Pathway Group: m5.go.bp.v2024.1.Mm.entrez subset007 expression levels normalized per row (pathway) | GOBP\_G\_PROTEIN\_COUPLED\_RECEPTOR\_SIGNALING\_PATHWAY\_INVOLVED\_IN\_HEART\_PROCESS GOBP\_IMMUNOGLOBULIN\_V\_D\_J\_RECOMBINATION GOBP\_HEPARAN\_SULFATE\_PROTEOGLYCAN\_BIOSYNTHETIC\_PROCESS\_POLYSACCHARIDE\_CHAIN\_BIOSYNTHETIC\_PROCESS GOBP\_HISTONE\_MRNA\_CATABOLIC\_PROCESS | GOBP\_G\_QUADRUPLEX\_DNA\_UNWINDING GOBP\_INNER\_CELL\_MASS\_CELL\_PROLIFERATION GOBP\_HETEROCHROMATIN\_FORMATION GOBP\_INTERSTRAND\_CROSS\_LINK\_REPAIR GOBP\_IMMATURE\_T\_CELL\_PROLIFERATION GOBP\_IMMATURE\_B\_CELL\_DIFFERENTIATION GOBP\_INTERLEUKIN\_5\_PRODUCTION GOBP\_INTERLEUKIN\_5\_MEDIATED\_SIGNALING\_PATHWAY GOBP\_INTERLEUKIN\_3\_MEDIATED\_SIGNALING\_PATHWAY GOBP\_INTERLEUKIN\_23\_PRODUCTION GOBP\_INFLAMMATORY\_RESPONSE\_TO\_WOUNDING GOBP\_HYDROGEN\_PEROXIDE\_BIOSYNTHETIC\_PROCESS GOBP\_INTRINSIC\_APOPTOTIC\_SIGNALING\_PATHWAY\_IN\_RESPONSE\_TO\_ENDOPLASMIC\_RETICULUM\_STRESS GOBP\_INTERLEUKIN\_12\_PRODUCTION GOBP\_INTERFERON\_ALPHA\_PRODUCTION GOBP\_INTERFERON\_MEDIATED\_SIGNALING\_PATHWAY GOBP\_INTERFERON\_BETA\_PRODUCTION GOBP\_HOMEOSTASIS\_OF\_NUMBER\_OF\_CELLS\_WITHIN\_A\_TISSUE GOBP\_HEPATOCYTE\_APOPTOTIC\_PROCESS GOBP\_HYALURONAN\_BIOSYNTHETIC\_PROCESS GOBP\_HEPATIC\_STELLATE\_CELL\_PROLIFERATION | GOBP\_HEMATOPOIETIC\_STEM\_CELL\_MIGRATION\_TO\_BONE\_MARROW GOBP\_INTERLEUKIN\_17A\_MEDIATED\_SIGNALING\_PATHWAY GOBP\_INTERLEUKIN\_17\_MEDIATED\_SIGNALING\_PATHWAY GOBP\_INTERKINETIC\_NUCLEAR\_MIGRATION GOBP\_HEAD\_SEGMENTATION GOBP\_IMP\_BIOSYNTHETIC\_PROCESS GOBP\_HEMATOPOIETIC\_STEM\_CELL\_HOMEOSTASIS GOBP\_INTRACELLULAR\_SIGNALING\_CASSETTE GOBP\_INSULIN\_RECEPTOR\_SIGNALING\_PATHWAY GOBP\_HEART\_FIELD\_SPECIFICATION GOBP\_INNER\_EAR\_MORPHOGENESIS GOBP\_HEART\_TRABECULA\_FORMATION GOBP\_HOMOCYSTEINE\_METABOLIC\_PROCESS GOBP\_ICOSANOID\_CATABOLIC\_PROCESS GOBP\_HEMOGLOBIN\_METABOLIC\_PROCESS GOBP\_HISTIDINE\_CATABOLIC\_PROCESS GOBP\_HISTIDINE\_METABOLIC\_PROCESS GOBP\_HORMONE\_BIOSYNTHETIC\_PROCESS GOBP\_INTESTINAL\_STEM\_CELL\_HOMEOSTASIS GOBP\_INTERLEUKIN\_1\_ALPHA\_PRODUCTION GOBP\_HOST\_MEDIATED\_REGULATION\_OF\_INTESTINAL\_MICROBIOTA\_COMPOSITION GOBP\_HIS\_PURKINJE\_SYSTEM\_DEVELOPMENT GOBP\_GTP\_METABOLIC\_PROCESS GOBP\_HINDBRAIN\_TANGENTIAL\_CELL\_MIGRATION Pathologist major category GOBP\_HYDROGEN\_PEROXIDE\_METABOLIC\_PROCESS Spindle and epithelioid tumors GOBP\_HYDROGEN\_PEROXIDE\_CATABOLIC\_PROCESS GOBP\_HEAT\_GENERATION No evidence of disease GOBP\_INOSITOL\_PHOSPHATE\_BIOSYNTHETIC\_PROCESS nf1 KO; pten KO; ink KO; atrx KO GOBP\_INTRACELLULAR\_PH\_REDUCTION 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\_IMPORT\_INTO\_CELL GOBP\_HEXOSE\_PHOSPHATE\_TRANSPORT GOBP\_HYPOTONIC\_RESPONSE GOBP\_INTRACELLULAR\_MONOATOMIC\_ANION\_HOMEOSTASIS GOBP\_INNER\_EAR\_RECEPTOR\_CELL\_FATE\_COMMITMENT GOBP\_HAIR\_CELL\_DIFFERENTIATION GOBP\_INNER\_EAR\_RECEPTOR\_CELL\_STEREOCILIUM\_ORGANIZATION GOBP\_INNER\_EAR\_RECEPTOR\_CELL\_DEVELOPMENT GOBP\_HISTAMINE\_TRANSPORT GOBP\_HYDROGEN\_SULFIDE\_METABOLIC\_PROCESS GOBP\_INSEMINATION GOBP\_INTRACELLULAR\_MAGNESIUM\_ION\_HOMEOSTASIS GOBP\_INTRINSIC\_APOPTOTIC\_SIGNALING\_PATHWAY\_IN\_RESPONSE\_TO\_HYDROGEN\_PEROXIDE GOBP\_HORMONE\_MEDIATED\_SIGNALING\_PATHWAY GOBP\_HEME\_BIOSYNTHETIC\_PROCESS | GOBP\_INTRACELLULAR\_PROTEIN\_TRANSMEMBRANE\_TRANSPORT GOBP\_IMPORT\_INTO\_THE\_MITOCHONDRION GOBP\_INNER\_MITOCHONDRIAL\_MEMBRANE\_ORGANIZATION GOBP\_HYALOID\_VASCULAR\_PLEXUS\_REGRESSION GOBP\_HEART\_PROCESS GOBP\_HEPOXILIN\_METABOLIC\_PROCESS GOBP\_HYPEROSMOTIC\_SALINITY\_RESPONSE GOBP\_HYPEROSMOTIC\_RESPONSE GOBP\_INTRACELLULAR\_LIPID\_TRANSPORT GOBP\_INSULIN\_METABOLIC\_PROCESS GOBP\_INSULIN\_PROCESSING GOBP\_INOSITOL\_METABOLIC\_PROCESS GOBP\_ION\_CHANNEL\_MODULATING\_G\_PROTEIN\_COUPLED\_RECEPTOR\_SIGNALING\_PATHWAY GOBP\_HYPOTHALAMUS\_DEVELOPMENT GOBP\_INTRACELLULAR\_GLUTAMATE\_HOMEOSTASIS GOBP\_HETEROPHILIC\_CELL\_CELL\_ADHESION\_VIA\_PLASMA\_MEMBRANE\_CELL\_ADHESION\_MOLECULES GOBP\_INTRACILIARY\_TRANSPORT GOBP\_INNER\_DYNEIN\_ARM\_ASSEMBLY GOBP\_INTERCELLULAR\_TRANSPORT GOBP\_HIGH\_DENSITY\_LIPOPROTEIN\_PARTICLE\_ASSEMBLY GOBP\_INTESTINAL\_ABSORPTION GOBP\_INTESTINAL\_LIPID\_ABSORPTION GOBP\_INTRACELLULAR\_PH\_ELEVATION GOBP\_HIGH\_DENSITY\_LIPOPROTEIN\_PARTICLE\_CLEARANCE GOBP\_HIGH\_DENSITY\_LIPOPROTEIN\_PARTICLE\_REMODELING GOBP\_HEME\_TRANSPORT GOBP\_INDOLE\_CONTAINING\_COMPOUND\_CATABOLIC\_PROCESS GOBP\_INNER\_CELL\_MASS\_CELL\_DIFFERENTIATION

GOBP\_HOMOLOGOUS\_CHROMOSOME\_SEGREGATION

| GOBP\_INTERNAL\_PROTEIN\_AMINO\_ACID\_ACETYLATION

GOBP\_HOMOLOGOUS\_CHROMOSOME\_PAIRING\_AT\_MEIOSIS

Pathologist grade

Nerve sheath tumors

Glioneuronal tumors

Resultant genotype