTIVITY
GOMF STEROID DECYL NORBRASSIN ACTIVITY
GOMF ATPASE COUPLED TRANSMEMBRANE SODIUM ION TRANSMEMBRANE TRANSPORTER ACTIVITY
GOMF ATPASE TRANSMEMBRANE TRANSPORTER ACTIVITY
GOMF SODIUM TRANSMEMBRANE TRANSPORTER ACTIVITY
GOMF SUGAR TRANSMEMBRANE TRANSPORTER ACTIVITY
GOMF ATP BINDING
GOMF 5 NUCLEOTIDASE ACTIVITY
GOMF ATPASE COUPLED TRANSMEMBRANE TRANSPORTER ACTIVITY
GOMF MYO DNA DIRECTED MONOSTABLE MOTOR ACTIVITY
GOMF ATP BINDING
GOMF SINGLE STRANDED DNA 5 3 DNA EXONUCLEASE ACTIVITY
GOMF ATPASE COUPLED TRANSMEMBRANE TRANSPORTER ACTIVITY
GOMF TRANSCRIPTION REGULATOR ACTIVATOR ACTIVITY
GOMF SINGLE STRANDED DNA DEPENDENT ATPASE ACTIVITY
GOMF SINGLE STRANDED DNA BINDING
GOMF ATP BINDING ACTIVITY
GOMF STRUCTURAL CONSTITUENT OF CYTOSKELETON
GOMF SINGLE STRANDED DNA ENDODEOXYRIBONUCLEASE ACTIVITY
GOMF RNA POLYMERASE II CORE PROMOTER PROXIMAL REGION DNA BINDING
GOMF RNA POLYMERASE II GENERAL TRANSCRIPTION INITIATION FACTOR ACTIVITY
GOMF PROTEIN DISULFIDE OXIDOREDUCTASE ACTIVITY
GOMF TRNA PSEUDOURIDINE SYNTHASE ACTIVITY
GOMF PROTEIN DEACETYLASE ACTIVITY
GOMF PROTEIN DEMETHylase ACTIVITY
GOMF TRANSCRIPTION COFACTOR BINDING
GOMF TRANSCRIPTION COREPRESSOR BINDING ACTIVITY
GOMF UBIQUITIN PROTEIN TRANSFERASE REGULATOR ACTIVITY
GOMF UBIQUITIN PROTEIN TRANSFERASE INHIBITOR ACTIVITY
GOMF UBIQUITIN PROTEIN TRANSFERASE INHIBITOR ACTIVITY
GOMF PD DOMAIN BINDING
GOMF SINGLE STRANDED DNA BINDING
GOMF DNA BINDING TRANSCRIPTION FACTOR
GOMF POLY A BINDING
GOMF DNA BINDING
GOMF SEQUENCE SPECIFIC DNA BINDING
GOMF RNA POLYMERASE II CORE PROMOTER PROXIMAL REGION SEQUENCE SPECIFIC DNA BINDING
GOMF TRANSCRIPTION REGULATOR ACTIVITY
GOMF TRANSCRIPTION COREPRESSOR BINDING
GOMF TAT PROTEIN BINDING
GOMF RNA BINDING
GOMF RNA POLYMERASE II GENERAL TRANSCRIPTION INITIATION FACTOR BINDING
GOMF PROLACTIN RECEPTOR BINDING
GOMF RNA POLYMERASE II CORE PROMOTER PROXIMAL REGION DNA BINDING
GOMF REGULATORY REGION DNA BINDING
GOMF RNA BINDING TRANSCRIPTION FACTOR BINDING
GOMF RNA POLYMERASE II CTD HEPTAPEPTIDE REPEAT MODIFYING ACTIVITY
GOMF RNA POLYMERASE II CTD HEPTAPEPTIDE REPEAT PROLINE MODIFYING ACTIVITY
GOMF PYRIMIDINE NUCLEOTIDE SUGAR TRANSMEMBRANE TRANSPORTER ACTIVITY
GOMF PYRIMIDINE RIBONUCLEOTIDE BINDING
GOMF DNA BINDING ACTIVITY
GOMF SEQUENCE SPECIFIC SINGLE STRANDED DNA BINDING
GOMF DNA BINDING TRANSCRIPTION FACTOR
GOMF TELOMERIC DNA BINDING
GOMF PHOSPHATASE ACTIVITY PROTEIN TRANSFERASE ACTIVITY
GOMF PHOSPHATASE ACTIVITY 3 5 KINASE REGULATOR ACTIVITY
GOMF PHOSPHATASE ACTIVITY 3 5 KINASE ACTIVATOR ACTIVITY
GOMF DNA BINDING
GOMF CDP ALCOHOL PHOSPHATASE ACTIVITY
GOMF TRANSLATION INITIATION FACTOR ACTIVITY
GOMF TRANSLATION INITIATION FACTOR BINDING
GOMF TRANSLATION INITIATION FACTOR ACTIVITY TRANSLATION INITIATION FACTOR ACTIVITY
GOMF RIBONUCLEOPROTEIN COMPLEX BINDING
GOMF RNA BINDING
GOMF RRNA BINDING
GOMF RNA BINDING
GOMF SMALL RIBOSOMAL SUBUNIT RRNA BINDING
GOMF UNFOLDED PROTEIN BINDING
GOMF RNA BINDING ACTIVITY
GOMF STRUCTURAL CONSTITUENT OF RIBOSOME
GOMF RNA POLYMERASE I ACTIVITY
GOMF RNA POLYMERASE I ACTIVITY
GOMF RNA POLYMERASE I ACTIVITY
GOMF RNA POLYMERASE I ACTIVITY
GOMF PHOSPHOHYDROLASE ACTIVITY FOR OTHER SUBSTITUTED PHOSPHATE GROUPS
GOMF DNA BINDING
GOMF POLY ADP D RIBOSE BINDING
GOMF DNA 3 5 HELICASE ACTIVITY
GOMF 3 ADENOSYLMETHIONINE DEPENDENT METHYLTRANSFERASE ACTIVITY
GOMF METHYLTRANSFERASE ACTIVITY TRANSFERASE ACTIVITY ALCOHOL GROUPS
GOMF RRNA ADENINE METHYLTRANSFERASE ACTIVITY
GOMF RNA 3 5 METHYLTRANSFERASE ACTIVITY
GOMF DNA 3 5 HELICASE ACTIVITY
GOMF RNA METHYLTRANSFERASE ACTIVITY
GOMF TRNA METHYLTRANSFERASE ACTIVITY
GOMF TRNA BINDING
GOMF DAMAGE BINDING
GOMF UV DAMAGE BINDING
GOMF DNA BINDING
GOMF DAMAGE BINDING
GOMF DNA BINDING
GOMF RNA POLYMERASE I GENERAL TRANSCRIPTION INITIATION FACTOR ACTIVITY
GOMF RNA POLYMERASE I SUBUNIT BINDING
GOMF TRANSLATION INITIATION FACTOR BINDING
GOMF PROTEIN DISULFIDE REDUCTASE NADP H ACTIVITY
GOMF PROTEIN DISULFIDE REDUCTASE NADH ACTIVITY
GOMF THIOREDOXIN DISULFIDE REDUCTASE NADPH ACTIVITY
GOMF TELOMERIC DNA BINDING
GOMF TELOMERASE RNA BINDING ACTIVITY
GOMF RNA DIRECTED DNA POLYMERASE ACTIVITY
GOMF RNA BINDING
GOMF UDP PHOSPHATASE ACTIVITY
GOMF UBIQUITIN LIKE PROTEIN BINDING ACTIVITY
GOMF UBIQUITIN LIKE PROTEIN SPECIFIC ENDOPEPTIDASE ACTIVITY
GOMF METHYL BINDING
GOMF METHYL BINDING
GOMF METHYLTRANSFERASE ACTIVITY
GOMF METHYL PALMITATE ESTERASE ACTIVITY
GOMF STEROL BINDING
GOMF STEROL ESTERASE ACTIVITY
GOMF ATPASE COUPLED TRANSMEMBRANE TRANSPORTER ACTIVITY
GOMF PHOSPHATIDYLCHOLINE BINDING
GOMF SIGNALING RECEPTOR BINDING
GOMF SIGNALING RECEPTOR ACTIVATOR ACTIVITY
GOMF SIGNALING RECEPTOR INHIBITOR ACTIVITY
GOMF TYRosine BINDING
GOMF TYN BINDING
GOMF STRUCTURAL CONSTITUENT OF MUSCLE
GOMF SPHINGOLIPID TRANSPORTER ACTIVITY
GOMF TRANSCRIPTION REGULATOR INHIBITOR ACTIVITY
GOMF ATPASE COUPLED TRANSMEMBRANE TRANSPORTER ACTIVITY
GOMF TRIP BINDING
GOMF SERINE TYPE ENDOPEPTIDASE INHIBITOR ACTIVITY
GOMF SERINE TYPE ENDOPEPTIDASE ACTIVITY
GOMF WIDE PORE CHANNEL ACTIVITY
GOMF PROTEIN BINDING
GOMF SERINE TYPE ENDOPEPTIDASE ACTIVITY
GOMF PROTEIN DISULFIDE OXIDOREDUCTASE ACTIVITY
GOMF PROTEIN OXIDOREDUCTASE ACTIVITY
GOMF PROTEIN HOMODIMERIZATION ACTIVITY
GOMF DNA DNA BINDING ACTIVITY
GOMF ZINC ION BINDING
GOMF ZINC ION BINDING
GOMF RNA ENDONUCLEASE ACTIVITY
GOMF RNA ENDONUCLEASE ACTIVITY
GOMF SPHINGOSINE 1 PHOSPHATE PHosphatase ACTIVITY
GOMF TRANSFERASE ACTIVITY TRANSFERRING ALDYL OR ARYL OTHER THAN METHYL GROUPS
GOMF PHOSPHATASE ACTIVITY PROTEIN TYRosine PHosphatase ACTIVITY
GOMF PHosphatase ACTIVITY TRANSFERASE ACTIVITY
GOMF PROTEIN DISULFIDE OXIDOREDUCTASE ACTIVITY
GOMF PHOSPHATASE ACTIVITY ACTING ON CARBOHYDRATES AND DERIVATIVES
GOMF DNA BINDING
GOMF HEME BINDING
GOMF VASCULAR ENDOTHELIAL GROWTH FACTOR RECEPTOR 1 BINDING
GOMF VASCULAR ENDOTHELIAL GROWTH FACTOR RECEPTOR BINDING
GOMF JUVENILE TRANSFERASE ACTIVITY
GOMF TRANSFORMING GROWTH FACTOR BETA RECEPTOR BINDING
GOMF TRANSFORMING GROWTH FACTOR BETA RECEPTOR ACTIVITY
GOMF PROTEIN BINDING
GOMF PROTEASE RECEPTOR ACTIVITY
GOMF PROTEIN BINDING
GOMF WNT RECEPTOR ACTIVITY
GOMF PROTEIN BINDING
GOMF TELOMERASE ACTIVITY
GOMF QUINONE BINDING
GOMF PHOSPHOLIPIDE BINDING 3 PHOSPHATE BINDING
GOMF UNCOUPLA BINDING
GOMF PHOSPHOLIPIDE BINDING 5 PHOSPHATE BINDING
GOMF SERINE HYDROLASE ACTIVITY
GOMF PROTEIN BINDING
GOMF TRANSMEMBRANE RECEPTOR PROTEIN SERINE THREONINE KINASE ACTIVITY
GOMF PHOSPHATIDYLINOSITOL 4 PHOSPHATE BINDING
GOMF PROTEIN BINDING
GOMF TRANSCRIPTION COREGULATOR BINDING
GOMF PROTEIN BINDING
GOMF TRANSMEMBRANE RECEPTOR PROTEIN KINASE ACTIVITY
GOMF TRANSMEMBRANE RECEPTOR PROTEIN SERINE THREONINE KINASE ADAPTOR ACTIVITY
GOMF SULFURIC ESTER HYDROLASE ACTIVITY
GOMF SULFUR COMPOUND BINDING
GOMF PROTEIN DISULFIDE OXIDOREDUCTASE ACTIVITY
GOMF GTPASE BINDING
GOMF DNA BINDING
GOMF RNA PRIMARY TRANSCRIPT BINDING
GOMF TRANSMEMBRANE RECEPTOR PROTEIN TYROSINE KINASE ADAPTOR ACTIVITY
GOMF VASCULAR ENDOTHELIAL GROWTH FACTOR BINDING
GOMF VASCULAR ENDOTHELIAL GROWTH FACTOR RECEPTOR ACTIVITY
GOMF PLATELET DERIVED GROWTH FACTOR BINDING
GOMF PROTEIN BINDING
GOMF STRUCTURAL CONSTITUENT OF EYE LENS
GOMF PURINE NUCLEOSIDE TRANSMEMBRANE TRANSPORTER ACTIVITY
GOMF PYRIMIDINE NUCLEOSIDE TRANSMEMBRANE TRANSPORTER ACTIVITY
GOMF PYRIMIDINE NUCLEOSIDE TRANSMEMBRANE TRANSPORTER ACTIVITY
GOMF ATP BINDING
GOMF POLY A RNA POLYMERASE ACTIVITY
GOMF PHosphatase ACTIVITY PROTEIN TYRosine PHosphatase ACTIVITY
GOMF UBIQUITYTRANSFERASE ACTIVITY
GOMF RNA POLYMERASE II CTD HEPTAPEPTIDE REPEAT PHOSPHATASE ACTIVITY
GOMF RNA POLYMERASE II CTD HEPTAPEPTIDE REPEAT PROLINE MODIFYING ACTIVITY
GOMF RNA POLYMERASE II TRANSCRIPTION REGULATORY REGION SEQUENCE SPECIFIC DNA BINDING
GOMF RNA POLYMERASE II GENERAL TRANSCRIPTION INITIATION FACTOR ACTIVITY
GOMF SMALL MOLECULE SENSOR ACTIVITY
GOMF PROTEIN DISULFIDE OXIDOREDUCTASE ACTIVITY
GOMF TRANSCRIPTION COREPRESSOR BINDING
GOMF RECEPTOR TYROSINE KINASE BINDING
GOMF PROTEIN KINASE A REGULATORY SUBUNIT BINDING
GOMF PHOSPHATASE ACTIVITY
GOMF PROTEIN BINDING
GOMF SYNDECAN BINDING
GOMF PROTEIN DISULFIDE REDUCTASE ACTIVITY
GOMF PROTEIN SEQUESTERING ACTIVITY
GOMF TRANSFORMING GROWTH FACTOR BETA BINDING
GOMF TRANSFORMING GROWTH FACTOR BETA RECEPTOR BINDING
GOMF TRANSFORMING GROWTH FACTOR BETA RECEPTOR BINDING
GOMF SIGNALING RECEPTOR ACTIVITY
GOMF SCAVENGER RECEPTOR ACTIVITY
GOMF STRUCTURAL MOLECULE ACTIVITY CONTRIBUTING ELASTICITY
GOMF PROTEIN BINDING
GOMF TRANSFORMING GROWTH FACTOR BETA BINDING
GOMF TRANSFORMING GROWTH FACTOR BETA RECEPTOR BINDING
GOMF TUMOR NECROSIS FACTOR RECEPTOR ACTIVITY
GOMF FIBROBLAST GROWTH FACTOR RECEPTOR BINDING
GOMF DNA BINDING
GOMF TAKEYSINASE BINDING
GOMF TUMOR NECROSIS FACTOR RECEPTOR SUPERFAMILY BINDING
GOMF TUMOR NECROSIS FACTOR RECEPTOR BINDING
GOMF PROTEIN BINDING
GOMF PROTEASE BINDING
GOMF MITOGEN ACTIVATED PROTEINE KINASE KINASE ACTIVATOR ACTIVITY
GOMF CDC 2 FAMILY PROTEIN BINDING
GOMF SUPEROXIDE GENERATING NADPH OXIDASE ACTIVATOR ACTIVITY
GOMF PROTEIN BINDING
GOMF UBIQUITIN LIKE PROTEIN LIGASE BINDING
GOMF SUPEROXIDE GENERATING NADPH OXIDASE ACTIVITY
GOMF PROTEIN BINDING
GOMF PHOSPHATIDYLINOSITOL 3 4 BISPHOSPHATE BINDING
GOMF PHOSPHATIDYLINOSITOL 3 4 5 TRISPHOSPHATE BINDING
GOMF PROTEIN TYROSINE KINASE INHIBITOR ACTIVITY
GOMF PHOSPHATIDYLINOSITOL 3 4 5 TRISPHOSPHATE BINDING ACTIVITY
GOMF PROTEIN DISULFIDE REDUCTASE ACTIVITY
GOMF PROTEIN DISULFIDE REDUCTASE ACTIVITY
GOMF PROTEIN DISULFIDE OXIDOREDUCTASE ACTIVITY
GOMF PROTEIN DISULFIDE REDUCTASE ACTIVITY
GOMF PROTEIN DISULFIDE OXIDOREDUCTASE ACTIVITY
GOMF SIGNAL RECOGNITION PARTICLE BINDING
GOMF PROTEIN TRANSLOCATION PROTEIN TRANSLOCATION COMPLEX BINDING
GOMF SRC COMPLEX BINDING
GOMF PYRIMIDINE NUCLEOTIDE BINDING
GOMF PROTEIN KINASE ACTIVITY
GOMF PROTEIN KINASE ACTIVATOR ACTIVITY
GOMF PROTEIN BINDING
GOMF PROTEIN KINASE C BINDING
GOMF PROTEIN BINDING
GOMF 1 2DIA RECEPTOR BINDING
GOMF SH2 DOMAIN BINDING
GOMF PROTEIN BINDING
GOMF PHOSPHATIDYLINOSITOL 3 4 BISPHOSPHATE BINDING
GOMF PHOSPHOLIPIDE BINDING
GOMF PROTEIN BINDING
GOMF PHosphotyrosine residue BINDING
GOMF PHOSPHOTYROSINE RESIDUE BINDING
GOMF PHosphoserine residue BINDING
GOMF PROTEIN TYROSINE KINASE BINDING
GOMF PROTEIN BINDING
GOMF SH3 DOMAIN BINDING
GOMF TRANSMEMBRANE RECEPTOR PROTEIN TYROSINE KINASE ACTIVATOR ACTIVITY
GOMF PROTEIN TYROSINE KINASE BINDING
GOMF ARF LIKE GENERIC LIPOPROTEIN RECEPTOR BINDING
GOMF PROTEIN BINDING
GOMF THREONINE TYPE HEPTOSIDE ACTIVITY
GOMF PROTEIN TYROSINE KINASE BINDING
GOMF PHOSPHATIDYLINOSITOL 3 KINASE BINDING
GOMF SEMAPHORIN RECEPTOR BINDING
GOMF PROTEIN BINDING
GOMF TYPE 1 ANGIOTENSIN RECEPTOR BINDING
GOMF PROTEIN BINDING
GOMF G BINDING
GOMF PROTEIN BINDING
GOMF VOLTAGE GATED POTASSIUM CHANNEL ACTIVITY
GOMF PROTEIN BINDING
GOMF PROTEIN TRANSMEMBRANE TRANSPORTER ACTIVITY
GOMF PROTEIN BINDING
GOMF PROTEIN BINDING
GOMF NAD BINDING
GOMF RECEPTOR BINDING ACTIVITY
GOMF PROTEIN BINDING
GOMF RNA POLYMERASE II SPECIFIC DNA BINDING TRANSCRIPTION FACTOR BINDING
GOMF PROTEIN BINDING
GOMF TRANSCRIPTION COACTIVATOR ACTIVITY
GOMF TRANSCRIPTION COREPRESSOR BINDING
GOMF TUMOR NECROSIS FACTOR RECEPTOR ACTIVITY
GOMF TRACE AMINE RECEPTOR ACTIVITY
GOMF PROTEIN BINDING
GOMF TRIPLET CODON AMINO ACID ADAPTOR ACTIVITY
GOMF PROTEIN BINDING
GOMF PRIMARY AMINE BINDING
GOMF TRIPLET CODON AMINO ACID ADAPTOR ACTIVITY
GOMF RNA CAP BINDING
GOMF PROTEIN TYROSINE THREONINE PHOSPHATASE ACTIVITY
GOMF PROTEIN BINDING
GOMF UBIQUITIN BINDING
GOMF PROTEIN BINDING
GOMF RNA POLYMERASE II CORE PROMOTER SEQUENCE SPECIFIC DNA BINDING
GOMF PROTEIN BINDING
GOMF TRNA CHARGE ACTIVITY
GOMF U1 DORNA BINDING
GOMF PROTEIN BINDING
GOMF PRE MRNA BINDING
GOMF PROTEIN BINDING
GOMF heme TRANSMEMBRANE TRANSPORTER ACTIVITY
GOMF heme TRANSMEMBRANE TRANSPORTER ACTIVITY
GOMF STRUCTURAL CONSTITUENT OF POSTSYNAPTIC ACTIN CYTOSKELETON
GOMF PROTEIN DISULFIDE REDUCTASE ACTIVITY
GOMF SODIUM ION BINDING
GOMF PROTEIN BINDING
GOMF VOLTAGE GATED SODIUM CHANNEL ACTIVITY
GOMF VOLTAGE GATED SODIUM CHANNEL ACTIVITY INVOLVED IN CARDIAC MUSCLE CELL ACTION POTENTIAL
GOMF PROTEIN BINDING
GOMF PROTEIN BINDING ACTIVITY
GOMF VOLTAGE GATED SODIUM CHANNEL ACTIVITY
GOMF SODIUM CHANNEL INHIBITOR ACTIVITY
GOMF PROTEIN BINDING
GOMF PHOSPHOREGULATOR ACTIVITY
GOMF TRNA SPECIFIC ADENOSINE DEAMINASE ACTIVITY
GOMF VOLTAGE GATED SODIUM CHANNEL ACTIVITY
GOMF VOLTAGE GATED CALCIUM CHANNEL ACTIVITY INVOLVED IN CARDIAC MUSCLE CELL ACTION POTENTIAL
GOMF VOLTAGE GATED CALCIUM CHANNEL ACTIVITY INVOLVED IN CARDIAC MUSCLE CELL ACTION POTENTIAL
GOMF SPHINGosine 1 ACTIVATORkinase ACTIVITY
GOMF PROTEIN DISULFIDE REDUCTASE ACTIVITY
GOMF PROTEIN CysteinE C METHYLTRANSFERASE ACTIVITY
GOMF PROTEIN BINDING
GOMF PHOSPHATIDYLINOSITOL 3 PHOSPHATE 5 PHOSPHATASE ACTIVITY
GOMF PHOSPHATIDYLINOSITOL 3 4 5 TRISPHOSPHATE 5 PHOSPHATASE ACTIVITY
GOMF PHOSPHATIDYLINOSITOL 3 4 5 TRISPHOSPHATE 5 PHOSPHATASE ACTIVITY
GOMF SELENIUM BINDING
GOMF ATPASE COUPLED TRANSMEMBRANE TRANSPORTER ACTIVITY
GOMF L ASPARGINE L METHIONINE BINDING
GOMF PHOSPHATIDYLINOSITOL 3 4 BISPHOSPHATE BINDING
GOMF PHOSPHATIDYLINOSITOL 3 5 BISPHOSPHATE 5 PHOSPHATASE ACTIVITY
GOMF PHOSPHATIDYLINOSITOL 3 5 BISPHOSPHATE 5 PHOSPHATASE ACTIVITY
GOMF PHOSPHATIDYLINOSITOL MONOPHOSPHATE PHOSPHATASE ACTIVITY
GOMF PHOSPHATIDYLINOSITOL 3 5 BISPHOSPHATE PHOSPHATASE ACTIVITY
GOMF ATPASE COUPLED TRANSMEMBRANE TRANSPORTER ACTIVITY
GOMF SULFUR COMPOUND TRANSMEMBRANE TRANSPORTER ACTIVITY
GOMF PROTEIN BINDING
GOMF TOXIC SUBSTANCE BINDING
GOMF PROTEIN BINDING
GOMF SYNDEC BINDING
GOMF RECEPTOR RECEPTOR INTERACTION
GOMF PROTEIN BINDING
GOMF PHOSPHOLIPIDS TRANSFER ACTIVITY
GOMF PHOSPHATIDYLINOSITOL 4 PHOSPHATE BINDING
GOMF PHOSPHOLIPIDE C ACTIVITY
GOMF PHOSPHOLIPIDE BINDING
GOMF LIMPOSTER ACTIVITY
GOMF PHOSPHATIDYLINOSITOL 4 PHOSPHATE ACTIVITY
GOMF PHOSPHATIDYLINOSITOL 3 KINASE INHIBITOR ACTIVITY
GOMF PHOSPHATIDYLINOSITOL 4 PHOSPHATE 5 KINASE ACTIVITY
GOMF PTC COMBIN HYDROGENASE ACTIVITY
GOMF SMOLTRANSFERASE ACTIVITY
GOMF PROTEIN BINDING
GOMF PROTEIN LONG DEACETYLASE ACTIVITY
GOMF PROTEIN DISULFIDE REDUCTASE ACTIVITY
GOMF RETINOIC ACID 4 HYDROXYLASE ACTIVITY
GOMF PROTEIN BINDING
GOMF TESTOSTERONE 11 BETA HYDROXYLASE ACTIVITY
GOMF TESTOSTERONE 18 BETA HYDROXYLASE ACTIVITY
GOMF PROTEIN BINDING
GOMF STEROL TRANSFER ACTIVITY
GOMF TRANSCRIPTIONAL ACTIVATOR 21 ACTIVATORREPRESSOR ACTIVATOR ACTIVITY
GOMF STEROID SULFOTRANSFERASE ACTIVITY
GOMF PROTEIN SERINE THREONINE KINASE ACTIVITY PHOSPHOGENASE ACTIVITY
GOMF PROTEIN SERINE THREONINE KINASE ACTIVITY
GOMF UBIQUITIN LIKE PROTEIN LIGASE ACTIVITY
GOMF ATPASE COUPLED TRANSMEMBRANE TRANSPORTER ACTIVITY
GOMF PROTEIN BINDING
GOMF PHOSPHOLIPIDS BINDING DIPHOSPHATE BINDING
GOMF PHOSPHATIDYLINOSITOL 3 5 BISPHOSPHATE BINDING
GOMF PHOSPHATIDYLINOSITOL 3 5 BISPHOSPHATE BINDING
GOMF PHOSPHOLIPIDE A2 ACTIVITY
GOMF PROTEIN BINDING
GOMF PROTEIN TRANSPORTING ATP SYNTHASE ACTIVITY ROTATIONAL MECHANISM
GOMF PHosphotransferase ACTIVITY ALCOHOL GROUP AS ACCEPTOR
GOMF PYRIMIDINE NUCLEOSIDE TRANSMEMBRANE TRANSPORTER ACTIVITY
GOMF UBIQUINOL CYTOCHROME C REDUCTASE ACTIVITY
GOMF PROTEIN BINDING
GOMF PHOSPHOTRANSFERASE ACTIVITY NITROGENOUS GROUP AS ACCEPTOR
GOMF PROTEIN BINDING
GOMF POTASSIUM CHANNEL ACTIVATOR ACTIVITY
GOMF PHOSPHOLIPIDE BINDING ACTIVITY
GOMF TRANSFERASE ACTIVITY TRANSFERRING NITROGENOUS GROUPS
GOMF CHOLESTEROL HYDROLASE ACTIVITY
GOMF PROTEIN BINDING
GOMF RNA ENDONUCLEASE ACTIVITY PRODUCING 5 PHOSPHOMONOESTERS
GOMF PROTEIN BINDING
GOMF RIBOSOMAL PROTEIN 56 KINASE ACTIVITY
GOMF PROTEIN BINDING
GOMF ALANINE TRANSMEMBRANE TRANSPORTER ACTIVITY
GOMF SECONDARY ACTIVE MONOCARBOXYLATE TRANSMEMBRANE TRANSPORTER ACTIVITY
GOMF PHosphoserine residue BINDING
GOMF SOLUTE NONSPECIFIC ANION ANTIPORTER ACTIVITY
GOMF PROTEIN BINDING
GOMF POLYPRENYTOL 5 ALDITOLGALACTOSAMINYLTRANSFERASE ACTIVITY
GOMF PROTEIN DISULFIDE REDUCTASE ACTIVITY
GOMF SERATION BINDING
GOMF PROTEIN BINDING
GOMF SODIUM PHOSPHATE SYMPORTER ACTIVITY
GOMF ATPASE COUPLED TRANSMEMBRANE TRANSPORTER ACTIVITY
GOMF SOLUTE NONSPECIFIC CATION SYMPORTER ACTIVITY
GOMF SYMPORTER ACTIVITY
GOMF ATPASE COUPLED TRANSMEMBRANE TRANSPORTER ACTIVITY
GOMF TRANSFERASE ACTIVITY TRANSFERRING SULPHUR CONTAINING GROUPS
GOMF PROTEIN BINDING
GOMF PROTEIN ARGININE OMEGA N ASYMMETRIC METHYLTRANSFERASE ACTIVITY
GOMF PROTEIN ARGININE N METHYLTRANSFERASE ACTIVITY
GOMF POTASSIUM ION BINDING
GOMF POTASSIUM ION LIKE CHANNEL ACTIVITY
GOMF PROTEIN DISULFIDE REDUCTASE NADP H BINDING
GOMF PROTEIN KINASE C BINDING
GOMF PROTEIN BINDING
GOMF SOLUTE POTASSIUM ANTIPORTER ACTIVITY
GOMF PROTEIN BINDING
GOMF SYNDECAN BINDING
GOMF SODIUM ION TRANSPORTER ACTIVITY
GOMF SODIUM ION TRANSMEMBRANE TRANSPORTER ACTIVITY
GOMF TRANSCRIPTIONAL REGULATOR ACTIVITY
GOMF PROTEIN BINDING
GOMF SODIUM PROTON ANTIPORTER ACTIVITY
GOMF PROTEIN BINDING
GOMF SYNDECAN BINDING
GOMF SODIUM ION TRANSMEMBRANE TRANSPORTER ACTIVITY
GOMF SODIUM ION TRANSMEMBRANE TRANSPORTER ACTIVITY
GOMF TRANSCRIPTIONAL REGULATOR ACTIVITY
GOMF PROTEIN BINDING
GOMF SHARE BINDING
GOMF VOLTAGE GATED CHLORIDE CHANNEL ACTIVITY
GOMF POSTSYNAPTIC NEUROTRANSMITTER RECEPTOR ACTIVITY
GOMF STRUCTURAL CONSTITUENT OF PRESYNAPTIC ACTIVE ZONE
GOMF STRUCTURAL CONSTITUENT OF PRESYNAPTIC SPECIALIZATION
GOMF STRUCTURAL CONSTITUENT OF POSTSYNAPTIC SPECIALIZATION
GOMF PROTEIN BINDING
GOMF VOLTAGE GATED CALCIUM CHANNEL ACTIVITY
GOMF VOLTAGE GATED CALCIUM CHANNEL ACTIVITY
GOMF STRUCTURAL CONSTITUENT OF SYNAPSE
GOMF VOLTAGE GATED CALCIUM CHANNEL ACTIVITY INVOLVED IN REGULATION OF CYTOSOLIC CALCIUM LEVELS
GOMF PROTEIN BINDING
GOMF POTASSIUM ION TRANSMEMBRANE TRANSPORTER ACTIVITY
GOMF VOLTAGE GATED CHLORIDE CHANNEL ACTIVITY
GOMF VOLTAGE GATED CHANNEL ACTIVITY
GOMF VOLTAGE GATED CHLORIDE CHANNEL ACTIVITY
GOMF VOLTAGE GATED MONOATOMIC ION CHANNEL ACTIVITY INVOLVED IN REGULATION OF PRESYNAPTIC MEMBRANE POTENTIAL
GOMF VOLTAGE GATED MONOATOMIC ION CHANNEL ACTIVITY INVOLVED IN REGULATION OF POSTSYNAPTIC MEMBRANE POTENTIAL
GOMF PROTEIN BINDING
GOMF SIGNALING RECEPTOR BINDING
GOMF PHosphoserine residue BINDING
GOMF TPR DOMAIN BINDING
GOMF PROTEIN BINDING
GOMF SEQUENCE SPECIFIC MRNA BINDING
GOMF PROTEIN BINDING
GOMF UBIQUITIN LIKE PROTEIN CONJUGATING ENZYME BINDING
GOMF PROTEIN BINDING
GOMF TORN TRANSMEMBRANE TRANSPORTER ACTIVITY
GOMF VERY LONG CHAIN FATTY ACID COA LIGASE ACTIVITY
GOMF PROTEIN BINDING
GOMF PROTEIN TYROSINE PHOSPHATASE ACTIVITY
GOMF PROTEIN BINDING
GOMF PROPULIN BINDING
GOMF PROTEIN BINDING
GOMF PKC PROTEIN KINASE ACTIVITY
GOMF PROTEIN SERINE THREONINE TYROSINE KINASE ACTIVITY
GOMF PROTEIN SERINE THREONINE TYROSINE KINASE ACTIVITY
GOMF PHOSPHOTASE PHOSPHATASE ACTIVITY
GOMF PROTEIN DISULFIDE REDUCTASE NADP H INHIBITOR ACTIVITY
GOMF PHOSPHORYL DIESTER HYDROLASE ACTIVITY
GOMF PROTEIN BINDING
GOMF PHosphoprotein PHosphatase ACTIVITY
GOMF PROTEIN TYROSINE SERINE THREONINE PHOSPHATASE ACTIVITY
GOMF PROTEIN BINDING
GOMF TUBULIN BINDING
GOMF VOLTAGE GATED POTASSIUM CHANNEL ACTIVITY
GOMF VOLTAGE GATED POTASSIUM CHANNEL ACTIVITY INVOLVED IN CARDIAC MUSCLE CELL ACTION POTENTIAL REPOLARIZATION
GOMF VOLTAGE GATED POTASSIUM CHANNEL ACTIVITY INVOLVED IN VENTRICULAR CARDIAC MUSCLE CELL ACTION POTENTIAL REPOLARIZATION
GOMF RNA STEM LOOP BINDING
GOMF PROTEIN BINDING
GOMF RNA URIDINE METHYLTRANSFERASE ACTIVITY
GOMF PROTEIN BINDING
GOMF RIBONUCLEASE P ACTIVITY
GOMF RNA ENDONUCLEASE ACTIVITY PRODUCING 5 PHOSPHOMONOESTERS
GOMF PROTEIN BINDING
GOMF RIBRANDOM BINDING
GOMF RNA POLYMERASE II CORE PROMOTER PROXIMAL REGION DNA BINDING
GOMF TRANSLATION REGULATOR ACTIVITY NUCLEIC ACID BINDING
GOMF PROTEIN BINDING
GOMF RNA 2 5 ADENYLATE BINDING
GOMF RNA 2 5 ADENYLATE BINDING
GOMF RNA 2 5 ADENYLATE BINDING
GOMF RNA 2 5 ADENYLATE BINDING
GOMF RNA 2

Pathologist major category
Pathologist grade
Resultant genotype
0.3
0.4
0.5
0.6
MP_INCREASED_ADRENAL_GLAND_TUMOR_INCIDENCE
MP_INCREASED_THYROID_CARCINOMA_INCIDENCE
MP_INCREASED_THYROID_TUMOR_INCIDENCE
MP_INCREASED_HEMANGIOMA_INCIDENCE
MP_INCREASED_LYMPHOBLASTIC_LYMPHOMA_INCIDENCE
MP_INCREASED_THYROID_ADENOMA_INCIDENCE
MP_INCREASED_PROSTATE_GLAND_ADENOCARCINOMA_INCIDENCE
MP_INCREASED_PROSTATE_INTRAEPITHELIAL_NEOPLASIA_INCIDENCE
MP_INCREASED_SKIN_SQUAMOUS_CELL_CARCINOMA_INCIDENCE
MP_EMBRYO_TUMOR
MP_PRENEOPLASIA
MP_DECREASED_INCIDENCE_OF_INDUCED_TUMORS
MP_DECREASED_LUNG_TUMOR_INCIDENCE
MP_INCREASED_SKIN_PAPILLOMA_INCIDENCE
MP_INCREASED_ENDOMETRIAL_CARCINOMA_INCIDENCE
MP_INCREASED_PAPILLOMA_INCIDENCE
MP_INCREASED_RHABDOMYOSARCOMA_INCIDENCE
MP_INCREASED_ACUTE_LYMPHOBLASTIC_LEUKEMIA_INCIDENCE
MP_DECREASED_TUMOR_LATENCY
MP_INCREASED_HISTIOCYTIC_SARCOMA_INCIDENCE
MP_INCREASED_SKIN_TUMOR_INCIDENCE
MP_INCREASED_INCIDENCE_OF_TUMORS_BY_IONIZING_RADIATION_INDUCTION
MP_INCREASED_B_CELL_DERIVED_LYMPHOMA_INCIDENCE
MP_INCREASED_MELANOMA_INCIDENCE
MP_INCREASED_HEMANGIOSARCOMA_INCIDENCE
MP_INCREASED_LUNG_TUMOR_INCIDENCE
MP_INCREASED_COLON_ADENOCARCINOMA_INCIDENCE
MP_INCREASED_INTESTINAL_ADENOCARCINOMA_INCIDENCE
MP_INCREASED_CARCINOMA_INCIDENCE
MP_INCREASED_CHRONIC_MYELOCYTIC_LEUKEMIA_INCIDENCE
MP_INCREASED_INCIDENCE_OF_TUMORS_BY_CHEMICAL_INDUCTION
MP_DECREASED_INCIDENCE_OF_TUMORS_BY_CHEMICAL_INDUCTION
MP_INCREASED_TUMOR_GROWTH_SIZE
MP_DECREASED_TUMOR_GROWTH_SIZE
MP_INCREASED_METASTATIC_POTENTIAL
MP_INCREASED_CIRCULATING_TUMOR_NECROSIS_FACTOR_LEVEL
MP_DECREASED_TUMOR_NECROSIS_FACTOR_SECRETION
MP_DECREASED_METASTATIC_POTENTIAL
MP_INCREASED_TUMOR_NECROSIS_FACTOR_SECRETION
MP_DECREASED_CIRCULATING_TUMOR_NECROSIS_FACTOR_LEVEL
MP_INCREASED_MEDULLOBLASTOMA_INCIDENCE
MP_INCREASED_FIBROSARCOMA_INCIDENCE
MP_INCREASED_OSTEOSARCOMA_INCIDENCE
MP_INCREASED_HEPATOCELLULAR_CARCINOMA_INCIDENCE
MP_INCREASED_T_CELL_DERIVED_LYMPHOMA_INCIDENCE
MP_INCREASED_HEPATOMA_INCIDENCE
MP_INCREASED_TUMOR_INCIDENCE
MP_INCREASED_LYMPHOMA_INCIDENCE
MP_INCREASED_LUNG_ADENOCARCINOMA_INCIDENCE
MP_DECREASED_LIVER_TUMOR_INCIDENCE
MP_INCREASED_INCIDENCE_OF_INDUCED_TUMORS
MP_DECREASED_TUMOR_INCIDENCE
MP_TUMOR_REGRESSION
MP_INCREASED_LEUKEMIA_INCIDENCE
MP_INCREASED_TESTIS_TUMOR_INCIDENCE
MP_INCREASED_TUMOR_LATENCY
MP_INCREASED_MALIGNANT_TUMOR_INCIDENCE
MP_INCREASED_LIVER_ADENOMA_INCIDENCE
MP_INCREASED_BASAL_CELL_CARCINOMA_INCIDENCE
MP_INCREASED_LARGE_INTESTINE_ADENOCARCINOMA_INCIDENCE
MP_ABNORMAL_TUMOR_VASCULARIZATION
MP_INCREASED_LUNG_ADENOMA_INCIDENCE
MP_INCREASED_LUNG_CARCINOMA_INCIDENCE
MP_INCREASED_SARCOMA_INCIDENCE
MP_INCREASED_MAMMARY_ADENOCARCINOMA_INCIDENCE
MP_INCREASED_SQUAMOUS_CELL_CARCINOMA_INCIDENCE
MP_INCREASED_MAMMARY_GLAND_TUMOR_INCIDENCE
MP_INCREASED_RENAL_CARCINOMA_INCIDENCE
MP_INCREASED_ADENOMA_INCIDENCE
MP_INCREASED_GASTROINTESTINAL_TUMOR_INCIDENCE
MP_INCREASED_INTESTINAL_ADENOMA_INCIDENCE
MP_INCREASED_INCIDENCE_OF_TUMORS_BY_UV_INDUCTION
MP_INCREASED_LIVER_TUMOR_INCIDENCE
MP_INCREASED_PHEOCHROMOCYTOMA_INCIDENCE
MP_INCREASED_SMALL_INTESTINE_ADENOCARCINOMA_INCIDENCE
MP_INCREASED_UTERUS_TUMOR_INCIDENCE
MP_INCREASED_HEPATIC_HEMANGIOMA_INCIDENCE
MP_INCREASED_PITUITARY_ADENOMA_INCIDENCE
MP_INCREASED_PLASMACYTOMA_INCIDENCE
MP_INCREASED_GRANULOSA_CELL_TUMOR_INCIDENCE
MP_INCREASED_OVARY_TUMOR_INCIDENCE
MP_INCREASED_PITUITARY_GLAND_TUMOR_INCIDENCE
MP_INCREASED_HAMARTOMA_INCIDENCE
MP_INCREASED_BRAIN_TUMOR_INCIDENCE
MP_INCREASED_ADENOCARCINOMA_INCIDENCE
MP_INCREASED_COLON_ADENOMA_INCIDENCE
MP_INCREASED_STOMACH_TUMOR_INCIDENCE
MP_INCREASED_PANCREAS_TUMOR_INCIDENCE
MP_INCREASED_HEMOLYMPHOID_SYSTEM_TUMOR_INCIDENCE
MP_INCREASED_MYELOID_SARCOMA_INCIDENCE
MP_INCREASED_UTERUS_LEIOMYOMA_INCIDENCE
MP_INCREASED_TRIGEMINAL_NEUROMA_INCIDENCE
36184
36183
25741
26143
23786
28528
28529
23527
25025
26138
28208
25690
23967
25504
25743
26024
23288
23021
25238
23463
23397
28200
23467
23823
23287
26140
24988
22925
Pathologist major category
Nerve sheath tumors
Spindle and epithelioid tumors
Gliomas
Glioneuronal tumors
No evidence of disease
Pathologist grade
2
3
4
N
NED
Resultant genotype
nf1 KO; pten KO; ink KO; atrx KO
nf1 KO; pten KO; ink KO; atrx wt
nf1 wt; pten KO; ink KO; atrx KO
nf1 wt; pten wt; ink wt; atrx wt

Pathologist major category
Pathologist grade
Resultant genotype
0
2
4
6
TABULA_MURIS_SENIS_LARGE_INTESTINE_BRUSH_CELL_OF_EPITHELIUM_PROPER_OF_LARGE_INTESTINE_AGEING
TABULA_MURIS_SENIS_PANCREAS_PANCREATIC_ALPHA_CELL_AGEING
TABULA_MURIS_SENIS_KIDNEY_KIDNEY_DISTAL_CONVOLUTED_TUBULE_EPITHELIAL_CELL_AGEING
TABULA_MURIS_SENIS_KIDNEY_KIDNEY_LOOP_OF_HENLE_ASCENDING_LIMB_EPITHELIAL_CELL_AGEING
DESCARTES_ORGANOGENESIS_RADIAL_GLIA
DESCARTES_ORGANOGENESIS_PREMATURE_OLIGODENDROCYTE
TABULA_MURIS_SENIS_BRAIN_NON_MYELOID_INTERNEURON_AGEING
TABULA_MURIS_SENIS_HEART_ATRIAL_MYOCYTE_AGEING
TABULA_MURIS_SENIS_PANCREAS_PANCREATIC_DELTA_CELL_AGEING
TABULA_MURIS_SENIS_BRAIN_NON_MYELOID_OLIGODENDROCYTE_PRECURSOR_CELL_AGEING
TABULA_MURIS_SENIS_PANCREAS_PANCREATIC_ACINAR_CELL_AGEING
DESCARTES_ORGANOGENESIS_ISTHMIC_ORGANIZER_CELLS
DESCARTES_ORGANOGENESIS_SENSORY_NEURONS
DESCARTES_ORGANOGENESIS_EPENDYMAL_CELL
DESCARTES_ORGANOGENESIS_CHOLINERGIC_NEURONS
DESCARTES_ORGANOGENESIS_INHIBITORY_NEURON_PROGENITORS
DESCARTES_ORGANOGENESIS_POSTMITOTIC_PREMATURE_NEURONS
DESCARTES_ORGANOGENESIS_OLIGODENDROCYTE_PROGENITORS
DESCARTES_ORGANOGENESIS_GRANULE_NEURONS
DESCARTES_ORGANOGENESIS_EXCITATORY_NEURONS
DESCARTES_ORGANOGENESIS_INHIBITORY_NEURONS
DESCARTES_ORGANOGENESIS_INHIBITORY_INTERNEURONS
DESCARTES_ORGANOGENESIS_NEURAL_PROGENITOR_CELLS
DESCARTES_ORGANOGENESIS_NOTOCHORD_CELLS
TABULA_MURIS_SENIS_BRAIN_NON_MYELOID_NEURON_AGEING
TABULA_MURIS_SENIS_PANCREAS_PANCREATIC_BETA_CELL_AGEING
TABULA_MURIS_SENIS_TRACHEA_BASAL_EPITHELIAL_CELL_OF_TRACHEOBRONCHIAL_TREE_AGEING
TABULA_MURIS_SENIS_BRAIN_NON_MYELOID_ASTROCYTE_AGEING
TABULA_MURIS_SENIS_SPLEEN_PROERYTHROBLAST_AGEING
ZHANG_UTERUS_C7_EPITHELIAL2_CELL
TABULA_MURIS_SENIS_LUNG_CLASSICAL_MONOCYTE_AGEING
TABULA_MURIS_SENIS_LARGE_INTESTINE_INTESTINAL_CRYPT_STEM_CELL_AGEING
TABULA_MURIS_SENIS_MARROW_GRANULOCYTE_MONOCYTE_PROGENITOR_CELL_AGEING
TABULA_MURIS_SENIS_MARROW_HEMATOPOIETIC_STEM_CELL_AGEING
TABULA_MURIS_SENIS_MARROW_NK_CELL_AGEING
TABULA_MURIS_SENIS_TRACHEA_T_CELL_AGEING
TABULA_MURIS_SENIS_BRAIN_NON_MYELOID_ENDOTHELIAL_CELL_AGEING
TABULA_MURIS_SENIS_BRAIN_NON_MYELOID_BRAIN_PERICYTE_AGEING
TABULA_MURIS_SENIS_SKIN_BULGE_KERATINOCYTE_AGEING
TABULA_MURIS_SENIS_DIAPHRAGM_SKELETAL_MUSCLE_SATELLITE_CELL_AGEING
TABULA_MURIS_SENIS_DIAPHRAGM_MESENCHYMAL_STEM_CELL_AGEING
TABULA_MURIS_SENIS_MAMMARY_GLAND_ENDOTHELIAL_CELL_AGEING
TABULA_MURIS_SENIS_TRACHEA_ENDOTHELIAL_CELL_AGEING
TABULA_MURIS_SENIS_LUNG_INTERMEDIATE_MONOCYTE_AGEING
TABULA_MURIS_SENIS_MARROW_MACROPHAGE_AGEING
TABULA_MURIS_SENIS_MARROW_IMMATURE_B_CELL_AGEING
TABULA_MURIS_SENIS_MARROW_LATE_PRO_B_CELL_AGEING
TABULA_MURIS_SENIS_LIVER_MATURE_NK_T_CELL_AGEING
TABULA_MURIS_SENIS_MARROW_MATURE_ALPHA_BETA_T_CELL_AGEING
DESCARTES_ORGANOGENESIS_DEFINITIVE_ERYTHROID_LINEAGE
TABULA_MURIS_SENIS_THYMUS_THYMOCYTE_AGEING
DESCARTES_ORGANOGENESIS_PRIMITIVE_ERYTHROID_LINEAGE
TABULA_MURIS_SENIS_LARGE_INTESTINE_SECRETORY_CELL_AGEING
TABULA_MURIS_SENIS_TONGUE_BASAL_CELL_OF_EPIDERMIS_AGEING
TABULA_MURIS_SENIS_SPLEEN_MEGAKARYOCYTE_ERYTHROID_PROGENITOR_CELL_AGEING
TABULA_MURIS_SENIS_MARROW_ERYTHROBLAST_AGEING
TABULA_MURIS_SENIS_HEART_T_CELL_AGEING
TABULA_MURIS_SENIS_PANCREAS_PANCREATIC_STELLATE_CELL_AGEING
DESCARTES_ORGANOGENESIS_CHONDROCYTE_PROGENITORS
ZHANG_UTERUS_C11_SMOOTH_MUSCLE_CELL
TABULA_MURIS_SENIS_LUNG_ENDOTHELIAL_CELL_OF_LYMPHATIC_VESSEL_AGEING
TABULA_MURIS_SENIS_LUNG_SMOOTH_MUSCLE_CELL_OF_THE_PULMONARY_ARTERY_AGEING
TABULA_MURIS_SENIS_LUNG_FIBROBLAST_OF_LUNG_AGEING
TABULA_MURIS_SENIS_PANCREAS_PANCREATIC_DUCTAL_CELL_AGEING
TABULA_MURIS_SENIS_BROWN_ADIPOSE_TISSUE_ENDOTHELIAL_CELL_AGEING
TABULA_MURIS_SENIS_SKIN_EPIDERMAL_CELL_AGEING
TABULA_MURIS_SENIS_GONADAL_ADIPOSE_TISSUE_ENDOTHELIAL_CELL_AGEING
TABULA_MURIS_SENIS_BROWN_ADIPOSE_TISSUE_MESENCHYMAL_STEM_CELL_OF_ADIPOSE_AGEING
TABULA_MURIS_SENIS_BRAIN_MYELOID_MACROPHAGE_AGEING
TABULA_MURIS_SENISTRACHEA_SMOOTH_MUSCLE_CELL_OF_TRACHEA_AGEING
DESCARTES_ORGANOGENESIS_OSTEOBLASTS
TABULA_MURIS_SENIS_HEART_AND_AORTA_CARDIOMYOCYTE_AGEING
TABULA_MURIS_SENIS_HEART_VENTRICULAR_MYOCYTE_AGEING
ZHANG_UTERUS_C2_REGENERATIVE_UP
TABULA_MURIS_SENIS_LIVER_HEPATOCYTE_AGEING
DESCARTES_ORGANOGENESIS_LIMB_MESENCHYME
TABULA_MURIS_SENIS_SUBCUTANEOUS_ADIPOSE_TISSUE_MESENCHYMAL_STEM_CELL_OF_ADIPOSE_AGEING
TABULA_MURIS_SENIS_MAMMARY_GLAND_BASAL_CELL_AGEING
TABULA_MURIS_SENIS_BLADDER_BLADDER_CELL_AGEING
TABULA_MURIS_SENIS_LIMB_MUSCLE_SKELETAL_MUSCLE_SATELLITE_CELL_AGEING
TABULA_MURIS_SENIS_LIMB_MUSCLE_MESENCHYMAL_STEM_CELL_AGEING
TABULA_MURIS_SENIS_HEART_AND_AORTA_ENDOTHELIAL_CELL_OF_CORONARY_ARTERY_AGEING
ZHANG_UTERUS_C1_REGENERATIVE_UP
TABULA_MURIS_SENIS_AORTA_AORTIC_ENDOTHELIAL_CELL_AGEING
TABULA_MURIS_SENIS_GONADAL_ADIPOSE_TISSUE_MESENCHYMAL_STEM_CELL_OF_ADIPOSE_AGEING
TABULA_MURIS_SENIS_GONADAL_ADIPOSE_TISSUE_MYELOID_CELL_AGEING
ZHANG_UTERUS_C14_ENDOTHELIAL_MMRN1_HIGH_CELL
ZHANG_UTERUS_C6_ENDOTHELIAL_PLVAP_HIGH_CELL
ZHANG_UTERUS_C1_PROLIFERATIVE_STROMAL1_MGP_HIGH_CELL
ZHANG_UTERUS_C2_SECRETORY_STROMAL3_RAMP3_HIGH_CELL
ZHANG_UTERUS_C4_MYOFIBROBLAST
ZHANG_UTERUS_C0_SECRETORY_STROMAL3_NPPC_HIGH_CELL
TABULA_MURIS_SENIS_SUBCUTANEOUS_ADIPOSE_TISSUE_ENDOTHELIAL_CELL_AGEING
TABULA_MURIS_SENIS_MESENTERIC_ADIPOSE_TISSUE_ENDOTHELIAL_CELL_AGEING
ZHANG_UTERUS_C3_PROLIFERATIVE_STROMAL1_STROCXCL14_HIGH_CELL
TABULA_MURIS_SENIS_AORTA_FIBROBLAST_OF_CARDIAC_TISSUE_AGEING
TABULA_MURIS_SENIS_MESENTERIC_ADIPOSE_TISSUE_MESENCHYMAL_STEM_CELL_OF_ADIPOSE_AGEING
TABULA_MURIS_SENIS_TRACHEA_FIBROBLAST_AGEING
TABULA_MURIS_SENIS_SUBCUTANEOUS_ADIPOSE_TISSUE_EPITHELIAL_CELL_AGEING
TABULA_MURIS_SENIS_MESENTERIC_ADIPOSE_TISSUE_MYELOID_CELL_AGEING
DESCARTES_ORGANOGENESIS_ENDOTHELIAL_CELLS
TABULA_MURIS_SENIS_HEART_AND_AORTA_FIBROBLAST_OF_CARDIAC_TISSUE_AGEING
TABULA_MURIS_SENIS_MAMMARY_GLAND_STROMAL_CELL_AGEING
TABULA_MURIS_SENIS_PANCREAS_ENDOTHELIAL_CELL_AGEING
TABULA_MURIS_SENIS_THYMUS_IMMATURE_T_CELL_AGEING
TABULA_MURIS_SENIS_HEART_VALVE_CELL_AGEING
DESCARTES_ORGANOGENESIS_SCHWANN_CELL_PRECURSOR
TABULA_MURIS_SENIS_SPLEEN_MACROPHAGE_DENDRITIC_CELL_PROGENITOR_AGEING
TABULA_MURIS_SENIS_SPLEEN_PLASMA_CELL_AGEING
DESCARTES_ORGANOGENESIS_NUETROPHILS
TABULA_MURIS_SENIS_MARROW_BASOPHIL_AGEING
TABULA_MURIS_SENIS_LUNG_NEUTROPHIL_AGEING
TABULA_MURIS_SENIS_DIAPHRAGM_B_CELL_AGEING
TABULA_MURIS_SENIS_LUNG_T_CELL_AGEING
TABULA_MURIS_SENIS_HEART_AND_AORTA_SMOOTH_MUSCLE_CELL_AGEING
TABULA_MURIS_SENIS_LUNG_TYPE_II_PNEUMOCYTE_AGEING
TABULA_MURIS_SENIS_HEART_ENDOCARDIAL_CELL_AGEING
TABULA_MURIS_SENIS_KIDNEY_FIBROBLAST_AGEING
TABULA_MURIS_SENIS_LUNG_NK_CELL_AGEING
TABULA_MURIS_SENIS_LIVER_ENDOTHELIAL_CELL_OF_HEPATIC_SINUSOID_AGEING
TABULA_MURIS_SENIS_AORTA_PROFESSIONAL_ANTIGEN_PRESENTING_CELL_AGEING
TABULA_MURIS_SENIS_LUNG_BRONCHIAL_SMOOTH_MUSCLE_CELL_AGEING
TABULA_MURIS_SENIS_LUNG_B_CELL_AGEING
TABULA_MURIS_SENIS_LUNG_CD4_POSITIVE_ALPHA_BETA_T_CELL_AGEING
TABULA_MURIS_SENIS_LUNG_NON_CLASSICAL_MONOCYTE_AGEING
TABULA_MURIS_SENIS_LIMB_MUSCLE_SMOOTH_MUSCLE_CELL_AGEING
TABULA_MURIS_SENIS_LIMB_MUSCLE_ENDOTHELIAL_CELL_AGEING
TABULA_MURIS_SENIS_LUNG_MYELOID_DENDRITIC_CELL_AGEING
TABULA_MURIS_SENIS_LUNG_CD8_POSITIVE_ALPHA_BETA_T_CELL_AGEING
TABULA_MURIS_SENIS_GONADAL_ADIPOSE_TISSUE_T_CELL_AGEING
DESCARTES_ORGANOGENESIS_MEGAKARYOCYTES
TABULA_MURIS_SENIS_DIAPHRAGM_ENDOTHELIAL_CELL_AGEING
TABULA_MURIS_SENIS_BROWN_ADIPOSE_TISSUE_T_CELL_AGEING
TABULA_MURIS_SENIS_BLADDER_BLADDER_UROTHELIAL_CELL_AGEING
TABULA_MURIS_SENIS_PANCREAS_LEUKOCYTE_AGEING
TABULA_MURIS_SENIS_TRACHEA_GRANULOCYTE_AGEING
TABULA_MURIS_SENIS_SPLEEN_MATURE_NK_T_CELL_AGEING
TABULA_MURIS_SENIS_MARROW_HEMATOPOIETIC_PRECURSOR_CELL_AGEING
ZHANG_UTERUS_C15_B_CELL
TABULA_MURIS_SENIS_THYMUS_PROFESSIONAL_ANTIGEN_PRESENTING_CELL_AGEING
TABULA_MURIS_SENIS_BLADDER_LEUKOCYTE_AGEING
TABULA_MURIS_SENIS_MARROW_PROMONOCYTE_AGEING
TABULA_MURIS_SENIS_MARROW_PRECURSOR_B_CELL_AGEING
TABULA_MURIS_SENIS_MARROW_MONOCYTE_AGEING
TABULA_MURIS_SENIS_MARROW_NAIVE_T_CELL_AGEING
TABULA_MURIS_SENIS_MARROW_GRANULOCYTE_AGEING
TABULA_MURIS_SENIS_MARROW_MEGAKARYOCYTE_ERYTHROID_PROGENITOR_CELL_AGEING
TABULA_MURIS_SENIS_MARROW_GRANULOCYTOPOIETIC_CELL_AGEING
TABULA_MURIS_SENIS_MARROW_PROERYTHROBLAST_AGEING
TABULA_MURIS_SENIS_HEART_AND_AORTA_LEUKOCYTE_AGEING
TABULA_MURIS_SENIS_SUBCUTANEOUS_ADIPOSE_TISSUE_MYELOID_CELL_AGEING
TABULA_MURIS_SENIS_MARROW_CD4_POSITIVE_ALPHA_BETA_T_CELL_AGEING
TABULA_MURIS_SENIS_DIAPHRAGM_MACROPHAGE_AGEING
ZHANG_UTERUS_C10_STROMAL2_RETNLG_HIGH_CELL
TABULA_MURIS_SENIS_LUNG_PULMONARY_INTERSTITIAL_FIBROBLAST_AGEING
TABULA_MURIS_SENIS_KIDNEY_FENESTRATED_CELL_AGEING
TABULA_MURIS_SENIS_KIDNEY_KIDNEY_CORTEX_ARTERY_CELL_AGEING
TABULA_MURIS_SENIS_KIDNEY_KIDNEY_MESANGIAL_CELL_AGEING
TABULA_MURIS_SENIS_MESENTERIC_ADIPOSE_TISSUE_CD8_POSITIVE_ALPHA_BETA_T_CELL_AGEING
TABULA_MURIS_SENIS_MAMMARY_GLAND_MACROPHAGE_AGEING
TABULA_MURIS_SENIS_MESENTERIC_ADIPOSE_TISSUE_CD4_POSITIVE_ALPHA_BETA_T_CELL_AGEING
TABULA_MURIS_SENIS_HEART_AND_AORTA_ENDOCARDIAL_CELL_AGEING
TABULA_MURIS_SENIS_LIVER_MYELOID_LEUKOCYTE_AGEING
TABULA_MURIS_SENIS_LIMB_MUSCLE_MACROPHAGE_AGEING
DESCARTES_ORGANOGENESIS_WHITE_BLOOD_CELLS
ZHANG_UTERUS_C9_DENDRITIC_CELL
ZHANG_UTERUS_C12_MONOCYTE
ZHANG_UTERUS_C5_MACROPHAGE
TABULA_MURIS_SENIS_HEART_MONOCYTE_AGEING
TABULA_MURIS_SENIS_BRAIN_MYELOID_MICROGLIAL_CELL_AGEING
TABULA_MURIS_SENIS_SPLEEN_CD4_POSITIVE_ALPHA_BETA_T_CELL_AGEING
TABULA_MURIS_SENIS_KIDNEY_T_CELL_AGEING
TABULA_MURIS_SENIS_LIVER_NK_CELL_AGEING
TABULA_MURIS_SENIS_LIMB_MUSCLE_T_CELL_AGEING
TABULA_MURIS_SENIS_THYMUS_DN4_THYMOCYTE_AGEING
TABULA_MURIS_SENIS_SPLEEN_T_CELL_AGEING
TABULA_MURIS_SENIS_SPLEEN_B_CELL_AGEING
ZHANG_UTERUS_C8_NK_CELL
TABULA_MURIS_SENIS_LIMB_MUSCLE_B_CELL_AGEING
TABULA_MURIS_SENIS_MAMMARY_GLAND_T_CELL_AGEING
TABULA_MURIS_SENIS_SPLEEN_CD8_POSITIVE_ALPHA_BETA_T_CELL_AGEING
TABULA_MURIS_SENIS_TRACHEA_MACROPHAGE_AGEING
TABULA_MURIS_SENIS_MARROW_NAIVE_B_CELL_AGEING
TABULA_MURIS_SENIS_SPLEEN_GRANULOCYTE_AGEING
TABULA_MURIS_SENIS_KIDNEY_MACROPHAGE_AGEING
TABULA_MURIS_SENIS_LUNG_ALVEOLAR_MACROPHAGE_AGEING
TABULA_MURIS_SENIS_MAMMARY_GLAND_B_CELL_AGEING
TABULA_MURIS_SENIS_SPLEEN_MACROPHAGE_AGEING
TABULA_MURIS_SENIS_LUNG_ADVENTITIAL_CELL_AGEING
TABULA_MURIS_SENIS_GONADAL_ADIPOSE_TISSUE_B_CELL_AGEING
TABULA_MURIS_SENIS_MESENTERIC_ADIPOSE_TISSUE_MACROPHAGE_AGEING
TABULA_MURIS_SENIS_MESENTERIC_ADIPOSE_TISSUE_B_CELL_AGEING
TABULA_MURIS_SENIS_BROWN_ADIPOSE_TISSUE_MYELOID_CELL_AGEING
TABULA_MURIS_SENIS_BROWN_ADIPOSE_TISSUE_B_CELL_AGEING
TABULA_MURIS_SENIS_SUBCUTANEOUS_ADIPOSE_TISSUE_B_CELL_AGEING
TABULA_MURIS_SENIS_HEART_FIBROBLAST_OF_CARDIAC_TISSUE_AGEING
TABULA_MURIS_SENIS_HEART_ENDOTHELIAL_CELL_OF_CORONARY_ARTERY_AGEING
TABULA_MURIS_SENIS_MAMMARY_GLAND_LUMINAL_EPITHELIAL_CELL_OF_MAMMARY_GLAND_AGEING
TABULA_MURIS_SENIS_KIDNEY_KIDNEY_COLLECTING_DUCT_PRINCIPAL_CELL_AGEING
TABULA_MURIS_SENIS_BLADDER_ENDOTHELIAL_CELL_AGEING
ZHANG_UTERUS_C0_MATURATIONAL_UP
TABULA_MURIS_SENIS_KIDNEY_BRUSH_CELL_AGEING
TABULA_MURIS_SENIS_KIDNEY_PODOCYTE_AGEING
TABULA_MURIS_SENIS_KIDNEY_KIDNEY_PROXIMAL_CONVOLUTED_TUBULE_EPITHELIAL_CELL_AGEING
TABULA_MURIS_SENIS_LUNG_VEIN_ENDOTHELIAL_CELL_AGEING
TABULA_MURIS_SENIS_KIDNEY_KIDNEY_LOOP_OF_HENLE_THICK_ASCENDING_LIMB_EPITHELIAL_CELL_AGEING
TABULA_MURIS_SENIS_LUNG_MATURE_NK_T_CELL_AGEING
TABULA_MURIS_SENIS_TONGUE_LANGERHANS_CELL_AGEING
TABULA_MURIS_SENIS_SPLEEN_NK_CELL_AGEING
TABULA_MURIS_SENIS_KIDNEY_KIDNEY_COLLECTING_DUCT_EPITHELIAL_CELL_AGEING
TABULA_MURIS_SENIS_TONGUE_KERATINOCYTE_AGEING
DESCARTES_ORGANOGENESIS_HEPATOCYTES
DESCARTES_ORGANOGENESIS_LENS
DESCARTES_ORGANOGENESIS_INTERMEDIATE_MESODERM
TABULA_MURIS_SENIS_LIMB_MUSCLE_SCHWANN_CELL_AGEING
DESCARTES_ORGANOGENESIS_CHONDROCYTES_AND_OSTEOBLASTS
DESCARTES_ORGANOGENESIS_CONNECTIVE_TISSUE_PROGENITOR
DESCARTES_ORGANOGENESIS_JAW_AND_TOOTH_PROGENITORS
DESCARTES_ORGANOGENESIS_EARLY_MESENCHYME
DESCARTES_ORGANOGENESIS_STROMAL_CELLS
DESCARTES_ORGANOGENESIS_EPITHELIAL_CELLS
DESCARTES_ORGANOGENESIS_MELANOCYTES
DESCARTES_ORGANOGENESIS_MYOCYTES
DESCARTES_ORGANOGENESIS_CARDIAC_MUSCLE_LINEAGES
DESCARTES_ORGANOGENESIS_NEURAL_TUBE
TABULA_MURIS_SENIS_KIDNEY_EPITHELIAL_CELL_OF_PROXIMAL_TUBULE_AGEING
TABULA_MURIS_SENIS_LARGE_INTESTINE_ENTEROCYTE_OF_EPITHELIUM_OF_LARGE_INTESTINE_AGEING
TABULA_MURIS_SENIS_SKIN_BASAL_CELL_OF_EPIDERMIS_AGEING
TABULA_MURIS_SENIS_LARGE_INTESTINE_LARGE_INTESTINE_GOBLET_CELL_AGEING
ZHANG_UTERUS_C13_EPITHELIAL1_CELL
TABULA_MURIS_SENIS_MARROW_EARLY_PRO_B_CELL_AGEING
TABULA_MURIS_SENIS_BRAIN_NON_MYELOID_OLIGODENDROCYTE_AGEING
TABULA_MURIS_SENIS_PANCREAS_PANCREATIC_POLYPEPTIDE_CELL_AGEING
23021
26024
25743
23288
25238
25504
23463
23287
28200
23823
26140
23397
22925
24988
23467
28528
25741
28529
23527
26143
23786
25025
26138
28208
25690
23967
36184
36183
Pathologist major category
Nerve sheath tumors
Spindle and epithelioid tumors
Gliomas
Glioneuronal tumors
No evidence of disease
Pathologist grade
2
3
4
N
NED
Resultant genotype
nf1 KO; pten KO; ink KO; atrx KO
nf1 KO; pten KO; ink KO; atrx wt
nf1 wt; pten KO; ink KO; atrx KO
nf1 wt; pten wt; ink wt; atrx wt

Pathologist major category
Pathologist grade
Resultant genotype
0.2
0.4
0.6
0.8
HALLMARK_OXIDATIVE_PHOSPHORYLATION
HALLMARK_HEME_METABOLISM
HALLMARK_UV_RESPONSE_UP
HALLMARK_REACTIVE_OXYGEN_SPECIES_PATHWAY
HALLMARK_ESTROGEN_RESPONSE_EARLY
HALLMARK_SPERMATOGENESIS
HALLMARK_PANCREAS_BETA_CELLS
HALLMARK_KRAS_SIGNALING_DN
HALLMARK_HEDGEHOG_SIGNALING
HALLMARK_BILE_ACID_METABOLISM
HALLMARK_PEROXISOME
HALLMARK_WNT_BETA_CATENIN_SIGNALING
HALLMARK_UV_RESPONSE_DN
HALLMARK_ANGIOGENESIS
HALLMARK_APICAL_SURFACE
HALLMARK_PI3K_AKT_MTOR_SIGNALING
HALLMARK_HYPOXIA
HALLMARK_COAGULATION
HALLMARK_APOPTOSIS
HALLMARK_TGF_BETA_SIGNALING
HALLMARK_EPITHELIAL_MESENCHYMAL_TRANSITION
HALLMARK_NOTCH_SIGNALING
HALLMARK_P53_PATHWAY
HALLMARK_PROTEIN_SECRETION
HALLMARK_ANDROGEN_RESPONSE
HALLMARK_APICAL_JUNCTION
HALLMARK_MYOGENESIS
HALLMARK_XENOBIOTIC_METABOLISM
HALLMARK_ESTROGEN_RESPONSE_LATE
HALLMARK_ADIPOGENESIS
HALLMARK_FATTY_ACID_METABOLISM
HALLMARK_TNFA_SIGNALING_VIA_NFKB
HALLMARK_IL2_STAT5_SIGNALING
HALLMARK_IL6_JAK_STAT3_SIGNALING
HALLMARK_ALLOGRAFT_REJECTION
HALLMARK_INFLAMMATORY_RESPONSE
HALLMARK_KRAS_SIGNALING_UP
HALLMARK_COMPLEMENT
HALLMARK_INTERFERON_GAMMA_RESPONSE
HALLMARK_INTERFERON_ALPHA_RESPONSE
HALLMARK_DNA_REPAIR
HALLMARK_GLYCOLYSIS
HALLMARK_UNFOLDED_PROTEIN_RESPONSE
HALLMARK_MYC_TARGETS_V2
HALLMARK_MYC_TARGETS_V1
HALLMARK_CHOLESTEROL_HOMEOSTASIS
HALLMARK_MTORC1_SIGNALING
HALLMARK_G2M_CHECKPOINT
HALLMARK_E2F_TARGETS
HALLMARK_MITOTIC_SPINDLE
36184
36183
23021
26024
25743
23288
25238
25504
23463
23397
24988
22925
26140
28200
23823
23287
23467
28528
25741
28529
23527
26143
23786
25025
26138
28208
25690
23967
Pathologist major category
Nerve sheath tumors
Spindle and epithelioid tumors
Gliomas
Glioneuronal tumors
No evidence of disease
Pathologist grade
2
3
4
N
NED
Resultant genotype
nf1 KO; pten KO; ink KO; atrx KO
nf1 KO; pten KO; ink KO; atrx wt
nf1 wt; pten KO; ink KO; atrx KO
nf1 wt; pten wt; ink wt; atrx wt

Pathologist major category
Pathologist grade
Resultant genotype
-0.4
-0.2
0.0
0.2
0.4
28528
23527
28529
26143
25741
23786
26138
28208
25025
24988
26140
22925
23397
23467
28200
23823
23287
23021
26024
23288
25743
25504
25238
23463
Pathologist major category
Nerve sheath tumors
Spindle and epithelioid tumors
Gliomas
Pathologist grade
2
3
4
Resultant genotype
nf1 KO; pten KO; ink KO; atrx KO
nf1 KO; pten KO; ink KO; atrx wt
nf1 wt; pten KO; ink KO; atrx KO

Pathologic major category
Pathologic grade
Resultant genotype
Normal breast tumors
Glandular and epithelioid tumors
Papillary
Pathologic major category
Normal breast tumors
Glandular and epithelioid tumors
Papillary
Pathologic grade
G1
G2
G3
Resultant genotype
HR-/HER2-
HR+/HER2-
HR+/HER2+
HR-/HER2+

Pathologic stage category
Tumor stage
Pathologic primary tumors
Pathologic M
Pathologic N
Pathologic T
Pathologic grade
Gender
Age
Mutated genotype
Pathologic stage category
Stage IA&IB (stage IA, stage IB)
Stage IIA&IIB (stage IIA, stage IIB)
Stage IIIA&IIIB&IIIC (stage IIIA, stage IIIB, stage IIIC)
Tumor stage
Stage I&II (stage I, stage II)
Stage III&IV (stage III, stage IV)
Pathologic primary tumors
Pathologic M
Pathologic N
Pathologic T
Pathologic grade
Gender
Age
Mutated genotype

Pathologist major category
Pathologist grade
Resultant genotype
0.2
0.4
0.6
BIOCARTA_EGF_PATHWAY
BIOCARTA_CBL_PATHWAY
BIOCARTA_VOBESITY_PATHWAY
BIOCARTA_CLASSIC_PATHWAY
BIOCARTA_COMP_PATHWAY
BIOCARTA_LECTIN_PATHWAY
BIOCARTA_ALTERNATIVE_PATHWAY
BIOCARTA_KERATINOCYTE_PATHWAY
BIOCARTA_BCR_PATHWAY
BIOCARTA_TCR_PATHWAY
BIOCARTA_NKCELLS_PATHWAY
BIOCARTA_FCER1_PATHWAY
BIOCARTA_TNFR2_PATHWAY
BIOCARTA_IL2RB_PATHWAY
BIOCARTA_FREE_PATHWAY
BIOCARTA_CD40_PATHWAY
BIOCARTA_IL7_PATHWAY
BIOCARTA_IFNA_PATHWAY
BIOCARTA_IL17_PATHWAY
BIOCARTA_TOB1_PATHWAY
BIOCARTA_TALL1_PATHWAY
BIOCARTA_NFKB_PATHWAY
BIOCARTA_RELA_PATHWAY
BIOCARTA_IL1R_PATHWAY
BIOCARTA_SODD_PATHWAY
BIOCARTA_D4GDI_PATHWAY
BIOCARTA_CASPASE_PATHWAY
BIOCARTA_FAS_PATHWAY
BIOCARTA_HSP27_PATHWAY
BIOCARTA_NGF_PATHWAY
BIOCARTA_ERK_PATHWAY
BIOCARTA_PML_PATHWAY
BIOCARTA_IFNG_PATHWAY
BIOCARTA_AGR_PATHWAY
BIOCARTA_MCALPAIN_PATHWAY
BIOCARTA_RHO_PATHWAY
BIOCARTA_UCALPAIN_PATHWAY
BIOCARTA_INTEGRIN_PATHWAY
BIOCARTA_ECM_PATHWAY
BIOCARTA_TSP1_PATHWAY
BIOCARTA_CHEMICAL_PATHWAY
BIOCARTA_PRION_PATHWAY
BIOCARTA_CARDIACEGF_PATHWAY
BIOCARTA_RECK_PATHWAY
BIOCARTA_IGF1_PATHWAY
BIOCARTA_EIF4_PATHWAY
BIOCARTA_LONGEVITY_PATHWAY
BIOCARTA_IGF1MTOR_PATHWAY
BIOCARTA_CALCINEURIN_PATHWAY
BIOCARTA_EEA1_PATHWAY
BIOCARTA_TOLL_PATHWAY
BIOCARTA_ACH_PATHWAY
BIOCARTA_PPARG_PATHWAY
BIOCARTA_RARRXR_PATHWAY
BIOCARTA_EGFR_SMRTE_PATHWAY
BIOCARTA_AKT_PATHWAY
BIOCARTA_TFF_PATHWAY
BIOCARTA_GCR_PATHWAY
BIOCARTA_PTEN_PATHWAY
BIOCARTA_GH_PATHWAY
BIOCARTA_PELP1_PATHWAY
BIOCARTA_HER2_PATHWAY
BIOCARTA_WNT_LRP6_PATHWAY
BIOCARTA_NPP1_PATHWAY
BIOCARTA_PLATELETAPP_PATHWAY
BIOCARTA_MITOCHONDRIA_PATHWAY
BIOCARTA_GSK3_PATHWAY
BIOCARTA_P38MAPK_PATHWAY
BIOCARTA_TGFB_PATHWAY
BIOCARTA_HIVNEF_PATHWAY
BIOCARTA_DEATH_PATHWAY
BIOCARTA_NTHI_PATHWAY
BIOCARTA_MAPK_PATHWAY
BIOCARTA_HCMV_PATHWAY
BIOCARTA_STRESS_PATHWAY
BIOCARTA_ARAP_PATHWAY
BIOCARTA_PCAF_PATHWAY
BIOCARTA_MTA3_PATHWAY
BIOCARTA_CERAMIDE_PATHWAY
BIOCARTA_RAS_PATHWAY
BIOCARTA_TEL_PATHWAY
BIOCARTA_SLRP_PATHWAY
BIOCARTA_CTCF_PATHWAY
BIOCARTA_ARF_PATHWAY
BIOCARTA_EOSINOPHILS_PATHWAY
BIOCARTA_ERBB3_PATHWAY
BIOCARTA_EICOSANOID_PATHWAY
BIOCARTA_IL4_PATHWAY
BIOCARTA_RNA_PATHWAY
BIOCARTA_EIF2_PATHWAY
BIOCARTA_EIF_PATHWAY
BIOCARTA_41BB_PATHWAY
BIOCARTA_CYTOKINE_PATHWAY
BIOCARTA_IL5_PATHWAY
BIOCARTA_ASBCELL_PATHWAY
BIOCARTA_STEM_PATHWAY
BIOCARTA_INFLAM_PATHWAY
BIOCARTA_ERYTH_PATHWAY
BIOCARTA_VITCB_PATHWAY
BIOCARTA_ACE2_PATHWAY
BIOCARTA_AKAP13_PATHWAY
BIOCARTA_HES_PATHWAY
BIOCARTA_CIRCADIAN_PATHWAY
BIOCARTA_PLCD_PATHWAY
BIOCARTA_MRP_PATHWAY
BIOCARTA_TRKA_PATHWAY
BIOCARTA_CCR3_PATHWAY
BIOCARTA_S1P_PATHWAY
BIOCARTA_PITX2_PATHWAY
BIOCARTA_CTBP1_PATHWAY
BIOCARTA_ERK5_PATHWAY
BIOCARTA_MELANOCYTE_PATHWAY
BIOCARTA_TERC_PATHWAY
BIOCARTA_SHH_PATHWAY
BIOCARTA_SPRY_PATHWAY
BIOCARTA_FXR_PATHWAY
BIOCARTA_PRC2_PATHWAY
BIOCARTA_FIBRINOLYSIS_PATHWAY
BIOCARTA_EXTRINSIC_PATHWAY
BIOCARTA_ACETAMINOPHEN_PATHWAY
BIOCARTA_NUCLEARRS_PATHWAY
BIOCARTA_INTRINSIC_PATHWAY
BIOCARTA_HSWI_SNF_PATHWAY
BIOCARTA_NOTCH_PATHWAY
BIOCARTA_PEPI_PATHWAY
BIOCARTA_WNT_PATHWAY
BIOCARTA_CREM_PATHWAY
BIOCARTA_CPSF_PATHWAY
BIOCARTA_VDR_PATHWAY
BIOCARTA_TERT_PATHWAY
BIOCARTA_G1_PATHWAY
BIOCARTA_EFP_PATHWAY
BIOCARTA_CELLCYCLE_PATHWAY
BIOCARTA_SKP2E2F_PATHWAY
BIOCARTA_P27_PATHWAY
BIOCARTA_ATM_PATHWAY
BIOCARTA_P53_PATHWAY
BIOCARTA_FBW7_PATHWAY
BIOCARTA_TNFR1_PATHWAY
BIOCARTA_ETS_PATHWAY
BIOCARTA_BCELLSURVIVAL_PATHWAY
BIOCARTA_RACCYCD_PATHWAY
BIOCARTA_CDC25_PATHWAY
BIOCARTA_RB_PATHWAY
BIOCARTA_RANMS_PATHWAY
BIOCARTA_SRCRPTP_PATHWAY
BIOCARTA_G2_PATHWAY
BIOCARTA_AKAP95_PATHWAY
BIOCARTA_DNAFRAGMENT_PATHWAY
BIOCARTA_SAM68_PATHWAY
BIOCARTA_ATRBRCA_PATHWAY
BIOCARTA_PTC1_PATHWAY
BIOCARTA_MCM_PATHWAY
BIOCARTA_BTG2_PATHWAY
BIOCARTA_SET_PATHWAY
BIOCARTA_SUMO_PATHWAY
BIOCARTA_MAL_PATHWAY
BIOCARTA_INSULIN_PATHWAY
BIOCARTA_CELL2CELL_PATHWAY
BIOCARTA_RAB_PATHWAY
BIOCARTA_ACTINY_PATHWAY
BIOCARTA_TPO_PATHWAY
BIOCARTA_PDGF_PATHWAY
BIOCARTA_CDMAC_PATHWAY
BIOCARTA_GLEEVEC_PATHWAY
BIOCARTA_EDG1_PATHWAY
BIOCARTA_PKC_PATHWAY
BIOCARTA_PLC_PATHWAY
BIOCARTA_EPONFKB_PATHWAY
BIOCARTA_MALATEX_PATHWAY
BIOCARTA_ARENRF2_PATHWAY
BIOCARTA_DSP_PATHWAY
BIOCARTA_RAC1_PATHWAY
BIOCARTA_AT1R_PATHWAY
BIOCARTA_BIOPEPTIDES_PATHWAY
BIOCARTA_PTDINS_PATHWAY
BIOCARTA_CDK5_PATHWAY
BIOCARTA_EPO_PATHWAY
BIOCARTA_MONOCYTE_PATHWAY
BIOCARTA_LYMPHOCYTE_PATHWAY
BIOCARTA_BLYMPHOCYTE_PATHWAY
BIOCARTA_NEUTROPHIL_PATHWAY
BIOCARTA_IL3_PATHWAY
BIOCARTA_IL22BP_PATHWAY
BIOCARTA_STAT3_PATHWAY
BIOCARTA_MSP_PATHWAY
BIOCARTA_IL6_PATHWAY
BIOCARTA_MET_PATHWAY
BIOCARTA_EPHA4_PATHWAY
BIOCARTA_CXCR4_PATHWAY
BIOCARTA_ERAD_PATHWAY
BIOCARTA_BBCELL_PATHWAY
BIOCARTA_NFAT_PATHWAY
BIOCARTA_HBX_PATHWAY
BIOCARTA_BAD_PATHWAY
BIOCARTA_FMLP_PATHWAY
BIOCARTA_IL10_PATHWAY
BIOCARTA_IL12_PATHWAY
BIOCARTA_CTLA4_PATHWAY
BIOCARTA_TCAPOPTOSIS_PATHWAY
BIOCARTA_CTL_PATHWAY
BIOCARTA_TCRA_PATHWAY
BIOCARTA_TCYTOTOXIC_PATHWAY
BIOCARTA_THELPER_PATHWAY
BIOCARTA_NO2IL12_PATHWAY
BIOCARTA_TH1TH2_PATHWAY
BIOCARTA_NKT_PATHWAY
BIOCARTA_IL2_PATHWAY
BIOCARTA_CSK_PATHWAY
BIOCARTA_STATHMIN_PATHWAY
BIOCARTA_CCR5_PATHWAY
BIOCARTA_MTOR_PATHWAY
BIOCARTA_CDC42RAC_PATHWAY
BIOCARTA_MEF2D_PATHWAY
BIOCARTA_PAR1_PATHWAY
BIOCARTA_ION_PATHWAY
BIOCARTA_PYK2_PATHWAY
BIOCARTA_DREAM_PATHWAY
BIOCARTA_TUBBY_PATHWAY
BIOCARTA_ERBB4_PATHWAY
BIOCARTA_NOS1_PATHWAY
BIOCARTA_CK1_PATHWAY
BIOCARTA_GABA_PATHWAY
BIOCARTA_CHREBP_PATHWAY
BIOCARTA_AGPCR_PATHWAY
BIOCARTA_CREB_PATHWAY
BIOCARTA_IGF1R_PATHWAY
BIOCARTA_GPCR_PATHWAY
BIOCARTA_BARRESTIN_PATHWAY
BIOCARTA_BARR_MAPK_PATHWAY
BIOCARTA_BARRESTIN_SRC_PATHWAY
BIOCARTA_FOSB_PATHWAY
BIOCARTA_NDKDYNAMIN_PATHWAY
BIOCARTA_CB1R_PATHWAY
BIOCARTA_CACAM_PATHWAY
BIOCARTA_PGC1A_PATHWAY
BIOCARTA_AKAPCENTROSOME_PATHWAY
BIOCARTA_PARKIN_PATHWAY
BIOCARTA_MPR_PATHWAY
BIOCARTA_RANBP2_PATHWAY
BIOCARTA_LIS1_PATHWAY
BIOCARTA_REELIN_PATHWAY
BIOCARTA_PS1_PATHWAY
BIOCARTA_IRES_PATHWAY
BIOCARTA_PLCE_PATHWAY
BIOCARTA_CFTR_PATHWAY
BIOCARTA_CARM1_PATHWAY
BIOCARTA_VIP_PATHWAY
BIOCARTA_GATA3_PATHWAY
BIOCARTA_HDAC_PATHWAY
BIOCARTA_AMAN_PATHWAY
BIOCARTA_P35ALZHEIMERS_PATHWAY
28528
28529
23527
25741
26143
25025
23786
26138
28208
26140
28200
23823
23287
23467
24988
23397
22925
25238
23021
25743
23288
26024
25504
23463
Pathologist major category
Nerve sheath tumors
Spindle and epithelioid tumors
Gliomas
Pathologist grade
2
3
4
Resultant genotype
nf1 KO; pten KO; ink KO; atrx KO
nf1 KO; pten KO; ink KO; atrx wt
nf1 wt; pten KO; ink KO; atrx KO

Transcriptomic Clusters
Transcriptomic Subclusters
Transcriptomic Supertypes
Transcriptomic Cluster Name
Transcriptomic Subcluster Name
Transcriptomic Supertype Name
Transcriptomic Cluster Color
Transcriptomic Subcluster Color
Transcriptomic Supertype Color
Transcriptomic Cluster Size
Transcriptomic Subcluster Size
Transcriptomic Supertype Size
Transcriptomic Cluster Number
Transcriptomic Subcluster Number
Transcriptomic Supertype Number

Cluster 1
Cluster 2
Cluster 3
Cluster 4
Cluster 5
Cluster 6
Cluster 7
Cluster 8
Cluster 9
Cluster 10
Cluster 11
Cluster 12
Cluster 13
Cluster 14
Cluster 15
Cluster 16
Cluster 17
Cluster 18
Cluster 19
Cluster 20
Cluster

Pathologist major category
Nerve sheath tumors
Spindle and epithelioid tumors
Gliomas
Pathologist grade
2
3
4
Resultant genotype
nf1 KO; pten KO; ink KO; atrx KO
nf1 KO; pten KO; ink KO; atrx wt
nf1 wt; pten KO; ink KO; atrx KO
Pathologist major category
Pathologist grade
Resultant genotype
23021
25743
26024
23288
25504
23463
25238
24988
23397
22925
28200
23823
23287
26140
23467
28528
25741
28529
23527
26143
23786
25025
26138
28208
0.2
0.0
−0.2
−0.4
−0.6
WP_TRANSLATION_FACTORS
WP_MIRNAS_AND_TFS_IN_IPS_CELL_GENERATION
WP_GPCRS_CLASS_B_SECRETINLIKE
WP_WNT_SIGNALING_PATHWAY
WP_WNT_SIGNALING
WP_SIGNALING_PATHWAY_AND_PLURIPOTENCY
WP_ERBB_SIGNALING_PATHWAY
WP_HYPERTROPHY_MODEL
WP_REGULATION_OF_ACTIN_CYTOSKELETON
WP_ALANINE_AND_ASPARATE_METABOLISM
WP_BIOGENIC_AMINE_SYNTHESIS
WP_STATIN_PATHWAY_PLEIOTROPIC_EFFECTS
WP_SEROTONIN_AND_ANXIETY
WP_SPLICING_FACTOR_NOVA_REGULATED_SYNAPTIC_PROTEINS
WP_CALCIUM_REGULATION_IN_CARDIAC_CELLS
WP_MONOAMINE_GPCRS
WP_GPCRS_CLASS_C_METABOTROPIC_GLUTAMATE_PHEROMONE
WP_SIDS_SUSCEPTIBILITY_PATHWAYS
WP_GLYCOLYSIS_AND_GLUCONEOGENESIS
WP_GPCRS_OTHER
WP_GPCRS_PEPTIDE
WP_GPCRS_NONODORANT
WP_ALZHEIMERS_DISEASE
WP_MYOMETRIAL_RELAXATION_AND_CONTRACTION_PATHWAYS
WP_ELONGATION_OF_VERY_LONG_CHAIN_FATTY_ACIDS
WP_CHOLESTEROL_METABOLISM_WITH_BLOCH_AND_KANDUTSCHRUSSELL_PATHWAYS
WP_GLYCEROLIPIDS_AND_GLYCEROPHOSPHOLIPIDS
WP_DISTAL_CONVOLUTED_TUBULE_1_DCT1_CELL
WP_KENNEDY_PATHWAY
WP_CHOLESTEROL_BIOSYNTHESIS
WP_ONECARBON_METABOLISM_AND_RELATED_PATHWAYS
WP_CHOLESTEROL_BIOSYNTHESIS
WP_PEROXIREDOXIN_2_INDUCED_OVARIAN_FAILURE
WP_MIRNA_PROCESSING
WP_MIR222_IN_EXERCISEINDUCED_CARDIAC_GROWTH
WP_GENE_REGULATORY_NETWORK_MODELLING_SOMITOGENESIS
WP_ELECTRICAL_CONDUCTIVITY_PATHWAY
WP_ECOSANOID_METABOLISM_VIA_CYTOCHROME_P450_MONOOXYGENASES
WP_MITOCHONDRIAL_GENE_EXPRESSION
WP_SYNTHESIS_OF_PIPS_IN_THE_PLASMA_MEMBRANE
WP_GENFET_SIGNALING_AXIS
WP_HEME_BIOSYNTHESIS
WP_FRIEDREICH_ATAXIA_FRDA_GENE_REGULATION
WP_NEURAL_CREST_DIFFERENTIATION
WP_ACE_INHIBITOR_PATHWAY
WP_REGULATION_OF_CARDIAC_HYPERTROPHY_BY_MIR208
WP_PITFJA_RELATED_REGULATORY_PATHWAY
WP_ELECTRICAL_CONDUCTIVITY_PATHWAY
WP_NEURAL_CREST_DIFFERENTIATION
WP_FATTY_ACID_BETAOXIDATION_REGULATION
WP_FATTY_ACID_BIOSYNTHESIS
WP_MITOCHONDRIAL_LONG_CHAIN_FATTY_ACID_BETAOXIDATION
WP_FATTY_ACID_BIOSYNTHESIS
WP_OMEGA3_OMEGA6_FATTY_ACID_SYNTHESIS
WP_TCA_CYCLE
WP_IRON_METABOLISM
WP_CYTOKINES_AND_INFLAMMATORY_RESPONSE
WP_ECOSANOID_METABOLISM_VIA_CYCLOOXYGENASES_COX
WP_OXYLIPINS_PATHWAYS
WP_GLUCURONIDATION
WP_ECOSANOID_SYNTHESIS_VIA_LIPOXYGENASES_LOX
WP_HFE_EFFECT_ON_HEPCIDIN_PRODUCTION
WP_SELENIUM_METABOLISM_SELENOPROTEINS
WP_HYPOXIADEPENDENT_SELFRENEWAL_OF_MYOBLASTS
WP_EPO_RECEPTOR_SIGNALING
WP_HYPOXIADEPENDENT_SELFRENEWAL_OF_MYOBLASTS
WP_IL2_SIGNALING_PATHWAY
WP_CANONICAL_NFKB_PATHWAY_IN_MICROGLIA
WP_IL5_SIGNALING_PATHWAY
WP_MICROGLIA_PATHOGEN_PHAGOCYTOSIS_PATHWAY
WP_CHEMOKINE_SIGNALING_PATHWAY
WP_KIT_RECEPTOR_SIGNALING_PATHWAY
WP_TYPE_II_INTERFERON_SIGNALING_IFNG
WP_PRIMARY_FOCAL_SEGMENTAL_GLOMERULOSCLEROSIS_FSGS
WP_APOE_AND_MIR146_IN_INFLAMMATION_AND_ATHEROSCLEROSIS
WP_P38_MAPK_SIGNALING_PATHWAY
WP_ROBO_AND_VEGF_SIGNALING_PATHWAYS_CROSSTALK
WP_BURN_WOUND_HEALING
WP_COMPREHENSIVE_IL17A_SIGNALING
WP_NOVEL_JUNDMP1_PATHWAY
WP_PURINE_METABOLISM
WP_ECOSANOID_LPEG_SYNTHESIS_MAP
WP_SPINAL_CORD_INJURY
WP_OXIDATIVE_PHOSPHORYLATION
WP_ELECTRON_TRANSPORT_CHAIN
WP_IL2_SIGNALING_PATHWAY
WP_IL1_SIGNALING_PATHWAY
WP_SPHINGOLIPID_METABOLISM_INTEGRATED_PATHWAY
WP_IL1_SIGNALING_PATHWAY
WP_SPHINGOLIPID_METABOLISM_INTEGRATED_PATHWAY
WP_OMDATIVE_STRESS_AND_REDOX_PATHWAY
WP_SELENIUM_MICRONUTRIENT_NETWORK
WP_OXIDATIVE_STRESS_RESPONSE
WP_MAPK_SIGNALING_PATHWAY
WP_EGFR1_SIGNALING_PATHWAY
WP_HOMOLOGOUS_RECOMBINATION
WP_GL_TO_S_CELL_CYCLE_CONTROL
WP_MIR192_AND_MVP_IN_COLON_CANCER_METASTASIS
WP_PENTOSE_PHOSPHATE_PATHWAY
WP_NONHOMOLOGOUS_END_JOINING
WP_EUKARYOTIC_TRANSCRIPTION_INITIATION
WP_ESTROGEN_SIGNALING
WP_MECHANISMS_ASSOCIATED_WITH_PLURIPOTENCY
WP_FACTORS_AND_PATHWAYS_AFFECTING_INSULINLIKE_GROWTH_FACTOR_IGF1AKT_SIGNALING
WP_ID_SIGNALING_PATHWAY
WP_RETINOIC_ACID_SIGNALING_PATHWAY_IN_EYELID_DEVELOPMENT
WP_RETINOL_METABOLISM
WP_GPCRS_SMALL_LIGAND
WP_PRIMARY_FOCAL_SEGMENTAL_GLOMERULOSCLEROSIS_FSGS
WP_WNT_SIGNALING_PATHWAY
WP_WHITE_FAT_CELL_DIFFERENTIATION
WP_DYSREGULATED_MIRNA_TARGETING_IN_INSULINP3KAKT_SIGNALING
WP_TRANSCRIPTIONAL_ACTIVATION_BY_NFE2L2_IN_RESPONSE_TO_PHYTOCHEMICALS
WP_HEDGEHOG_SIGNALING_PATHWAY
WP_NUCLEAR_RECEPTORS
WP_HEDGEHOG_SIGNALING_IN_HAIR_FOLLICLE_DEVELOPMENT
WP_NOTCH_SIGNALING_PATHWAY
WP_LUNG_FIBROSIS
WP_ADRENOCORTICOTROPIC_RECEPTOR_RESPONSE_PATHWAY
WP_APOPTOSIS
WP_IL7_SIGNALING_PATHWAY
WP_EBV_LMP1_SIGNALING
WP_HYALURONAN_SYNTHESIS_AND_REGULATION
WP_FOCAL_ADHESION
WP_FOCAL_ADHESION_PI3KAKTMTOR_SIGNALING_PATHWAY
WP_TOLLLIKE_RECEPTOR_SIGNALING
WP_COMPLEMENT_ACTIVATION_CLASSICAL_PATHWAY
WP_OXIDATIVE_DAMAGE_RESPONSE
WP_TGFBETA_SIGNALING_PATHWAY
WP_ADIPOGENESIS_GENES
WP_OSTEOBLAST_SIGNALING
WP_LEPTININSULIN_SIGNALING_OVERLAP
WP_APOPTOSIS_MODULATION_BY_HSP70
WP_PAS_PATHWAY_AND_STRESS_INDUCTION_OF_HSP_REGULATION
WP_INTEGRINMEDIATED_CELL_ADHESION
WP_NODULE_RECEPTOR_NLR_SIGNALING_PATHWAY
WP_CYTOSOLIC_RIBOSOMAL_PROTEINS
WP_P53_SIGNALING
WP_SIGNAL_TRANSDUCTION_OF_S1P_RECEPTOR
WP_WNT_SIGNALING_IN_KIDNEY_DISEASE
WP_ESC_PLURIPOTENCY_PATHWAYS
WP_ERYTHROPOIETIN_MEDIATED_NEUROPROTECTION_THROUGH_NFKB_IN_NEUROBLASTOMA_CELLS
WP_OVARIAN_INFERTILITY
WP_MIR21_AND_MIR33_IN_CHOLESTEROL_AND_LIPID_HOMEOSTASIS
WP_ONECARBON_METABOLISM
WP_NUCLEAR_RECEPTORS_IN_LIPID_METABOLISM_AND_TOXICITY
WP_GPCRS_ORPHAN
WP_GLUTATHIONE_AND_ONECARBON_METABOLISM
WP_ATLATOXIN_B1_METABOLISM
WP_METAPATHWAY_BIOTRANSFORMATION
WP_MAPK_CASCADE

Pathologist major category
Pathologist grade
Resultant genotype
0.15
0.2
0.25
0.3
0.35
ZFP981_TARGET_GENES
ZFP987_TARGET_GENES
ZFP979_UNIPROT_Q8K293_UNREVIEWED_TARGET_GENES
ZFP708_TARGET_GENES
ZFP882_TARGET_GENES
ZFP534_TARGET_GENES
ZFP445_TARGET_GENES
ZFP932_TARGET_GENES
ZFP467_TARGET_GENES
ZFP985_UNIPROT_Q5U4F7_UNREVIEWED_TARGET_GENES
ZFP652_TARGET_GENES
ZFP961_TARGET_GENES
ZFP661_TARGET_GENES
ZFP617_TARGET_GENES
ZFP990_TARGET_GENES
ZFP984_TARGET_GENES
ZFP810_TARGET_GENES
ZFP738_TARGET_GENES
ZFP458_TARGET_GENES
ZFP970_TARGET_GENES
ZFP457_TARGET_GENES
ZFP493_TARGET_GENES
ZFP986_UNIPROT_L7MUC9_UNREVIEWED_TARGET_GENES
ZFP759_TARGET_GENES
ZFP92_TARGET_GENES
ZFP595_TARGET_GENES
ZFP938_TARGET_GENES
ZFP874B_TARGET_GENES
ZFP953_TARGET_GENES
ZFP965_ZFP973_TARGET_GENES
ZFP935_TARGET_GENES
ZFP874A_TARGET_GENES
ZFP808_TARGET_GENES
ZFP429_TARGET_GENES
ZFP449_TARGET_GENES
ZKSCAN1_TARGET_GENES
ZFP809_TARGET_GENES
ZFP599_TARGET_GENES
ZFP991_TARGET_GENES
ZFP58_TARGET_GENES
ZKSCAN17_TARGET_GENES
ZFP64_TARGET_GENES
ZFP456_TARGET_GENES
ZFP712_TARGET_GENES
ZFP989_UNIPROT_H3BLB0_UNREVIEWED_TARGET_GENES
ZFP872_TARGET_GENES
ZFP709_TARGET_GENES
ZFP933_TARGET_GENES
23021
25743
26024
25504
23288
23463
25238
24988
26140
28200
23823
22925
23287
23397
23467
25741
28528
28529
26143
23527
26138
23786
25025
28208
Pathologist major category
Nerve sheath tumors
Spindle and epithelioid tumors
Gliomas
Pathologist grade
2
3
4
Resultant genotype
nf1 KO; pten KO; ink KO; atrx KO
nf1 KO; pten KO; ink KO; atrx wt
nf1 wt; pten KO; ink KO; atrx KO

Pathologist major category
Pathologist grade
Resultant genotype
-0.5
0
0.5
GM14418_TARGET_GENES
ATAD2_TARGET_GENES
SMYD5_TARGET_GENES
TNNI2_TARGET_GENES
UBN1_TARGET_GENES
HSF2_TARGET_GENES
NCOA1_TARGET_GENES
ZFP738_TARGET_GENES
GM14412_TARGET_GENES
FOXG1_TARGET_GENES
BCOR_TARGET_GENES
DNAJC2_TARGET_GENES
TERF1_TARGET_GENES
SOX30_TARGET_GENES
RFX2_TARGET_GENES
HOXC9_TARGET_GENES
PDX1_TARGET_GENES
MAFA_TARGET_GENES
BAZ1A_TARGET_GENES
GLI3_TARGET_GENES
CARM1_TARGET_GENES
UTP3_TARGET_GENES
DDX5_TARGET_GENES
ZFP457_TARGET_GENES
HELLS_TARGET_GENES
REX2_TARGET_GENES
ZFP984_TARGET_GENES
MTA3_TARGET_GENES
MSGN1_TARGET_GENES
UBN2_TARGET_GENES
FOXN1_TARGET_GENES
GM6871_TARGET_GENES
ZFP986_UNIPROT_L7MUC9_UNREVIEWED_TARGET_GENES
ZFP759_TARGET_GENES
ZFP92_TARGET_GENES
ZFP938_TARGET_GENES
ZFP595_TARGET_GENES
NPM1_TARGET_GENES
ELK1_TARGET_GENES
SPEN_TARGET_GENES
VSX2_TARGET_GENES
ZFP990_TARGET_GENES
RCOR2_TARGET_GENES
TEAD2_TARGET_GENES
GLI2_TARGET_GENES
SIRT1_TARGET_GENES
DNMT1_TARGET_GENES
SMARCC2_TARGET_GENES
ZFP458_TARGET_GENES
GM14410_TARGET_GENES
KLF6_TARGET_GENES
FOXD3_TARGET_GENES
SOX7_TARGET_GENES
SATB2_TARGET_GENES
HOXA11_TARGET_GENES
NACC1_TARGET_GENES
ZFP661_TARGET_GENES
SOX13_TARGET_GENES
ZFP932_TARGET_GENES
JMJD1C_TARGET_GENES
TWIST1_TARGET_GENES
PARP1_TARGET_GENES
MYEF2_MYEF2L_TARGET_GENES
CGAS_TARGET_GENES
ZFP961_TARGET_GENES
RFX6_TARGET_GENES
ZFP882_TARGET_GENES
ZFP534_TARGET_GENES
GCM2_TARGET_GENES
EHMT2_TARGET_GENES
MBD1_TARGET_GENES
ZFP268_TARGET_GENES
ZFP979_UNIPROT_Q8K293_UNREVIEWED_TARGET_GENES
ZFP708_TARGET_GENES
HIRA_TARGET_GENES
ZFP987_TARGET_GENES
CDYL_TARGET_GENES
PITX2_TARGET_GENES
BMI1_TARGET_GENES
EED_TARGET_GENES
CBX6_TARGET_GENES
SMCHD1_TARGET_GENES
ZFP467_TARGET_GENES
DLX2_TARGET_GENES
POU3F3_TARGET_GENES
ZFP652_TARGET_GENES
GRHL3_TARGET_GENES
ZFP985_UNIPROT_Q5UJ4F7_UNREVIEWED_TARGET_GENES
TEX10_TARGET_GENES
TGIF2_TARGET_GENES
ZFP617_TARGET_GENES
KLF15_TARGET_GENES
PHF13_TARGET_GENES
ZFP445_TARGET_GENES
PHC1_TARGET_GENES
ZFP981_TARGET_GENES
GM14401_TARGET_GENES
OGT_TARGET_GENES
ND5_UNIPROT_A0A023J5X2_UNREVIEWED_TARGET_GENES
ELK4_TARGET_GENES
HDAC4_TARGET_GENES
ZFP273_TARGET_GENES
DZIP3_TARGET_GENES
HLF_TARGET_GENES
NAA10_TARGET_GENES
GM20449_UNIPROT_E9Q3U2_UNREVIEWED_TARGET_GENES
ZFP322A_TARGET_GENES
ZFP58_TARGET_GENES
HHEX_TARGET_GENES
ELK3_TARGET_GENES
RHOX11_TARGET_GENES
ASH1L_TARGET_GENES
LMX1B_TARGET_GENES
MYO1C_TARGET_GENES
ZFP64_TARGET_GENES
MYB_TARGET_GENES
BRD3_TARGET_GENES
ID2_TARGET_GENES
HOXD13_TARGET_GENES
DLX1_TARGET_GENES
ANP32E_TARGET_GENES
OVOL2_TARGET_GENES
NRD1_TARGET_GENES
TLX1_TARGET_GENES
ZFP456_TARGET_GENES
ETV2_TARGET_GENES
PROP1_TARGET_GENES
RTF1_TARGET_GENES
PEX2_TARGET_GENES
GLI1_TARGET_GENES
NR5A1_TARGET_GENES
GSK3B_TARGET_GENES
ZFP712_TARGET_GENES
GM6710_GM14391_UNIPROT_Q8C1K5_UNREVIEWED_TARGET_GENES
NKX3_2_TARGET_GENES
HSF1_TARGET_GENES
NFE2L1_TARGET_GENES
SMARCA2_TARGET_GENES
ZFP709_TARGET_GENES
SALL1_TARGET_GENES
ZFP599_TARGET_GENES
HOXC10_TARGET_GENES
SMYD2_TARGET_GENES
BCL11A_TARGET_GENES
GM14296_TARGET_GENES
CEBPG_TARGET_GENES
H1_6_TARGET_GENES
GM2004_GM14419_UNIPROT_A2ARL5_UNREVIEWED_TARGET_GENES
NR1H2_TARGET_GENES
HOXC12_TARGET_GENES
ZFP449_TARGET_GENES
E4F1_TARGET_GENES
NFIC_TARGET_GENES
WDR5_TARGET_GENES
PRDM9_TARGET_GENES
PHF2_TARGET_GENES
FEV_TARGET_GENES
MAJJ2_TARGET_GENES
ZFP810_TARGET_GENES
LHX6_TARGET_GENES
DMRTB1_TARGET_GENES
TBX20_TARGET_GENES
CTR9_TARGET_GENES
ELL2_TARGET_GENES
HDGFL2_TARGET_GENES
AFF4_TARGET_GENES
PWWP2B_TARGET_GENES
RUVBL2_TARGET_GENES
RUVBL1_TARGET_GENES
FOXJ2_TARGET_GENES
SOX10_TARGET_GENES
KDM4B_TARGET_GENES
NFAT5_TARGET_GENES
CCL5_TARGET_GENES
ARID4B_TARGET_GENES
CHAF1A_TARGET_GENES
NUCKS1_TARGET_GENES
NR0B2_TARGET_GENES
L3MBTL2_TARGET_GENES
DPF2_TARGET_GENES
ELL3_TARGET_GENES
SAP18_TARGET_GENES
LRRFIP1_TARGET_GENES
ZFP493_TARGET_GENES
SRSF1_TARGET_GENES
GM14326_TARGET_GENES
DMRT1_TARGET_GENES
ZBTB24_TARGET_GENES
PCGF3_TARGET_GENES
PPARGC1A_TARGET_GENES
ZFP874A_TARGET_GENES
GM14406_TARGET_GENES
ZFP808_TARGET_GENES
ZFP429_TARGET_GENES
GM14443_UNIPROT_A2ARX0_UNREVIEWED_TARGET_GENES
NDUFS2_TARGET_GENES
ZFP989_UNIPROT_H3BLB0_UNREVIEWED_TARGET_GENES
BARX1_TARGET_GENES
ZFP872_TARGET_GENES
ZKSCAN17_TARGET_GENES
ZBTB16_UNIPROT_A3KMN0_UNREVIEWED_TARGET_GENES
DLX6_TARGET_GENES
SIX6_TARGET_GENES
GM6710_GM14391_UNIPROT_A2ART0_UNREVIEWED_TARGET_GENES
ZBTB7B_TARGET_GENES
SOX15_TARGET_GENES
TRPS1_TARGET_GENES
NR1I2_TARGET_GENES
MSX1_TARGET_GENES
ZFP319_TARGET_GENES
NR2F2_TARGET_GENES
TBX4_TARGET_GENES
IKZF3_TARGET_GENES
ZFP296_TARGET_GENES
HEXIM1_TARGET_GENES
PCGF5_TARGET_GENES
SP5_TARGET_GENES
ZKSCAN1_TARGET_GENES
LHX1_TARGET_GENES
HAND1_TARGET_GENES
DDIT3_TARGET_GENES
SPIB_TARGET_GENES
REL_TARGET_GENES
CRELD1_TARGET_GENES
NFKB1_TARGET_GENES
RCOR1_TARGET_GENES
LYL1_TARGET_GENES
NFATC2_TARGET_GENES
RELB_TARGET_GENES
THRB_TARGET_GENES
SOX6_TARGET_GENES
PML_TARGET_GENES
ZFP970_TARGET_GENES
MLLT3_TARGET_GENES
TAF10_TARGET_GENES
TOX2_TARGET_GENES
TRP73_TARGET_GENES
GADD45A_TARGET_GENES
ZFP933_TARGET_GENES
RPA2_TARGET_GENES
ZFP809_TARGET_GENES
ZC3H11A_TARGET_GENES
CTNNB1_TARGET_GENES
STFA1_TARGET_GENES
ZFP935_TARGET_GENES
ZFP874B_TARGET_GENES
ZFP953_TARGET_GENES
ZFP965_ZFP973_TARGET_GENES
NFATC1_TARGET_GENES
NFE2_TARGET_GENES
BRWD1_TARGET_GENES
HNF4G_TARGET_GENES
DUXBL1_TARGET_GENES
FOXA3_TARGET_GENES
CUX2_TARGET_GENES
SMAD6_TARGET_GENES
MNX1_TARGET_GENES
TOX3_TARGET_GENES
AHCY_AHCYL_TARGET_GENES
THAP11_TARGET_GENES
ELL_TARGET_GENES
ZFP935_TARGET_GENES
NLRC5_TARGET_GENES
HNRNPK_TARGET_GENES
ING1_TARGET_GENES
SAP30_TARGET_GENES
RXRG_TARGET_GENES
ZFP991_TARGET_GENES
CBX1_TARGET_GENES
THAP4_TARGET_GENES
SOX5_TARGET_GENES
HMCES_TARGET_GENES
PSIP1_TARGET_GENES
MBTPS2_YY2_TARGET_GENES
TARDBP_TARGET_GENES
ZFP42_TARGET_GENES
RALY_TARGET_GENES
MPND_TARGET_GENES
GM14393_TARGET_GENES
26140
28200
23823
23467
23287
24988
23397
22925
25743
23021
26024
23288
25504
23463
25238
25741
28528
28529
26143
23786
23527
26138
25025
28208
Pathologist major category
Nerve sheath tumors
Spindle and epithelioid tumors
Gliomas
Pathologist grade
2
3
4
Resultant genotype
nf1 KO; pten KO; ink KO; atrx KO
nf1 KO; pten KO; ink KO; atrx wt
nf1 wt; pten KO; ink KO; atrx KO

Control
Treatment
Treatment
Control
Treatment
Control
Treatment
Control

Control
Treatment
Treatment
Control
Treatment
Control
Treatment
Control

Cancer type
Sex
Age
Stage
Grade
Tumor purity
Cancer type
Sex
Age
Stage
Grade
Tumor purity
Cancer type
Sex
Age
Stage
Grade
Tumor purity

Pathwayset map category
Gene small sets
Gene sets/pathways
Modules
Pathwayset group
Pathway
Pathway
Pathway

Cancer Type
Sex
Age
Stage
Grade
Tumor Purity
Female
Male
Unknown

Cancer
Normal
Tumor
Cancer
Normal
Tumor
Cancer
Normal
Tumor

Pathologist major category
Pathologist grade
Resultant genotype
Pathologist major category
Neuroglial tumors
Neuronal tumors
Spindle and epithelioid tumors
Gliomas
Pathologist grade
2
3
4
Resultant genotype
pt1 kO; pten KO; trk KO; atrx KO
pt1 kO; pten KO; trk KO; atrx wt
pt1 wt; pten KO; trk KO; atrx KO
2328
24966
22925
26140
26141
26300
23387
23407
26021
26741
26024
23308
26028
26029
23483
28928
28929
28930
26142
26143
26741
26026
26138
26039
TGDAP_SIGNAL_SEQUENCE_BINDING
TGDAP_UBIQUITIN_CONJUGATING_ENZYME_ACTIVITY
TGDAP_UBIQUITIN_CONJUGATING_ENZYME_BINDING
TGDAP_SODIUM_SUPHORE_BINDING
TGDAP_UBIQUITIN_LIKE_PROTEIN_PEPTIDASE_ACTIVITY
TGDAP_UDP-GALACTOSE:BETA-N-ACETYLGLUCOSAMINE BETA-1,3-GALACTOSYLTRANSFERASE_ACTIVITY
TGDAP_UDP-GALACTOSE:BETA-N-ACETYLGLUCOSAMINE BETA-1,4-GALACTOSYLTRANSFERASE_ACTIVITY
TGDAP_UNCOORDINATED-51 PROTEIN_SERINE/THREONINE_KINASE_ACTIVITY_CYTOSKELETON
TGDAP_PROTEIN_SERINE_KINASE_ACTIVITY
TGDAP_PROTEIN_SERINE/THREONINE_KINASE
TGDAP_PROTEIN_SERINE/THREONINE/TYROSINE_KINASE_ACTIVITY
TGDAP_SH2_PROTEIN_BINDING
TGDAP_SH3/SH2_ADAPTOR_ACTIVITY
TGDAP_VITRONECTIN_CORE_BINDING_ACTIVITY
TGDAP_SCAFFOLD_PROTEIN_BINDING
TGDAP_STRUCTURAL_CONSTITUENT_OF_POSTSYNAPTIC_DENSITY
TGDAP_STRUCTURAL_CONSTITUENT_OF_POSTSYNAPTIC_SPECIALIZATION
TGDAP_PROPLAN_BINDING
TGDAP_PROTEIN-L-ISOASPARTATE(D-ASPARTATE) O-METHYLTRANSFERASE_ACTIVITY
TGDAP_PROTEIN_ARGININE_N-METHYLTRANSFERASE_ACTIVITY
TGDAP_VOLTAGE-GATED MONOVALENT ION CHANNEL ACTIVITY INVOLVED IN REGULATION OF POSTSYNAPTIC MEMBRANE POTENTIAL
TGDAP_VOLTAGE-GATED MONOVALENT ION CHANNEL ACTIVITY INVOLVED IN REGULATION OF PRESYNAPTIC MEMBRANE POTENTIAL
TGDAP_TRANSMEMBRANE_TRANSPORTER_ACTIVITY_ACTIVE_TRANSPORTER
TGDAP_TRANSMITTER-GATED CHANNEL ACTIVITY
TGDAP_VOLTAGE-GATED CHANNEL ACTIVITY_RECEPTOR_ACTIVITY
TGDAP_VOLTAGE-GATED CHANNEL ACTIVITY
TGDAP_VOLTAGE-GATED POTASSIUM CHANNEL ACTIVITY
TGDAP_POTASSIUM CHANNEL ACTIVITY
TGDAP_POTASSIUM CHANNEL_TRANSMEMBRANE_TRANSPORTER_ACTIVITY
TGDAP_VOLTAGE-GATED CALCIUM CHANNEL ACTIVITY INVOLVED IN REGULATION OF CYTOSOLIC CALCIUM LEVELS
TGDAP_PROTEIN_SERINE/THREONINE_KINASE_ACTIVITY
TGDAP_STRUCTURAL CONSTITUENT OF POSTSYNAPSE
TGDAP_PROTEIN-L-ISOASPARTATE(D-ASPARTATE) O-METHYLTRANSFERASE_ACTIVITY
TGDAP_PROTEIN_KINASE_A_REGULATORY_SUBUNIT_BINDING
TGDAP_POTASSIUM ION CHAN CHANNEL ACTIVITY
TGDAP_TYPE_1_METABOTROPIC_GLUTAMATE_RECEPTOR_BINDING
TGDAP_TYPE_1_METABOTROPIC_GLUTAMATE_RECEPTOR_BINDING
TGDAP_POTASSIUM CHANNEL INHIBITOR ACTIVITY
TGDAP_PROTEIN_SERINE/THREONINE_KINASE_BINDING
TGDAP_MULAB DIRECTED MICROTUBULE MOTOR_ACTIVITY
TGDAP_PROTEIN_BINDING
TGDAP_PROTEIN_PHOSPHATASE_BINDING
TGDAP_PROTEIN_PHOSPHATASE_ACTIVITY
TGDAP_SERTORIN_BINDING
TGDAP_UDP-GALACTOSE:BETA-N-ACETYLGLUCOSAMINE BETA-1,4-GALACTOSYLTRANSFERASE_ACTIVITY
TGDAP_SODIUM PROTON ANTIPORTER ACTIVITY
TGDAP_SODIUM PROTON ANTIPORTER_TRANSMEMBRANE_TRANSPORTER_ACTIVITY
TGDAP_SULFATE SODIUM SYMPORTER ACTIVITY
TGDAP_TRANSCRIPTION_BINDING
TGDAP_TRANSPORTER_REGULATOR_ACTIVITY
TGDAP_TRANSCRIPTOR_ACTIVITY
TGDAP_TRANSMEMBRANE_TRANSPORTER_TRANSMEMBRANE_TRANSPORTER_ACTIVITY
TGDAP_SYMPORTER_ACTIVITY
TGDAP_SODIUM:PROTON ANTIPORTER_ACTIVITY
TGDAP_SECONDARY_ACTIVE_TRANSMEMBRANE_TRANSPORTER_ACTIVITY
TGDAP_SODIUM:PROTON ANTIPORTER_ACTIVITY
TGDAP_SULFATE_INORGANIC_ANION_ANTIPORTER_ACTIVITY
TGDAP_PROTEIN_SERINE/THREONINE_PHOSPHATASE_ACTIVITY
TGDAP_PROTEIN_BINDING
TGDAP_TRANSLATION_ELONGATION_FACTOR_ACTIVITY
TGDAP_TRANSMEMBRANE_TRANSPORTER_TRANSMEMBRANE_TRANSPORTER_ACTIVITY
TGDAP_TUNA TRANSMEMBRANE_TRANSPORTER ACTIVITY
TGDAP_TRANSMEMBRANE_TRANSPORTER_ACTIVITY
TGDAP_SODIUM CHANNEL ACTIVITY
TGDAP_VOLTAGE-GATED SODIUM CHANNEL ACTIVITY
TGDAP_SODIUM CHANNEL ACTIVITY
TGDAP_PROTEIN SUCCINYLTRANSFERASE_ACTIVITY
TGDAP_VOLTAGE-GATED CALCIUM CHANNEL ACTIVITY INVOLVED IN CARDIAC MUSCLE CELL ACTION POTENTIAL
TGDAP_STRUCTURAL CONSTITUENT OF MYELIN SHEATH
TGDAP_PROTEIN_BINDING
TGDAP_TRANSFERASE_ACTIVITY_TRANSFERRING_NITROGENEOUS_GROUPS
TGDAP_PROTEIN_BINDING
TGDAP_RNA ENDONUCLEASE_ACTIVITY_PRODUCING 3-PHOSPHOMONOESTERS
TGDAP_PROTEIN_SERINE/THREONINE_KINASE_ACTIVITY
TGDAP_PROTEIN_SERINE/THREONINE_KINASE_ACTIVITY
TGDAP_PRIMARY_ACTIVE_TRANSMEMBRANE_TRANSPORTER_ACTIVITY
TGDAP_SODIUM CHANNEL INHIBITOR ACTIVITY
TGDAP_SODIUM CHANNEL_TRANSMEMBRANE_TRANSPORTER_ACTIVITY
TGDAP_PHOSPHOTRANSFERASE_ACTIVITY_PHOSPHATE_GROUP_AS_ACCEPTOR
TGDAP_PROTEIN_BINDING
TGDAP_GUANYLYL_IMIDODIPHOSPHATE_BINDING
TGDAP_PHOSPHATIDYLINOSITOL BINDING
TGDAP_PROTEIN_BINDING
TGDAP_PHOSPHOLIPID BINDING
TGDAP_PHOSPHOLIPID BINDING
TGDAP_PHOSPHOLIPID BINDING
TGDAP_PHOSPHATIDYLINOSITOL 3,5-BISPHOSPHATE BINDING
TGDAP_PHOSPHATIDYLINOSITOL BISPHOSPHATE BINDING
TGDAP_PHOSPHATIDYLINOSITOL BINDING
TGDAP_PROTEASE BINDING
TGDAP_PHOSPHOLIPASE C ACTIVITY
TGDAP_PROTEIN_DOMAIN_BINDING
TGDAP_SH3 DOMAIN BINDING
TGDAP_PHOSPHOLIPASE BINDING
TGDAP_PROTEIN_SERINE/THREONINE KINASE BINDING
TGDAP_VOLTAGE-GATED_TRANSMEMBRANE_TRANSPORTER_ACTIVITY
TGDAP_PROTEIN_SERINE/THREONINE_KINASE_ACTIVATOR_ACTIVITY
TGDAP_STRUCTURAL CONSTITUENT OF SKIN EPIDERMIS
TGDAP_PROTEIN_SERINE/THREONINE_KINASE_ACTIVATOR_ACTIVITY
TGDAP_TYPE_1_METABOTROPIC_GLUTAMATE_RECEPTOR_BINDING
TGDAP_RNA_STEM_LOOP_BINDING
TGDAP_PROTEIN_BINDING
TGDAP_POLYUBIQUITIN_MODIFICATION_DEPENDENT_PROTEIN_BINDING
TGDAP_PROTEIN_SERINE/THREONINE_KINASE_ACTIVITY
TGDAP_PROTEIN_KINASE_A_CATALYTIC_SUBUNIT_BINDING
TGDAP_PROTEIN_BINDING
TGDAP_SPECTRIN_BINDING
TGDAP_POTASSIUM PROTON_ANTIPORTER_ACTIVITY
TGDAP_SODIUM PROTON ANTIPORTER_ACTIVITY
TGDAP_CHANNEL_BINDING
TGDAP_PROTEIN_BINDING
TGDAP_SNARE_BINDING
TGDAP_PROTEIN_BINDING
TGDAP_PROTEIN_PHOSPHATASE_2B_BINDING
TGDAP_TRANSCRIPTION_BINDING
TGDAP_TRANSFERASE_ACTIVITY_TRANSFERRING_SULPHUR_CONTAINING_GROUPS
TGDAP_PROTEIN_BINDING
TGDAP_VOLTAGE-GATED CALCIUM CHANNEL ACTIVITY INVOLVED IN CARDIAC MUSCLE CELL ACTION POTENTIAL
TGDAP_RNA_SPECIFIC_RIBONUCLEASE_DEAMINASE_ACTIVITY
TGDAP_PROTEIN_SERINE/THREONINE_KINASE_ACTIVITY
TGDAP_SECONDARY_ACTIVE_MONOCARBOXYLATE_TRANSMEMBRANE_TRANSPORTER_ACTIVITY
TGDAP_PROTEIN_SERINE/THREONINE_KINASE_ACTIVITY
TGDAP_SIROHEM_PROTEIN_DE_KINASE_ACTIVITY
TGDAP_PROTEIN_BINDING
TGDAP_PROTEIN-CARBOXYL_O-METHYLTRANSFERASE_ACTIVITY
TGDAP_SUMO_BINDING
TGDAP_PROTEIN_BINDING
TGDAP_VIRUS_BINDING
TGDAP_PROTEIN_KINASE_DRAPIN_RECEPTOR_ACTIVITY
TGDAP_NUCLEOSIDE_BINDING
TGDAP_PROTEIN_BINDING
TGDAP_PROTEIN_FOLDING_CHAPERONE_BINDING
TGDAP_PROTEIN DIMERIZATION ACTIVITY
TGDAP_PROTEIN_BINDING
TGDAP_POLYUBIQUITIN BINDING
TGDAP_PROTEIN_BINDING_TRANSCRIPTION_FACTOR_BINDING
TGDAP_PROTEIN_KINASE_ACTIVITY
TGDAP_PROTEIN-L-ISOASPARTATE(D-ASPARTATE) O-METHYLTRANSFERASE_ACTIVITY
TGDAP_TRANSFERASE_TYPE_CNAD/NPP/TGASE_ACTIVITY
TGDAP_UBIQUITIN_RNA_PROTEIN_LIGASE_BINDING
TGDAP_PROTEIN_SERINE/THREONINE_PHOSPHATASE_ACTIVITY
TGDAP_SILENCER BINDING_DEPENDENT_PROTEIN_BINDING
TGDAP_PROTEIN_BINDING
TGDAP_PHOSPHOSERINE_AS_ACTIVITY
TGDAP_PROTEIN_BINDING
TGDAP_PROTEIN_TRANSMEMBRANE_ATP_SYNTHASE_ACTIVITY_ROTATIONAL_MECHANISM
TGDAP_PROTEIN_SERINE/THREONINE_KINASE_ACTIVITY
TGDAP_SPANDOLIPID BINDING
TGDAP_TRANSFERASE_ACTIVITY_TRANSFERRING_NITROGENEOUS_GROUP_AS_ACCEPTOR
TGDAP_STRUCTURAL CONSTITUENT OF CYTOMUSCULATURE
TGDAP_TRANSITION_METAL_ION_TRANSMEMBRANE_TRANSPORTER_ACTIVITY
TGDAP_PROTEIN_SERINE/THREONINE_KINASE_ACTIVITY
TGDAP_TRANSMEMBRANE_TRANSMEMBRANE_TRANSPORTER_ACTIVITY
TGDAP_TRANSMEMBRANE_TRANSMEMBRANE_TRANSPORTER_ACTIVITY
TGDAP_PHOSPHATIDYLCHOLINE TRANSFERTASE ACTIVITY
TGDAP_PHOSPHATIDYLINOSITOL 3,4,5-TRISPHOSPHATE BINDING
TGDAP_PHOSPHATIDYLINOSITOL 3,5-BISPHOSPHATE BINDING
TGDAP_TGF-BETA RECEPTOR BINDING
TGDAP_SH3 BINDING
TGDAP_PROTEIN BINDING
TGDAP_PROTEIN_DISULFIDE_ISOMERASE_ACTIVITY
TGDAP_PROTEIN_BINDING
TGDAP_PROTEIN_PHOSPHORYLATED_AMINO_ACID_BINDING
TGDAP_PROTEIN_SERINE/THREONINE_KINASE_ACTIVITY
TGDAP_PROTEIN_TYROSINE_KINASE_BINDING
TGDAP_PROTEIN_PHOSPHATASE_BINDING
TGDAP_SIGNAL_SEQUENCE_BINDING
TGDAP_SH3 DOMAIN BINDING
TGDAP_PROTEIN_BINDING
TGDAP_PROTEIN_ANTIGEN_BINDING
TGDAP_PROTEIN_SERINE/THREONINE_KINASE_ACTIVITY
TGDAP_PROTEIN_TYROSINE_KINASE_INHIBITOR_ACTIVITY
TGDAP_PROTEIN_TYROSINE_KINASE_ACTIVITY
TGDAP_POTASSIUM CHANNEL_ACTIVATOR_ACTIVITY
TGDAP_PROTEIN_BINDING
TGDAP_SH3 DOMAIN BINDING
TGDAP_STRUCTURAL CONSTITUENT OF MUSCLE
TGDAP_PROTEIN_BINDING_ACTIVATOR_ACTIVITY
TGDAP_SUCCINATE TRANSMEMBRANE_TRANSPORTER_ACTIVITY
TGDAP_PROTEIN_BINDING_TRANSCRIPTION_FACTOR_BINDING
TGDAP_VOLUME_SENSITIVE_ANION_CHANNEL_ACTIVITY
TGDAP_PROTEIN_BINDING
TGDAP_SH3 BINDING
TGDAP_PHOSPHOPYRUVATE_HYDRATASE_ACTIVITY
TGDAP_PROTEIN_SERINE/THREONINE/TYROSINE_KINASE_ACTIVITY
TGDAP_SH2 CHAIN-LIKE BINDING
TGDAP_PROTEIN_BINDING
TGDAP_FORMASE_FRIDECELLESTOR_BINDING
TGDAP_PROTEIN_BINDING_ACTIVATOR_ACTIVITY
TGDAP_UBIQUITIN_CHAIN INHIBITOR ACTIVITY
TGDAP_PROTEIN_BINDING_PROTEIN_DIMERIZATION
TGDAP_SINGLE STRANDED DNA BINDING
TGDAP_PROTEIN_BINDING
TGDAP_TRANSFERASE_ACTIVITY
TGDAP_PROTEIN_COMPLEX_DESTABILIZING_ACTIVITY
TGDAP_PROTEIN_SERINE/THREONINE_KINASE_ACTIVITY
TGDAP_PROTEIN_PHENYLTRANSFERASE_ACTIVITY
TGDAP_PROTEIN_SERINE/THREONINE_PHOSPHATASE_ACTIVITY
TGDAP_SINGLE STRANDED DNA 5,3 DNA EXONUCLEASE ACTIVITY
TGDAP_PROTEIN_BINDING
TGDAP_DNA_DAMAGE_ACTIVITY
TGDAP_SPLICING FACTOR BINDING
TGDAP_PROTEIN_SERINE/THREONINE_ACTIVITY
TGDAP_TRIPLET CODON AMINO ACID_ADAPTOR_ACTIVITY
TGDAP_PROTEIN_BINDING
TGDAP_PROTEIN_RNA_ADAPTOR_ACTIVITY
TGDAP_PROTEIN_BINDING
TGDAP_UBIQUITIN_PROTEIN_TRANSFERASE_INHIBITOR_ACTIVITY
TGDAP_RIBOSOME_BINDING
TGDAP_PROTEIN_BINDING
TGDAP_PROTEIN_TRANSMEMBRANE_TRANSPORTER_ACTIVITY
TGDAP_TRANSCRIPTION_BINDING
TGDAP_RNA POLYMERASE II_CORE_PROMOTER_SEQUENCE_SPECIFIC_DNA_BINDING
TGDAP_PROTEIN_BINDING
TGDAP_PROTEIN_SERINE/THREONINE_PHOSPHATASE_ACTIVITY
TGDAP_PROTEIN_SERINE/THREONINE_PHOSPHATASE_ACTIVITY
TGDAP_UBIQUITIN_LIKE_PROTEIN_BINDING
TGDAP_PHOSPHINOSITIDE_DEPENDENT_PROTEIN_BINDING
TGDAP_PROTEIN_SERINE/THREONINE_PHOSPHATASE_ACTIVITY
TGDAP_PROTEIN_SERINE/THREONINE/TYROSINE_PHOSPHATASE_ACTIVITY
TGDAP_PHOSPHINOSITIDE_DEPENDENT_PROTEIN_BINDING
TGDAP_VOLTAGE-GATED POTASSIUM CHANNEL ACTIVITY INVOLVED IN CARDIAC MUSCLE CELL ACTION POTENTIAL REPOLARIZATION
TGDAP_VOLTAGE-GATED POTASSIUM CHANNEL ACTIVITY INVOLVED IN CARDIAC MUSCLE CELL ACTION POTENTIAL REPOLARIZATION
TGDAP_PROTEIN_SERINE/THREONINE/TYROSINE_PHOSPHATASE_ACTIVITY
TGDAP_PROTEIN_SERINE/THREONINE_PHOSPHATASE_ACTIVITY
TGDAP_PHOSPHINOSITIDE_ESTER_HYDROLASE_ACTIVITY
TGDAP_PROTEIN_BINDING
TGDAP_PHOSPHINOSITIDE_DEPENDENT_PROTEIN_BINDING
TGDAP_PROTEIN_SERINE/THREONINE_PHOSPHATASE_INHIBITOR_ACTIVITY
TGDAP_PROTEIN_BINDING_ACTIVATOR_ACTIVITY
TGDAP_GLYCIN AMINO ACID_TRANSMEMBRANE_TRANSPORTER_ACTIVITY
TGDAP_PROTEIN_BINDING
TGDAP_PHOSPHOFRUCTOKINASE_ACTIVITY
TGDAP_PROTEIN_BINDING_TRANSCRIPTION_FACTOR_BINDING
TGDAP_TRANSCRIPTION REGULATOR ACTIVATOR ACTIVITY
TGDAP_SINGLE STRANDED DNA ENDODEOXYRIBONUCLEASE_ACTIVITY
TGDAP_PROTEIN_BINDING
TGDAP_SEQUENCE-SPECIFIC DNA BINDING
TGDAP_TRANSCRIPTION REGULATOR ACTIVATOR ACTIVITY
TGDAP_CYLOMEDIASE INHIBITOR ACTIVITY
TGDAP_SEQUENCE-SPECIFIC DNA BINDING
TGDAP_STRUCTURAL CONSTITUENT OF RIBOSOME
TGDAP_PROTEIN_BINDING
TGDAP_UBIQUINONE BINDING
TGDAP_RNA POLYMERASE II_TRANSCRIPTION_FACTOR_BINDING
TGDAP_RNA POLYMERASE II_ACTIVITY
TGDAP_RNA POLYMERASE I_ACTIVITY
TGDAP_TRANSFERASE_ACTIVITY_TRANSFERRING_FOR_OTHER_SUBSTITUTED_PHOSPHATE_GROUPS
TGDAP_RNA POLYMERASE I_ACTIVITY
TGDAP_RNA POLYMERASE I_ACTIVITY
TGDAP_RNA POLYMERASE I_ACTIVITY
TGDAP_SHORT CHAIN CARBOXYLESTERASE_ACTIVITY
TGDAP_PROTEIN_SERINE/THREONINE_PHOSPHATASE_ACTIVITY
TGDAP_PROTEIN DISULFIDE REDUCTASE NAD P (H) ACTIVITY
TGDAP_TRANSLATION INITIATION_FACTOR_BINDING
TGDAP_RNA_BINDING
TGDAP_RNA_BINDING
TGDAP_RNA_BINDING
TGDAP_U2 SNRNA BINDING
TGDAP_RNA_BINDING
TGDAP_TRANSLATION REGULATOR ACTIVITY
TGDAP_SR-T MEMBRANE TRANSPORTER ACTIVITY
TGDAP_PROTEIN_BINDING_TRANSCRIPTION_FACTOR_BINDING
TGDAP_PROTEASOME_BINDING_ACTIVITY
TGDAP_PROTEIN_BINDING
TGDAP_RNA POLYMERASE I_COREBINDING_TRANSCRIPTION_INITIATION_FACTOR_ACTIVITY
TGDAP_PROTEIN_BINDING
TGDAP_RIBONUCLEOPROTEIN_COMPLEX_BINDING
TGDAP_PROTEIN_BINDING_ACTIVITY
TGDAP_PROTEIN_FOLDING_CHAPERONE
TGDAP_PROTEIN_TRANSMEMBRANE_TRANSPORTER_ACTIVITY
TGDAP_PROTEIN_BINDING
TGDAP_SMALL PROTEIN ACTIVATING ENZYME_BINDING
TGDAP_PROTEIN_BINDING_ACTIVITY_HOUSEKEEPING_ACTIVITY
TGDAP_SNRNP BINDING
TGDAP_PROTEIN_BINDING
TGDAP_PROTEIN_CHAPERONE
TGDAP_PROTEIN HETERODIMERIZATION ACTIVITY
TGDAP_PROTEIN_BINDING_ACTIVITY
TGDAP_HEAT REPEAT DOMAIN_BINDING
TGDAP_PROTEIN_BINDING_ACTIVITY
TGDAP_NICKEL ION_TRANSMEMBRANE_TRANSPORTER_ACTIVITY
TGDAP_PROTEIN_BINDING_ACTIVITY
TGDAP_RIBOSOMAL_LARGE_SUBUNIT_BINDING
TGDAP_TRNA GUANINE METHYLTRANSFERASE_ACTIVITY
TGDAP_PROTEIN_BINDING_ACTIVITY
TGDAP_UBIQUITIN_PROTEIN_LIGASE_BINDING_ACTIVITY
TGDAP_PROTEIN_BINDING_ACTIVITY
TGDAP_SINGLE STRANDED DNA 5,3 DNA EXONUCLEASE ACTIVITY
TGDAP_PROTEIN_BINDING
TGDAP_PROTEIN_BINDING
TGDAP_SINGLE STRANDED DNA BINDING
TGDAP_RNA POLYMERASE I_ACTIVITY
TGDAP_RNA POLYMERASE I_ACTIVITY
TGDAP_RNA POLYMERASE I_ACTIVITY

Pathologist major category
Pathologist grade
Resultant genotype
MP_INCREASED_HAMARTOMA_INCIDENCE
MP_INCREASED_BRAIN_TUMOR_INCIDENCE
MP_INCREASED_ADENOCARCINOMA_INCIDENCE
MP_INCREASED_RENAL_CARCINOMA_INCIDENCE
MP_INCREASED_INTESTINAL_ADENOMA_INCIDENCE
MP_INCREASED_MAMMARY_GLAND_TUMOR_INCIDENCE
MP_INCREASED_LUNG_TUMOR_INCIDENCE
MP_INCREASED_HEMANGIOSARCOMA_INCIDENCE
MP_INCREASED_PAPILLOMA_INCIDENCE
MP_INCREASED_HEPATIC_HEMANGIOMA_INCIDENCE
MP_INCREASED_GASTROINTESTINAL_TUMOR_INCIDENCE
MP_INCREASED_LIVER_TUMOR_INCIDENCE
MP_INCREASED_SMALL_INTESTINE_ADENOCARCINOMA_INCIDENCE
MP_INCREASED_UTERUS_TUMOR_INCIDENCE
MP_INCREASED_CARCINOMA_INCIDENCE
MP_INCREASED_ADENOMA_INCIDENCE
MP_INCREASED_LUNG_CARCINOMA_INCIDENCE
MP_INCREASED_INCIDENCE_OF_TUMORS_BY_IONIZING_RADIATION_INDUCTION
MP_INCREASED_INCIDENCE_OF_TUMORS_BY_UV_INDUCTION
MP_INCREASED_PHEOCHROMOCYTOMA_INCIDENCE
MP_INCREASED_ENDOMETRIAL_CARCINOMA_INCIDENCE
MP_INCREASED_CHRONIC_MYELOCYTIC_LEUKEMIA_INCIDENCE
MP_INCREASED_THYROID_TUMOR_INCIDENCE
MP_INCREASED_THYROID_ADENOMA_INCIDENCE
MP_INCREASED_MEDULLOBLASTOMA_INCIDENCE
MP_INCREASED_T_CELL_DERIVED_LYMPHOMA_INCIDENCE
MP_INCREASED_INCIDENCE_OF_TUMORS_BY_CHEMICAL_INDUCTION
MP_INCREASED_HEPATOCELLULAR_CARCINOMA_INCIDENCE
MP_DECREASED_TUMOR_GROWTH_SIZE
MP_DECREASED_CIRCULATING_TUMOR_NECROSIS_FACTOR_LEVEL
MP_INCREASED_TUMOR_NECROSIS_FACTOR_SECRETION
MP_DECREASED_INCIDENCE_OF_TUMORS_BY_CHEMICAL_INDUCTION
MP_INCREASED_TUMOR_GROWTH_SIZE
MP_INCREASED_METASTATIC_POTENTIAL
MP_ABNORMAL_TUMOR_VASCULARIZATION
MP_INCREASED_LARGE_INTESTINE_ADENOCARCINOMA_INCIDENCE
MP_INCREASED_PROSTATE_INTRAEPITHELIAL_NEOPLASIA_INCIDENCE
MP_INCREASED_PROSTATE_GLAND_ADENOCARCINOMA_INCIDENCE
MP_TUMOR_REGRESSION
MP_DECREASED_LUNG_TUMOR_INCIDENCE
MP_DECREASED_INCIDENCE_OF_INDUCED_TUMORS
MP_DECREASED_METASTATIC_POTENTIAL
MP_DECREASED_TUMOR_NECROSIS_FACTOR_SECRETION
MP_INCREASED_CIRCULATING_TUMOR_NECROSIS_FACTOR_LEVEL
MP_INCREASED_LEUKEMIA_INCIDENCE
MP_INCREASED_SKIN_PAPILLOMA_INCIDENCE
MP_INCREASED_MALIGNANT_TUMOR_INCIDENCE
MP_INCREASED_RHABDOMYOSARCOMA_INCIDENCE
MP_INCREASED_BASAL_CELL_CARCINOMA_INCIDENCE
MP_INCREASED_HEPATOMA_INCIDENCE
MP_INCREASED_B_CELL_DERIVED_LYMPHOMA_INCIDENCE
MP_INCREASED_LIVER_ADENOMA_INCIDENCE
MP_INCREASED_SKIN_TUMOR_INCIDENCE
MP_INCREASED_LYMPHOBLASTIC_LYMPHOMA_INCIDENCE
MP_INCREASED_ACUTE_LYMPHOBLASTIC_LEUKEMIA_INCIDENCE
MP_DECREASED_TUMOR_LATENCY
MP_INCREASED_HISTIOCYTIC_SARCOMA_INCIDENCE
MP_INCREASED_HEMANGIOMA_INCIDENCE
MP_PRENEOPLASIA
MP_INCREASED_MELANOMA_INCIDENCE
MP_INCREASED_SKIN_SQUAMOUS_CELL_CARCINOMA_INCIDENCE
MP_EMBRYO_TUMOR
MP_INCREASED_LYMPHOMA_INCIDENCE
MP_INCREASED_TUMOR_INCIDENCE
MP_INCREASED_LUNG_ADENOCARCINOMA_INCIDENCE
MP_INCREASED_LUNG_ADENOMA_INCIDENCE
MP_INCREASED_MAMMARY_ADENOCARCINOMA_INCIDENCE
MP_INCREASED_SARCOMA_INCIDENCE
MP_INCREASED_SQUAMOUS_CELL_CARCINOMA_INCIDENCE
MP_DECREASED_LIVER_TUMOR_INCIDENCE
MP_INCREASED_INCIDENCE_OF_INDUCED_TUMORS
MP_DECREASED_TUMOR_INCIDENCE
MP_INCREASED_FIBROSARCOMA_INCIDENCE
MP_INCREASED_OSTEOSARCOMA_INCIDENCE
MP_INCREASED_COLON_ADENOCARCINOMA_INCIDENCE
MP_INCREASED_INTESTINAL_ADENOCARCINOMA_INCIDENCE
MP_INCREASED_TESTIS_TUMOR_INCIDENCE
MP_INCREASED_TUMOR_LATENCY
MP_INCREASED_ADRENAL_GLAND_TUMOR_INCIDENCE
MP_INCREASED_OVARY_TUMOR_INCIDENCE
MP_INCREASED_GRANULOSA_CELL_TUMOR_INCIDENCE
MP_INCREASED_PLASMACYTOMA_INCIDENCE
MP_INCREASED_PITUITARY_ADENOMA_INCIDENCE
MP_INCREASED_PITUITARY_GLAND_TUMOR_INCIDENCE
MP_INCREASED_COLON_ADENOMA_INCIDENCE
MP_INCREASED_STOMACH_TUMOR_INCIDENCE
MP_INCREASED_PANCREAS_TUMOR_INCIDENCE
MP_INCREASED_THYROID_CARCINOMA_INCIDENCE
MP_INCREASED_HEMOLYMPHOID_SYSTEM_TUMOR_INCIDENCE
MP_INCREASED_MYELOID_SARCOMA_INCIDENCE
MP_INCREASED_UTERUS_LEIOMYOMA_INCIDENCE
MP_INCREASED_TRIGEMINAL_NEUROMA_INCIDENCE
25741
26143
23786
25025
28528
28529
23527
26138
28208
25504
25743
26024
23288
23021
25238
23463
26140
28200
23467
23823
23287
23397
24988
22925
Pathologist major category
Nerve sheath tumors
Spindle and epithelioid tumors
Gliomas
Pathologist grade
2
3
4
Resultant genotype
nf1 KO; pten KO; ink KO; atrx KO
nf1 KO; pten KO; ink KO; atrx wt
nf1 wt; pten KO; ink KO; atrx KO

Pathologist major category
Pathologist grade
Resultant genotype
0
0.2
0.4
0.6
TABULA_MURIS_SENIS_MARROW_ERYTHROBLAST_AGEING
TABULA_MURIS_SENIS_TRACHEA_BASAL_EPITHELIAL_CELL_OF_TRACHEOBRONCHIAL_TREE_AGEING
DESCARTES_ORGANOGENESIS_PRIMITIVE_ERYTHROID_LINEAGE
TABULA_MURIS_SENIS_THYMUS_THYMOCYTE_AGEING
TABULA_MURIS_SENIS_TONGUE_BASAL_CELL_OF_EPIDERMIS_AGEING
TABULA_MURIS_SENIS_SPLEEN_MEGAKARYOCYTE_ERYTHROID_PROGENITOR_CELL_AGEING
TABULA_MURIS_SENIS_HEART_VENTRICULAR_MYOCYTE_AGEING
TABULA_MURIS_SENIS_HEART_AND_AORTA_CARDIOMYOCYTE_AGEING
DESCARTES_ORGANOGENESIS_CARDIAC_MUSCLE_LINEAGES
DESCARTES_ORGANOGENESIS_MYOCYTES
DESCARTES_ORGANOGENESIS_DEFINITIVE_ERYTHROID_LINEAGE
TABULA_MURIS_SENIS_SPLEEN_PLASMA_CELL_AGEING
TABULA_MURIS_SENIS_SPLEEN_MACROPHAGE_DENDRITIC_CELL_PROGENITOR_AGEING
DESCARTES_ORGANOGENESIS_NUETROPHILS
TABULA_MURIS_SENIS_MARROW_BASOPHIL_AGEING
TABULA_MURIS_SENIS_LUNG_NEUTROPHIL_AGEING
TABULA_MURIS_SENIS_DIAPHRAGM_MACROPHAGE_AGEING
TABULA_MURIS_SENIS_MARROW_MEGAKARYOCYTE_ERYTHROID_PROGENITOR_CELL_AGEING
TABULA_MURIS_SENIS_MARROW_PRECURSOR_B_CELL_AGEING
TABULA_MURIS_SENIS_MARROW_GRANULOCYTE_AGEING
TABULA_MURIS_SENIS_MARROW_NAIVE_T_CELL_AGEING
TABULA_MURIS_SENIS_MARROW_MONOCYTE_AGEING
TABULA_MURIS_SENIS_MARROW_GRANULOCYTOPOIETIC_CELL_AGEING
TABULA_MURIS_SENIS_MARROW_PROERYTHROBLAST_AGEING
TABULA_MURIS_SENIS_HEART_AND_AORTA_SMOOTH_MUSCLE_CELL_AGEING
TABULA_MURIS_SENIS_LUNG_TYPE_II_PNEUMOCYTE_AGEING
TABULA_MURIS_SENIS_HEART_ENDOCARDIAL_CELL_AGEING
TABULA_MURIS_SENIS_TRACHEA_T_CELL_AGEING
TABULA_MURIS_SENIS_LUNG_ADVENTITIAL_CELL_AGEING
TABULA_MURIS_SENIS_BRAIN_NON_MYELOID_ENDOTHELIAL_CELL_AGEING
TABULA_MURIS_SENIS_DIAPHRAGM_MESENCHYMAL_STEM_CELL_AGEING
TABULA_MURIS_SENIS_DIAPHRAGM_SKELETAL_MUSCLE_SATELLITE_CELL_AGEING
TABULA_MURIS_SENIS_SKIN_BULGE_KERATINOCYTE_AGEING
TABULA_MURIS_SENIS_BRAIN_NON_MYELOID_BRAIN_PERICYTE_AGEING
TABULA_MURIS_SENIS_SKIN_EPIDERMAL_CELL_AGEING
TABULA_MURIS_SENIS_BROWN_ADIPOSE_TISSUE_ENDOTHELIAL_CELL_AGEING
TABULA_MURIS_SENIS_GONADAL_ADIPOSE_TISSUE_ENDOTHELIAL_CELL_AGEING
TABULA_MURIS_SENIS_BROWN_ADIPOSE_TISSUE_MESENCHYMAL_STEM_CELL_OF_ADIPOSE_AGEING
TABULA_MURIS_SENIS_MAMMARY_GLAND_ENDOTHELIAL_CELL_AGEING
TABULA_MURIS_SENIS_TRACHEA_ENDOTHELIAL_CELL_AGEING
TABULA_MURIS_SENIS_KIDNEY_KIDNEY_COLLECTING_DUCT_PRINCIPAL_CELL_AGEING
TABULA_MURIS_SENIS_MAMMARY_GLAND_LUMINAL_EPITHELIAL_CELL_OF_MAMMARY_GLAND_AGEING
TABULA_MURIS_SENIS_BLADDER_ENDOTHELIAL_CELL_AGEING
ZHANG_UTERUS_C1_REGENERATIVE_UP
ZHANG_UTERUS_C6_ENDOTHELIAL_PLVAP_HIGH_CELL
TABULA_MURIS_SENIS_AORTA_AORTIC_ENDOTHELIAL_CELL_AGEING
TABULA_MURIS_SENIS_HEART_AND_AORTA_ENDOTHELIAL_CELL_OF_CORONARY_ARTERY_AGEING
TABULA_MURIS_SENIS_LIMB_MUSCLE_SKELETAL_MUSCLE_SATELLITE_CELL_AGEING
TABULA_MURIS_SENIS_LIMB_MUSCLE_MESENCHYMAL_STEM_CELL_AGEING
TABULA_MURIS_SENIS_BLADDER_BLADDER_CELL_AGEING
TABULA_MURIS_SENIS_BROWN_ADIPOSE_TISSUE_B_CELL_AGEING
TABULA_MURIS_SENIS_MESENTERIC_ADIPOSE_TISSUE_B_CELL_AGEING
TABULA_MURIS_SENIS_MESENTERIC_ADIPOSE_TISSUE_MACROPHAGE_AGEING
TABULA_MURIS_SENIS_SUBCUTANEOUS_ADIPOSE_TISSUE_B_CELL_AGEING
TABULA_MURIS_SENIS_HEART_FIBROBLAST_OF_CARDIAC_TISSUE_AGEING
TABULA_MURIS_SENIS_LUNG_FIBROBLAST_OF_LUNG_AGEING
TABULA_MURIS_SENIS_PANCREAS_PANCREATIC_DUCTAL_CELL_AGEING
TABULA_MURIS_SENIS_HEART_ENDOTHELIAL_CELL_OF_CORONARY_ARTERY_AGEING
ZHANG_UTERUS_C11_SMOOTH_MUSCLE_CELL
TABULA_MURIS_SENIS_LUNG_ENDOTHELIAL_CELL_OF_LYMPHATIC_VESSEL_AGEING
TABULA_MURIS_SENIS_LUNG_SMOOTH_MUSCLE_CELL_OF_THE_PULMONARY_ARTERY_AGEING
TABULA_MURIS_SENISTRACHEA_SMOOTH_MUSCLE_CELL_OF_TRACHEA_AGEING
TABULA_MURIS_SENIS_BRAIN_MYELOID_MACROPHAGE_AGEING
TABULA_MURIS_SENIS_MESENTERIC_ADIPOSE_TISSUE_MESENCHYMAL_STEM_CELL_OF_ADIPOSE_AGEING
TABULA_MURIS_SENIS_AORTA_FIBROBLAST_OF_CARDIAC_TISSUE_AGEING
ZHANG_UTERUS_C3_PROLIFERATIVE_STROMAL1_STROCXCL14_HIGH_CELL
ZHANG_UTERUS_C2_SECRETORY_STROMAL3_RAMP3_HIGH_CELL
ZHANG_UTERUS_C1_PROLIFERATIVE_STROMAL1_MGP_HIGH_CELL
ZHANG_UTERUS_C0_SECRETORY_STROMAL3_NPPC_HIGH_CELL
ZHANG_UTERUS_C4_MYOFIBROBLAST
TABULA_MURIS_SENIS_MESENTERIC_ADIPOSE_TISSUE_ENDOTHELIAL_CELL_AGEING
TABULA_MURIS_SENIS_SUBCUTANEOUS_ADIPOSE_TISSUE_ENDOTHELIAL_CELL_AGEING
TABULA_MURIS_SENIS_SUBCUTANEOUS_ADIPOSE_TISSUE_MESENCHYMAL_STEM_CELL_OF_ADIPOSE_AGEING
TABULA_MURIS_SENIS_MAMMARY_GLAND_BASAL_CELL_AGEING
TABULA_MURIS_SENIS_TRACHEA_FIBROBLAST_AGEING
DESCARTES_ORGANOGENESIS_OSTEOBLASTS
TABULA_MURIS_SENIS_DIAPHRAGM_ENDOTHELIAL_CELL_AGEING
TABULA_MURIS_SENIS_BROWN_ADIPOSE_TISSUE_T_CELL_AGEING
TABULA_MURIS_SENIS_MARROW_MATURE_ALPHA_BETA_T_CELL_AGEING
TABULA_MURIS_SENIS_PANCREAS_LEUKOCYTE_AGEING
TABULA_MURIS_SENIS_LUNG_PULMONARY_INTERSTITIAL_FIBROBLAST_AGEING
TABULA_MURIS_SENIS_LIVER_MATURE_NK_T_CELL_AGEING
DESCARTES_ORGANOGENESIS_WHITE_BLOOD_CELLS
ZHANG_UTERUS_C5_MACROPHAGE
ZHANG_UTERUS_C12_MONOCYTE
TABULA_MURIS_SENIS_HEART_MONOCYTE_AGEING
TABULA_MURIS_SENIS_BRAIN_MYELOID_MICROGLIAL_CELL_AGEING
TABULA_MURIS_SENIS_MESENTERIC_ADIPOSE_TISSUE_CD4_POSITIVE_ALPHA_BETA_T_CELL_AGEING
TABULA_MURIS_SENIS_MESENTERIC_ADIPOSE_TISSUE_CD8_POSITIVE_ALPHA_BETA_T_CELL_AGEING
ZHANG_UTERUS_C8_NK_CELL
TABULA_MURIS_SENIS_SPLEEN_B_CELL_AGEING
TABULA_MURIS_SENIS_SPLEEN_T_CELL_AGEING
TABULA_MURIS_SENIS_THYMUS_DN4_THYMOCYTE_AGEING
TABULA_MURIS_SENIS_LUNG_NON_CLASSICAL_MONOCYTE_AGEING
TABULA_MURIS_SENIS_MARROW_HEMATOPOIETIC_PRECURSOR_CELL_AGEING
TABULA_MURIS_SENIS_SPLEEN_MATURE_NK_T_CELL_AGEING
TABULA_MURIS_SENIS_MAMMARY_GLAND_B_CELL_AGEING
TABULA_MURIS_SENIS_KIDNEY_MACROPHAGE_AGEING
TABULA_MURIS_SENIS_SPLEEN_MACROPHAGE_AGEING
TABULA_MURIS_SENIS_GONADAL_ADIPOSE_TISSUE_B_CELL_AGEING
TABULA_MURIS_SENIS_GONADAL_ADIPOSE_TISSUE_MESENCHYMAL_STEM_CELL_OF_ADIPOSE_AGEING
TABULA_MURIS_SENIS_GONADAL_ADIPOSE_TISSUE_MYELOID_CELL_AGEING
TABULA_MURIS_SENIS_LUNG_B_CELL_AGEING
TABULA_MURIS_SENIS_AORTA_PROFESSIONAL_ANTIGEN_PRESENTING_CELL_AGEING
TABULA_MURIS_SENIS_LUNG_CD4_POSITIVE_ALPHA_BETA_T_CELL_AGEING
TABULA_MURIS_SENIS_LUNG_BRONCHIAL_SMOOTH_MUSCLE_CELL_AGEING
TABULA_MURIS_SENIS_BROWN_ADIPOSE_TISSUE_MYELOID_CELL_AGEING
TABULA_MURIS_SENIS_LUNG_ALVEOLAR_MACROPHAGE_AGEING
TABULA_MURIS_SENIS_MAMMARY_GLAND_MACROPHAGE_AGEING
TABULA_MURIS_SENIS_LIVER_ENDOTHELIAL_CELL_OF_HEPATIC_SINUSOID_AGEING
TABULA_MURIS_SENIS_SPLEEN_GRANULOCYTE_AGEING
TABULA_MURIS_SENIS_MARROW_MACROPHAGE_AGEING
TABULA_MURIS_SENIS_MARROW_HEMATOPOIETIC_STEM_CELL_AGEING
TABULA_MURIS_SENIS_MARROW_GRANULOCYTE_MONOCYTE_PROGENITOR_CELL_AGEING
TABULA_MURIS_SENIS_TRACHEA_MACROPHAGE_AGEING
TABULA_MURIS_SENIS_MARROW_LATE_PRO_B_CELL_AGEING
TABULA_MURIS_SENIS_MARROW_IMMATURE_B_CELL_AGEING
TABULA_MURIS_SENIS_MARROW_NAIVE_B_CELL_AGEING
TABULA_MURIS_SENIS_LUNG_INTERMEDIATE_MONOCYTE_AGEING
TABULA_MURIS_SENIS_MARROW_NK_CELL_AGEING
TABULA_MURIS_SENIS_GONADAL_ADIPOSE_TISSUE_T_CELL_AGEING
TABULA_MURIS_SENIS_LUNG_CD8_POSITIVE_ALPHA_BETA_T_CELL_AGEING
TABULA_MURIS_SENIS_LUNG_MYELOID_DENDRITIC_CELL_AGEING
TABULA_MURIS_SENIS_LIMB_MUSCLE_SMOOTH_MUSCLE_CELL_AGEING
TABULA_MURIS_SENIS_LIMB_MUSCLE_ENDOTHELIAL_CELL_AGEING
TABULA_MURIS_SENIS_LUNG_NK_CELL_AGEING
TABULA_MURIS_SENIS_KIDNEY_FIBROBLAST_AGEING
TABULA_MURIS_SENIS_MARROW_CD4_POSITIVE_ALPHA_BETA_T_CELL_AGEING
TABULA_MURIS_SENIS_SUBCUTANEOUS_ADIPOSE_TISSUE_MYELOID_CELL_AGEING
TABULA_MURIS_SENIS_HEART_AND_AORTA_LEUKOCYTE_AGEING
ZHANG_UTERUS_C9_DENDRITIC_CELL
TABULA_MURIS_SENIS_LIMB_MUSCLE_MACROPHAGE_AGEING
TABULA_MURIS_SENIS_LIVER_MYELOID_LEUKOCYTE_AGEING
TABULA_MURIS_SENIS_KIDNEY_T_CELL_AGEING
TABULA_MURIS_SENIS_SPLEEN_CD4_POSITIVE_ALPHA_BETA_T_CELL_AGEING
TABULA_MURIS_SENIS_LIMB_MUSCLE_T_CELL_AGEING
TABULA_MURIS_SENIS_SPLEEN_CD8_POSITIVE_ALPHA_BETA_T_CELL_AGEING
TABULA_MURIS_SENIS_LIMB_MUSCLE_B_CELL_AGEING
TABULA_MURIS_SENIS_MAMMARY_GLAND_T_CELL_AGEING
TABULA_MURIS_SENIS_LIVER_NK_CELL_AGEING
TABULA_MURIS_SENIS_MARROW_PROMONOCYTE_AGEING
ZHANG_UTERUS_C10_STROMAL2_RETNLG_HIGH_CELL
TABULA_MURIS_SENIS_BLADDER_LEUKOCYTE_AGEING
ZHANG_UTERUS_C15_B_CELL
TABULA_MURIS_SENIS_THYMUS_PROFESSIONAL_ANTIGEN_PRESENTING_CELL_AGEING
TABULA_MURIS_SENIS_TONGUE_LANGERHANS_CELL_AGEING
TABULA_MURIS_SENIS_SPLEEN_NK_CELL_AGEING
TABULA_MURIS_SENIS_KIDNEY_KIDNEY_MESANGIAL_CELL_AGEING
TABULA_MURIS_SENIS_KIDNEY_KIDNEY_CORTEX_ARTERY_CELL_AGEING
TABULA_MURIS_SENIS_KIDNEY_FENESTRATED_CELL_AGEING
TABULA_MURIS_SENIS_HEART_AND_AORTA_ENDOCARDIAL_CELL_AGEING
TABULA_MURIS_SENIS_TRACHEA_GRANULOCYTE_AGEING
TABULA_MURIS_SENIS_DIAPHRAGM_B_CELL_AGEING
DESCARTES_ORGANOGENESIS_NEURAL_TUBE
ZHANG_UTERUS_C0_MATURATIONAL_UP
TABULA_MURIS_SENIS_KIDNEY_KIDNEY_LOOP_OF_HENLE_THICK_ASCENDING_LIMB_EPITHELIAL_CELL_AGEING
TABULA_MURIS_SENIS_LUNG_VEIN_ENDOTHELIAL_CELL_AGEING
TABULA_MURIS_SENIS_KIDNEY_BRUSH_CELL_AGEING
TABULA_MURIS_SENIS_KIDNEY_PODOCYTE_AGEING
TABULA_MURIS_SENIS_KIDNEY_KIDNEY_PROXIMAL_CONVOLUTED_TUBULE_EPITHELIAL_CELL_AGEING
TABULA_MURIS_SENIS_LUNG_MATURE_NK_T_CELL_AGEING
TABULA_MURIS_SENIS_MARROW_EARLY_PRO_B_CELL_AGEING
TABULA_MURIS_SENIS_LARGE_INTESTINE_SECRETORY_CELL_AGEING
TABULA_MURIS_SENIS_LARGE_INTESTINE_INTESTINAL_CRYPT_STEM_CELL_AGEING
TABULA_MURIS_SENIS_BLADDER_BLADDER_UROTHELIAL_CELL_AGEING
TABULA_MURIS_SENIS_BRAIN_NON_MYELOID_OLIGODENDROCYTE_AGEING
TABULA_MURIS_SENIS_BRAIN_NON_MYELOID_ASTROCYTE_AGEING
TABULA_MURIS_SENIS_LUNG_CLASSICAL_MONOCYTE_AGEING
TABULA_MURIS_SENIS_SPLEEN_PROERYTHROBLAST_AGEING
ZHANG_UTERUS_C7_EPITHELIAL2_CELL
TABULA_MURIS_SENIS_LARGE_INTESTINE_LARGE_INTESTINE_GOBLET_CELL_AGEING
TABULA_MURIS_SENIS_SKIN_BASAL_CELL_OF_EPIDERMIS_AGEING
TABULA_MURIS_SENIS_LARGE_INTESTINE_ENTEROCYTE_OF_EPITHELIUM_OF_LARGE_INTESTINE_AGEING
ZHANG_UTERUS_C13_EPITHELIAL1_CELL
TABULA_MURIS_SENIS_PANCREAS_PANCREATIC_POLYPEPTIDE_CELL_AGEING
DESCARTES_ORGANOGENESIS_STROMAL_CELLS
TABULA_MURIS_SENIS_KIDNEY_EPITHELIAL_CELL_OF_PROXIMAL_TUBULE_AGEING
TABULA_MURIS_SENIS_HEART_T_CELL_AGEING
DESCARTES_ORGANOGENESIS_MEGAKARYOCYTES
DESCARTES_ORGANOGENESIS_SCHWANN_CELL_PRECURSOR
TABULA_MURIS_SENIS_TONGUE_KERATINOCYTE_AGEING
DESCARTES_ORGANOGENESIS_EPITHELIAL_CELLS
DESCARTES_ORGANOGENESIS_INTERMEDIATE_MESODERM
DESCARTES_ORGANOGENESIS_HEPATOCYTES
TABULA_MURIS_SENIS_LIVER_HEPATOCYTE_AGEING
TABULA_MURIS_SENIS_THYMUS_IMMATURE_T_CELL_AGEING
TABULA_MURIS_SENIS_LIMB_MUSCLE_SCHWANN_CELL_AGEING
TABULA_MURIS_SENIS_HEART_VALVE_CELL_AGEING
DESCARTES_ORGANOGENESIS_ENDOTHELIAL_CELLS
ZHANG_UTERUS_C14_ENDOTHELIAL_MMRN1_HIGH_CELL
TABULA_MURIS_SENIS_HEART_AND_AORTA_FIBROBLAST_OF_CARDIAC_TISSUE_AGEING
TABULA_MURIS_SENIS_MAMMARY_GLAND_STROMAL_CELL_AGEING
TABULA_MURIS_SENIS_PANCREAS_ENDOTHELIAL_CELL_AGEING
DESCARTES_ORGANOGENESIS_CHONDROCYTE_PROGENITORS
TABULA_MURIS_SENIS_PANCREAS_PANCREATIC_STELLATE_CELL_AGEING
ZHANG_UTERUS_C2_REGENERATIVE_UP
TABULA_MURIS_SENIS_SUBCUTANEOUS_ADIPOSE_TISSUE_EPITHELIAL_CELL_AGEING
TABULA_MURIS_SENIS_MESENTERIC_ADIPOSE_TISSUE_MYELOID_CELL_AGEING
DESCARTES_ORGANOGENESIS_LIMB_MESENCHYME
DESCARTES_ORGANOGENESIS_EARLY_MESENCHYME
DESCARTES_ORGANOGENESIS_CHONDROCYTES_AND_OSTEOBLASTS
DESCARTES_ORGANOGENESIS_CONNECTIVE_TISSUE_PROGENITOR
DESCARTES_ORGANOGENESIS_JAW_AND_TOOTH_PROGENITORS
TABULA_MURIS_SENIS_KIDNEY_KIDNEY_COLLECTING_DUCT_EPITHELIAL_CELL_AGEING
DESCARTES_ORGANOGENESIS_MELANOCYTES
DESCARTES_ORGANOGENESIS_LENS
TABULA_MURIS_SENIS_PANCREAS_PANCREATIC_ACINAR_CELL_AGEING
TABULA_MURIS_SENIS_LUNG_T_CELL_AGEING
TABULA_MURIS_SENIS_KIDNEY_KIDNEY_LOOP_OF_HENLE_ASCENDING_LIMB_EPITHELIAL_CELL_AGEING
TABULA_MURIS_SENIS_BRAIN_NON_MYELOID_OLIGODENDROCYTE_PRECURSOR_CELL_AGEING
DESCARTES_ORGANOGENESIS_RADIAL_GLIA
DESCARTES_ORGANOGENESIS_PREMATURE_OLIGODENDROCYTE
TABULA_MURIS_SENIS_KIDNEY_KIDNEY_DISTAL_CONVOLUTED_TUBULE_EPITHELIAL_CELL_AGEING
TABULA_MURIS_SENIS_PANCREAS_PANCREATIC_DELTA_CELL_AGEING
TABULA_MURIS_SENIS_PANCREAS_PANCREATIC_ALPHA_CELL_AGEING
TABULA_MURIS_SENIS_BRAIN_NON_MYELOID_INTERNEURON_AGEING
TABULA_MURIS_SENIS_HEART_ATRIAL_MYOCYTE_AGEING
TABULA_MURIS_SENIS_LARGE_INTESTINE_BRUSH_CELL_OF_EPITHELIUM_PROPER_OF_LARGE_INTESTINE_AGEING
DESCARTES_ORGANOGENESIS_ISTHMIC_ORGANIZER_CELLS
DESCARTES_ORGANOGENESIS_EPENDYMAL_CELL
DESCARTES_ORGANOGENESIS_SENSORY_NEURONS
DESCARTES_ORGANOGENESIS_OLIGODENDROCYTE_PROGENITORS
DESCARTES_ORGANOGENESIS_POSTMITOTIC_PREMATURE_NEURONS
DESCARTES_ORGANOGENESIS_CHOLINERGIC_NEURONS
DESCARTES_ORGANOGENESIS_INHIBITORY_NEURON_PROGENITORS
DESCARTES_ORGANOGENESIS_NEURAL_PROGENITOR_CELLS
DESCARTES_ORGANOGENESIS_INHIBITORY_INTERNEURONS
DESCARTES_ORGANOGENESIS_INHIBITORY_NEURONS
DESCARTES_ORGANOGENESIS_EXCITATORY_NEURONS
DESCARTES_ORGANOGENESIS_GRANULE_NEURONS
TABULA_MURIS_SENIS_BRAIN_NON_MYELOID_NEURON_AGEING
TABULA_MURIS_SENIS_PANCREAS_PANCREATIC_BETA_CELL_AGEING
DESCARTES_ORGANOGENESIS_NOTOCHORD_CELLS
23021
26024
25743
23288
25238
25504
23463
23287
28200
23823
26140
23397
22925
24988
23467
28528
25741
28529
23527
26143
23786
25025
26138
28208
Pathologist major category
Nerve sheath tumors
Spindle and epithelioid tumors
Gliomas
Pathologist grade
2
3
4
Resultant genotype
nf1 KO; pten KO; ink KO; atrx KO
nf1 KO; pten KO; ink KO; atrx wt
nf1 wt; pten KO; ink KO; atrx KO

Pathologist major category
Pathologist grade
Resultant genotype
0.2
0.4
0.6
0.8
HALLMARK_DNA_REPAIR
HALLMARK_MYC_TARGETS_V2
HALLMARK_MYC_TARGETS_V1
HALLMARK_MTORC1_SIGNALING
HALLMARK_MITOTIC_SPINDLE
HALLMARK_G2M_CHECKPOINT
HALLMARK_E2F_TARGETS
HALLMARK_WNT_BETA_CATENIN_SIGNALING
HALLMARK_PEROXISOME
HALLMARK_BILE_ACID_METABOLISM
HALLMARK_UV_RESPONSE_UP
HALLMARK_OXIDATIVE_PHOSPHORYLATION
HALLMARK_HEME_METABOLISM
HALLMARK_ESTROGEN_RESPONSE_EARLY
HALLMARK_ESTROGEN_RESPONSE_LATE
HALLMARK_P53_PATHWAY
HALLMARK_CHOLESTEROL_HOMEOSTASIS
HALLMARK_XENOBIOTIC_METABOLISM
HALLMARK_FATTY_ACID_METABOLISM
HALLMARK_ADIPOGENESIS
HALLMARK_ANDROGEN_RESPONSE
HALLMARK_PROTEIN_SECRETION
HALLMARK_INTERFERON_ALPHA_RESPONSE
HALLMARK_INTERFERON_GAMMA_RESPONSE
HALLMARK_EPITHELIAL_MESENCHYMAL_TRANSITION
HALLMARK_TGF_BETA_SIGNALING
HALLMARK_APICAL_SURFACE
HALLMARK_ANGIOGENESIS
HALLMARK_UV_RESPONSE_DN
HALLMARK_MYOGENESIS
HALLMARK_ALLOGRAFT_REJECTION
HALLMARK_INFLAMMATORY_RESPONSE
HALLMARK_IL6_JAK_STAT3_SIGNALING
HALLMARK_IL2_STAT5_SIGNALING
HALLMARK_TNFA_SIGNALING_VIA_NFKB
HALLMARK_COMPLEMENT
HALLMARK_KRAS_SIGNALING_UP
HALLMARK_APICAL_JUNCTION
HALLMARK_REACTIVE_OXYGEN_SPECIES_PATHWAY
HALLMARK_NOTCH_SIGNALING
HALLMARK_UNFOLDED_PROTEIN_RESPONSE
HALLMARK_GLYCOLYSIS
HALLMARK_HYPOXIA
HALLMARK_APOPTOSIS
HALLMARK_COAGULATION
HALLMARK_PI3K_AKT_MTOR_SIGNALING
HALLMARK_SPERMATOGENESIS
HALLMARK_HEDGEHOG_SIGNALING
HALLMARK_PANCREAS_BETA_CELLS
HALLMARK_KRAS_SIGNALING_DN
23021
25743
26024
23288
25238
25504
23463
28528
25741
28529
23527
26143
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nf1 wt; pten KO; ink KO; atrx KO