Table S4 : List of diseases and/or biological functions asssociated to gene expression profilling of *Cdkn2a* +/+ and -/- primary adipocytes.

Categories	Diseases or Function Predicted A	Activation z	p-Value	Molecules	# Molecules
Carbohydrate Metabolism	uptake of monosaccharide	0.556	1.67E-03	COL5A3.DUSP9.FABP5.GATM.IGF1.IRS1.IRS2.MIF.PEA15.PPARG.PRKCA.PRKCB.RAB4A.RELA.SERPINE1.SPP1.STEAP4	17
Cellular Development. Connective Tissue Development and Function. Tissue Development	differentiation of adipose tissue	1.348	4.36E-03	AKT1.ANGPTL8.AP1S2.ARID5B.ARNTL.BNIP3.CAST.CCND1.CREBL2.DACT1.EBF2.ERO1A.Fcor.FGF10.FNDC3B.FOXC2.GATA2.GPX1.HES1.ID4.IFI16.IGF1.IRS1.IRS2.ITGA6.LAMA4.LMNA.LPIN1.LRP5.LRP6.MEDAG.MEX3C.mir-21.MKRN1.NOD1.NR4A1.NR4A3.NUDT7.PER2.PEX11A.PLAC8.PPARG.PPARGC1A.PRDM16.RARRES2.RORA.RORC.SAV1.SEMA3A.SH2B2.SMAD2.SMAD7.SNAI2.SORT1.SPP1.TIMP3.TMEM120A.TPH1.TRPM4.VEGFA.ZC3H12A.ZFP36.ZFP36L1.ZNF516	64
Cellular Development	differentiation of cells	1.348	5.47E-03	AKT1.ANGPTL8.AP1S2.ARID5B.ARNTL.BNIP3.CAST.CCND1.CREBL2.DACT1.EBF2.ERO1A.Fcor.FGF10.FNDC3B.FOXC2.GATA2.GPX1.HES1.ID4.IFI16.IGF1.IRS1.IRS2.ITGA6.LAMA4.LMNA.LPIN1.LRP5.LRP6.MEDAG.MEX3C.mir-21.MKRN1.NOD1.NR4A1.NR4A3.NUDT7.PER2.PEX11A.PLAC8.PPARG.PPARGC1A.PRDM16.RARRES2.RORA.RORC.SAV1.SEMA3A.SH2B2.SMAD2.SMAD7.SNAI2.SORT1.SPP1.TIMP3.TMEM120A.TPH1.TRPM4.VEGFA.ZC3H12A.ZFP36.ZFP36L1.ZNF516	64
Cellular Development. Connective Tissue Development and Function. Tissue Development	differentiation of brown adipocytes		5.65E-03	BNIP3.EBF2.ERO1A.ITGA6.LAMA4.NUDT7.PEX11A.PLAC8.PPARG.PPARGC1A.PRDM16.RARRES2.SH2B2.ZNF516	14
Cellular Development. Connective Tissue Development and Function. Tissue Development	differentiation of adipocytes	1.156	6.11E-03	AKT1.ANGPTL8.AP1S2.ARID5B.ARNTL.BNIP3.CAST.CCND1.CREBL2.DACT1.EBF2.ERO1A.Fcor.FGF10.FNDC3B.FOXC2.GATA2.GPX1.HES1.ID4.IFI16.IGF1.IRS1.IRS2.ITGA6.LAMA4.LMNA.LPIN1.LRP5.LRP6.MEDAG.MEX3C.MKRN1.NOD1.NR4A1.NR4A3.NUDT7.PER2.PEX11A.PLAC8.PPARG.PPARGC1A.PRDM16.RARRES2.RORA.RORC.SAV1.SEMA3A.SH2B2.SMAD2.SMAD7.SNAI2.SORT1.SPP1.TIMP3.TMEM120A.TPH1.TRPM4.VEGFA.ZC3H12A.ZFP36.ZFP36L1.ZNF516	63
Connective Tissue Development and Function. Lipid Metabolism. Small Molecule Biochemistry. Tissue Morphology	lipolysis of white adipose tissue	0.152	6.60E-03	IL4R.JAK2.PNPLA2.PRKAR2B.STAT6	5
Connective Tissue Development and Function. Tissue Morphology	quantity of adipose tissue	-0.788	8.44E-03	ACACB.ACADL.ADAM12.AEBP1.AKT1.ANGPTL4.ARID5B.ARNTL.ASPA.B4GALT1.BRCA1.C3.CAV1.CNR1.COL5A3.DGAT2.DUSP1.EIF4EBP1.FABP5.FASN.FMO5.FOXC2.GATM.GPD2.HEXB.ID1.ID4.IGF1.INSR.IRS1.IRS2.KDM3A.LGI1.LMNA.MAF1.MFSD2A.Mt1.Mt2.MTTP.NOS2.NR1H2.NR3C1.PNPLA2.PPARG.PPARGC1A.PPARGC1B.PRKAR2B.PRKCB.Ptprd.RAE1.RBL1.RBM38.SCP2.SERPINE1.SGMS1.SIRT3.SIRT7.SLC12A2.SLC25A25.SOCS3.SPARC.STEAP4.ZNF521	63
Hematological System Development and Function. Immune Cell Trafficking. Inflammatory Response. Tissue Development	accumulation of macrophages	1.000	8.96E-03	CD40.CD44.MIF.STAT3	4
Connective Tissue Development and Function. Tissue Morphology	quantity of subcutaneous fat	0.728	1.36E-02	ACACB.ARNTL.B4GALT1.BRCA1.CAV1.COL5A3.DGAT2.FABP5.FMO5.GATM.LMNA.MAF1.PPARG.Ptprd.RAE1.SERPINE1.SIRT7.STEAP4	18
Connective Tissue Disorders. Organismal Injury and Abnormalities	abnormality of adipose tissue	-0.843	1.66E-02	ABCA1.ADIPOR2.AEBP1.ARID5B.CAV1.CD44.CLCN3.FGF10.FMO5.IGF1.IGFBP3.IGFBP4.IL33.IRS1.KDM3A.LEF1.NR1I3.OSMR.PITPNA.PNPLA2.PPARG.PPARGC1A.PPARGC1B.PTGER4.Ptprd.PTTG1.RBL1.SC5D.SERPINE1.SLC2A1.SPP1.SPRY1.STAT3.STAT6.STEAP4.TGFA.VEGFA.ZFP36	38
Carbohydrate Metabolism. Molecular Transport. Small Molecule Biochemistry	uptake of D-glucose	-0.201	1.71E-02	COL5A3.DUSP9.FABP5.GATM.IRS2.MIF.PEA15.PPARG.PRKCA.RELA.SERPINE1.STEAP4	12
Lipid Metabolism. Small Molecule Biochemistry	storage of lipid	-1.067	2.23E-02	CISD1.LPIN1.NR1H2.PPARG	4
Carbohydrate Metabolism. Molecular Transport. Small Molecule Biochemistry	uptake of 2-deoxyglucose	1.172	2.77E-02	IGF1.IRS1.PRKCA.PRKCB.RAB4A.SPP1	6
Cellular Growth and Proliferation	proliferation of cells	0.478	3.19E-02	BGN.FGF10.FGFR1.FOXC2.IGF1.IL33.PPARG.SMAD7.STAT3	9
Connective Tissue Development and Function. Tissue Morphology	quantity of white adipose tissue	-0.917	3.42E-02	AEBP1.AKT1.ARID5B.C3.CAV1.EIF4EBP1.GATM.GPD2.IRS1.IRS2.KDM3A.LMNA.MAF1.NOS2.PNPLA2.PPARG.PPARGC1B.PRKAR2B.RBL1.SGMS1.ZNF521	21
Connective Tissue Disorders. Organismal Injury and Abnormalities. Tissue Morphology	abnormal morphology of white adipose tissue		3.91E-02	AEBP1.IGF1.KDM3A.PNPLA2.PPARGC1B.RBL1.STEAP4	7

Hematological Disease. Metabolic Disease	dyslipidemia		4.23E-02	LPIN1.NR4A3.PPARG.PPARGC1A.PPARGC1B.RORA	6
Cardiovascular System Development and Function. Organismal Development	vasculogenesis		4.32E-02	IGF1.IGFBP4.KDR.VEGFA	4
Connective Tissue Development and Function. Tissue Development	development of fat pad		4.66E-02	CAV1.VEGFA	2
Cell Morphology. Connective Tissue Development and Function. Tissue Morphology	diameter of adipocytes		4.66E-02	CAV1.SPARC	2
Cell Morphology. Connective Tissue Development and Function. Tissue Morphology	enlargement of adipocytes		4.66E-02	LPIN1.MEST	2
Digestive System Development and Function	ingestion by mice		4.66E-02	ARNTL.PNPLA2	2
Cell Cycle	interphase of adipocytes		4.66E-02	FOXC2.IRS1	2
Organismal Development	lean body mass		4.66E-02	GIPR.PNPLA2	2
Cell Death and Survival	repopulation of cells		4.66E-02	MFGE8.PIN1	2
Cardiovascular System Development and Function. Cell Morphology. Organismal Development	sprouting of capillary vessel		4.66E-02	IGF1.IGFBP4	2
Lipid Metabolism. Small Molecule Biochemistry	storage of fat		4.66E-02	LPIN1.NR1H2	2
Cellular Development. Cellular Growth and Proliferation. Connective Tissue Development and Function. Tissue Development	proliferation of adipocytes	0.000	4.83E-02	BGN.FGF10.FGFR1.FOXC2.IGF1.PPARG.SMAD7.STAT3	8
Connective Tissue Disorders. Inflammatory Response. Organismal Injury and Abnormalities. Tissue Development	inflammation of adipose tissue	-1.744	4.86E-02	ADIPOR2.CD44.IL33.OSMR.PTGER4.SPP1.SPRY1.STAT3.STAT6.VEGFA	10