Pathway Group: m5.go.bp.v2024.1.Mm.entrez subset009 expression levels normalized per row (pathway) GOBP_MIRNA_CATABOLIC_PROCESS GOBP_MEIOTIC_DNA_DOUBLE_STRAND_BREAK_FORMATION GOBP_MONOCARBOXYLIC_ACID_BIOSYNTHETIC_PROCESS GOBP_MODIFIED_AMINO_ACID_TRANSPORT GOBP_MEMBRANE_REPOLARIZATION_DURING_CARDIAC_MUSCLE_CELL_ACTION_POTENTIAL GOBP_MEMBRANE_REPOLARIZATION_DURING_ACTION_POTENTIAL GOBP_MICROAUTOPHAGY GOBP_METHYLGLYOXAL_CATABOLIC_PROCESS_TO_D_LACTATE_VIA_S_LACTOYL_GLUTATHIONE GOBP_METHYLGLYOXAL_METABOLIC_PROCESS GOBP_MEDIUM_CHAIN_FATTY_ACID_BIOSYNTHETIC_PROCESS GOBP_MEMBRANE_LIPID_BIOSYNTHETIC_PROCESS GOBP_MEMBRANE_LIPID_METABOLIC_PROCESS GOBP_MATING GOBP_MICROTUBULE_BASED_PROCESS GOBP_MICROTUBULE_BUNDLE_FORMATION GOBP_MICROTUBULE_BASED_MOVEMENT GOBP_MESENCHYMAL_STEM_CELL_MAINTENANCE_INVOLVED_IN_NEPHRON_MORPHOGENESIS GOBP_MITOCHONDRIAL_FISSION GOBP_MODULATION_BY_HOST_OF_VIRAL_RNA_GENOME_REPLICATION GOBP_MITOCHONDRIAL_RNA_METABOLIC_PROCESS GOBP_MITOCHONDRIAL_TRANSCRIPTION GOBP_MITOCHONDRIAL_ELECTRON_TRANSPORT_CYTOCHROME_C_TO_OXYGEN ||GOBP_MITOCHONDRIAL_ELECTRON_TRANSPORT_SUCCINATE_TO_UBIQUINONE GOBP_MITOCHONDRIAL_ELECTRON_TRANSPORT_NADH_TO_UBIQUINONE GOBP_MITOCHONDRIAL_RESPIRATORY_CHAIN_COMPLEX_ASSEMBLY | GOBP_MITOCHONDRIAL_ELECTRON_TRANSPORT_UBIQUINOL_TO_CYTOCHROME_C GOBP_MITOCHONDRION_ORGANIZATION GOBP_MITOCHONDRIAL_MEMBRANE_ORGANIZATION GOBP_MITOCHONDRIAL_PROTON_TRANSPORTING_ATP_SYNTHASE_COMPLEX_ASSEMBLY GOBP_MITOCHONDRIAL_GENE_EXPRESSION GOBP_MITOCHONDRIAL_TRANSLATION GOBP_METALLO_SULFUR_CLUSTER_ASSEMBLY GOBP_MITOCHONDRIAL_TRANSMEMBRANE_TRANSPORT GOBP_MESONEPHRIC_TUBULE_FORMATION GOBP_METANEPHRIC_RENAL_VESICLE_MORPHOGENESIS GOBP_MESENCHYMAL_TO_EPITHELIAL_TRANSITION_INVOLVED_IN_METANEPHROS_MORPHOGENESIS GOBP_MESENCHYMAL_TO_EPITHELIAL_TRANSITION GOBP_MONOATOMIC_ANION_HOMEOSTASIS GOBP_MESANGIAL_CELL_MATRIX_ADHESION GOBP_MIDBRAIN_HINDBRAIN_BOUNDARY_DEVELOPMENT GOBP_MEGAKARYOCYTE_DEVELOPMENT GOBP_MECHANORECEPTOR_DIFFERENTIATION GOBP_MATURATION_OF_5_8S_RRNA_FROM_TRICISTRONIC_RRNA_TRANSCRIPT_SSU_RRNA_5_8S_RRNA_LSU_RRNA GOBP_MATURATION_OF_5_8S_RRNA GOBP_MISMATCH_REPAIR GOBP_MATURATION_OF_SSU_RRNA GOBP_MATURATION_OF_SSU_RRNA_FROM_TRICISTRONIC_RRNA_TRANSCRIPT_SSU_RRNA_5_8S_RRNA_LSU_RRNA GOBP_MATURATION_OF_LSU_RRNA Pathologist major category GOBP_MATURATION_OF_LSU_RRNA_FROM_TRICISTRONIC_RRNA_TRANSCRIPT_SSU_RRNA_5_8S_RRNA_LSU_RRNA Spindle and epithelioid tumors GOBP_MITOCHONDRIAL_RNA_PROCESSING GOBP_MITOCHONDRIAL_RIBOSOME_ASSEMBLY GOBP_MITOCHONDRIAL_TRNA_PROCESSING 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 GOBP_MITOCHONDRIAL_RNA_MODIFICATION GOBP_MITOCHONDRIAL_PROTEIN_PROCESSING GOBP_MITOCHONDRIAL_CYTOCHROME_C_OXIDASE_ASSEMBLY GOBP_MESENCHYMAL_CELL_APOPTOTIC_PROCESS GOBP_MEDIUM_CHAIN_FATTY_ACID_METABOLIC_PROCESS GOBP_MELANOCYTE_DIFFERENTIATION GOBP_MELANIN_METABOLIC_PROCESS | GOBP_MITOCHONDRIAL_PROTEIN_CATABOLIC_PROCESS GOBP_MEMBRANE_LIPID_CATABOLIC_PROCESS GOBP_MONOCARBOXYLIC_ACID_CATABOLIC_PROCESS GOBP_MONOCARBOXYLIC_ACID_METABOLIC_PROCESS GOBP_MESENCHYMAL_CELL_DIFFERENTIATION_INVOLVED_IN_KIDNEY_DEVELOPMENT GOBP_MESONEPHRIC_DUCT_DEVELOPMENT GOBP_MESONEPHRIC_DUCT_MORPHOGENESIS GOBP_MEIOTIC_CELL_CYCLE_PROCESS_INVOLVED_IN_OOCYTE_MATURATION GOBP_MITOCHONDRIAL_ATP_TRANSMEMBRANE_TRANSPORT GOBP_MATERNAL_PROCESS_INVOLVED_IN_FEMALE_PREGNANCY GOBP_MATERNAL_PLACENTA_DEVELOPMENT GOBP_MHC_CLASS_I_BIOSYNTHETIC_PROCESS GOBP_MEMBRANE_RAFT_LOCALIZATION GOBP_MHC_CLASS_II_BIOSYNTHETIC_PROCESS GOBP_MDA_5_SIGNALING_PATHWAY GOBP_MONOCYTE_CHEMOTACTIC_PROTEIN_1_PRODUCTION GOBP_MONOCYTE_ACTIVATION GOBP_MITOCHONDRION_ENDOPLASMIC_RETICULUM_MEMBRANE_TETHERING GOBP_MEMBRANE_ORGANIZATION GOBP_MITOPHAGY GOBP_MITOCHONDRIAL_DEPOLARIZATION GOBP_MAST_CELL_DIFFERENTIATION GOBP_MITOCHONDRIAL_GENOME_MAINTENANCE GOBP_MITOCHONDRIAL_DNA_METABOLIC_PROCESS GOBP_MITOCHONDRIAL_DNA_REPLICATION GOBP_MITOTIC_SISTER_CHROMATID_COHESION_CENTROMERIC GOBP_MEIOTIC_CELL_CYCLE_PHASE_TRANSITION GOBP_MEIOTIC_CELL_CYCLE_CHECKPOINT_SIGNALING GOBP_MEIOTIC_SISTER_CHROMATID_COHESION GOBP_MITOTIC_NUCLEAR_MEMBRANE_ORGANIZATION GOBP_MITOTIC_CELL_CYCLE_PHASE GOBP_MITOCHONDRIAL_DNA_REPAIR GOBP_MEMBRANE_BIOGENESIS GOBP_MESODERMAL_CELL_DIFFERENTIATION GOBP_MESODERM_DEVELOPMENT

GOBP_MITRAL_VALVE_DEVELOPMENT

GOBP_MAST_CELL_PROLIFERATION

GOBP_MONOCYTE_AGGREGATION

GOBP_MEMBRANE_RAFT_ORGANIZATION

| GOBP_MODULATION_BY_HOST_OF_VIRAL_GENOME_REPLICATION

Nerve sheath tumors

Glioneuronal tumors

No evidence of disease