Nerve sheath tumors c2.REACTOME CYTOSOLIC IRON SULFUR CLUSTER ASSEMBLY c2.SCHAEFFER PROSTATE DEVELOPMENT AND CANCER BOX3 c2.REACTOME CHEMOKINE RECEPTORS BIND CHEMOKINES c2.REACTOME SIGNALLING TO P38 VIA RIT AND RIN c2.KORKOLA EMBRYONIC CARCINOMA VS SEMINOMA UP c2. CHIANG LIVER CANCER SUBCLASS INTERFERON UP c2.REACTOME CALCITONIN LIKE LIGAND RECEPTORS c2. RANKIN ANGIOGENIC TARGETS OF VHL HIF2A UP c2.REACTOME TRANSPORT AND SYNTHESIS OF PAPS c2.REACTOME SARS COV 2 MODULATES AUTOPHAGY c2.BARRIER CANCER RELAPSE TUMOR SAMPLE DN c2.REACTOME DEFECTIVE GALNT3 CAUSES HFTC c2.MYLLYKANGAS AMPLIFICATION HOT SPOT 24 c2.FIGUEROA AML METHYLATION CLUSTER 7 DN c2.WANG ESOPHAGUS CANCER PROGRESSION UP c2.VANDESLUIS COMMD1 TARGETS GROUP 4 UP c2.DUNNE TARGETS OF AML1 MTG8 FUSION UP c2.ZHOU PANCREATIC EXOCRINE PROGENITOR C2 LOPES METHYLATED IN COLON CANCER UP c2.REACTOME TRIGLYCERIDE BIOSYNTHESIS c2.REACTOME SYNTHESIS OF LIPOXINS LX c2.SIMBULAN UV RESPONSE NORMAL UP \aleph c2.RICKMAN HEAD AND NECK CANCER B c2.REACTOME PYRIMIDINE CATABOLISM c2.MEISSNER NPC HCP WITH H3K27ME3 c2.KORKOLA EMBRYONAL CARCINOMA DN c2.HOLLERN PAPILLARY BREAST TUMOR c2.MIKI COEXPRESSED WITH CYP19A1 c2.KEGG OTHER GLYCAN DEGRADATION c2.WORSCHECH TUMOR REJECTION DN c2.LEE INTRATHYMIC T PROGENITOR c2.BIOCARTA BLYMPHOCYTE PATHWAY c2.YIH RESPONSE TO ARSENITE C5 c2.WALLACE PROSTATE CANCER DN c2.NADELLA PRKAR1A TARGETS DN C2 LT CISPLATIN RESISTANCE UP c2.KORKOLA CHORIOCARCINOMA DN c2.BIOCARTA CYTOKINE PATHWAY c2.PETROVA PROX1 TARGETS DN c2.VANLOO SP3 TARGETS UP c2.MAINA VHL TARGETS UP c2.LEI HOXC8 TARGETS UP c2.REACTOME UREA CYCLE c2.KORKOLA SEMINOMA DN c3.ZNF112 TARGET GENES c3.MAP2K1 TARGET GENES c3.PAX5 02 c4.GAVISH 3CA METAPROGRAM CD4 T CELLS DYSFUNCTION c4.GAVISH 3CA METAPROGRAM FIBROBLASTS CAF 10 c4.MODULE 514 c4.MODULE 108 c4.GNF2 SNRK c5.GOCC G PROTEIN COUPLED RECEPTOR DIMERIC COMPLEX c5.GOBP SENSORY PERCEPTION OF TEMPERATURE STIMULUS c5.GOMF DIACYLGLYCEROL O ACYLTRANSFERASE ACTIVITY c5.GOMF ACETYLCHOLINE RECEPTOR INHIBITOR ACTIVITY c5.GOBP URINARY BLADDER SMOOTH MUSCLE CONTRACTION c5.GOBP REGULATION OF BILE ACID METABOLIC PROCESS c5.GOBP POSITIVE REGULATION OF KIDNEY DEVELOPMENT c5.GOBP CHORIONIC TROPHOBLAST CELL PROLIFERATION c5.HP ABNORMALITY OF CHORIORETINAL PIGMENTATION c5.GOMF LYSOPHOSPHATIDIC ACID RECEPTOR ACTIVITY c5.GOBP METANEPHRIC RENAL VESICLE MORPHOGENESIS c5.GOBP INTRACELLULAR MAGNESIUM ION HOMEOSTASIS c5.GOBP ADIPONECTIN ACTIVATED SIGNALING PATHWAY c5.GOCC IGA IMMUNOGLOBULIN COMPLEX CIRCULATING c5.GOBP SYMPATHETIC NERVOUS SYSTEM DEVELOPMENT c5.HP SANDWICH APPEARANCE OF VERTEBRAL BODIES c5.GOMF FATTY ACID OMEGA HYDROXYLASE ACTIVITY c5.GOBP REGULATION OF CORTICOTROPIN SECRETION c5.GOBP PHOSPHATE ION TRANSMEMBRANE TRANSPORT c5.HP HYPERPIGMENTATION IN SUN EXPOSED AREAS c5.HP ATYPICAL NEVI IN NON SUN EXPOSED AREAS c5.GOMF PHOSPHATIDYLSERINE FLIPPASE ACTIVITY c5.GOBP SOMATIC MOTOR NEURON DIFFERENTIATION c5.GOBP REGULATION OF CD40 SIGNALING PATHWAY c5.GOBP MESENCHYMAL TO EPITHELIAL TRANSITION c5.GOMF AMINOPHOSPHOLIPID FLIPPASE ACTIVITY c5.GOBP INTESTINE SMOOTH MUSCLE CONTRACTION c5.GOBP INFLAMMATORY CELL APOPTOTIC PROCESS c5.GOBP GLUTATHIONE TRANSMEMBRANE TRANSPORT C5. HP IMPAIRED RENAL CONCENTRATING ABILITY c5.GOCC IMMUNOGLOBULIN COMPLEX CIRCULATING c5.GOBP TRANSEPITHELIAL CHLORIDE TRANSPORT c5.GOBP REGULATION OF MESODERM DEVELOPMENT c5.GOBP REGULATION OF ASTROCYTE ACTIVATION c5.GOBP NEGATIVE REGULATION OF FERROPTOSIS c5.GOBP METANEPHRIC MESENCHYME DEVELOPMENT c5.GOBP GLYCOSYLCERAMIDE CATABOLIC PROCESS c5.GOBP GLUCOSYLCERAMIDE CATABOLIC PROCESS c5.GOBP CELLULAR RESPONSE TO PEPTIDOGLYCAN c5.GOMF NUCLEAR STEROID RECEPTOR ACTIVITY c5.GOMF GTPASE ACTIVATING PROTEIN BINDING c5.GOBP SENSORY PERCEPTION OF UMAMI TASTE c5.GOBP METANEPHRIC NEPHRON MORPHOGENESIS c5. GOBP DETECTION OF TEMPERATURE STIMULUS c5.GOBP VACUOLAR TRANSMEMBRANE TRANSPORT c5.GOBP REGULATION OF KIDNEY DEVELOPMENT c5.GOBP INTESTINAL STEM CELL HOMEOSTASIS c5.GOBP CELLULAR RESPONSE TO L GLUTAMATE c5.HP ABNORMAL BLOOD ZINC CONCENTRATION c5.GOMF CCR2 CHEMOKINE RECEPTOR BINDING c5.GOBP AMINOPHOSPHOLIPID TRANSLOCATION c5.HP PHOTOSENSITIVE MYOCLONIC SEIZURE c5.HP OVARIAN PAPILLARY ADENOCARCINOMA c5.GOBP CELLULAR HYPEROSMOTIC RESPONSE c5.HP NON MEDULLARY THYROID CARCINOMA c5.HP ABNORMAL ERYTHROCYTE PHYSIOLOGY c5.GOBP MALONYL COA METABOLIC PROCESS c5.GOBP KIDNEY MESENCHYME DEVELOPMENT c5.HP NONCOMMUNICATING HYDROCEPHALUS c5.HP CHORIORETINAL HYPOPIGMENTATION c5.GOBP STEM CELL FATE SPECIFICATION c5.GOBP SERTOLI CELL DIFFERENTIATION c5.GOBP NEUTROPHIL APOPTOTIC PROCESS c5.GOBP METANEPHRIC TUBULE FORMATION c5.GOBP GONADAL MESODERM DEVELOPMENT c5.GOBP GLYCOLIPID CATABOLIC PROCESS c5.GOBP DETOXIFICATION OF COPPER ION c5.GOBP THREONINE METABOLIC PROCESS c5.GOBP MYCOTOXIN METABOLIC PROCESS c5.GOBP GLYCOSIDE CATABOLIC PROCESS c5.HP LIMITED NECK RANGE OF MOTION c5c5.HP ENLARGED VESTIBULAR AQUEDUCT c5.GOMF CYCLASE INHIBITOR ACTIVITY c5.GOCC IGM IMMUNOGLOBULIN COMPLEX c5.GOCC IGA IMMUNOGLOBULIN COMPLEX c5.GOBP HEXOSE PHOSPHATE TRANSPORT c5.GOBP AORTIC VALVE MORPHOGENESIS c5.GOBP AMELOBLAST DIFFERENTIATION c5.HP DUPLICATION OF RENAL PELVIS c5.GOMF METAL ION SENSOR ACTIVITY c5.GOBP RENAL VESICLE DEVELOPMENT c5.GOBP METANEPHROS MORPHOGENESIS c5.GOBP FORMATE METABOLIC PROCESS C5 GORP DUCTUS ARTERIOSUS CLOSURE c5.GOBP ALDITOL CATABOLIC PROCESS c5.HP LARGE POSTERIOR FONTANELLE C5. HP ABNORMAL OOCYTE MORPHOLOGY c5.GOCC GTPASE ACTIVATOR COMPLEX c5.GOBP TYPE II HYPERSENSITIVITY C5. GOBP SERTOLI CELL DEVELOPMENT c5.GOBP POLYOL CATABOLIC PROCESS c5.GOBP EPOXYGENASE P450 PATHWAY C5 HP BRONCHIAL WALL THICKENING c5.GOMF T CELL RECEPTOR BINDING c5.GOBP REGULATION OF MEIOSIS I c5.GOBP PYRIMIDINE DIMER REPAIR c5.HP UROGENITAL SINUS ANOMALY c5.HP PRIMARY HYPERCORTISOLISM c5.GOCC NUCLEAR ENVELOPE LUMEN c5.GOBP TRNA THIO MODIFICATION c5.GOBP RESPONSE TO BLUE LIGHT c5.GOBP PRONEPHROS DEVELOPMENT c5.GOBP OTIC VESICLE FORMATION c5.GOBP LYMPH NODE DEVELOPMENT c5.HP PENOSCROTAL HYPOSPADIAS c5.GOMF C C CHEMOKINE BINDING c5.GOBP OTOLITH MORPHOGENESIS c5.GOBP GLUTATHIONE TRANSPORT c5.HP VACUOLATED LYMPHOCYTES c5.HP LIMITED KNEE EXTENSION c5.GOBP UTERUS MORPHOGENESIS c5.GOBP TRIPEPTIDE TRANSPORT c5.HP LACRIMAL DUCT ATRESIA c5.HP 4 5 FINGER SYNDACTYLY c5.HP 3 4 FINGER SYNDACTYLY c5.GOBP SNORNA LOCALIZATION c5.GOBP SEROTONIN SECRETION c5.HP LARYNGEAL HYPOPLASIA c5.GOCC WEIBEL PALADE BODY c5.GOBP URETER DEVELOPMENT c5.GOMF CHEMOKINE BINDING c5.GOCC SYMMETRIC SYNAPSE c5.GOCC STEREOCILIUM BASE c5.GOCC MON1 CCZ1 COMPLEX c5.GOMF ARGININE BINDING c5.HP OVARIAN CARCINOMA c5.GOCC FASCIA ADHERENS c5.HP URETHRAL FISTULA c5.HP RECTAL POLYPOSIS c5.HP CYANOTIC EPISODE c5.GOCC GATOR2 COMPLEX c5.GOCC CORVET COMPLEX c5.GOBP DENTINOGENESIS c5.HP ABNORMAL P WAVE c5.GOMF OPSIN BINDING c5.HP FETAL POLYURIA c5.GOCC MMXD COMPLEX c5.GOCC CILIARY BASE c5.HP ANGIOKERATOMA c5.GOMF FMN BINDING c5.GOCC CIA COMPLEX c5.GOBP FERROPTOSIS c5.HP FACIAL TICS c7.HOEK MONOCYTE 2011 2012 TIV ADULT 3DY DN c7 c7.CAO BLOOD FLUMIST AGE 05 14YO 7DY UP c8.ZHONG PFC C2 SOX5 BCL11B POS EXCITATORY NEURON c8.DESCARTES FETAL LIVER HEMATOPOIETIC STEM CELLS C8.HE LIM SUN FETAL LUNG C1 LATE STALK CELL c8.ZHONG PFC C3 PROX1 CCK POS INTERNEURON c8.DESCARTES FETAL PLACENTA STROMAL CELLS 8 c8.TRAVAGLINI LUNG IGSF21 DENDRITIC CELL c8.HE LIM SUN FETAL LUNG C2 DC3 CELL c8.FAN EMBRYONIC CTX MICROGLIA 2 c8.BUSSLINGER GASTRIC TUFT CELLS h.HALLMARK KRAS SIGNALING UP \neg -0.50-0.250.00 0.25 0.50 z_score

resultant_geno

nf1 KO; pten KO; ink KO; atrx KO

nf1 KO; pten KO; ink KO; atrx wt