

**Additional file 2.** List of the genes cited in the paper. We indicate gene symbol, gene name and location based on Gene database (<http://www.ncbi.nlm.nih.gov/gene>).

Gene symbol	Gene name	Location
<i>ADAMTS1</i>	ADAM metallopeptidase with thrombospondin type 1 motif, 1	21q21.2
<i>ALAS1</i>	aminolevulinate, delta-, synthase 1	3p21.1
<i>ALS2CR12</i>	amyotrophic lateral sclerosis 2 (juvenile) chromosome region, candidate 12	2q33.1
<i>APOC1</i>	apolipoprotein C-I	19q13.2
<i>APOC2</i>	apolipoprotein C-II	19q13.2
<i>APOE</i>	apolipoprotein E	19q13.2
<i>ASAP2</i>	ArfGAP with SH3 domain, ankyrin repeat and PH domain 2	2p24
<i>ATP6V0D2</i>	ATPase, H <sup>+</sup> transporting, lysosomal 38kDa, V0 subunit d2	8q21.3*
<i>BACH1</i>	BTB and CNC homology 1, basic leucine zipper transcription factor 1	21q22.11
<i>BST2</i>	bone marrow stromal cell antigen 2	19p13.1
<i>C5orf46</i>	chromosome 5 open reading frame 46	5q32
<i>CBS</i>	cystathionine-beta-synthase	21q22.3
<i>CD46</i>	CD46 molecule, complement regulatory protein	1q32
<i>CDA</i>	cytidine deaminase	1p36.2-p35
<i>CDKL1</i>	cyclin-dependent kinase-like 1 (CDC2-related kinase)\	14q21.3
<i>CDYL2</i>	chromodomain protein, Y-like 2	16q23.2
<i>CERKL</i>	ceramide kinase-like	2q31.3
<i>CES3</i>	carboxylesterase 3	16q22.1
<i>CGA</i>	glycoprotein hormones, alpha polypeptide	6q12-q21
<i>CLCA1</i>	chloride channel accessory 1	1p22.3
<i>CLEC12A</i>	C-type lectin domain family 12, member A	12p13.2
<i>CLEC2B</i>	C-type lectin domain family 2, member B	12p13-p12
<i>CMBL</i>	carboxymethylenebutenolidase homolog (Pseudomonas)	5p15.2
<i>COL6A5</i>	collagen, type VI, alpha 5	3q22.1
<i>COL6A6</i>	collagen, type VI, alpha 6	3q22.1
<i>CRTC1</i>	CREB regulated transcription coactivator 1	19p13.11
<i>CSRNP1</i>	cysteine-serine-rich nuclear protein 1	3p22
<i>CXCL3</i>	chemokine (C-X-C motif) ligand 3	4q21
<i>CXCL5</i>	chemokine (C-X-C motif) ligand 5	4q13.3
<i>DCK</i>	deoxycytidine kinase	4q13.3-q21.1
<i>DICER1</i>	dicer 1, ribonuclease type III	14q32.13
<i>DLGAP3</i>	discs, large (Drosophila) homolog-associated protein 3	1p35.3-p34.1
<i>DRD4</i>	dopamine receptor D4	11p15.5
<i>DYRK1A</i>	dual-specificity tyrosine-(Y)-phosphorylation regulated kinase 1A	21q22.13
<i>ERG</i>	v-ets avian erythroblastosis virus E26 oncogene homolog	21q22.3
<i>ETS2</i>	v-ets avian erythroblastosis virus E26 oncogene homolog 2	21q22.2
<i>FAM78B</i>	family with sequence similarity 78, member B	1q24.1
<i>FCER1A</i>	Fc fragment of IgE, high affinity I, receptor for; alpha polypeptide	1q23
<i>FLJ22184</i>	putative uncharacterized protein FLJ22184	19p13.2

<i>FSIP2</i>	fibrous sheath interacting protein 2	2q32.1
<i>GABPA</i>	GA binding protein transcription factor, alpha subunit 60kDa	21q21.3
<i>GATA1</i>	GATA binding protein 1 (globin transcription factor 1)	Xp11.23
<i>GATA2</i>	GATA binding protein 2	3q21.3
<i>GBP5</i>	guanylate binding protein 5	1p22.2
<i>GHRH</i>	growth hormone releasing hormone	20q11.2
<i>GNG11</i>	guanine nucleotide binding protein (G protein), gamma 11	7q21
<i>GP1BA</i>	glycoprotein Ib (platelet), alpha polypeptide	17p13.2
<i>GPR171</i>	G protein-coupled receptor 171	3q25.1
<i>GSAP</i>	gamma-secretase activating protein	7q11.23
<i>GYP A</i>	glycophorin A (MNS blood group)	4q31.21
<i>GYP B</i>	glycophorin B (MNS blood group)	4q31.21
<i>GYP E</i>	glycophorin E (MNS blood group)	4q31.1
<i>GUCY1A3</i>	guanylate cyclase 1, soluble, alpha 3	4q31.1-q31.2
<i>GUCY1B3</i>	guanylate cyclase 1, soluble, beta 3	4q31.3-q33
<i>HBG1</i>	hemoglobin, gamma A	11p15.5
<i>HBG2</i>	hemoglobin, gamma G	11p15.5
<i>HDC</i>	histidine decarboxylase	15q21-q22
<i>HIST3H3</i>	histone cluster 3, H3	1q42
<i>IFI27</i>	interferon, alpha-inducible protein 27	14q32
<i>IGF1R</i>	insulin-like growth factor 1 receptor	15q26.3
<i>ILDR1</i>	immunoglobulin-like domain containing receptor 1	3q13.33
<i>ITGA2B</i>	integrin, alpha 2b (platelet glycoprotein IIb of IIb/IIIa complex, antigen CD41)	17q21.32
<i>ITGA4</i>	integrin, alpha 4 (antigen CD49D, alpha 4 subunit of VLA-4 receptor)	2q31.3
<i>ITGAL</i>	integrin, alpha L (antigen CD11A (p180), lymphocyte function-associated antigen 1; alpha polypeptide)	16p11.2
<i>ITGB3</i>	integrin, beta 3 (platelet glycoprotein IIIa, antigen CD61)	17q21.32
<i>KIAA2022</i>	KIAA2022	Xq13.3
<i>KIT</i>	v-kit Hardy-Zuckerman 4 feline sarcoma viral oncogene homolog	4q11-q12
<i>KLRB1</i>	killer cell lectin-like receptor subfamily B, member 1	12p13
<i>KLRF1</i>	killer cell lectin-like receptor subfamily F, member 1	12p13.31
<i>LBX1</i>	ladybird homeobox 1	10q24
LOC100287628	uncharacterized LOC100287628	16p13.2
<i>LRRN1</i>	leucine rich repeat neuronal 1	3p26.2
<i>MAP3K10</i>	mitogen-activated protein kinase kinase kinase 10	19q13.2
<i>MAP9</i>	microtubule-associated protein 9	4q32.1
<i>MARCH2</i>	membrane-associated ring finger (C3HC4) 2, E3 ubiquitin protein ligase	19p13.2
<i>MED12L</i>	mediator complex subunit 12-like	3q25.1
<i>MPL</i>	myeloproliferative leukemia virus oncogene	1p34
<i>MPV17L</i>	MPV17 mitochondrial membrane protein-like	16p13.11
<i>MTIE</i>	metallothionein 1E	16q13
<i>MTOR</i>	mechanistic target of rapamycin (serine/threonine kinase)	1p36.2
<i>MYCN</i>	v-myc myelocytomatosis viral related oncogene, neuroblastoma derived (avian)	2p24.3
<i>NCOR2</i>	nuclear receptor corepressor 2	12q24
<i>NECAB1</i>	N-terminal EF-hand calcium binding protein 1	8q21.3

<i>NR2F2-AS1</i>	NR2F2 antisense RNA 1	15q26.2
<i>OLFM4</i>	olfactomedin 4	13q14.3
<i>OPHN1</i>	oligophrenin 1	Xq12
<i>OR10A4</i>	olfactory receptor, family 10, subfamily A, member 4	11p15.4
<i>OR10A5</i>	olfactory receptor, family 10, subfamily A, member 5	11p15.4
<i>OTUD6B</i>	OTU domain containing 6B	8q21.3
<i>P2RY13</i>	purinergic receptor P2Y, G-protein coupled, 13	3q24
<i>PDE6C</i>	phosphodiesterase 6C, cGMP-specific, cone, alpha prime	10q24
<i>PF4</i>	platelet factor 4	4q12-q21
<i>PF4V1</i>	platelet factor 4 variant 1	4q12-q21
<i>PIF1</i>	PIF1 5'-to-3' DNA helicase	15q22.31
<i>PPBP</i>	pro-platelet basic protein (chemokine (C-X-C motif) ligand 7)	4q12-q13
<i>PPP1R3B</i>	protein phosphatase 1, regulatory subunit 3B	8p23.1
<i>PRAME</i>	preferentially expressed antigen in melanoma	22q11.22
<i>PRF1</i>	perforin 1 (pore forming protein)	10q22
<i>PTGS2</i>	prostaglandin-endoperoxide synthase 2 (prostaglandin G/H synthase and cyclooxygenase)	1q25.2-q25.3
<i>PTPN12</i>	protein tyrosine phosphatase, non-receptor type 12	7q11.23
<i>PTPRO</i>	protein tyrosine phosphatase, receptor type, O	12p13-p12
<i>RHOBTB1</i>	Rho-related BTB domain containing 1	10q21.2
<i>RPS12</i>	ribosomal protein S12	6q23.2
<i>RUNX1</i>	runt-related transcription factor 1	21q22.3
<i>S100A8</i>	S100 calcium binding protein A8	1q21
<i>S100A9</i>	S100 calcium binding protein A9	1q21
<i>S100A12</i>	S100 calcium binding protein A12	1q21
<i>SCD5</i>	stearoyl-CoA desaturase 5	4q21.22
<i>SCGB3A2</i>	secretoglobin, family 3A, member 2	5q32
<i>SLFNL1</i>	schlafen-like 1	1p34.2
<i>SLITRK6</i>	SLIT and NTRK-like family, member 6	13q31.1
<i>SMOX</i>	spermine oxidase	20p13
<i>SOD1</i>	superoxide dismutase 1, soluble	21q22.11
<i>SON</i>	SON DNA binding protein	21q22.11
<i>SOSTDC1</i>	sclerostin domain containing 1	7p21.1
<i>SPATA1</i>	spermatogenesis associated 1	1p22.3
<i>SPINK2</i>	serine peptidase inhibitor, Kazal type 2 (acrosin-trypsin inhibitor)	4q12
<i>SPINK7</i>	serine peptidase inhibitor, Kazal type 7 (putative)	5q32
<i>SPRR4</i>	small proline-rich protein 4	1q21.3
<i>SPSB4</i>	spla/ryanodine receptor domain and SOCS box containing 4	3q23
<i>SPTLC3</i>	serine palmitoyltransferase, long chain base subunit 3	20p12.1
<i>ST18</i>	suppression of tumorigenicity 18, zinc finger	8q11.23
<i>TAL1</i>	T-cell acute lymphocytic leukemia 1	1p32
<i>TEK</i>	TEK tyrosine kinase, endothelial	9p21
<i>TERT</i>	telomerase reverse transcriptase	5p15.33
<i>TMEFF2</i>	transmembrane protein with EGF-like and two follistatin-like domains 2	2q32.3
<i>TMEM241</i>	transmembrane protein 241	18q11.2

<i>TNFSF14</i>	tumor necrosis factor (ligand) superfamily, member 14	19p13.3
<i>TOP3B</i>	topoisomerase (DNA) III beta	22q11.22
<i>TPSG1</i>	tryptase gamma 1	16p13.3
<i>TRIB1</i>	tribbles pseudokinase 1	8q24.13
<i>TSPAN10</i>	tetraspanin 10	17q25.3
<i>VIPR2</i>	vasoactive intestinal peptide receptor 2	7q36.3
<i>ZNF445</i>	zinc finger protein 445	3p21.32
<i>ZNF521</i>	zinc finger protein 521	18q11.2
<i>ZNF587B</i>	zinc finger protein 587B	19q13.43*

\*Cytoband was derived from the UCSC Genome Browser (<http://genome-euro.ucsc.edu/cgi-bin/hgGateway>).