

Table S1

Supplementary data Table 1

Gene	Name	Function
23kd	23KDa Highly basic protein	protein synthesis
ACTB	Beta-Actin	morphology
ADAM1	A disintegrin and metalloproteinase domain1	extracellular m
ADPRT	polysynthetase	DNA repair
Aldo	Aldolase A,	glycolysis
ANX1	Annexin1	differentiation
APOB	ApolipoproteinB	
APOE	ApolipoproteinE	extracellular m
APOJ	ApolipoproteinJ	defense system
AREG	Amphiregulin	
ATM	Ataxia telangiectasia mutated	cell cycle/DNA
BAT1	Nuclear-RNA-helicase	DNA repair
BAX	BCL2-associated X protein	apoptosis (+)
BCL2	B-cell lymphoma2	apoptosis (-)
BCLX	BCLX	apoptosis (-)
BMP2	Bone morphogenetic protein2	apoptosis
BRCA2	Breast cancer2	cell cycle/DNA
CANX	calnexin	cell cycle/DNA
CASP7	caspase7	apoptosis (+)
CASP8	Caspase8	apoptosis (+)
CCNA1	cyclinA1	cell cycle/DNA
CCNB1	cyclinB1	cell cycle/DNA
CCND1	cyclinD1	cell cycle/DNA
CCND2	cyclinD2	cell cycle/DNA
CCND3	cyclinD3	cell cycle/DNA
CCNE1	CyclinE	cell cycle/DNA
CCNF	CyclinF	cell cycle/DNA
CCNG	CyclinG	apoptosis
CCNH	cyclinH	cell cycle/DNA
CDC42	Cell division cycle42	morphology
CDK2	Cyclin dependent kinase2	cell cycle/DNA
CDK4	Cyclin dependent kinase4	cell cycle/DNA
CENPA	centromere-protein-A	chromosomal c
CENPF	mitosin	chromosomal c
C-FOS	c-fos	cell cycle/DNA
CKB	creatin-kinase-brain	metabolism
COL15A1	collagenXV-alpha1	extracellular m
COL1A1	Collagen1-alpha1	extracellular m
COL3A1	collagenIII-alpha1	extracellular m
COL6A2	collagenVI-alpha2	extracellular m
COX1	Prostaglandin endoperoxidase synthase1	inflammation

COX2	Prostaglandin endoperoxidase synthase2	inflammation
CROC1A	Ubiquitin conjugating enzyme E2 variant1	cell cycle/DNA
CST6	cystatin-M	extracellular m
CTGF	Connective tissue growth factor	cell cycle/DNA
CTSD	cathepsinD	extracellular m
CTSH	cathepsinH	extracellular m
CTSS	cathepsinS	extracellular m
CTSZ	cathepsinZ	extracellular m
cyc	Cyclophilin 33A	protein synthes
CYT2A	Keratin2	differentiation (
DHFR	Dihydrofolate reductase	cell cycle/DNA
DPT	dermatopontin	extracellular m
DSG1	desmoglein1	differentiation (
E2F1	E2F transcription factor1	cell cycle/DNA
E2F5	E2F transcription factor5	cell cycle/DNA
EAR1	Nuclear receptor subfamily1, group D, member 1	cell cycle/DNA
EF1A	Eukaryotic translation elongation factor-alpha1	chromosomal c
EGR1	Early growth response1	defense system
EGR2	Early growth response2	cell cycle/DNA
EGR3	Early growth response3	defense system
EIF-4A	Eukaryotic translation initiation factor 4A	
ELN	elastin	extracellular m
EPC1	Enhancer of polycomb1	cell cycle/DNA
ETFB	electron-transfert-flavoprotein-beta	metabolism
EWSR1	Ewing sarcoma breakpoint region1	cell cycle/DNA
FE65	Fe65	apoptosis
FES	Feline sarcoma oncogene	cell cycle/DNA
FLG	filaggrin	differentiation (
FMOD	fibromodulin	extracellular m
FN1	fibronectin	extracellular m
G6PD	glucose-6-phosphate-dehydrogenase	metabolism
GAA	glucosidase-II-precursor	metabolism
GADD153	DNA damage inducible transcript3	DNA repair
GAPD	Glyceraldehyde-3-phosphate-dehydrogenase	glycolysis
GLB1	Beta1-galactosidase	differentiation (
GMCSF	Colony stimulating factor2	
GPX	glutathione peroxidase	defense system
GRB2	Growth factor receptor-bound protein2	defense system
GSTP1	Glutathione S-transferase pi	
GSTT1	Glutathione S-transferase theta1	
H2B/S	histone2b member B/S consensus	cell cycle/DNA
H3FF	histone3 member F consensus	cell cycle/DNA
H4FM	histone4 member M consensus	cell cycle/DNA
HBEGF	Heparin binding epidermal growth factor transcript	
HLF	Hepatic leukemia factor	defense system
HMOX	heme-oxygenase	defense system
HSP27	Heat shock 27kD protein1	defense system
HSP40	Heat shock 40kD protein1	defense system
HSP70	Heat shock 70kD protein1	defense system

HSP70B	Heat shock 70kD protein6	defense system
HSP90-alpha	Heat shock 90kD protein1 alpha	defense system
ICAM-1	Intracellular adhesion molecule1	extracellular m
ID1	Inhibitor of DNA binding1	cell cycle/DNA
ID2	Inhibitor of DNA binding2	cell cycle/DNA
IFNG	Interferon gamma	cytokine
IGF1	Insulin like growth factor1	growth factor
IGF1R	Insulin like growth factor1 receptor	growth factor
IGFBP2	Insulin growth factor binding protein2	growth factor
IGFBP3	Insulin growth factor binding protein3	growth factor
IGFBP5	Insulin growth factor binding protein5	growth factor
IL10	Interleukin 10	cytokine
IL11	Interleukin 11	cytokine
IL11RA	Interleukin 11-receptor-alpha	cytokine
IL12	Interleukin 12	cytokine
IL15	Interleukin 15	cytokine
IL1A	Interleukin1 alpha	cytokine
IL1B	Interleukin1 beta	cytokine
IL2	Interleukin 2	cytokine
IL3	Interleukin 3	cytokine
IL4	Interleukin 4	cytokine
IL6	Interleukin 6	cytokine
IL8	Interleukin 8	cytokine
INT6	Translation initiation factor3 subunit6	morphology
IVL	involucrin	differentiation (
JNK1	Mitogen activated protein kinase8	defense system
JNK2	Mitogen activated protein kinase9	defense system
JNKK1	Mitogen activated protein kinase kinase 4	defense system
JUND	Jun D proto-oncogene	defense system
Ki-67	Ki-67	
KNSL5	mitotic-kinesin-like-protein1	chromosomal c
KNSL6	mitotic-centromere-associated-kinesin	chromosomal c
KRT1	keratin1	differentiation (
HK1	Hexokinase 1	glycolysis
KRT10	keratin10	differentiation (
KRT14	keratin14	differentiation (
KRT16	keratin16	differentiation (
KRT17	keratin17	differentiation (
HPRT	Hypoxanthine phosphoribosyltransferase 1	HouseKeeping
KRT19	Keratin19	differentiation (
KRT6A	Keratin6	differentiation (
L6	Transmembrane4 superfamily member1	
MAP17	Membrane associated protein17	
MAX	MAX protein	cell cycle/DNA
MCM2	Mitotin	DNA replicator
MDM2	MDM2	cell cycle/DNA
MEK1	Mitogen activated protein kinase kinase1	cell cycle/DNA
MEK2	Mitogen activated protein kinase kinase2	cell cycle/DNA
MMP1	matrix metalloproteinase 1	extracellular m

		(degradation)
MMP10	matrix metalloproteinase 10	extracellular m
MMP11	matrix metalloproteinase 11	(degradation) extracellular m
MMP12	matrix metalloproteinase 12	(degradation) extracellular m
MMP13	matrix metalloproteinase 13	(degradation) extracellular m
MMP14	matrix metalloproteinase 14	(degradation) extracellular m
MMP15	matrix metalloproteinase 15	(degradation) extracellular m
MMP2	matrix metalloproteinase 2	(degradation) extracellular m
MMP3	matrix metalloproteinase 3	(degradation) extracellular m
MMP7	matrix metalloproteinase 7	(degradation) extracellular m
MDH	Malate dehydrogenase 1	HouseKeeping
MP1	Metalloprotease1	extracellular m
MSRA	methionine-sulfoxide-reductase A/peptide	(degradation) protein repair
MT2A	metallothionein 2A	defense system
MVK	mevalonate-kinase	
MYBL2	b-myb	cell cycle/DNA
MYC	c-myc	cell cycle/DNA
NCK1	NCK adaptor protein1	cell cycle/DNA
NF1	neurofibromin1	cell cycle/DNA
NGFR	nerve growth factor receptor	defense system
NRG1	neuregulin	
ODC	Ornithine decarboxylase1	cell cycle/DNA
OPG	osteoprotegerin	extracellular m
OPN	osteopontin	migration
Oste	osteonectin	extracellular m
p16	Cyclin dependent kinase inhibitor 2A	cell cycle
p21	Cyclin dependent kinase inhibitor 1A	cell cycle
p27	Cyclin dependent kinase inhibitor 1B	cell cycle
p35	Cyclin dependent kinase5 regulatory subunit1	cell cycle
p53	Tumor protein p53	cell cycle
p57	Cyclin dependent kinase inhibitor 1C	cell cycle
PAI1	plasminogen activator inhibitor type1	extracellular m
PAI2	plasminogen activator inhibitor type2/Urokinase inhibitor	extracellular m
PAK	P21 activated kinase1	morphology
PCNA	Proliferating cell nuclear antigen	cell cycle/DNA
PKM2	pyruvate-kinase-muscle	metabolism
PLAU	urokinase	
PLAUR	urokinase-receptor	
PLK	Polo-like kinase	cell cycle/DNA
PLA2	Phospholipase A2	HouseKeeping
POLA2	Polymerase alpha	cell cycle/DNA
PRSS11	Protease serine11	
PRX VI	Peroxiredoxin VI	defense system

PSMA2	proteasome (prosome, macropain) subunit, alpha type, 2	protein degrad:
PSMA3	proteasome (prosome, macropain) subunit, alpha type, 3	protein degrad:
PSMC6	proteasome (prosome, macropain) 26S subunit, non-ATPase, 6	protein degrad:
PSMD1	proteasome (prosome, macropain) 26S subunit, non-ATPase, 1	protein degrad:
PSMD11	proteasome (prosome, macropain) 26S subunit, non-ATPase, 11	protein degrad:
PSMD12	proteasome (prosome, macropain) 26S subunit, non-ATPase, 12	protein degrad:
PSOR1	psoriasin	
RAF1	c-raf-1	cell cycle/DNA
RANTES	Small inducible cytokine A5	
RB1	Retinoblastome1	cell cycle
RET	ret protooncogene	cell cycle/DNA
ROR1	R AR related orphan receptorA	cell cycle/DNA
RPL3	60S-ribosomal-proteinL3	
RPS10	ribosomal-protein S10	
RRAS	R-ras	cell cycle/DNA
RRM1	ribonucleotide-reductase M1	cell cycle/DNA
S9	Ribosomal Proteine S9	protein synthes
S100A10	Calpactin1	differentiation (
S100A11	Calgizzarin	differentiation (
S100A8	calprotectin	inflammation
SHC	SHC transforming protein1	apoptosis
SLK	Ste-20-related serine/threonine kinase	apoptosis
SLP2	Stomatin like protein2	cell cycle/DNA
SM22	transgelin	muscle develop
SMAD1	Mother against decapentalplegic homol1	morphology
SNCG	synuclein	cell cycle/DNA
SDS	Serine Dehydratase	HouseKeeping
SOD2	Superoxide dismutase2	defense system
SPRR1B	cornifin	differentiation (
SRI	sorcin	defense system
STAT5	Signal transducer and activator of transcription 5A	cell cycle/DNA
TBXA2R	Thromboxane-A2-receptor	cell cycle/DNA
TERC	telomerase-RNA	cell cycle/DNA
TERT	telomerase-reverse transcriptase	cell cycle/DNA
TFAP2A	Transcription factor AP2-alpha	cell cycle/DNA
TFAP2B	Transcription factor AP2-beta	cell cycle/DNA
TFAP2C	Transcription factor AP2-gamma	cell cycle/DNA
TGFA	TGF-alpha	growth factor
TGFB1	TGF-beta1	growth factor
TGFBR2	TGF-beta-R2	growth factor
TGM1	transglutaminase1	differentiation (
TH	Tyrosine-hydroxylase	
THBS1	Thrombospondin	extracellular m
TIMP1	Tissue inhibitor of metalloproteinase1	extracellular m
TIMP2	Tissue inhibitor of metalloproteinase2	extracellular m
TK1	thymidine-kinase	cell cycle/DNA
TNFA	tumor necrosis factor alpha	cytokine

TFR	Transferrin receptor	HouseKeeping
TNFB	tumor necrosis factor beta	cytokine
TNFRSF1A	TNF-alpha-RI	cytokine
TNFRSF1B	TNF-alpha-RII	cytokine
TOP2A	topoisomerase2-alpha	cell cycle/DNA
TPA	Plasminogen activator tissue	extracellular m
TRF1	Telomeric repeat binding factor1	cell cycle/DNA
Tubu	Alpha-tubulin	morphology
TYMS	thymidylate-synthetase	cell cycle/DNA
UBE2C	Ubiquitin conjugating enzyme E2C/ubiquitin carrier protein	protein degrad:
VEGFC	Vascular endothelial growth factor C	cell cycle/DNA
VEGFR1	Vascular endothelial growth factor receptor1	cell cycle/DNA