

Supplementary Table 2: Differentially expressed genes corresponding to cluster one. Eighty of them have not annotation on swissprot database.

Target genes	Gene	Specie	Expression level
Mucin-5AC Fragments	MUC5AC	<i>Homo sapiens</i>	High
Sodium/glucose cotransporter 5	Slc5a10	<i>Mus musculus</i>	High
Mucin-5AC Fragments	MUC5AC	<i>Homo sapiens</i>	High
Tenascin-R	TNR	<i>Gallus gallus</i>	High
Maltase-glucoamylase, intestinal	MGAM	<i>Homo sapiens</i>	High
Ephrin type-B receptor 2	EPHB2	<i>Homo sapiens</i>	High
DNA polymerase epsilon catalytic subunit A	Pole	<i>Mus musculus</i>	High
Hypermethylated in cancer 2 protein	hic2	<i>Danio rerio</i>	High
Receptor-type tyrosine-protein phosphatase delta	PTPRD	<i>Homo sapiens</i>	High
Plectin-1 Fragment	PLEC1	<i>Cricetulus griseus</i>	High
IgGFc-binding protein	FCGBP	<i>Homo sapiens</i>	High
Steroid hormone receptor ERR2	ESRRB	<i>Homo sapiens</i>	High
Kinesin-like protein KIF1B NA	Kif1b	<i>Mus musculus</i>	High
Insulin-like growth factor 1 receptor PE=2 SV=2	Igf1r	<i>Rattus norvegicus</i>	High
[BBH] NFIX_MOUSE P70257 Nuclear factor 1 X-type	Nfix	<i>Mus musculus</i>	High
MBT domain-containing protein 1	Mbtd1	<i>Mus musculus</i>	High

MBT domain-containing protein 1	Mbtd1	<i>Mus musculus</i>	High
[BBH] MBTD1_XENLA Q32N90 MBT domain-containing protein 1		<i>Xenopus laevis</i>	High
Protein piccolo	PCLO	<i>Homo sapiens</i>	High
Dystrophin	DMD	<i>Sus scrofa</i>	High
Uncharacterized protein CXorf67	CXorf67	<i>Homo sapiens</i>	High
Golgi apparatus protein 1	GLG1	<i>Gallus gallus</i>	High
Gem-associated protein 5	Gemin5	<i>Mus musculus</i>	High
Rho GTPase-activating protein 21	ARHGAP21	<i>Homo sapiens</i>	High
Zinc finger protein 521	znf521	<i>Xenopus laevis</i>	High
Myosin-Ixb	MYO9B	<i>Homo sapiens</i>	High
[BBH] PHF2_HUMAN O75151 PHD finger protein 2	PHF2	<i>Homo sapiens</i>	High
Golgi apparatus protein 1	GLG1	<i>Gallus gallus</i>	High
Uncharacterized protein KIAA1688	KIAA1688	<i>Homo sapiens</i>	High
Late cornified envelope-like proline-rich protein 1	LELP1	<i>Bos taurus</i>	High
Golgi apparatus protein 1	GLG1	<i>Gallus gallus</i>	High
Zinc finger homeobox protein 2	ZFH2	<i>Homo sapiens</i>	High
Myb-binding protein 1A	MYBBP1A	<i>Homo sapiens</i>	High
Connector enhancer of kinase suppressor of ras 2	Cnksr2	<i>Mus musculus</i>	High
Bromodomain adjacent to zinc finger domain protein 2B	BAZ2B	<i>Gallus gallus</i>	High
WD repeat-containing protein 26	wdr26	<i>Xenopus tropicalis</i>	High

Sodium channel protein type 8 subunit alpha [BBH] MARK3_MOUSE Q03141	Scn8a	<i>Mus musculus</i>	High
MAP/microtubule affinity-regulating kinase 3	Mark3	<i>Mus musculus</i>	High
Alpha-actinin-2	Actn2	<i>Mus musculus</i>	High
[BBH] MYO1B_HUMAN O43795 Myosin-Ib	MYO1B	<i>Homo sapiens</i>	High
PHD finger protein 14	Phf14	<i>Mus musculus</i>	High
[BBH] SYT11_MOUSE Q9R0N3	Syt11	<i>Mus musculus</i>	High
Synaptotagmin-11			
KLRAQ motif-containing protein 1	KLRAQ1	<i>Homo sapiens</i>	High
Fragile X mental retardation syndrome-related protein 1	Fxr1	<i>Rattus norvegicus</i>	High
Protein kinase C epsilon type	PRKCE	<i>Oryctolagus cuniculus</i>	High
GTPase-activating Rap/Ran-GAP domain-like protein 3	Garnl3	<i>Mus musculus</i>	High
Alpha-actinin-2	ACTN2	<i>Gallus gallus</i>	High
[BBH] KINH_RAT Q2PQA9 Kinesin-1 heavy chain	Kif5b	<i>Rattus norvegicus</i>	High
[BBH] JPH1_HUMAN Q9HDC5	JPH1	<i>Homo sapiens</i>	High
Junctophilin-1			
Alpha-actinin-3	ACTN3	<i>Homo sapiens</i>	High
AP-1 complex subunit beta-1	AP2B1	<i>Bos taurus</i>	High
[BBH] PAAJ_ECOLX P0C7L3 Beta-ketoadipyl-CoA thiolase	paaJ	<i>Escherichia coli</i>	High
Zinc finger SWIM domain-containing protein 6	ZSWIM6	<i>Homo sapiens</i>	High

Carnitine O-palmitoyltransferase 1, muscle isoform	Cpt1b	<i>Mus musculus</i>	High
Histidine triad nucleotide-binding protein 2 , nuclear gene encoding mitochondrial protein, mRNA	(hint2)	<i>Oncorhynchus mykiss</i>	High
Versican core protein	VCAN	<i>Gallus gallus</i>	High
Nuclear factor 1 X-type	Nfix	<i>Mus musculus</i>	High
Ankyrin	RAI14	<i>Homo sapiens</i>	High
MICAL-like protein 1	MICAL1	<i>Homo sapiens</i>	High
AT-rich interactive domain-containing protein 3B	Arid3b	<i>Mus musculus</i>	High
E3 ubiquitin-protein ligase HECTD1	HECTD1	<i>Homo sapiens</i>	High
Transposon TX1 uncharacterized 82 kDa protein		<i>Xenopus laevis</i>	High
Kinesin-1 heavy chain	KIF5B	<i>Homo sapiens</i>	High
Transcription activator BRG1	SMARCA4	<i>Bos taurus</i>	High
Putative RNA-binding protein 15	RBM15	<i>Homo sapiens</i>	High
Fibroblast growth factor receptor 4	fgfr4	<i>Danio rerio</i>	High
Probable E3 ubiquitin-protein ligase MYCBP2	MYCBP2	<i>Homo sapiens</i>	High
Puromycin-sensitive aminopeptidase	NPEPPS	<i>Homo sapiens</i>	High
Oncorhynchus mykiss valosin containing protein LOC100136246, mRNA			High
Transcriptional adapter 2-beta	TADA2B	<i>Pongo abelii</i>	High
Integrin alpha-V	ITGAV	<i>Bos taurus</i>	High

Synaptotagmin-1	SYT1	<i>Pongo abelii</i>	High
Probable methylcytosine dioxygenase TET3	Tet3	<i>Mus musculus</i>	High
Coiled-coil domain-containing protein 88B	CCDC88B	<i>Homo sapiens</i>	High
Filamin A-interacting protein 1-like	filip1l	<i>Danio rerio</i>	High
[BBH] STAU1_HUMAN O95793 Double- stranded RNA-binding protein Staufen homolog 1	STAU1	<i>Homo sapiens</i>	High
Adapter molecule crk	Crk	<i>Rattus norvegicus</i>	High
COUP transcription factor 2	NR2F2	<i>Bos taurus</i>	High
Calcium-binding protein 39	Cab39	<i>Mus musculus</i>	High
AP-3 complex subunit delta-1	AP3D1	<i>Homo sapiens</i>	High
Regulator of nonsense transcripts 1	Upf1	<i>Mus musculus</i>	High
INO80 complex subunit E	Ino80e	<i>Rattus norvegicus</i>	High
[BBH] CTRO_HUMAN O14578 Citron Rho-interacting kinase	CIT	<i>Homo sapiens</i>	High
Rho GTPase-activating protein 27	Arhgap27	<i>Rattus norvegicus</i>	High
Calpain-10	Capn10	<i>Rattus norvegicus</i>	High
MAP kinase-activating death domain protein	Madd	<i>Mus musculus</i>	High
RNA-directed DNA polymerase from mobile element jockey	pol	<i>Drosophila melanogaster</i>	High
AP2-associated protein kinase 1	Aak1	<i>Mus musculus</i>	High
Nattectin		<i>Thalassophryne nattereri</i>	High
Signal recognition particle 14 kDa protein	SRP14	<i>Pongo abelii</i>	High

[BBH] F19A2_MOUSE Q7TPG7 Protein FAM19A2	Fam19a2	<i>Mus musculus</i>	High
[BBH] KIF3A_MACFA Q4R628 Kinesin-like protein KIF3A	KIF3A	<i>Macaca fascicularis</i>	High
Neuroplastin	Nptn	<i>Mus musculus</i>	High
Tropomyosin alpha-3 chain	Tpm3	<i>Rattus norvegicus</i>	High
PREDICTED: hypothetical protein [Danio rerio]			High
Transcription factor PU.1	SPI1	<i>Homo sapiens</i>	High
Glucosamine--fructose-6-phosphate aminotransferase [isomerizing] 2	GFPT2	<i>Homo sapiens</i>	High
TERF1-interacting nuclear factor 2	TINF2	<i>Homo sapiens</i>	High
Platelet glycoprotein Ib alpha chain	Gp1ba	<i>Mus musculus</i>	High
[BBH] SNP23_RAT O70377 Synaptosomal-associated protein 23	Snap23	<i>Rattus norvegicus</i>	High
[BBH] M17L2_DANRE Q6DGV7 Mpv17-like protein 2	mpv17l2	<i>Danio rerio</i>	High
