Supplementary Table 4. Genes associated with ER -pSer118 in A) endometrial and B) breast tumours.

A

Endometrial

Gene	*Entrez Gene Name*	*Log_2 FC*[#]
SCGB3A1	secretoglobin family 3A member 1	4.68
CPLX3	complexin 3	4.62
SOX11	SRY-box 11	4.41
BRINP1	BMP/retinoic acid inducible neural specific 1	4.40
PKLR	pyruvate kinase, liver and RBC	3.99
OBP2B	odorant binding protein 2B	3.84
LMAN1L	lectin, mannose binding 1 like	3.81
NR0B2	nuclear receptor subfamily 0 group B member 2	3.59
GDF10	growth differentiation factor 10	3.57
APCDD1L	APC down-regulated 1 like	3.36
*IL11**	interleukin 11	3.20
GAP43	growth associated protein 43	3.18
SCN9A	sodium voltage-gated channel alpha subunit 9	3.10
*KCNK2**	potassium two pore domain channel subfamily K member 2	3.04
COL10A1	collagen type X alpha 1 chain	3.02
CALCB	calcitonin related polypeptide beta	2.97
RNF128	ring finger protein 128, E3 ubiquitin protein ligase	2.88
HOXA7	homeobox A7	2.88
SHISA2	shisa family member 2	2.84
RGR	retinal G protein coupled receptor	2.81
GATA3	GATA binding protein 3	2.56
HOXA5	homeobox A5	2.55
SLC1A7	solute carrier family 1 member 7	2.54
GNG4	G protein subunit gamma 4	2.51
*TGFBI**	transforming growth factor beta induced	2.48
VAT1L	vesicle amine transport 1 like	2.45
CLPSL1	colipase like 1	2.45
POPDC3	popeye domain containing 3	2.44
ZFHX4	zinc finger homeobox 4	2.40
KCNH8	potassium voltage-gated channel subfamily H member 8	2.38
RXFP4	relaxin/insulin like family peptide receptor 4	2.32
CDH13	cadherin 13	2.31
NRK	Nik related kinase	2.28
FKBP5	FK506 binding protein 5	2.27
HAS2-AS1	HAS2 antisense RNA 1	2.27
SLC4A1	solute carrier family 4 member 1 (Diego blood group)	2.23
C5orf46	chromosome 5 open reading frame 46	2.22
DKK1	dickkopf WNT signaling pathway inhibitor 1	2.22
HOXA9	homeobox A9	2.21
ARMC12	armadillo repeat containing 12	2.19
MOXD1	monooxygenase DBH like 1	2.15
FRMD5	FERM domain containing 5	2.14
COL11A1	collagen type XI alpha 1 chain	2.14
ASIC4	acid sensing ion channel subunit family member 4	2.13
GRP	gastrin releasing peptide	2.10
NEFL	neurofilament, light polypeptide	2.08
*FIBIN**	fin bud initiation factor homolog (zebrafish)	2.08
SLC30A3	solute carrier family 30 member 3	2.07

RSPH6A	radial spoke head 6 homolog A	2.04
NTM	neurotrimin	2.03
SSC5D	scavenger receptor cysteine rich family member with 5 domains	2.02
MYOZ3	myozenin 3	2.01
*THBS2**	thrombospondin 2	2.00
NXPE4	neurexophilin and PC-esterase domain family member 4	1.98
COL8A1	collagen type VIII alpha 1 chain	1.97
HOXA11-AS	HOXA11 antisense RNA	1.95
*PODNL1**	podocan like 1	1.95
LCT	lactase	1.95
SLC38A11	solute carrier family 38 member 11	1.93
ACTC1	actin, alpha, cardiac muscle 1	1.93
CAVIN3	caveolae associated protein 3	1.91
TFPI	tissue factor pathway inhibitor	1.91
ITGBL1	integrin subunit beta like 1	1.91
GPA33	glycoprotein A33	1.90
CDH8	cadherin 8	1.89
SLC25A48	solute carrier family 25 member 48	1.88
SHC4	SHC adaptor protein 4	1.87
IBSP	integrin binding sialoprotein	1.83
SCG2	secretogranin II	1.82
SEMA5B	semaphorin 5B	1.81
KIF5C	kinesin family member 5C	1.80
GREM1	gremlin 1, DAN family BMP antagonist	1.78
HAS2	hyaluronan synthase 2	1.75
ETV4	ETS variant 4	1.73
VIPR1	vasoactive intestinal peptide receptor 1	1.73
ADORA1	adenosine A1 receptor	1.72
COX4I2	cytochrome c oxidase subunit 4I2	1.71
ZNF536	zinc finger protein 536	1.68
*PPFIA2**	PTPRF interacting protein alpha 2	1.66
*FN1**	fibronectin 1	1.66
PLA2G4F	phospholipase A2 group IVF	1.64
ITGA11	integrin subunit alpha 11	1.63
BGN	biglycan	1.61
INHBA	inhibin beta A subunit	1.56
RHOBTB3	Rho related BTB domain containing 3	1.56
PRDM6	PR/SET domain 6	1.56
PRSS35	protease, serine 35	1.56
EPHB3	EPH receptor B3	1.54
COL8A2	collagen type VIII alpha 2 chain	1.54
PDE4D	phosphodiesterase 4D	1.53
SUSD5	sushi domain containing 5	1.53
HOXA10	homeobox A10	1.53
*FAP**	fibroblast activation protein alpha	1.51
PNMA2	paraneoplastic Ma antigen 2	1.51
MEDAG	mesenteric estrogen dependent adipogenesis	1.50
EPHA7	EPH receptor A7	1.49
MSC	musculin	1.45
CTSK	cathepsin K	1.44
TCF15	transcription factor 15 (basic helix-loop-helix)	1.43
BX537318.2	dynein heavy chain -like pseudogene	1.42
FAM180A	family with sequence similarity 180 member A	1.41

EPHB1	EPH receptor B1	1.40
RGS5	regulator of G-protein signaling 5	1.39
PODN	podocan	1.39
*KCNN4**	potassium calcium-activated channel subfamily N member 4	1.38
LFNG	LFNG O-fucosylpeptide 3-beta-N-acetylglucosaminyltransferase	1.38
ADCY2	adenylate cyclase 2	1.38
SEPT4	septin 4	1.38
HOXA11	homeobox A11	1.38
*AEBP1**	AE binding protein 1	1.38
*ASPN**	asporin	1.36
EPHA3	EPH receptor A3	1.36
EFS	embryonal Fyn-associated substrate	1.35
PHLDB2	pleckstrin homology like domain family B member 2	1.35
MYL9	myosin light chain 9	1.35
VSTM4	V-set and transmembrane domain containing 4	1.34
ETV1	ETS variant 1	1.33
*COL5A2**	collagen type V alpha 2 chain	1.32
TNFSF4	tumor necrosis factor superfamily member 4	1.31
MYL4	myosin light chain 4	1.31
MGP	matrix Gla protein	1.28
PFKFB2	6-phosphofructo-2-kinase/fructose-2,6-biphosphatase 2	1.27
BACH2	BTB domain and CNC homolog 2	1.27
*ANOS1**	anosmin 1	1.27
MAP2	microtubule associated protein 2	1.26
DPYSL3	dihydropyrimidinase like 3	1.25
TRPC6	transient receptor potential cation channel subfamily C member 6	1.25
*COL1A1**	collagen type I alpha 1 chain	1.25
MYADML2	myeloid associated differentiation marker like 2	1.24
PRG4	proteoglycan 4	1.24
PBX3	PBX homeobox 3	1.24
HTR1D	5-hydroxytryptamine receptor 1D	1.22
XYLT1	xylosyltransferase 1	1.22
ACAN	aggrecan	1.21
DGKI	diacylglycerol kinase iota	1.21
ANGPT1	angiopoietin 1	1.21
MBOAT2	membrane bound O-acyltransferase domain containing 2	1.20
PMEPA1	prostate transmembrane protein, androgen induced 1	1.20
RASGRF2	Ras protein specific guanine nucleotide releasing factor 2	1.20
*COL1A2**	collagen type I alpha 2 chain	1.19
*COL5A1**	collagen type V alpha 1 chain	1.19
SYTL2	synaptotagmin like 2	1.17
STON1	stonin 1	1.17
*COL6A3**	collagen type VI alpha 3 chain	1.16
HIVEP3	human immunodeficiency virus type I enhancer binding protein 3	1.16
LRRC66	leucine rich repeat containing 66	1.16
*PRRX1**	paired related homeobox 1	1.16
*SULF1**	sulfatase 1	1.14
BMP2	bone morphogenetic protein 2	1.14
HLF	HLF, PAR bZIP transcription factor	1.14
FAM105A	family with sequence similarity 105 member A	1.13
WFDC1	WAP four-disulfide core domain 1	1.13
MAF	MAF bZIP transcription factor	1.13
TAGLN	transgelin	1.11
CACNA1D	calcium voltage-gated channel subunit alpha1 D	1.11

ITGA4	integrin subunit alpha 4	1.05
CSPG4	chondroitin sulfate proteoglycan 4	1.05
NFE2L3	nuclear factor, erythroid 2 like 3	1.04
CHST2	carbohydrate sulfotransferase 2	1.04
KIF21B	kinesin family member 21B	1.03
CASC15	cancer susceptibility 15 (non-protein coding)	1.02
CDK14	cyclin dependent kinase 14	1.02
KCTD15	potassium channel tetramerization domain containing 15	1.02
FABP5	fatty acid binding protein 5	1.01
FRMD6	FERM domain containing 6	1.01
LZTS1	leucine zipper tumor suppressor 1	1.01
FAM222A	family with sequence similarity 222 member A	1.00
PMP22	peripheral myelin protein 22	1.00
RASSF8	Ras association domain family member 8	1.00
RASD2	RASD family member 2	1.00
MSRB3	methionine sulfoxide reductase B3	0.98
*THY1**	Thy-1 cell surface antigen	0.98
CHRM3	cholinergic receptor muscarinic 3	0.98
*SYDE1**	synapse defective Rho GTPase homolog 1	0.98
SYN1	synapsin I	0.97
MDFIC	MyoD family inhibitor domain containing	0.97
DCLK2	doublecortin like kinase 2	0.96
*NID1**	nidogen 1	0.96
MPZ	myelin protein zero	0.95
PLEKHH2	pleckstrin homology, MyTH4 and FERM domain containing H2	0.94
LPAR6	lysophosphatidic acid receptor 6	0.93
N4BP2L2-IT2	N4BPL2 intronic transcript 2	0.92
MTSS1	MTSS1, I-BAR domain containing	0.91
RAB11FIP2	RAB11 family interacting protein 2	0.90
*LAMA4**	laminin subunit alpha 4	0.89
GUCY1A3	guanylate cyclase 1 soluble subunit alpha	0.87
CCDC102B	coiled-coil domain containing 102B	0.87
NFIB	nuclear factor I B	0.87
HIST2H2BE	histone cluster 2 H2B family member e	0.85
CAMKK1	calcium/calmodulin dependent protein kinase kinase 1	0.84
AKAP5	A-kinase anchoring protein 5	0.84
LRRC75A	leucine rich repeat containing 75A	0.84
SYNM	synemin	0.84
EDNRA	endothelin receptor type A	0.84
TBXA2R	thromboxane A2 receptor	0.84
TMEM253	transmembrane protein 253	0.83
SNX10	sorting nexin 10	0.82
RINL	Ras and Rab interactor like	0.82
MEX3B	mex-3 RNA binding family member B	0.81
*SNAI2**	snail family transcriptional repressor 2	0.78
LMO7	LIM domain 7	0.76
ARHGAP29	Rho GTPase activating protein 29	0.76
*RUNX1**	runt related transcription factor 1	0.76
JAM3	junctional adhesion molecule 3	0.75
SPRY2	sprouty RTK signaling antagonist 2	0.74
CALD1	caldesmon 1	0.71
DISC1	disrupted in schizophrenia 1	0.69
ARHGAP24	Rho GTPase activating protein 24	0.68

CGNL1	cingulin like 1	0.68
ATP2B1-AS1	ATP2B1 antisense RNA 1	0.65
TNRC6C	trinucleotide repeat containing 6C	0.63
UACA	uveal autoantigen with coiled-coil domains and ankyrin repeats	0.63
FZD1	frizzled class receptor 1	0.62
BAZ2B	bromodomain adjacent to zinc finger domain 2B	0.62
SLC25A45	solute carrier family 25 member 45	0.61
APBB2	amyloid beta precursor protein binding family B member 2	0.61
IGIP	IgA inducing protein	0.60
*KANK2**	KN motif and ankyrin repeat domains 2	0.59
SBDSP1	Shwachman-Bodian-Diamond syndrome pseudogene 1	0.59
DGKD	diacylglycerol kinase delta	0.55
MAST2	microtubule associated serine/threonine kinase 2	0.55
TBC1D2B	TBC1 domain family member 2B	0.46
*C1orf198**	chromosome 1 open reading frame 198	0.45
TRAK2	trafficking kinesin protein 2	0.43
CDR2	cerebellar degeneration related protein 2	0.40
TRIM27	tripartite motif containing 27	-0.35
SLC41A3	solute carrier family 41 member 3	-0.38
RUNDC1	RUN domain containing 1	-0.38
DFFA	DNA fragmentation factor subunit alpha	-0.40
WDR45B	WD repeat domain 45B	-0.42
ECHS1	enoyl-CoA hydratase, short chain 1	-0.46
CNDP2	CNDP dipeptidase 2 (metallopeptidase M20 family)	-0.47
TPI1	triosephosphate isomerase 1	-0.48
*MOAP1**	modulator of apoptosis 1	-0.48
ANXA11	annexin A11	-0.51
PNMA1	paraneoplastic Ma antigen 1	-0.51
MTFP1	mitochondrial fission process 1	-0.54
AIFM1	apoptosis inducing factor, mitochondria associated 1	-0.55
RAB20	RAB20, member RAS oncogene family	-0.56
TTC12	tetratricopeptide repeat domain 12	-0.57
CDK20	cyclin dependent kinase 20	-0.61
TKT	transketolase	-0.64
POMGNT2	protein O-linked mannose N-acetylglucosaminyltransferase 2 (beta 1,4-)	-0.67
WDR77	WD repeat domain 77	-0.67
HERC6	HECT and RLD domain containing E3 ubiquitin protein ligase family member 6	-0.68
SCPEP1	serine carboxypeptidase 1	-0.69
SORD	sorbitol dehydrogenase	-0.70
FAM213B	family with sequence similarity 213 member B	-0.71
CD200	CD200 molecule	-0.73
SOX17	SRY-box 17	-0.76
CYSTM1	cysteine rich transmembrane module containing 1	-0.76
RAI2	retinoic acid induced 2	-0.77
ENPP5	ectonucleotide pyrophosphatase/phosphodiesterase 5 (putative)	-0.77
TLN2	talin 2	-0.77
KIAA1551	KIAA1551	-0.79
ASRGL1	asparaginase like 1	-0.79
SPECC1	sperm antigen with calponin homology and coiled-coil domains 1	-0.80
EPB41L2	erythrocyte membrane protein band 4.1 like 2	-0.80
ADSSL1	adenylosuccinate synthase like 1	-0.83
*ESR1**	estrogen receptor 1	-0.83

GAS7	growth arrest specific 7	-0.85
SLC40A1	solute carrier family 40 member 1	-0.87
MEIS1	Meis homeobox 1	-0.88
RNF183	ring finger protein 183	-0.89
DDO	D-aspartate oxidase	-0.91
FAM47E	family with sequence similarity 47 member E	-0.94
LRIG1	leucine rich repeats and immunoglobulin like domains 1	-0.95
PIK3R1	phosphoinositide-3-kinase regulatory subunit 1	-0.97
LINC00908	long intergenic non-protein coding RNA 908	-0.97
NRG4	neuregulin 4	-1.00
TEC	tec protein tyrosine kinase	-1.02
PREX2	phosphatidylinositol-3,4,5-trisphosphate dependent Rac exchange factor 2	-1.08
EYA2	EYA transcriptional coactivator and phosphatase 2	-1.09
PROC	protein C, inactivator of coagulation factors Va and VIIIa	-1.15
ABHD11-AS1	ABHD11 antisense RNA 1 (tail to tail)	-1.17
GPR27	G protein-coupled receptor 27	-1.18
APOL1	apolipoprotein L1	-1.20
CTSV	cathepsin V	-1.21
*THSD4**	thrombospondin type 1 domain containing 4	-1.35
HOGA1	4-hydroxy-2-oxoglutarate aldolase 1	-1.43
GLYCTK	glycerate kinase	-1.44
LPAR3	lysophosphatidic acid receptor 3	-1.46
SLC39A2	solute carrier family 39 member 2	-1.51
TREH	trehalase	-1.51
ITIH5	inter-alpha-trypsin inhibitor heavy chain family member 5	-1.60
CALN1	calneuron 1	-1.78
TNNC1	troponin C1, slow skeletal and cardiac type	-1.78
PTGS1	prostaglandin-endoperoxide synthase 1	-1.88
SEMA3E	semaphorin 3E	-2.08
CACNG6	calcium voltage-gated channel auxiliary subunit gamma 6	-2.18
FOXB1	forkhead box B1	-2.27
ALPPL2	alkaline phosphatase, placental like 2	-2.49
REG1A	regenerating family member 1 alpha	-2.80

B

	Breast	
Gene	*Gene Name*	*Log_2 FC*[#]
S100A7	S100 calcium binding protein A7	8.16
ARHGAP36	Rho GTPase activating protein 36	6.42
CYP4F8	cytochrome P450 family 4 subfamily F member 8	3.76
COX6B2	cytochrome c oxidase subunit 6B2	3.72
KCNK17	potassium two pore domain channel subfamily K member 17	3.22
COL4A6	collagen type IV alpha 6 chain	3.03
*KCNK2**	potassium two pore domain channel subfamily K member 2	2.84
RSPO1	R-spondin 1	2.81
LGR6	leucine rich repeat containing G protein-coupled receptor 6	2.81
CDR1	cerebellar degeneration related protein 1	2.61
ADAMTS8	ADAM metallopeptidase with thrombospondin type 1 motif 8	2.56
ANKRD2	ankyrin repeat domain 2	2.43
CA9	carbonic anhydrase 9	2.42
WFIKKN2	WAP, follistatin/kazal, immunoglobulin, kunitz and netrin domain containing 2	2.42
SHANK1	SH3 and multiple ankyrin repeat domains 1	2.35

FUT3	fucosyltransferase 3 (Lewis blood group)	2.27
LAMC2	laminin subunit gamma 2	2.26
NDNF	neuron derived neurotrophic factor	2.21
TUBA3E	tubulin alpha 3e	2.21
DIRAS3	DIRAS family GTPase 3	2.17
*PPFIA2**	PTPRF interacting protein alpha 2	2.11
IFNE	interferon epsilon	2.07
UG0898H09	uncharacterized LOC643763	2.06
IGFL1	IGF like family member 1	2.05
HEPHL1	hephaestin like 1	2.03
NXPH2	neurexophilin 2	2.00
TUBA3D	tubulin alpha 3d	1.93
C2CD4A	C2 calcium dependent domain containing 4A	1.92
LINC00704	long intergenic non-protein coding RNA 704	1.91
PRODH	proline dehydrogenase 1	1.91
HILS1	histone linker H1 domain, spermatid-specific 1 (pseudogene)	1.88
MAP3K8	mitogen-activated protein kinase kinase kinase 8	1.86
CSMD1	CUB and Sushi multiple domains 1	1.83
GABRE	gamma-aminobutyric acid type A receptor epsilon subunit	1.82
FAM184B	family with sequence similarity 184 member B	1.77
PPP1R1A	protein phosphatase 1 regulatory inhibitor subunit 1A	1.76
SERPINB7	serpin family B member 7	1.73
KY	kyphoscoliosis peptidase	1.72
IGLON5	IgLON family member 5	1.71
B3GNT3	UDP-GlcNAc:betaGal beta-1,3-N-acetylglucosaminyltransferase 3	1.70
IRX1	iroquois homeobox 1	1.69
CDSN	corneodesmosin	1.68
MIR31HG	MIR31 host gene	1.68
GLA	galactosidase alpha	1.67
TNC	tenascin C	1.67
LAMA1	laminin subunit alpha 1	1.64
SLITRK4	SLIT and NTRK like family member 4	1.63
KLKP1	kallikrein pseudogene 1	1.63
HSD17B13	hydroxysteroid 17-beta dehydrogenase 13	1.63
SDR16C5	short chain dehydrogenase/reductase family 16C, member 5	1.62
LINC00284	long intergenic non-protein coding RNA 284	1.61
TGFB2	transforming growth factor beta 2	1.60
KREMEN2	kringle containing transmembrane protein 2	1.58
MME	membrane metalloendopeptidase	1.53
LPL	lipoprotein lipase	1.52
DYDC2	DPY30 domain containing 2	1.52
LAMB3	laminin subunit beta 3	1.50
COL7A1	collagen type VII alpha 1 chain	1.50
MYH8	myosin heavy chain 8	1.49
ADAMTS16	ADAM metallopeptidase with thrombospondin type 1 motif 16	1.49
WISP2	WNT1 inducible signaling pathway protein 2	1.48
SLC38A5	solute carrier family 38 member 5	1.47
SHISA6	shisa family member 6	1.47
*IL11**	interleukin 11	1.45
AMPH	amphiphysin	1.44
C2CD4B	C2 calcium dependent domain containing 4B	1.44
ASS1	argininosuccinate synthase 1	1.43
OMD	osteomodulin	1.41
ARHGAP26	Rho GTPase activating protein 26	1.40

CDH2	cadherin 2	1.40
KIAA1456	KIAA1456	1.39
KCNK1	potassium two pore domain channel subfamily K member 1	1.39
KANK4	KN motif and ankyrin repeat domains 4	1.38
CFAP58	cilia and flagella associated protein 58	1.36
KCNQ3	potassium voltage-gated channel subfamily Q member 3	1.36
CYP27C1	cytochrome P450 family 27 subfamily C member 1	1.35
PLXNA4	plexin A4	1.35
KCNH1	potassium voltage-gated channel subfamily H member 1	1.35
KCNE1	potassium voltage-gated channel subfamily E regulatory subunit 1	1.35
CNTNAP3	contactin associated protein-like 3	1.33
KRT7	keratin 7	1.33
MYBPH	myosin binding protein H	1.33
GALNTL5	polypeptide N-acetylgalactosaminyltransferase-like 5	1.32
EGFR	epidermal growth factor receptor	1.31
MMP3	matrix metallopeptidase 3	1.31
LINC01554	long intergenic non-protein coding RNA 1554	1.30
FST	follistatin	1.29
GLIS3	GLIS family zinc finger 3	1.29
PLPP4	phospholipid phosphatase 4	1.29
ENOX1	ecto-NOX disulfide-thiol exchanger 1	1.27
FHL2	four and a half LIM domains 2	1.26
GPC6	glypican 6	1.26
RTL9	retrotransposon gag domain containing 1	1.25
*ASPN**	asporin	1.25
CILP	cartilage intermediate layer protein	1.25
CREB5	cAMP responsive element binding protein 5	1.22
ZNF215	zinc finger protein 215	1.22
LRRC15	leucine rich repeat containing 15	1.22
MAMDC2	MAM domain containing 2	1.22
ARSI	arylsulfatase family member I	1.21
LINC00628	long intergenic non-protein coding RNA 628	1.21
SALL1	spalt like transcription factor 1	1.20
PTH1R	parathyroid hormone 1 receptor	1.19
ACKR4	atypical chemokine receptor 4	1.19
CREB3L1	cAMP responsive element binding protein 3 like 1	1.19
PLAT	plasminogen activator, tissue type	1.19
TM6SF2	transmembrane 6 superfamily member 2	1.18
GAS1	growth arrest specific 1	1.18
CAMK2A	calcium/calmodulin dependent protein kinase II alpha	1.18
ABCC3	ATP binding cassette subfamily C member 3	1.18
SEMA3B	semaphorin 3B	1.18
WLS	wntless Wnt ligand secretion mediator	1.17
FOS	Fos proto-oncogene, AP-1 transcription factor subunit	1.17
SNCAIP	synuclein alpha interacting protein	1.17
GREB1	growth regulation by estrogen in breast cancer 1	1.17
ADAM12	ADAM metallopeptidase domain 12	1.17
GULP1	GULP, engulfment adaptor PTB domain containing 1	1.17
CDH23	cadherin related 23	1.16
ADAMTS4	ADAM metallopeptidase with thrombospondin type 1 motif 4	1.16
*KCNN4**	potassium calcium-activated channel subfamily N member 4	1.16
*SULF1**	sulfatase 1	1.16
*FIBIN**	fin bud initiation factor homolog (zebrafish)	1.15
FAT1	FAT atypical cadherin 1	1.15

FRK	fyn related Src family tyrosine kinase	1.15
CHST6	carbohydrate sulfotransferase 6	1.15
LOXL4	lysyl oxidase like 4	1.15
FNDC1	fibronectin type III domain containing 1	1.12
MMP16	matrix metallopeptidase 16	1.12
ADRB2	adrenoceptor beta 2	1.12
GREB1L	growth regulation by estrogen in breast cancer 1 like	1.12
SPON1	spondin 1	1.11
SPSB4	splA/ryanodine receptor domain and SOCS box containing 4	1.11
ADAMTSL5	ADAMTS like 5	1.11
*FN1**	fibronectin 1	1.11
CLMP	CXADR like membrane protein	1.11
PCDH7	protocadherin 7	1.11
MTMR11	myotubularin related protein 11	1.10
HMCN1	hemicentin 1	1.09
CRYAB	crystallin alpha B	1.09
COL4A5	collagen type IV alpha 5 chain	1.08
ITGAM	integrin subunit alpha M	1.08
EPHA4	EPH receptor A4	1.08
CORO2B	coronin 2B	1.07
POSTN	periostin	1.07
ADAMTS14	ADAM metallopeptidase with thrombospondin type 1 motif 14	1.06
SLC9A5	solute carrier family 9 member A5	1.06
PDGFRA	platelet derived growth factor receptor alpha	1.06
EVC2	EvC ciliary complex subunit 2	1.06
*THBS2**	thrombospondin 2	1.06
EN1	engrailed homeobox 1	1.06
TBX5	T-box 5	1.06
SLIT3	slit guidance ligand 3	1.05
LTBP1	latent transforming growth factor beta binding protein 1	1.05
AMMECR1	Alport syndrome, mental retardation, midface hypoplasia and elliptocytosis chromosomal region gene 1	1.05
UNC13D	unc-13 homolog D	1.04
PRAG1	PEAK1 related kinase activating pseudokinase 1	1.04
LOX	lysyl oxidase	1.04
PDGFRL	platelet derived growth factor receptor like	1.04
PLAU	plasminogen activator, urokinase	1.03
*COL1A2**	collagen type I alpha 2 chain	1.03
ULBP2	UL16 binding protein 2	1.03
*COL1A1**	collagen type I alpha 1 chain	1.03
ATP10A	ATPase phospholipid transporting 10A (putative)	1.02
MGLL	monoglyceride lipase	1.02
VCAN	versican	1.02
MACC1	MACC1, MET transcriptional regulator	1.02
ARSJ	arylsulfatase family member J	1.02
ADAMTS2	ADAM metallopeptidase with thrombospondin type 1 motif 2	1.02
COL5A3	collagen type V alpha 3 chain	1.01
SULF2	sulfatase 2	1.01
ANGPTL2	angiopoietin like 2	1.01
LOXL2	lysyl oxidase like 2	1.01
*COL5A1**	collagen type V alpha 1 chain	1.01
*COL6A3**	collagen type VI alpha 3 chain	1.00
ZFP36L1	ZFP36 ring finger protein like 1	1.00
*PODNL1**	podocan like 1	1.00

MXRA5	matrix remodeling associated 5	0.99
KIAA1549L	KIAA1549 like	0.99
*FAP**	fibroblast activation protein alpha	0.98
GLT8D2	glycosyltransferase 8 domain containing 2	0.98
EMX2	empty spiracles homeobox 2	0.98
LTBP2	latent transforming growth factor beta binding protein 2	0.98
CAVIN4	caveolae associated protein 4	0.97
SPOCK1	SPARC/osteonectin, cwcv and kazal like domains proteoglycan 1	0.97
MMP2	matrix metallopeptidase 2	0.97
TMEM37	transmembrane protein 37	0.97
*COL5A2**	collagen type V alpha 2 chain	0.97
*TGFBI**	transforming growth factor beta induced	0.96
ANKRD34A	ankyrin repeat domain 34A	0.96
EMX2OS	EMX2 opposite strand/antisense RNA	0.96
COL6A1	collagen type VI alpha 1 chain	0.96
FBN1	fibrillin 1	0.96
SCARA3	scavenger receptor class A member 3	0.95
C1QTNF6	C1q and tumor necrosis factor related protein 6	0.95
P4HA3	prolyl 4-hydroxylase subunit alpha 3	0.95
BNC2	basonuclin 2	0.94
CHST3	carbohydrate sulfotransferase 3	0.94
*AEBP1**	AE binding protein 1	0.94
MRC2	mannose receptor C type 2	0.93
ADAMTS5	ADAM metallopeptidase with thrombospondin type 1 motif 5	0.92
OLFM2	olfactomedin 2	0.92
MXRA8	matrix remodeling associated 8	0.92
ANTXR1	anthrax toxin receptor 1	0.92
GFPT2	glutamine-fructose-6-phosphate transaminase 2	0.92
PLCD3	phospholipase C delta 3	0.92
PRKD1	protein kinase D1	0.92
AKT3	AKT serine/threonine kinase 3	0.91
TBX15	T-box 15	0.91
BMP1	bone morphogenetic protein 1	0.90
*SNAI2**	snail family transcriptional repressor 2	0.90
SRPX2	sushi repeat containing protein, X-linked 2	0.89
AGPAT4	1-acylglycerol-3-phosphate O-acyltransferase 4	0.89
CDH11	cadherin 11	0.89
NID2	nidogen 2	0.88
RUNX2	runt related transcription factor 2	0.88
*RUNX1**	runt related transcription factor 1	0.88
ALDH1L2	aldehyde dehydrogenase 1 family member L2	0.88
NEXN	nexilin F-actin binding protein	0.88
SNED1	sushi, nidogen and EGF like domains 1	0.87
LRP1	LDL receptor related protein 1	0.86
PFKP	phosphofructokinase, platelet	0.86
COL6A2	collagen type VI alpha 2 chain	0.86
RECK	reversion inducing cysteine rich protein with kazal motifs	0.86
GADD45A	growth arrest and DNA damage inducible alpha	0.86
OLFML2B	olfactomedin like 2B	0.86
RCAN1	regulator of calcineurin 1	0.85
EVC	EvC ciliary complex subunit 1	0.85
CCDC36	coiled-coil domain containing 36	0.85
MC1R	melanocortin 1 receptor	0.85
C14orf37	chromosome 14 open reading frame 37	0.85

PXDN	peroxidasin	0.84
SERPINF1	serpin family F member 1	0.84
MMP14	matrix metallopeptidase 14	0.84
*PRRX1**	paired related homeobox 1	0.83
AGAP2-AS1	AGAP2 antisense RNA 1	0.83
LACC1	laccase domain containing 1	0.83
FARP1	FERM, ARH/RhoGEF and pleckstrin domain protein 1	0.83
OPN3	opsin 3	0.83
PLXDC2	plexin domain containing 2	0.82
CCDC80	coiled-coil domain containing 80	0.82
PLAUR	plasminogen activator, urokinase receptor	0.82
DPYD	dihydropyrimidine dehydrogenase	0.81
DST	dystonin	0.81
OSMR	oncostatin M receptor	0.80
LAMB1	laminin subunit beta 1	0.80
HTRA1	HtrA serine peptidase 1	0.80
FEZ1	fasciculation and elongation protein zeta 1	0.80
COL16A1	collagen type XVI alpha 1 chain	0.80
MAP3K6	mitogen-activated protein kinase kinase kinase 6	0.79
TSHZ3	teashirt zinc finger homeobox 3	0.79
PAQR4	progestin and adipoQ receptor family member 4	0.79
ZNF438	zinc finger protein 438	0.79
LOXL1	lysyl oxidase like 1	0.78
SPON2	spondin 2	0.78
*THY1**	Thy-1 cell surface antigen	0.78
ZFP36L2	ZFP36 ring finger protein like 2	0.78
ADAMTS7	ADAM metallopeptidase with thrombospondin type 1 motif 7	0.78
GDPD5	glycerophosphodiester phosphodiesterase domain containing 5	0.77
ZNF469	zinc finger protein 469	0.77
PCOLCE	procollagen C-endopeptidase enhancer	0.76
CNN2	calponin 2	0.76
GNA15	G protein subunit alpha 15	0.76
AKAP12	A-kinase anchoring protein 12	0.76
MRAS	muscle RAS oncogene homolog	0.75
FLNA	filamin A	0.75
PTPN21	protein tyrosine phosphatase, non-receptor type 21	0.75
HOMER3	homer scaffolding protein 3	0.75
FSTL1	follistatin like 1	0.74
FXYD5	FXYD domain containing ion transport regulator 5	0.74
ITGA5	integrin subunit alpha 5	0.74
PYROXD2	pyridine nucleotide-disulphide oxidoreductase domain 2	0.74
SPSB1	splA/ryanodine receptor domain and SOCS box containing 1	0.74
GAS6	growth arrest specific 6	0.74
*C1orf198**	chromosome 1 open reading frame 198	0.73
NHSL1	NHS like 1	0.73
TTC39A	tetratricopeptide repeat domain 39A	0.73
CTIF	cap binding complex dependent translation initiation factor	0.73
XPR1	xenotropic and polytropic retrovirus receptor 1	0.73
PLEKHG5	pleckstrin homology and RhoGEF domain containing G5	0.73
GLUL	glutamate-ammonia ligase	0.73
MFGE8	milk fat globule-EGF factor 8 protein	0.73
TIMP2	TIMP metallopeptidase inhibitor 2	0.72
NRP1	neuropilin 1	0.72
PTPRE	protein tyrosine phosphatase, receptor type E	0.72

ACTN1	actinin alpha 1	0.72
FGFRL1	fibroblast growth factor receptor-like 1	0.72
*LAMA4**	laminin subunit alpha 4	0.70
LAMC1	laminin subunit gamma 1	0.70
*NID1**	nidogen 1	0.70
ACSF2	acyl-CoA synthetase family member 2	0.70
VDR	vitamin D (1,25- dihydroxyvitamin D3) receptor	0.69
RASA3	RAS p21 protein activator 3	0.69
RPS6KA2	ribosomal protein S6 kinase A2	0.68
GPR153	G protein-coupled receptor 153	0.68
PDE4DIP	phosphodiesterase 4D interacting protein	0.68
*SYDE1**	synapse defective Rho GTPase homolog 1	0.68
PPL	periplakin	0.68
ST5	suppression of tumorigenicity 5	0.67
IL1RAP	interleukin 1 receptor accessory protein	0.67
MAPKAPK2	mitogen-activated protein kinase-activated protein kinase 2	0.67
TRIM47	tripartite motif containing 47	0.67
KIAA0040	KIAA0040	0.67
ZYX	zyxin	0.66
SPRED1	sprouty related EVH1 domain containing 1	0.66
SERPINH1	serpin family H member 1	0.65
EHD2	EH domain containing 2	0.65
DOCK5	dedicator of cytokinesis 5	0.65
ATP2B4	ATPase plasma membrane Ca2+ transporting 4	0.65
MISP	mitotic spindle positioning	0.64
PHLDB1	pleckstrin homology like domain family B member 1	0.64
TAX1BP3	Tax1 binding protein 3	0.63
CD99	CD99 molecule	0.63
RSU1	Ras suppressor protein 1	0.63
GRAMD2B	GRAM domain containing 2B	0.63
TNFAIP8L1	TNF alpha induced protein 8 like 1	0.62
SLC5A6	solute carrier family 5 member 6	0.61
DSE	dermatan sulfate epimerase	0.60
SHC1	SHC adaptor protein 1	0.59
NTAN1	N-terminal asparagine amidase	0.59
LATS2	large tumor suppressor kinase 2	0.59
THBS3	thrombospondin 3	0.59
CACNB3	calcium voltage-gated channel auxiliary subunit beta 3	0.58
AXL	AXL receptor tyrosine kinase	0.58
RRAS	related RAS viral (r-ras) oncogene homolog	0.58
INF2	inverted formin, FH2 and WH2 domain containing	0.56
ZBED1	zinc finger BED-type containing 1	0.56
EOGT	EGF domain specific O-linked N-acetylglucosamine transferase	0.55
P3H1	prolyl 3-hydroxylase 1	0.55
NEDD4	neural precursor cell expressed, developmentally down-regulated 4, E3 ubiquitin protein ligase	0.54
PLD2	phospholipase D2	0.54
TNS1	tensin 1	0.53
TRIP10	thyroid hormone receptor interactor 10	0.53
ACTB	actin beta	0.51
PLCB3	phospholipase C beta 3	0.51
TCF3	transcription factor 3	0.50
LMNA	lamin A/C	0.49
ARSB	arylsulfatase B	0.49

PLSCR3	phospholipid scramblase 3	0.48
MYO1C	myosin IC	0.48
FHOD1	formin homology 2 domain containing 1	0.47
AIDA	axin interactor, dorsalization associated	0.46
SLC39A1	solute carrier family 39 member 1	0.45
*KANK2**	KN motif and ankyrin repeat domains 2	0.44
DOCK1	dedicator of cytokinesis 1	0.44
SLC35C1	solute carrier family 35 member C1	0.41
TICAM1	toll like receptor adaptor molecule 1	0.40
LIMK1	LIM domain kinase 1	0.37
NDEL1	nudE neurodevelopment protein 1 like 1	0.35
GAPVD1	GTPase activating protein and VPS9 domains 1	-0.34
CRBN	cereblon	-0.34
ACTR6	ARP6 actin-related protein 6 homolog	-0.35
TM9SF4	transmembrane 9 superfamily member 4	-0.35
DNAJC14	DnaJ heat shock protein family (Hsp40) member C14	-0.35
SMAD5	SMAD family member 5	-0.36
SLC30A5	solute carrier family 30 member 5	-0.36
ASXL1	additional sex combs like 1, transcriptional regulator	-0.37
LETMD1	LETM1 domain containing 1	-0.37
MTMR12	myotubularin related protein 12	-0.38
COL4A3BP	collagen type IV alpha 3 binding protein	-0.38
ACOX1	acyl-CoA oxidase 1	-0.38
CMTR1	cap methyltransferase 1	-0.38
TMED4	transmembrane p24 trafficking protein 4	-0.38
DENR	density regulated re-initiation and release factor	-0.38
CDK5RAP1	CDK5 regulatory subunit associated protein 1	-0.39
HMGN4	high mobility group nucleosomal binding domain 4	-0.39
PTBP3	polypyrimidine tract binding protein 3	-0.40
NDFIP1	Nedd4 family interacting protein 1	-0.40
PURB	purine rich element binding protein B	-0.40
UNK	unkempt family zinc finger	-0.40
FBXW11	F-box and WD repeat domain containing 11	-0.41
PYROXD1	pyridine nucleotide-disulphide oxidoreductase domain 1	-0.41
KRR1	KRR1, small subunit processome component homolog	-0.42
ATXN7L3B	ataxin 7 like 3B	-0.42
ZNHIT3	zinc finger HIT-type containing 3	-0.42
AIMP1	aminoacyl tRNA synthetase complex interacting multifunctional protein 1	-0.42
BBS10	Bardet-Biedl syndrome 10	-0.42
PREPL	prolyl endopeptidase-like	-0.42
C12orf29	chromosome 12 open reading frame 29	-0.42
KIAA1191	KIAA1191	-0.42
LCLAT1	lysocardiolipin acyltransferase 1	-0.42
DCTN4	dynactin subunit 4	-0.43
GFM2	G elongation factor mitochondrial 2	-0.43
RNF34	ring finger protein 34	-0.43
UBE2N	ubiquitin conjugating enzyme E2 N	-0.43
SPOP	speckle type BTB/POZ protein	-0.44
PIGH	phosphatidylinositol glycan anchor biosynthesis class H	-0.44
ARL8B	ADP ribosylation factor like GTPase 8B	-0.44
NFU1	NFU1 iron-sulfur cluster scaffold	-0.44
LEMD3	LEM domain containing 3	-0.45
RPRD1B	regulation of nuclear pre-mRNA domain containing 1B	-0.45

ZNF346	zinc finger protein 346	-0.45
DIP2B	disco interacting protein 2 homolog B	-0.45
METTL23	methyltransferase like 23	-0.45
NADK2	NAD kinase 2, mitochondrial	-0.45
ATP2B1	ATPase plasma membrane Ca2+ transporting 1	-0.46
CBFA2T2	CBFA2/RUNX1 translocation partner 2	-0.46
UQCC1	ubiquinol-cytochrome c reductase complex assembly factor 1	-0.46
COX11	COX11, cytochrome c oxidase copper chaperone	-0.47
KIF3A	kinesin family member 3A	-0.47
SAYSD1	SAYSVFN motif domain containing 1	-0.48
TSR2	TSR2, ribosome maturation factor	-0.48
CEP250	centrosomal protein 250	-0.48
MRPL42	mitochondrial ribosomal protein L42	-0.48
HMGXB3	HMG-box containing 3	-0.48
SLC11A2	solute carrier family 11 member 2	-0.48
ZNF740	zinc finger protein 740	-0.48
POFUT1	protein O-fucosyltransferase 1	-0.49
ALG6	ALG6, alpha-1,3-glucosyltransferase	-0.49
TMEM245	transmembrane protein 245	-0.49
ATP7A	ATPase copper transporting alpha	-0.50
HECTD4	HECT domain E3 ubiquitin protein ligase 4	-0.50
YIPF6	Yip1 domain family member 6	-0.50
LRP6	LDL receptor related protein 6	-0.50
TAPT1	transmembrane anterior posterior transformation 1	-0.50
WDR5B	WD repeat domain 5B	-0.50
BOD1	biorientation of chromosomes in cell division 1	-0.51
CDS2	CDP-diacylglycerol synthase 2	-0.51
DMXL1	Dmx like 1	-0.51
CBX1	chromobox 1	-0.51
TRIM37	tripartite motif containing 37	-0.51
GLUD2	glutamate dehydrogenase 2	-0.52
FBXW8	F-box and WD repeat domain containing 8	-0.52
NDRG3	NDRG family member 3	-0.52
C12orf66	chromosome 12 open reading frame 66	-0.52
C17orf80	chromosome 17 open reading frame 80	-0.52
OGFOD2	2-oxoglutarate and iron dependent oxygenase domain containing 2	-0.52
GFPT1	glutamine--fructose-6-phosphate transaminase 1	-0.52
AIP	aryl hydrocarbon receptor interacting protein	-0.53
FAM122B	family with sequence similarity 122B	-0.53
TMEM161B	transmembrane protein 161B	-0.53
USP30	ubiquitin specific peptidase 30	-0.53
RPTOR	regulatory associated protein of MTOR complex 1	-0.53
CHD1	chromodomain helicase DNA binding protein 1	-0.53
TMEM199	transmembrane protein 199	-0.54
*MOAP1**	modulator of apoptosis 1	-0.54
DNAJC19	DnaJ heat shock protein family (Hsp40) member C19	-0.55
SENP2	SUMO1/sentrin/SMT3 specific peptidase 2	-0.55
MARCH6	membrane associated ring-CH-type finger 6	-0.55
GUF1	GUF1 homolog, GTPase	-0.55
KMT5B	lysine methyltransferase 5B	-0.55
DPH6	diphthamine biosynthesis 6	-0.55
HSDL2	hydroxysteroid dehydrogenase like 2	-0.55
CHD6	chromodomain helicase DNA binding protein 6	-0.55
RCE1	Ras converting CAAX endopeptidase 1	-0.56

NECAP1	NECAP endocytosis associated 1	-0.56
IMPAD1	inositol monophosphatase domain containing 1	-0.57
SOGA1	suppressor of glucose, autophagy associated 1	-0.57
TMEM94	transmembrane protein 94	-0.57
AMN1	antagonist of mitotic exit network 1 homolog	-0.57
PLA2G12A	phospholipase A2 group XIIA	-0.58
ZFHX3	zinc finger homeobox 3	-0.58
MSI2	musashi RNA binding protein 2	-0.58
RPS6KB1	ribosomal protein S6 kinase B1	-0.59
SOWAHC	sosondowah ankyrin repeat domain family member C	-0.59
PDRG1	p53 and DNA damage regulated 1	-0.60
NCEH1	neutral cholesterol ester hydrolase 1	-0.60
SNX11	sorting nexin 11	-0.60
CDK17	cyclin dependent kinase 17	-0.60
DPY19L4	dpy-19 like 4 (C. elegans)	-0.60
HLTF	helicase like transcription factor	-0.60
STAU2	staufen double-stranded RNA binding protein 2	-0.60
MIGA1	mitoguardin 1	-0.61
TCEA1	transcription elongation factor A1	-0.61
SNHG6	small nucleolar RNA host gene 6	-0.61
RAD51C	RAD51 paralog C	-0.61
EPB41L5	erythrocyte membrane protein band 4.1 like 5	-0.61
LINC00938	long intergenic non-protein coding RNA 938	-0.62
FKBP4	FK506 binding protein 4	-0.62
PCMTD1	protein-L-isoaspartate (D-aspartate) O-methyltransferase domain containing 1	-0.63
UTP23	UTP23, small subunit processome component	-0.63
HACD3	3-hydroxyacyl-CoA dehydratase 3	-0.63
ATP6V1H	ATPase H+ transporting V1 subunit H	-0.63
ATP5S	ATP synthase, H+ transporting, mitochondrial Fo complex subunit s (factor B)	-0.63
NEDD4L	neural precursor cell expressed, developmentally down-regulated 4-like, E3 ubiquitin protein ligase	-0.63
GK	glycerol kinase	-0.64
SSBP2	single stranded DNA binding protein 2	-0.64
TMX2	thioredoxin related transmembrane protein 2	-0.65
RNFT1	ring finger protein, transmembrane 1	-0.65
TMEM134	transmembrane protein 134	-0.65
PDK3	pyruvate dehydrogenase kinase 3	-0.66
GLO1	glyoxalase I	-0.66
STIM1	stromal interaction molecule 1	-0.67
CANT1	calcium activated nucleotidase 1	-0.67
NKIRAS1	NFKB inhibitor interacting Ras like 1	-0.68
FBP1	fructose-bisphosphatase 1	-0.68
PRIM1	primase (DNA) subunit 1	-0.68
VPS37C	VPS37C, ESCRT-I subunit	-0.68
ORMDL3	ORMDL sphingolipid biosynthesis regulator 3	-0.68
TIGD7	tigger transposable element derived 7	-0.69
SLC26A11	solute carrier family 26 member 11	-0.69
ZNF674-AS1	ZNF674 antisense RNA 1 (head to head)	-0.69
PPP6R3	protein phosphatase 6 regulatory subunit 3	-0.69
VPS13B	vacuolar protein sorting 13 homolog B	-0.69
CMBL	carboxymethylenebutenolidase homolog	-0.69
NDUFV1	NADH:ubiquinone oxidoreductase core subunit V1	-0.69

MPHOSPH9	M-phase phosphoprotein 9	-0.69
USP14	ubiquitin specific peptidase 14	-0.70
LRBA	LPS responsive beige-like anchor protein	-0.70
SELENOI	selenoprotein I	-0.70
PCMTD2	protein-L-isoaspartate (D-aspartate) O-methyltransferase domain containing 2	-0.71
GSTA4	glutathione S-transferase alpha 4	-0.71
RBBP7	RB binding protein 7, chromatin remodeling factor	-0.71
SLC35E3	solute carrier family 35 member E3	-0.72
C12orf49	chromosome 12 open reading frame 49	-0.72
EIF3H	eukaryotic translation initiation factor 3 subunit H	-0.75
*ANOS1**	anosmin 1	-0.75
LMBRD2	LMBR1 domain containing 2	-0.77
INSIG1	insulin induced gene 1	-0.77
TESK2	testis-specific kinase 2	-0.79
CBX4	chromobox 4	-0.79
*THSD4**	thrombospondin type 1 domain containing 4	-0.80
CGN	cingulin	-0.81
QSOX2	quiescin sulfhydryl oxidase 2	-0.81
NAF1	nuclear assembly factor 1 ribonucleoprotein	-0.81
NCOA2	nuclear receptor coactivator 2	-0.82
PAIP2B	poly(A) binding protein interacting protein 2B	-0.82
WBP11	WW domain binding protein 11	-0.83
FAR1	fatty acyl-CoA reductase 1	-0.83
CBX8	chromobox 8	-0.83
BCDIN3D-AS1	BCDIN3D antisense RNA 1	-0.84
C17orf58	chromosome 17 open reading frame 58	-0.85
AL109918.1	uncharacterized LOC730101	-0.85
ZNF233	zinc finger protein 233	-0.85
NECAB3	N-terminal EF-hand calcium binding protein 3	-0.86
DGKE	diacylglycerol kinase epsilon	-0.87
PRRT3	proline rich transmembrane protein 3	-0.87
SOCS7	suppressor of cytokine signaling 7	-0.88
ST3GAL1	ST3 beta-galactoside alpha-2,3-sialyltransferase 1	-0.89
IGHMBP2	immunoglobulin mu binding protein 2	-0.89
GJD3	gap junction protein delta 3	-0.90
TXNDC16	thioredoxin domain containing 16	-0.90
CHKA	choline kinase alpha	-0.91
TSPAN13	tetraspanin 13	-0.91
PLEKHF2	pleckstrin homology and FYVE domain containing 2	-0.91
ABCA17P	ATP binding cassette subfamily A member 17, pseudogene	-0.92
LINC01816	long intergenic non-protein coding RNA 1816	-0.92
ZNF704	zinc finger protein 704	-0.93
NDUFAF6	NADH:ubiquinone oxidoreductase complex assembly factor 6	-0.93
TMEM97	transmembrane protein 97	-0.94
FBXL7	F-box and leucine rich repeat protein 7	-0.94
WBP11P1	WW domain binding protein 11 pseudogene 1	-0.95
MRPL21	mitochondrial ribosomal protein L21	-0.95
SLC46A1	solute carrier family 46 member 1	-0.96
ZNF880	zinc finger protein 880	-0.97
DZIP3	DAZ interacting zinc finger protein 3	-0.98
RERG	RAS like estrogen regulated growth inhibitor	-0.98
ORAOV1	oral cancer overexpressed 1	-0.98
ABCC5	ATP binding cassette subfamily C member 5	-0.99

SRGAP3	SLIT-ROBO Rho GTPase activating protein 3	-1.01
ENPP4	ectonucleotide pyrophosphatase/phosphodiesterase 4 (putative)	-1.02
LYPLA1	lysophospholipase I	-1.02
RNF43	ring finger protein 43	-1.04
PTPN1	protein tyrosine phosphatase, non-receptor type 1	-1.04
KLHL23	kelch like family member 23	-1.04
GRB2	growth factor receptor bound protein 2	-1.07
ENTPD5	ectonucleoside triphosphate diphosphohydrolase 5	-1.07
GDPD1	glycerophosphodiester phosphodiesterase domain containing 1	-1.08
SLC9B1	solute carrier family 9 member B1	-1.11
CPT1A	carnitine palmitoyltransferase 1A	-1.11
C9orf106	chromosome 9 open reading frame 106	-1.12
GLIPR1L2	GLI pathogenesis-related 1 like 2	-1.16
CASC10	cancer susceptibility candidate 10	-1.16
TESMIN	testis expressed metallothionein like protein	-1.16
AQP11	aquaporin 11	-1.17
ISOC1	isochorismatase domain containing 1	-1.18
RETREG1	reticulophagy regulator 1	-1.21
EAF2	ELL associated factor 2	-1.32
ITPR1	inositol 1,4,5-trisphosphate receptor type 1	-1.33
KIAA1958	KIAA1958	-1.35
GFRA1	GDNF family receptor alpha 1	-1.38
CNTD1	cyclin N-terminal domain containing 1	-1.39
TAS2R31	taste 2 receptor member 31	-1.39
HIST4H4	histone cluster 4 H4	-1.39
C3orf67	chromosome 3 open reading frame 67	-1.41
CCDC117	coiled-coil domain containing 117	-1.45
RMND1	required for meiotic nuclear division 1 homolog	-1.46
*ESR1**	estrogen receptor 1	-1.48
ASIC1	acid sensing ion channel subunit 1	-1.48
H2AFJ	H2A histone family member J	-1.49
REPS2	RALBP1 associated Eps domain containing 2	-1.52
SERPINI1	serpin family I member 1	-1.55
CNBD2	cyclic nucleotide binding domain containing 2	-1.59
TMEM145	transmembrane protein 145	-1.61
ARMT1	acidic residue methyltransferase 1	-1.61
KCNG3	potassium voltage-gated channel modifier subfamily G member 3	-1.64
MYRIP	myosin VIIA and Rab interacting protein	-1.64
NOVA1	NOVA alternative splicing regulator 1	-1.67
RAB30	RAB30, member RAS oncogene family	-1.69
HEBP1	heme binding protein 1	-1.75
CLUL1	clusterin like 1	-1.76
HTR7P1	5-hydroxytryptamine receptor 7 pseudogene 1	-1.89
FAM234B	family with sequence similarity 234 member B	-2.08
AQP6	aquaporin 6	-2.12
ADAMTS19	ADAM metallopeptidase with thrombospondin type 1 motif 19	-2.17
SOX2-OT	SOX2 overlapping transcript	-2.19
C12orf60	chromosome 12 open reading frame 60	-2.31
RIMS1	regulating synaptic membrane exocytosis 1	-2.50
EXOC3L4	exocyst complex component 3 like 4	-2.74
SLIT1	slit guidance ligand 1	-3.11
BRDT	bromodomain testis associated	-4.91
SLC30A8	solute carrier family 30 member 8	-5.13
SMCO3	single-pass membrane protein with coiled-coil domains 3	-5.38

* Genes that are associated with ER -pSer118 in both tumour types.
# Log_2 fold-change of expression in tumours with high versus low levels of ER -pSer118.