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<b>14. ABSTRACT</b>  A protocol has been designed and optimized for obtaining RNAs that bind to Estrogen and other small molecules. Micro-array and high throughput sequencing technologies have been used to characterize the bound RNAs. Although the micro-array experiment lead to a large list of potential RNAs, the high throughput sequencing experiment did not validate any RNAs on the list. This result was likely due to significant contamination in the high throughput sequencing assay. We have generated a powerful new method to purify RNAs bound to small molecules but at this stage of the research, the identification and characterization remain challenges for future work.					
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## INTRODUCTION

Recently, several small molecules have been shown to bind RNA elements (riboswitches) in many different organisms. These riboswitches regulate fundamental cellular processes such as transcription, splicing and translation [reviewed in (1, 2)]. We propose that estrogen, which regulates transcription through interactions with the estrogen receptors [reviewed in (3, 4)], also functions by interacting directly with RNA to alter RNA processing events such as splicing, mRNA turnover or translational control. We plan to isolate and sequence RNAs bound to estrogen. Then determine if estrogen directly affects the processing or translation of RNAs containing these newly identified sites.

## BODY

Our statement of work was organized under one task and divided into three subtasks. We have accomplished subtask 1a using two different methods and the results from this subtask made it challenging to continue to subtask 1b and 1c. The accomplishment of subtask 1a did lead to the development of new syntheses for small molecules and RNA purifications for small molecule binding. These techniques will be used for future studies.

### **Task 1: Identification of RNAs regulated by estrogen**

#### ***Subtask 1a: Isolation and sequencing of RNAs bound to estrogen.***

During the early stages of experimentation we discovered that there was an unacceptably high level of non-specific binding to the estrogen beads. It was essential to optimize this step of the process otherwise the background signal would overwhelm the estrogen related signal. We were able to reduce the levels of non-specific binding by incorporating the use of blocking additives (*e.g.* heparin and non-ionic detergents) and by using specific salt washes. We are now able to remove nearly 98% of the total polyA RNA from the cellular extracts.

The second setback was that once we were ready to sequence the isolated RNA using the Illumina high-throughput sequencing platform, the single machine in our sequencing facility was providing data with unacceptable error rates. After struggling with this issue for a few months, we decided to use the alternative technology of microarrays to identify RNAs bound by estrogen. This summer our sequencing facility has added a second Illumina machine and both machines are currently producing excellent data so we plan to use this technology in addition to the micro-array technology discussed below.

The RNAs isolated from the estrogen beads were sent to the microarray facility at Oregon Health & Science (OHSU Gene Microarray Shared Resource). Over 1000 transcripts (see appendix for list of RNAs) were identified that were enriched greater than 3-fold compared to the unbound RNA. The enrichment peaked at 34-fold. The enriched RNAs are those shown in red in figure 1 and listed in table 1 ranked based on enrichment. Those at the top of our list are the highest priority and will be investigated in Subtask 1b. To further help focus our studies we are in the process of preparing RNA samples from the estrogen beads for high throughput

sequencing. **RNAs found enriched using both technology platforms will be the focus of our continued studies.**

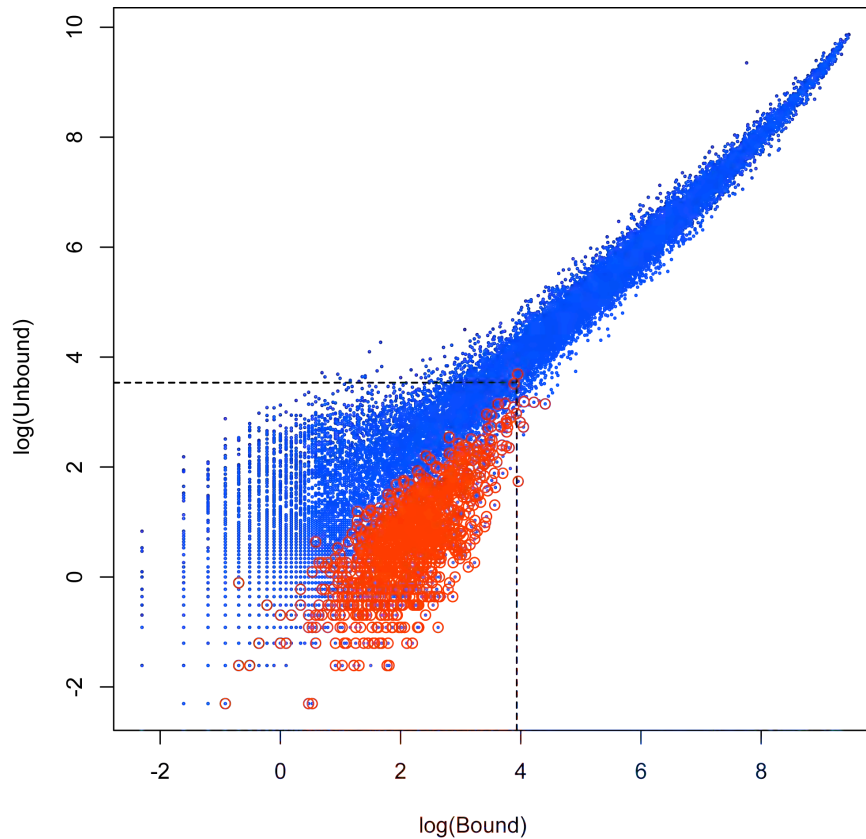


Figure 1. Estrogen bound RNAs plotted versus unbound RNA obtained from the microarray data. The circled red data points represent the 5% most enriched RNAs.

Our analysis of the estrogen bound RNAs revealed that these RNAs are enriched in mRNAs encoding membrane proteins, specifically receptors, and mRNAs with high levels of sequence variants. The latter is interpreted as genes with high levels of alternative splicing. The identification of receptors as possible estrogen targets is intriguing because these proteins are important for signaling pathways and are implicated in many cancers including breast cancer. Further analysis is being done to determine if any of these estrogen bound transcripts are involved in estrogen biosynthesis. This result would suggest that estrogen might act to regulate the splicing of mRNAs to modulate the levels of estrogen by controlling the enzyme levels in the biosynthetic pathway.

Recently (during the no-cost extension period of 8/1/2010 to 7/31/2011) we sequenced over 5 million RNAs that were bound to estrogen using the Illumina high throughput sequencing technology. Unfortunately this experiment only resulted in sequences from the control portions of the RNA/DNA molecules and no sequences from the cellular RNA. This experiment will be performed again.

***Subtask 1b: Determine if estrogen affects RNA processing or translation of the newly identified RNA targets.***

The analysis of the microarray data suggests that estrogen regulates pre-mRNA splicing. We plan to confirm this result with the high throughput RNA sequencing data and use the combined data sets to winnow down the RNAs for the purposed splicing assays. The splicing assays will be performed using gene-specific primers and will be done in the presence and absence of estrogen and in cells lacking expressed estrogen receptors. This last experiment is important for determining if estrogen is acting directly at the level of RNA versus through its receptors.

***Subtask 1c: Biochemical characterization of estrogen-RNA complexes.***

This subtask will be completed after subtask 1b has provided RNAs for these studies.

**KEY RESEARCH ACCOMPLISHMENTS**

- Synthesized biotin estradiol compounds that were used to significantly decrease background RNA binding to the beads.
- 
- Optimized experimental conditions for RNA binding to estrogen beads.
- Identified Estrogen binding RNAs using microarray platform.
- Analysis of microarray data revealed a significant bias of the estrogen binding RNAs for genes encoding membrane proteins and genes with high levels of sequence variants.
- The association with high levels of sequence variants suggests estrogen interacts with RNAs that are highly alternatively spliced.

**REPORTABLE OUTCOMES**

This award supported Paul Barber's research and he recently graduated (Spring 2010) from the University of Oregon with a masters degree in Chemistry. Paul is currently in Law School. Julien Diegel supported as research assistant during the no-cost extension period garnered research experience that helped him gain admittance to medical school, which he recently began. The development of a protocol to minimize non-specific RNA binding to beads has allowed us to develop a new technology termed RNaselect, which is a high throughput method to rapidly determine the RNA binding specificity of a large number of RNA binding proteins. We presented our work at the Era of Hope 2011 meeting and gained valuable feedback and the PI (Berglund) was exposed to a focused Breast Cancer meeting for the first time.

## CONCLUSION

A procedure to identify RNAs that bind estrogen has been established and this has led to the identification of more than 1000 possible RNA estrogen targets using the microarray technology platform. This list of estrogen targets is enriched in membrane receptors including many implicated in cancer. Although we did not achieve all of our subtasks in this high-risk study, we did generate exciting new technology that we and others will be using to characterize RNA – small molecule interactions.

## REFERENCES

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3. W. J. Welboren, H. G. Stunnenberg, F. C. Sweep, P. N. Span, *Mol Oncol* **1**, 138 (Sep, 2007).
4. R. O'Lone, M. C. Frith, E. K. Karlsson, U. Hansen, *Mol Endocrinol* **18**, 1859 (Aug, 2004).

Appendix 1; Table 1

probeID	Symbol	Gene Description	Bound Vs UnBound
207075_at	NLRP3	NLR family, pyrin domain containing 3	34.3
210354_at	IFNG	interferon, gamma	29.86
219936_s_at	Gpr87	G protein-coupled receptor 87	25.99
207736_s_at	TNP2	transition protein 2 (during histone to protamine replacement)	25.99
210035_s_at	SNORA66	small nucleolar RNA, H/ACA box 66	24.25
205888_s_at	JAKMIP2	Janus kinase and microtubule interacting protein 2	24.25
215259_s_at	cadm4	cell adhesion molecule 4	22.63
212768_s_at	OLFM4	olfactomedin 4	22.63
211836_s_at	Mog	myelin oligodendrocyte glycoprotein	22.63
206246_at	Pfkfb4	6-phosphofructo-2-kinase/fructose-2,6-biphosphatase 4	22.63
220345_at	LRRTM4	leucine rich repeat transmembrane neuronal 4	21.11
215046_at	c2orf67	chromosome 2 open reading frame 67	21.11
206505_at	UGT2B4	UDP glucuronosyltransferase 2 family, polypeptide B4	21.11
206084_at	ptpr	protein tyrosine phosphatase, receptor type, R	21.11
221210_s_at	NPL	N-acetylneuraminase pyruvate lyase (dihydrodipicolinate synthase)	19.7
214745_at	PLCH1	phospholipase C, eta 1	19.7
219916_s_at	Rnf39	ring finger protein 39	19.7
220861_at	USP22	ubiquitin specific peptidase 22	19.7
205498_at	GHR	growth hormone receptor	19.7
206488_s_at	CD36	CD36 molecule (thrombospondin receptor)	19.7
208016_s_at	Agtr1	angiotensin II receptor, type 1	18.38
220832_at	TLR8	toil-like receptor 8	18.38
205879_x_at	RET	ret proto-oncogene	17.15
202898_at	sdc3	syndecan 3	17.15
208200_at	Il1a	interleukin 1, alpha	17.15
204409_s_at	EIF1AY	eukaryotic translation initiation factor 1A, Y-linked	16
217465_at	NCKAP1	NCK-associated protein 1	16
220994_s_at	Stxbp6	syntaxin binding protein 6 (amisyn)	16
204138_s_at	mzf1	myeloid zinc finger 1	16
206719_at	SYNGR4	synaptogyrin 4	16
215573_at	cat	catalase	16
209708_at	MOXD1	monooxygenase, DBH-like 1	16
207175_at	ADIPOQ	adiponectin, C1Q and collagen domain containing	16
220570_at	RETN	resistin	14.93
207374_at	plscr2	phospholipid scramblase 2	14.93
213898_at	RBM9	RNA binding motif protein 9	14.93
216056_at	CD44	CD44 molecule (Indian blood group)	14.93
222300_at	CAPZA1	capping protein (actin filament) muscle Z-line, alpha 1	14.93
212939_at	COL6A1	collagen, type VI, alpha 1	14.93
206048_at	OVOL2	ovo-like 2 (Drosophila)	14.93
216412_x_at	IGLV2-11	immunoglobulin lambda variable 2-11; immunoglobulin lambda constant 2 (Kern-Oz- marker); immunoglobulin lambda constant 1 (Mcg marker); immunoglobulin lambda variable 1-40; immunoglobulin lambda variable 3-21; immunoglobulin lambda locus; immunoglobulin lambda constant 3 (Kern-Oz+ marker)	14.93
216412_x_at	IGLV1-40	immunoglobulin lambda variable 2-11; immunoglobulin lambda constant 2 (Kern-Oz- marker); immunoglobulin lambda variable 1-44; immunoglobulin lambda constant 1 (Mcg marker); immunoglobulin lambda variable 1-40; immunoglobulin lambda variable 3-21; immunoglobulin lambda locus; immunoglobulin lambda constant 3 (Kern-Oz+ marker)	14.93
216412_x_at	IGLV1-44	immunoglobulin lambda variable 2-11; immunoglobulin lambda constant 2 (Kern-Oz- marker); immunoglobulin lambda variable 1-44; immunoglobulin lambda constant 1 (Mcg marker); immunoglobulin lambda variable 1-40; immunoglobulin lambda variable 3-21; immunoglobulin lambda locus; immunoglobulin lambda constant 3 (Kern-Oz+ marker)	14.93
216412_x_at	IGL@	immunoglobulin lambda variable 2-11; immunoglobulin lambda constant 2 (Kern-Oz- marker); immunoglobulin lambda variable 1-44; immunoglobulin lambda constant 1 (Mcg marker); immunoglobulin lambda variable 1-40; immunoglobulin lambda variable 3-21; immunoglobulin lambda locus; immunoglobulin lambda constant 3 (Kern-Oz+ marker)	14.93
216412_x_at	iglc1	immunoglobulin lambda variable 2-11; immunoglobulin lambda constant 2 (Kern-Oz- marker); immunoglobulin lambda variable 1-44; immunoglobulin lambda constant 1 (Mcg marker); immunoglobulin lambda variable 1-40; immunoglobulin lambda variable 3-21; immunoglobulin lambda locus; immunoglobulin lambda constant 3 (Kern-Oz+ marker)	14.93
216412_x_at	iglc2	immunoglobulin lambda variable 2-11; immunoglobulin lambda constant 2 (Kern-Oz- marker); immunoglobulin lambda variable 1-44; immunoglobulin lambda constant 1 (Mcg marker); immunoglobulin lambda variable 1-40; immunoglobulin lambda variable 3-21; immunoglobulin lambda locus; immunoglobulin lambda constant 3 (Kern-Oz+ marker)	14.93
216412_x_at	IGLV3-21	immunoglobulin lambda variable 2-11; immunoglobulin lambda constant 2 (Kern-Oz- marker); immunoglobulin lambda variable 1-44; immunoglobulin lambda constant 1 (Mcg marker); immunoglobulin lambda variable 1-40; immunoglobulin lambda variable 3-21; immunoglobulin lambda locus; immunoglobulin lambda constant 3 (Kern-Oz+ marker)	14.93



Appendix 1; Table 1

216412_x_at	IGLC3	immunoglobulin lambda variable 2-11; immunoglobulin lambda constant 2 (Kern-Oz- marker); immunoglobulin lambda variable 1-44; immunoglobulin lambda constant 1 (Mcg marker); immunoglobulin lambda variable 1-40; immunoglobulin lambda variable 3-21; immunoglobulin lambda locus; immunoglobulin lambda constant 3 (Kern-Oz+ marker)	14.93
208894_at	HLA-DRA	major histocompatibility complex, class II, DR alpha	14.93
211362_s_at	Serp1b13	serpin peptidase inhibitor, clade B (ovalbumin), member 13	14.93
220625_s_at	ELF5	E74-like factor 5 (ets domain transcription factor)	14.93
213496_at	LPPR4	plasticity related gene 1	14.93
213267_at	dopey1	dopey family member 1	14.93
216753_at	Prkce	protein kinase C, epsilon	14.93
212531_at	Lcn2	lipocalin 2	14.93
209072_at	MBP	myelin basic protein	13.93
203434_s_at	MME	membrane metallo-endopeptidase	13.93
204924_at	TLR2	toll-like receptor 2	13.93
215522_at	SORCS3	sortilin-related VPS10 domain containing receptor 3	13.93
211790_s_at	MLL2	myeloid/lymphoid or mixed-lineage leukemia 2	13.93
222211_x_at	SCAND2	SCAN domain containing 2 pseudogene	13.93
206902_s_at	exog	endo/exonuclease (5'-3'), endonuclease G-like	13.93
209925_at	Ocln	occludin pseudogene; occludin	13.93
209925_at	LOC647859	occludin pseudogene; occludin	13.93
211188_at	CD84	CD84 molecule	13.93
209816_at	ptch1	patched homolog 1 (Drosophila)	13
210000_s_at	Socs1	suppressor of cytokine signaling 1	13
206584_at	LY96	lymphocyte antigen 96	13
213895_at	emp1	epithelial membrane protein 1	13
215408_at	MYO1E	myosin IE	13
219750_at	tmem144	transmembrane protein 144	13
211991_s_at	hla-dpa1	major histocompatibility complex, class II, DP alpha 1	13
209629_s_at	NXT2	nuclear transport factor 2-like export factor 2	13
221466_at	P2RY4	pyrimidinergic receptor P2Y, G-protein coupled, 4	13
211479_s_at	htr2c	5-hydroxytryptamine (serotonin) receptor 2C	13
221325_at	KCNK13	potassium channel, subfamily K, member 13	13
206636_at	RASA2	RAS p21 protein activator 2	13
AFFX-DapX-	birA	Bifunctional protein birA	12.13
205814_at	GRM3	glutamate receptor, metabotropic 3	12.13
215654_at	BCAT2	branched chain aminotransferase 2, mitochondrial	12.13
210173_at	PTPRJ	protein tyrosine phosphatase, receptor type, J	12.13
209986_at	Ascl1	achaete-scute complex homolog 1 (Drosophila)	12.13
216787_at	Fkbp1b	FK506 binding protein 1B, 12.6 kDa	12.13
217482_at	znf609	zinc finger protein 609	12.13
208981_at	PECAM1	platelet/endothelial cell adhesion molecule	12.13
210812_at	Xrcc4	X-ray repair complementing defective repair in Chinese hamster cells 4	12.13
202210_x_at	GSK3A	glycogen synthase kinase 3 alpha	12.13
216103_at	ACOT11	acyl-CoA thioesterase 11	12.13
210043_at	FRMD8	FERM domain containing 8	12.13
221608_at	WNT6	wingless-type MMTV integration site family, member 6	12.13
219434_at	Trem1	triggering receptor expressed on myeloid cells 1	11.31
214639_s_at	hoxa1	homeobox A1	11.31
215120_s_at	samd4a	sterile alpha motif domain containing 4A	11.31
216923_at	CDKL5	cyclin-dependent kinase-like 5	11.31
211533_at	pdgfra	platelet-derived growth factor receptor, alpha polypeptide	11.31
215485_s_at	ICAM1	intercellular adhesion molecule 1	11.31
214008_at	twf1	twinfilin, actin-binding protein, homolog 1 (Drosophila)	11.31
216435_at	Map2k5	mitogen-activated protein kinase 5	11.31
215921_at	NPIPL1	nuclear pore complex interacting protein-like 1; olfactory receptor, family 51, subfamily A,	11.31
215921_at	OR51A4	nuclear pore complex interacting protein-like 1; olfactory receptor, family 51, subfamily A,	11.31
203563_at	AFAP1	actin filament associated protein 1	11.31
206900_x_at	ZNF253	zinc finger protein 253	11.31
214984_at	LOC440345	hypothetical protein LOC440345	11.31
213001_at	ANGPTL2	angiopoietin-like 2	11.31
207430_s_at	mshB	microseminoprotein, beta-	11.31
215563_s_at	MST1P9	macrophage stimulating, pseudogene 9	10.56
220433_at	PRRG3	proline rich Gla (G-carboxyglutamic acid) 3 (transmembrane)	10.56
206058_at	SLC6A12	solute carrier family 6 (neurotransmitter transporter, betaine/GABA), member 12	10.56
208492_at	RFXAP	regulatory factor X-associated protein	10.56
207111_at	EMR1	egf-like module containing, mucin-like, hormone receptor-like 1	10.56
203923_s_at	CYBB	cytochrome b-245, beta polypeptide	10.56
206145_at	RHAG	Rh-associated glycoprotein	10.56
202953_at	C1QB	complement component 1, q subcomponent, B chain	10.56
200665_s_at	SPARC	secreted protein, acidic, cysteine-rich (osteonectin)	10.56
208409_at	SLC14A2	solute carrier family 14 (urea transporter), member 2	10.56
220944_at	PGLYRP4	peptidoglycan recognition protein 4	10.56

Appendix 1; Table 1

203332_s_at	Inpp5d	inositol polyphosphate-5-phosphatase, 145kDa	10.56
205363_at	BBOX1	butyrobetaine (gamma), 2-oxoglutarate dioxygenase (gamma-butyrobetaine hydroxylase) 1	10.56
211555_s_at	gucy1b3	guanylate cyclase 1, soluble, beta 3	10.56
207267_s_at	DSCR6	Down syndrome critical region gene 6	10.56
204462_s_at	SLC16A2	solute carrier family 16, member 2 (monocarboxylic acid transporter 8)	10.56
217705_at	PRKD1	protein kinase D1	10.56
206177_s_at	arg1	arginase, liver	9.85
206930_at	Glyat	glycine-N-acyltransferase	9.85
219414_at	Cln2	calsyntenin 2	9.85
217702_at	IL27RA	interleukin 27 receptor, alpha	9.85
221837_at	Klhl22	kelch-like 22 (Drosophila)	9.85
221468_at	Xcr1	chemokine (C motif) receptor 1	9.85
205121_at	SGCB	sarcoglycan, beta (43kDa dystrophin-associated glycoprotein)	9.85
220724_at	CWH43	hypothetical protein FLJ21511	9.85
221747_at	TNS1	tensin 1	9.85
210861_s_at	Wisp3	WNT1 inducible signaling pathway protein 3	9.85
211107_s_at	AURKC	aurora kinase C	9.85
213596_at	Casp4	caspase 4, apoptosis-related cysteine peptidase	9.85
215920_s_at	PDXDC2	pyridoxal-dependent decarboxylase domain containing 2	9.85
220454_s_at	SEMA6A	sema domain, transmembrane domain (TM), and cytoplasmic domain, (semaphorin) 6A	9.85
220087_at	bcmo1	beta-carotene 15,15'-monooxygenase 1	9.85
207575_at	GOLGA6D	golgi autoantigen, golgin subfamily a, 6C; golgi autoantigen, golgin subfamily a, 6 pseudogene; golgi autoantigen, golgin subfamily a, 6D; golgi autoantigen, golgin subfamily a, 6C; golgi autoantigen, golgin subfamily a, 6	9.85
207575_at	GOLGA6C	golgi autoantigen, golgin subfamily a, 6C; golgi autoantigen, golgin subfamily a, 6 pseudogene; golgi autoantigen, golgin subfamily a, 6D; golgi autoantigen, golgin subfamily a, 6	9.85
207575_at	LOC645752	golgi autoantigen, golgin subfamily a, 6C; golgi autoantigen, golgin subfamily a, 6 pseudogene; golgi autoantigen, golgin subfamily a, 6D; golgi autoantigen, golgin subfamily a, 6	9.85
207575_at	GOLGA6A	golgi autoantigen, golgin subfamily a, 6C; golgi autoantigen, golgin subfamily a, 6 pseudogene; golgi autoantigen, golgin subfamily a, 6D; golgi autoantigen, golgin subfamily a, 6	9.85
207464_at	AHCYL1	adenosylhomocysteinase-like 1	9.85
220133_at	odam	odontogenic, ameloblast associated	9.85
211844_s_at	NRP2	neuropilin 2	9.85
216009_at	slc39a9	solute carrier family 39 (zinc transporter), member 9	9.85
213495_s_at	RRBP1	ribosome binding protein 1 homolog 180kDa (dog)	9.85
204236_at	fli1	Friend leukemia virus integration 1	9.85
207583_at	ABCD2	ATP-binding cassette, sub-family D (ALD), member 2	9.19
206440_at	Lin7a	lin-7 homolog A (C. elegans)	9.19
217198_x_at	LOC100126583	hypothetical LOC100126583	9.19
222153_at	myef2	myelin expression factor 2	9.19
214284_s_at	FGF18	fibroblast growth factor 18	9.19
211587_x_at	CHRNA3	cholinergic receptor, nicotinic, alpha 3	9.19
211189_x_at	CD84	CD84 molecule	9.19
211249_at	GPR68	G protein-coupled receptor 68	9.19
210865_at	FASLG	Fas ligand (TNF superfamily, member 6)	9.19
219834_at	ALS2CR8	amyotrophic lateral sclerosis 2 (juvenile) chromosome region, candidate 8	9.19
210420_at	SLC24A1	solute carrier family 24 (sodium/potassium/calcium exchanger), member 1	9.19
221130_s_at	Unc13b	unc-13 homolog B (C. elegans)	9.19
220472_at	ZCCHC4	zinc finger, CCHC domain containing 4	9.19
213498_at	CREB3L1	cAMP responsive element binding protein 3-like 1	9.19
208599_at	HUWE1	HECT, UBA and WWE domain containing 1	9.19
207993_s_at	Chp	calcium binding protein P22	9.19
215578_at	GPHN	gephyrin	9.19
214932_at	KIDINS220	kinase D-interacting substrate, 220kDa	9.19
205719_s_at	pah	phenylalanine hydroxylase	9.19
211906_s_at	serpinb4	serpin peptidase inhibitor, clade B (ovalbumin), member 4	9.19
206430_at	CDX1	caudal type homeobox 1	9.19
204753_s_at	HLF	hepatic leukemia factor	9.19
213068_at	Dpt	dermatopontin	9.19
214926_at	SPTAN1	spectrin, alpha, non-erythrocytic 1 (alpha-fodrin)	9.19
202965_s_at	CAPN6	calpain 6	9.19
206311_s_at	PLA2G1B	phospholipase A2, group IB (pancreas)	9.19
208570_at	Wnt1	wingless-type MMTV integration site family, member 1	8.57
208090_s_at	AIRE	autoimmune regulator	8.57
215231_at	PRKAG2	protein kinase, AMP-activated, gamma 2 non-catalytic subunit	8.57
203571_s_at	C10orf116	chromosome 10 open reading frame 116	8.57
205430_at	BMP5	bone morphogenetic protein 5	8.57
216255_s_at	GRM8	glutamate receptor, metabotropic 8	8.57
205841_at	Jak2	Janus kinase 2	8.57
211119_at	ESR2	estrogen receptor 2 (ER beta)	8.57
209131_s_at	snap23	synaptosomal-associated protein, 23kDa	8.57
210388_at	PLCB2	phospholipase C, beta 2	8.57

Appendix 1; Table 1

209074_s_at	fam107a	family with sequence similarity 107, member A	8.57
202790_at	cldn7	claudin 7	8.57
207217_s_at	NOX1	NADPH oxidase 1	8.57
210518_at	CDH8	cadherin 8, type 2	8.57
219263_at	RNF128	ring finger protein 128	8.57
216926_s_at	KIAA0892	KIAA0892	8.57
208366_at	PCDH11X	protocadherin 11 X-linked	8.57
221392_at	TAS2R4	taste receptor, type 2, member 4	8.57
210615_at	NRP1	neuropilin 1	8.57
202747_s_at	Itm2a	integral membrane protein 2A	8.57
219606_at	PHF20L1	PHD finger protein 20-like 1	8.57
220111_s_at	ano2	anoctamin 2	8.57
205175_s_at	Khk	ketoheksokinase (fructokinase)	8.57
202878_s_at	CD93	CD93 molecule	8.57
216513_at	dct	dopachrome tautomerase (dopachrome delta-isomerase, tyrosine-related protein 2)	8.57
208017_s_at	MCF2	MCF.2 cell line derived transforming sequence	8.57
210056_at	RND1	Rho family GTPase 1	8.57
215005_at	Necab2	N-terminal EF-hand calcium binding protein 2	8.57
216689_x_at	ARHGAP1	Rho GTPase activating protein 1	8
203969_at	pex3	peroxisomal biogenesis factor 3	8
206990_at	TNR	tenascin R (restrictin, janusin)	8
213299_at	ZBTB7A	zinc finger and BTB domain containing 7A	8
216764_at	COMMD1	copper metabolism (Murr1) domain containing 1	8
210279_at	gpr18	G protein-coupled receptor 18	8
215164_at	TCF4	transcription factor 4	8
214282_at	CP	ceruloplasmin (ferroxidase)	8
221143_at	RPA4	replication protein A4, 34kDa	8
221469_at	GPR32	G protein-coupled receptor 32	8
206570_s_at	PSG11	pregnancy specific beta-1-glycoprotein 11	8
214906_x_at	N4BP2L1	NEDD4 binding protein 2-like 1	8
216330_s_at	POU6F1	POU class 6 homeobox 1	8
211079_s_at	DYRK1A	dual-specificity tyrosine-(Y)-phosphorylation regulated kinase 1A	8
216684_s_at	SS18	synovial sarcoma translocation, chromosome 18	8
221594_at	c7orf64	chromosome 7 open reading frame 64	8
220519_s_at	LIM2	lens intrinsic membrane protein 2, 19kDa	8
207204_at	FSCN2	fascin homolog 2, actin-bundling protein, retinal ( <i>Strongylocentrotus purpuratus</i> )	8
207315_at	CD226	CD226 molecule	8
218994_s_at	STAG3L4	stromal antigen 3-like 4	8
207226_at	HIST1H2BN	histone cluster 1, H2bn	8
211174_s_at	CCKAR	cholecystokinin A receptor	8
219813_at	lats1	LATS, large tumor suppressor, homolog 1 ( <i>Drosophila</i> )	8
220338_at	ralggs2	Ral GEF with PH domain and SH3 binding motif 2	8
216386_at	Dok1	docking protein 1-like protein; docking protein 1, 62kDa (downstream of tyrosine kinase 1)	8
216386_at	LOC220077	docking protein 1-like protein; docking protein 1, 62kDa (downstream of tyrosine kinase 1)	8
210806_at	TLL5	tubulin tyrosine ligase-like family, member 5	8
202063_s_at	SEL1L	sel-1 suppressor of lin-12-like ( <i>C. elegans</i> )	8
214852_x_at	VPS13A	vacuolar protein sorting 13 homolog A ( <i>S. cerevisiae</i> )	8
220045_at	NEUROD6	neurogenic differentiation 6	7.46
220710_at	C15orf28	chromosome 15 open reading frame 28	7.46
216482_x_at	ZNF79	zinc finger protein 79	7.46
207135_at	HTR2A	5-hydroxytryptamine (serotonin) receptor 2A	7.46
214365_at	TPM3	tropomyosin 3	7.46
205652_s_at	ttll1	tubulin tyrosine ligase-like family, member 1	7.46
205262_at	knch2	potassium voltage-gated channel, subfamily H (eag-related), member 2	7.46
220360_at	THAP9	THAP domain containing 9	7.46
207581_s_at	MAGEB4	melanoma antigen family B, 4	7.46
217373_x_at	mdm2	Mdm2 p53 binding protein homolog (mouse)	7.46
214945_at	FAM153B	family with sequence similarity 153, member B	7.46
221956_at	LRCH4	leucine-rich repeats and calponin homology (CH) domain containing 4	7.46
208582_s_at	DUX5	double homeobox, 5	7.46
208386_x_at	dmc1	DMC1 dosage suppressor of mck1 homolog, meiosis-specific homologous recombination	7.46
210551_s_at	Asmt	acetylserotonin O-methyltransferase	7.46
206872_at	Slc17a1	solute carrier family 17 (sodium phosphate), member 1	7.46
219535_at	Hunk	hormonally up-regulated Neu-associated kinase	7.46
206904_at	MATN1	matrilin 1, cartilage matrix protein	7.46
207359_at	camkk2	calcium/calmodulin-dependent protein kinase kinase 2, beta	7.46
215570_s_at	ZNF780B	zinc finger protein 780B	7.46
217097_s_at	phff2	putative homeodomain transcription factor 2	7.46
214667_s_at	tp53i11	tumor protein p53 inducible protein 11	7.46
216588_at	RPL7P20	ribosomal protein L7 pseudogene 26; ribosomal protein L7 pseudogene 16; ribosomal protein L7; ribosomal protein L7 pseudogene 32; ribosomal protein L7 pseudogene 23; ribosomal protein L7 pseudogene 24; ribosomal protein L7 pseudogene 20	7.46

Appendix 1; Table 1

216588_at	RPL7	ribosomal protein L7 pseudogene 26; ribosomal protein L7 pseudogene 16; ribosomal protein L7; ribosomal protein L7 pseudogene 32; ribosomal protein L7 pseudogene 23; ribosomal protein L7 pseudogene 24; ribosomal protein L7 pseudogene 20	7.46
216588_at	RPL7P32	ribosomal protein L7 pseudogene 26; ribosomal protein L7 pseudogene 16; ribosomal protein L7; ribosomal protein L7 pseudogene 32; ribosomal protein L7 pseudogene 23; ribosomal protein L7 pseudogene 24; ribosomal protein L7 pseudogene 20	7.46
216588_at	RPL7P24	ribosomal protein L7 pseudogene 26; ribosomal protein L7 pseudogene 16; ribosomal protein L7; ribosomal protein L7 pseudogene 32; ribosomal protein L7 pseudogene 23; ribosomal protein L7 pseudogene 24; ribosomal protein L7 pseudogene 20	7.46
216588_at	RPL7P23	ribosomal protein L7 pseudogene 26; ribosomal protein L7 pseudogene 16; ribosomal protein L7; ribosomal protein L7 pseudogene 32; ribosomal protein L7 pseudogene 23; ribosomal protein L7 pseudogene 20	7.46
216588_at	RPL7P26	ribosomal protein L7 pseudogene 26; ribosomal protein L7 pseudogene 16; ribosomal protein L7; ribosomal protein L7 pseudogene 32; ribosomal protein L7 pseudogene 23; ribosomal protein L7 pseudogene 24; ribosomal protein L7 pseudogene 20	7.46
216588_at	RPL7P16	ribosomal protein L7 pseudogene 26; ribosomal protein L7 pseudogene 16; ribosomal protein L7; ribosomal protein L7 pseudogene 32; ribosomal protein L7 pseudogene 23; ribosomal protein L7 pseudogene 24; ribosomal protein L7 pseudogene 20	7.46
209612_s_at	Adh1c	alcohol dehydrogenase 1B (class I), beta polypeptide; alcohol dehydrogenase 1A (class I), alpha polypeptide; alcohol dehydrogenase 1C (class I), gamma polypeptide	7.46
209612_s_at	ADH1B	alcohol dehydrogenase 1B (class I), beta polypeptide; alcohol dehydrogenase 1A (class I), alpha polypeptide; alcohol dehydrogenase 1C (class I), gamma polypeptide	7.46
209612_s_at	ADH1A	alcohol dehydrogenase 1B (class I), beta polypeptide; alcohol dehydrogenase 1A (class I), alpha polypeptide; alcohol dehydrogenase 1C (class I), gamma polypeptide	7.46
AFFX-TipnX-	trpD	Anthranilate phosphoribosyltransferase	7.46
221100_at	C6orf15	chromosome 6 open reading frame 15	7.46
207971_s_at	Cep68	centrosomal protein 68kDa	7.46
207660_at	dmd	dystrophin	7.46
216892_at	IGHV3-11	immunoglobulin heavy constant gamma 1 (G1m marker); immunoglobulin heavy constant mu; immunoglobulin heavy variable 3-7; immunoglobulin heavy constant gamma 3 (G3m marker); immunoglobulin heavy variable 3-11 (gene/pseudogene); immunoglobulin heavy variable 4-31; immunoglobulin heavy locus	7.46
216892_at	IGHV3-7	immunoglobulin heavy constant gamma 1 (G1m marker); immunoglobulin heavy constant mu; immunoglobulin heavy variable 3-7; immunoglobulin heavy constant gamma 3 (G3m marker); immunoglobulin heavy variable 3-11 (gene/pseudogene); immunoglobulin heavy variable 4-31; immunoglobulin heavy locus	7.46
216892_at	IGHG3	immunoglobulin heavy constant gamma 1 (G1m marker); immunoglobulin heavy constant mu; immunoglobulin heavy variable 3-7; immunoglobulin heavy constant gamma 3 (G3m marker); immunoglobulin heavy variable 3-11 (gene/pseudogene); immunoglobulin heavy variable 4-31; immunoglobulin heavy locus	7.46
216892_at	Ighg1	immunoglobulin heavy constant gamma 1 (G1m marker); immunoglobulin heavy constant mu; immunoglobulin heavy variable 3-7; immunoglobulin heavy constant gamma 3 (G3m marker); immunoglobulin heavy variable 3-11 (gene/pseudogene); immunoglobulin heavy variable 4-31; immunoglobulin heavy locus	7.46
216892_at	IGH@	immunoglobulin heavy constant gamma 1 (G1m marker); immunoglobulin heavy constant mu; immunoglobulin heavy variable 3-7; immunoglobulin heavy constant gamma 3 (G3m marker); immunoglobulin heavy variable 3-11 (gene/pseudogene); immunoglobulin heavy variable 4-31; immunoglobulin heavy locus	7.46
216892_at	IGHM	immunoglobulin heavy constant gamma 1 (G1m marker); immunoglobulin heavy constant mu; immunoglobulin heavy variable 3-7; immunoglobulin heavy constant gamma 3 (G3m marker); immunoglobulin heavy variable 3-11 (gene/pseudogene); immunoglobulin heavy variable 4-31; immunoglobulin heavy locus	7.46
216892_at	ighv4-31	immunoglobulin heavy constant gamma 1 (G1m marker); immunoglobulin heavy constant mu; immunoglobulin heavy variable 3-7; immunoglobulin heavy constant gamma 3 (G3m marker); immunoglobulin heavy variable 3-11 (gene/pseudogene); immunoglobulin heavy variable 4-31; immunoglobulin heavy locus	7.46
205392_s_at	CCL14	chemokine (C-C motif) ligand 14; chemokine (C-C motif) ligand 15	7.46
205392_s_at	CCL15	chemokine (C-C motif) ligand 14; chemokine (C-C motif) ligand 15	7.46
204055_s_at	CTAGE4	CTAGE family, member 5 pseudogene; CTAGE family member; CTAGE family, member 4; CTAGE family, member 5	7.46
204055_s_at	Ctage5	CTAGE family, member 5 pseudogene; CTAGE family member; CTAGE family, member 4; CTAGE family, member 5	7.46
204055_s_at	LOC220429	CTAGE family, member 5 pseudogene; CTAGE family member; CTAGE family, member 4; CTAGE family, member 5	7.46
204055_s_at	CTAGE9	CTAGE family, member 5 pseudogene; CTAGE family member; CTAGE family, member 4; CTAGE family, member 5	7.46
213960_at	NTRK3	neurotrophic tyrosine kinase, receptor, type 3	7.46
203295_s_at	Atp1a2	ATPase, Na+/K+ transporting, alpha 2 (+) polypeptide	7.46
214635_at	CLDN9	claudin 9	7.46
212292_at	SLC7A1	solute carrier family 7 (cationic amino acid transporter, y+ system), member 1	7.46
215083_at	LOC642395	paraspeckle component 1; paraspeckle protein 1 pseudogene	7.46

Appendix 1; Table 1

215083_at	PSPC1	paraspeckle component 1; paraspeckle protein 1 pseudogene	7.46
211647_x_at	IGHV1-69	immunoglobulin heavy variable 1-69; similar to hCG1773549	7.46
211647_x_at	LOC100133862	immunoglobulin heavy variable 1-69; similar to hCG1773549	7.46
219994_at	APBB1IP	amyloid beta (A4) precursor protein-binding, family B, member 1 interacting protein	7.46
216909_at	Rrp12	ribosomal RNA processing 12 homolog ( <i>S. cerevisiae</i> )	7.46
216007_at	Clstn2	calsyntenin 2	7.46
214727_at	Brca2	breast cancer 2, early onset	7.46
215820_x_at	Snx13	sorting nexin 13	7.46
216763_at	KANK1	KN motif and ankyrin repeat domains 1; similar to ankyrin repeat domain protein 15 isoform b	7.46
216763_at	LOC647886	KN motif and ankyrin repeat domains 1; similar to ankyrin repeat domain protein 15 isoform b	7.46
204596_s_at	stc1	stanniocalcin 1	6.96
206455_s_at	rho	rhodopsin	6.96
214443_at	PVR	poliovirus receptor	6.96
212358_at	CLIP3	CAP-GLY domain containing linker protein 3	6.96
221409_at	OR2S2	olfactory receptor, family 2, subfamily S, member 2	6.96
210147_at	ART3	ADP-ribosyltransferase 3	6.96
210611_s_at	Dtna	dystrobrevin, alpha	6.96
206525_at	Gabrr1	gamma-aminobutyric acid (GABA) receptor, rho 1	6.96
203864_s_at	ACTN2	actinin, alpha 2	6.96
204213_at	PIGR	polymeric immunoglobulin receptor	6.96
215244_at	DGCR5	DiGeorge syndrome critical region gene 5 (non-protein coding)	6.96
205732_s_at	Ncoa2	nuclear receptor coactivator 2	6.96
207972_at	GLRA1	glycine receptor, alpha 1	6.96
213307_at	SHANK2	SH3 and multiple ankyrin repeat domains 2	6.96
204249_s_at	LMO2	LIM domain only 2 (rhombotin-like 1)	6.96
210496_at	NAG18	NAG18 mRNA	6.96
220522_at	Crb1	crumbs homolog 1 ( <i>Drosophila</i> )	6.96
210261_at	KCNK2	potassium channel, subfamily K, member 2	6.96
217081_at	OR2H2	olfactory receptor, family 2, subfamily H, member 2	6.96
219106_s_at	KBTBD10	kelch repeat and BTB (POZ) domain containing 10	6.96
211131_s_at	eda	ectodysplasin A	6.96
208166_at	mmp16	matrix metalloproteinase 16 (membrane-inserted)	6.96
208286_x_at	pou5f1	POU class 5 homeobox 1	6.96
214834_at	PAR5	Prader-Willi/Angelman syndrome-5	6.96
215258_at	cadm4	cell adhesion molecule 4	6.96
206292_s_at	sult2a1	sulfotransferase family, cytosolic, 2A, dehydroepiandrosterone (DHEA)-preferring, member 1	6.96
209915_s_at	NRXN1	neurexin 1	6.96
220672_at	PPP4R4	protein phosphatase 4, regulatory subunit 4	6.96
205295_at	ckmt2	creatine kinase, mitochondrial 2 (sarcomeric)	6.96
213597_s_at	Ctdspl	CTD (carboxy-terminal domain, RNA polymerase II, polypeptide A) small phosphatase-like	6.96
211737_x_at	PTN	pleiotrophin	6.96
205852_at	CDK5R2	cyclin-dependent kinase 5, regulatory subunit 2 (p39)	6.96
208230_s_at	NRG1	neuregulin 1	6.96
206275_s_at	MICAL2	microtubule associated monooxygenase, calponin and LIM domain containing 2	6.96
217517_x_at	SRPK2	SFRS protein kinase 2	6.96
217157_x_at	Igkc	similar to hCG26659; immunoglobulin kappa constant; similar to Ig kappa chain V-I region HK102 precursor	6.96
217157_x_at	LOC652493	similar to hCG26659; immunoglobulin kappa constant; similar to Ig kappa chain V-I region HK102 precursor	6.96
217157_x_at	LOC650405	similar to hCG26659; immunoglobulin kappa constant; similar to Ig kappa chain V-I region HK102 precursor	6.96
217157_x_at	LOC100130100	similar to hCG26659; immunoglobulin kappa constant; similar to Ig kappa chain V-I region HK102 precursor	6.96
216657_at	ATXN3	ataxin 3	6.96
207530_s_at	cdkn2b	cyclin-dependent kinase inhibitor 2B (p15, inhibits CDK4)	6.96
214199_at	Sftpd	surfactant protein D	6.96
206779_s_at	Asmt	acetylserotonin O-methyltransferase	6.96
215398_at	Cdc73	cell division cycle 73, Paf1/RNA polymerase II complex component, homolog ( <i>S. cerevisiae</i> )	6.96
207155_at	tbx5	T-box 5	6.96
207526_s_at	IL1RL1	interleukin 1 receptor-like 1	6.96
208057_s_at	GLI2	GLI family zinc finger 2	6.5
206004_at	TGM3	transglutaminase 3 (E polypeptide, protein-glutamine-gamma-glutamyltransferase)	6.5
216370_s_at	TKTL1	transketolase-like 1	6.5
205316_at	Slc15a2	solute carrier family 15 (H+/peptide transporter), member 2	6.5
219895_at	fam70a	family with sequence similarity 70, member A	6.5
207172_s_at	CDH11	cadherin 11, type 2, OB-cadherin (osteoblast)	6.5
216184_s_at	RIMS1	regulating synaptic membrane exocytosis 1	6.5
210390_s_at	CCL14	chemokine (C-C motif) ligand 14; chemokine (C-C motif) ligand 15	6.5
210390_s_at	CCL15	chemokine (C-C motif) ligand 14; chemokine (C-C motif) ligand 15	6.5
210889_s_at	Fcgr2b	Fc fragment of IgG, low affinity IIb, receptor (CD32); Fc fragment of IgG, low affinity IIc, receptor for (CD32)	6.5

Appendix 1; Table 1

210889_s_at	FCGR2C	Fc fragment of IgG, low affinity IIb, receptor (CD32); Fc fragment of IgG, low affinity IIc, receptor for (CD32)	6.5
207038_at	SLC16A6	solute carrier family 16, member 6 (monocarboxylic acid transporter 7); similar to solute carrier family 16, member 6	6.5
207038_at	LOC440459	solute carrier family 16, member 6 (monocarboxylic acid transporter 7); similar to solute carrier family 16, member 6	6.5
219912_s_at	ENPP3	ectonucleotide pyrophosphatase/phosphodiesterase 3	6.5
222094_at	SULT1A3	sulfotransferase family, cytosolic, 1A, phenol-preferring, member 4; sulfotransferase family, cytosolic, 1A, phenol-preferring, member 3	6.5
222094_at	SULT1A4	sulfotransferase family, cytosolic, 1A, phenol-preferring, member 4; sulfotransferase family, cytosolic, 1A, phenol-preferring, member 3	6.5
217362_x_at	HLA-DRB6	major histocompatibility complex, class II, DR beta 6 (pseudogene)	6.5
214775_at	N4BP3	Nedd4 binding protein 3	6.5
215796_at	TRAV13-2	T cell receptor alpha variable 13-2	6.5
205009_at	TFF1	trefoil factor 1	6.5
211798_x_at	IGLJ3	immunoglobulin lambda joining 3	6.5
39402_at	IL1B	interleukin 1, beta	6.5
217519_at	MACF1	microtubule-actin crosslinking factor 1	6.5
205563_at	KISS1	KiSS-1 metastasis-suppressor	6.5
213732_at	tcf3	transcription factor 3 (E2A immunoglobulin enhancer binding factors E12/E47)	6.5
221284_s_at	Src	v-src sarcoma (Schmidt-Ruppin A-2) viral oncogene homolog (avian)	6.5
214175_x_at	PDLIM4	PDZ and LIM domain 4	6.5
209700_x_at	LOC100134230	hypothetical protein LOC100134230; similar to KIAA0454 protein; similar to phosphodiesterase 4D interacting protein isoform 2; phosphodiesterase 4D interacting	6.5
209700_x_at	PDE4DIP	hypothetical protein LOC100134230; similar to KIAA0454 protein; similar to phosphodiesterase 4D interacting protein isoform 2; phosphodiesterase 4D interacting	6.5
209700_x_at	LOC727927	hypothetical protein LOC100134230; similar to KIAA0454 protein; similar to phosphodiesterase 4D interacting protein isoform 2; phosphodiesterase 4D interacting	6.5
209700_x_at	LOC652164	hypothetical protein LOC100134230; similar to KIAA0454 protein; similar to phosphodiesterase 4D interacting protein isoform 2; phosphodiesterase 4D interacting	6.5
221719_s_at	Izts1	leucine zipper, putative tumor suppressor 1	6.5
207229_at	KLRA1	killer cell lectin-like receptor subfamily A, member 1	6.5
222189_at	AMBRA1	autophagy/beclin-1 regulator 1	6.5
203369_x_at	Pdlim7	PDZ and LIM domain 7 (enigma)	6.5
214493_s_at	INADL	InaD-like (Drosophila)	6.5
221756_at	Pik3ip1	phosphoinositide-3-kinase interacting protein 1	6.5
221243_s_at	PRO1596	hypothetical LOC29013	6.5
209116_x_at	HBB	hemoglobin, beta	6.5
216595_at	DNAJC22	DnaJ (Hsp40) homolog, subfamily C, member 22	6.5
219236_at	PAQR6	progesterone and adipoQ receptor family member VI	6.5
204199_at	RALGAP1	Ral GEF with PH domain and SH3 binding motif 1	6.5
210174_at	NR5A2	nuclear receptor subfamily 5, group A, member 2	6.5
201332_s_at	STAT6	signal transducer and activator of transcription 6, interleukin-4 induced	6.5
221119_at	FLJ20184	hypothetical protein FLJ20184	6.5
216653_at	DR1	down-regulator of transcription 1, TBP-binding (negative cofactor 2)	6.5
204836_at	Gldc	glycine dehydrogenase (decarboxylating)	6.5
220348_at	KLHL29	kelch-like 29 (Drosophila)	6.5
219945_at	DDX25	DEAD (Asp-Glu-Ala-Asp) box polypeptide 25	6.5
214344_at	LOC92973	hypothetical LOC92973	6.5
206553_at	OAS2	2'-5'-oligoadenylate synthetase 2, 69/71kDa	6.06
214650_x_at	Mog	myelin oligodendrocyte glycoprotein	6.06
207115_x_at	mbtd1	mbt domain containing 1	6.06
208004_at	Prol1	proline rich, lacrimal 1	6.06
205247_at	NOTCH4	Notch homolog 4 (Drosophila)	6.06
211203_s_at	Cntn1	contactin 1	6.06
220689_at	NODAL	nodal homolog (mouse)	6.06
208324_at	AKAP13	A kinase (PRKA) anchor protein 13	6.06
204613_at	PLCG2	phospholipase C, gamma 2 (phosphatidylinositol-specific)	6.06
206442_at	Semg1	semenogelin I	6.06
211343_s_at	COL13A1	collagen, type XIII, alpha 1	6.06
206370_at	PIK3CG	phosphoinositide-3-kinase, catalytic, gamma polypeptide	6.06
219947_at	CLEC4A	C-type lectin domain family 4, member A	6.06
204010_s_at	Kras	v-Ki-ras2 Kirsten rat sarcoma viral oncogene homolog	6.06
206168_at	ZC3H7B	zinc finger CCCH-type containing 7B	6.06
205614_x_at	MST1	macrophage stimulating 1 (hepatocyte growth factor-like)	6.06
221296_at	TECTA	tectorin alpha	6.06
214270_s_at	MAPRE3	microtubule-associated protein, RP/EB family, member 3	6.06
211668_s_at	PLAU	plasminogen activator, urokinase	6.06
207403_at	IRS4	insulin receptor substrate 4	6.06
208487_at	Imx1b	LIM homeobox transcription factor 1, beta	6.06
206051_at	ELAVL4	ELAV (embryonic lethal, abnormal vision, Drosophila)-like 4 (Hu antigen D)	6.06
216075_at	st3gal5	ST3 beta-galactoside alpha-2,3-sialyltransferase 5	6.06

Appendix 1; Table 1

216951_at	fcgr1a	Fc fragment of IgG, high affinity I <sub>c</sub> , receptor (CD64); Fc fragment of IgG, high affinity I <sub>a</sub> , receptor (CD64)	6.06
216951_at	FCGR1C	Fc fragment of IgG, high affinity I <sub>c</sub> , receptor (CD64); Fc fragment of IgG, high affinity I <sub>a</sub> , receptor (CD64)	6.06
217104_at	ST20	suppressor of tumorigenicity 20	6.06
220030_at	STYK1	serine/threonine/tyrosine kinase 1	6.06
207441_at	SMR3B	submaxillary gland androgen regulated protein 3B	6.06
219962_at	ACE2	angiotensin I converting enzyme (peptidyl-dipeptidase A) 2	6.06
205922_at	VNN2	vanin 2	6.06
214444_s_at	PVR	poliovirus receptor	6.06
208217_at	GABRR2	gamma-aminobutyric acid (GABA) receptor, rho 2	6.06
207437_at	NOVA1	neuro-oncological ventral antigen 1	6.06
215241_at	Ano3	anoctamin 3	6.06
211421_s_at	RET	ret proto-oncogene	6.06
220048_at	EDAR	ectodysplasin A receptor	6.06
215461_at	Znrf4	zinc and ring finger 4	6.06
211526_s_at	TNFRSF6B	tumor necrosis factor receptor superfamily, member 6b, decoy; regulator of telomere elongation helicase 1	6.06
211526_s_at	RTEL1	tumor necrosis factor receptor superfamily, member 6b, decoy; regulator of telomere elongation helicase 1	6.06
221389_at	pla2g2e	phospholipase A2, group IIE	6.06
220568_at	PRO1483	hypothetical LOC55448	6.06
213091_at	CRTC1	CREB regulated transcription coactivator 1	6.06
202448_s_at	zer1	zer-1 homolog (C. elegans)	6.06
216066_at	ABCA1	ATP-binding cassette, sub-family A (ABC1), member 1	6.06
206313_at	HLA-DOA	major histocompatibility complex, class II, DO alpha	6.06
208495_at	tlx3	T-cell leukemia homeobox 3	6.06
207385_at	TFDP3	transcription factor Dp family, member 3	6.06
214416_at	MGC27345	hypothetical protein MGC27345	6.06
206736_x_at	Chrna4	cholinergic receptor, nicotinic, alpha 4	6.06
208233_at	PDPN	podoplanin	6.06
205838_at	Gypa	glycophorin A (MNS blood group)	6.06
209671_x_at	traC	T cell receptor alpha constant; T cell receptor alpha locus; T cell receptor alpha variable 20; T cell receptor delta locus; T cell receptor delta variable 2	6.06
209671_x_at	TRDV2	T cell receptor alpha constant; T cell receptor alpha locus; T cell receptor alpha variable 20; T cell receptor delta locus; T cell receptor delta variable 2	6.06
209671_x_at	tra@	T cell receptor alpha constant; T cell receptor alpha locus; T cell receptor alpha variable 20; T cell receptor delta locus; T cell receptor delta variable 2	6.06
209671_x_at	TRAV20	T cell receptor alpha constant; T cell receptor alpha locus; T cell receptor alpha variable 20; T cell receptor delta locus; T cell receptor delta variable 2	6.06
209671_x_at	TRD@	T cell receptor alpha constant; T cell receptor alpha locus; T cell receptor alpha variable 20; T cell receptor delta locus; T cell receptor delta variable 2	6.06
217668_at	C22orf36	chromosome 22 open reading frame 36	6.06
220830_at	IMPG2	interphotoreceptor matrix proteoglycan 2	6.06
211743_s_at	PRG2	proteoglycan 2, bone marrow (natural killer cell activator, eosinophil granule major basic	6.06
220481_at	Gpr75	G protein-coupled receptor 75	6.06
217195_at	GCNT1P1	glucosaminyl (N-acetyl) transferase 1, core 2 (beta-1,6-N-acetylglucosaminyltransferase)	6.06
213834_at	LOC731035	IQ motif and Sec7 domain 3; similar to IQ motif and Sec7 domain-containing protein 3; similar to IQ motif and SEC7 domain-containing protein 3; similar to IQ motif and Sec7 domain 3	5.66
213834_at	IQSEC3	IQ motif and Sec7 domain 3; similar to IQ motif and Sec7 domain-containing protein 3; similar to IQ motif and SEC7 domain-containing protein 3; similar to IQ motif and Sec7 domain 3	5.66
213834_at	LOC728056	IQ motif and Sec7 domain 3; similar to IQ motif and Sec7 domain-containing protein 3; similar to IQ motif and SEC7 domain-containing protein 3; similar to IQ motif and Sec7 domain 3	5.66
213834_at	LOC100134209	IQ motif and Sec7 domain 3; similar to IQ motif and Sec7 domain-containing protein 3; similar to IQ motif and SEC7 domain-containing protein 3; similar to IQ motif and Sec7 domain 3	5.66
211601_at	CATR1	CATR tumorigenicity conversion 1	5.66
215709_at	LOC100134355	similar to Primase, DNA, polypeptide 2 (58kDa)	5.66
210838_s_at	Acvr11	activin A receptor type II-like 1	5.66
207576_x_at	OXT	oxytocin, prepropeptide	5.66
206830_at	SLC4A10	solute carrier family 4, sodium bicarbonate transporter, member 10	5.66
215026_x_at	SCNN1A	sodium channel, nonvoltage-gated 1 alpha	5.66
207418_s_at	DDO	D-aspartate oxidase	5.66
211282_x_at	TNFRSF25	tumor necrosis factor receptor superfamily, member 25	5.66
206305_s_at	C8A	complement component 8, alpha polypeptide	5.66
214357_at	C1orf105	chromosome 1 open reading frame 105	5.66
205989_s_at	Mog	myelin oligodendrocyte glycoprotein	5.66
208098_at	OR12D3	olfactory receptor, family 12, subfamily D, member 3; olfactory receptor, family 5, subfamily V,	5.66
208098_at	OR5V1	olfactory receptor, family 12, subfamily D, member 3; olfactory receptor, family 5, subfamily V,	5.66
215021_s_at	Nrxn3	neurexin 3	5.66
209183_s_at	C10orf10	chromosome 10 open reading frame 10	5.66
211226_at	Galr2	galanin receptor 2	5.66

Appendix 1; Table 1

217238_s_at	Aldob	aldolase B, fructose-bisphosphate	5.66
203106_s_at	Vps41	vacuolar protein sorting 41 homolog ( <i>S. cerevisiae</i> )	5.66
AFFX-DapX-	birA	Bifunctional protein birA	5.66
221350_at	Hoxc8	homeobox C8	5.66
213022_s_at	utrn	utrophin	5.66
215349_at	BTBD18	hypothetical protein LOC643376	5.66
205549_at	PCP4	Purkinje cell protein 4	5.66
203626_s_at	Skp2	S-phase kinase-associated protein 2 (p45)	5.66
203850_s_at	KIF1A	kinesin family member 1A	5.66
208394_x_at	Esm1	endothelial cell-specific molecule 1	5.66
210669_at	TFAP2A	transcription factor AP-2 alpha (activating enhancer binding protein 2 alpha)	5.66
213972_at	foxd1	forkhead box D1	5.66
205625_s_at	CALB1	calbindin 1, 28kDa	5.66
221153_s_at	LOC315380	NADH dehydrogenase (ubiquinone) 1 alpha subcomplex, assembly factor 4; similar to hormone-regulated proliferation-associated 20 kDa protein; similar to RIKEN cDNA	5.66
221153_s_at	LOC365685	NADH dehydrogenase (ubiquinone) 1 alpha subcomplex, assembly factor 4; similar to hormone-regulated proliferation-associated 20 kDa protein; similar to RIKEN cDNA	5.66
221153_s_at	Ndufaf4	NADH dehydrogenase (ubiquinone) 1 alpha subcomplex, assembly factor 4; similar to hormone-regulated proliferation-associated 20 kDa protein; similar to RIKEN cDNA	5.66
221153_s_at	LOC367750	NADH dehydrogenase (ubiquinone) 1 alpha subcomplex, assembly factor 4; similar to hormone-regulated proliferation-associated 20 kDa protein; similar to RIKEN cDNA	5.66
217070_at	Mthfr	5,10-methylenetetrahydrofolate reductase (NADPH)	5.66
207912_s_at	DAZ3	deleted in azoospermia 1; deleted in azoospermia 3; deleted in azoospermia 2; deleted in azoospermia 4	5.66
207912_s_at	DAZ4	deleted in azoospermia 1; deleted in azoospermia 3; deleted in azoospermia 2; deleted in azoospermia 4	5.66
207912_s_at	DAZ1	deleted in azoospermia 1; deleted in azoospermia 3; deleted in azoospermia 2; deleted in azoospermia 4	5.66
207912_s_at	DAZ2	deleted in azoospermia 1; deleted in azoospermia 3; deleted in azoospermia 2; deleted in azoospermia 4	5.66
216352_x_at	PCDHGA3	protocadherin gamma subfamily A, 3	5.66
208479_at	KCNA1	potassium voltage-gated channel, shaker-related subfamily, member 1 (episodic ataxia with	5.66
220698_at	MGC4294	hypothetical protein MGC4294	5.66
222224_at	NACA2	nascent polypeptide-associated complex alpha subunit 2	5.66
218232_at	C1qa	complement component 1, q subcomponent, A chain	5.66
216722_at	VENTXP1	VENT homeobox ( <i>Xenopus laevis</i> ) pseudogene 1	5.66
220321_s_at	CCDC121	coiled-coil domain containing 121	5.66
213638_at	PHACTR1	phosphatase and actin regulator 1	5.66
215242_at	PIGC	phosphatidylinositol glycan anchor biosynthesis, class C	5.66
206410_at	NR0B2	nuclear receptor subfamily 0, group B, member 2	5.66
214051_at	Tmsb15a	thymosin beta 15a; thymosin beta 15B	5.66
214051_at	TMSB15B	thymosin beta 15a; thymosin beta 15B	5.66
211786_at	TNFRSF9	tumor necrosis factor receptor superfamily, member 9	5.28
219837_s_at	Cyt11	cytokine-like 1	5.28
215332_s_at	CD8B	CD8b molecule	5.28
215320_at	FAM75C1	similar to chromosome 9 open reading frame 36; family with sequence similarity 75, member	5.28
215320_at	LOC645961	similar to chromosome 9 open reading frame 36; family with sequence similarity 75, member	5.28
211562_s_at	LMOD1	leiomodoin 1 (smooth muscle)	5.28
207656_s_at	ACOX1	acyl-Coenzyme A oxidase 1, palmitoyl	5.28
221261_x_at	MAGED4B	melanoma antigen family D, 4B; melanoma antigen family D, 4	5.28
221261_x_at	MAGED4	melanoma antigen family D, 4B; melanoma antigen family D, 4	5.28
206162_x_at	Syt5	synaptotagmin V	5.28
217389_s_at	ATF5	activating transcription factor 5	5.28
222337_at	OSBPL9	oxysterol binding protein-like 9	5.28
213142_x_at	PION	pigeon homolog ( <i>Drosophila</i> )	5.28
221461_at	TAS2R9	taste receptor, type 2, member 9	5.28
206817_x_at	cell3	trinucleotide repeat containing 4	5.28
204471_at	gap43	growth associated protein 43	5.28
206964_at	Nat8	N-acetyltransferase 8 (GCN5-related, putative); N-acetyltransferase 8B (GCN5-related, putative, gene/pseudogene)	5.28
206964_at	Nat8b	N-acetyltransferase 8 (GCN5-related, putative); N-acetyltransferase 8B (GCN5-related, putative, gene/pseudogene)	5.28
219743_at	HEY2	hypothetical LOC100129733; hairy/enhancer-of-split related with YRPW motif 2	5.28
219743_at	LOC100129733	hypothetical LOC100129733; hairy/enhancer-of-split related with YRPW motif 2	5.28
210585_s_at	Tnpo2	transportin 2	5.28
216802_at	CORO2B	coronin, actin binding protein, 2B	5.28
214983_at	TTY15	testis-specific transcript, Y-linked 15	5.28
216769_x_at	C9orf150	chromosome 9 open reading frame 150	5.28
206588_at	dazl	deleted in azoospermia-like	5.28
206627_s_at	SSX8	synovial sarcoma, X breakpoint 8; synovial sarcoma, X breakpoint 1	5.28
206627_s_at	SSX1	synovial sarcoma, X breakpoint 8; synovial sarcoma, X breakpoint 1	5.28



Appendix 1; Table 1

206476_s_at	nova2	neuro-oncological ventral antigen 2	5.28
218657_at	RAPGEFL1	Rap guanine nucleotide exchange factor (GEF)-like 1	5.28
210221_at	CHRNA3	cholinergic receptor, nicotinic, alpha 3	5.28
220236_at	PDPR	pyruvate dehydrogenase phosphatase regulatory subunit	5.28
216514_at	BMP3	bone morphogenetic protein 3	5.28
215042_at	BMP6	bone morphogenetic protein 6	5.28
201750_s_at	ECE1	endothelin converting enzyme 1	5.28
211388_s_at	ncor2	nuclear receptor co-repressor 2	5.28
215977_x_at	GK3P	glycerol kinase 3 pseudogene; glycerol kinase	5.28
215977_x_at	GK	glycerol kinase 3 pseudogene; glycerol kinase	5.28
206955_at	aqp7	aquaporin 7	5.28
218720_x_at	sez6l2	seizure related 6 homolog (mouse)-like 2	5.28
204979_s_at	Sh3bgr	SH3 domain binding glutamic acid-rich protein	5.28
215523_at	ZNF391	zinc finger protein 391	5.28
206179_s_at	TPPP	tubulin polymerization promoting protein	5.28
211295_x_at	cyp2a6	cytochrome P450, family 2, subfamily A, polypeptide 6	5.28
204410_at	EIF1AY	eukaryotic translation initiation factor 1A, Y-linked	5.28
215103_at	CYP2C18	cytochrome P450, family 2, subfamily C, polypeptide 18	5.28
210637_at	Tacr1	tachykinin receptor 1	5.28
204730_at	RIMS3	regulating synaptic membrane exocytosis 3	5.28
213733_at	myo1f	myosin 1F	5.28
207768_at	Egr4	early growth response 4	5.28
206630_at	tyr	tyrosinase-like (pseudogene); tyrosinase (oculocutaneous albinism IA)	4.92
206630_at	TYRL	tyrosinase-like (pseudogene); tyrosinase (oculocutaneous albinism IA)	4.92
217386_at	MRPS11P1	mitochondrial ribosomal protein S11 pseudogene 1	4.92
216276_s_at	ADAM3A	ADAM metallopeptidase domain 3A (cyritestin 1)	4.92
217315_s_at	KLK13	kallikrein-related peptidase 13	4.92
219668_at	GDAP1L1	ganglioside-induced differentiation-associated protein 1-like 1	4.92
205714_s_at	zmynd10	zinc finger, MYND-type containing 10	4.92
208194_s_at	STAM2	signal transducing adaptor molecule (SH3 domain and ITAM motif) 2	4.92
206286_s_at	TDGF3	teratocarcinoma-derived growth factor 3, pseudogene; teratocarcinoma-derived growth factor	4.92
206286_s_at	tdgf1	teratocarcinoma-derived growth factor 3, pseudogene; teratocarcinoma-derived growth factor	4.92
207534_at	MAGEB1	melanoma antigen family B, 1	4.92
220306_at	FAM46C	family with sequence similarity 46, member C	4.92
213197_at	Astn1	astrotactin 1	4.92
214974_x_at	CXCL5	chemokine (C-X-C motif) ligand 5	4.92
217120_s_at	Med14	mediator complex subunit 14	4.92
206341_at	IL2RA	interleukin 2 receptor, alpha	4.92
216085_at	DKFZP434C153	DKFZP434C153 protein	4.92
219107_at	BCAN	brevican	4.92
207158_at	Apobec1	apolipoprotein B mRNA editing enzyme, catalytic polypeptide 1	4.92
206011_at	CASP1	caspase 1, apoptosis-related cysteine peptidase (interleukin 1, beta, convertase)	4.92
213569_at	Vash1	vasohibin 1	4.92
209555_s_at	CD36	CD36 molecule (thrombospondin receptor)	4.92
208108_s_at	AVPR2	arginine vasopressin receptor 2	4.92
210228_at	Csf2	colony stimulating factor 2 (granulocyte-macrophage)	4.92
207460_at	GZMM	granzyme M (lymphocyte met-ase 1)	4.92
206206_at	CD180	CD180 molecule	4.92
216963_s_at	gap43	growth associated protein 43	4.92
208462_s_at	abcc9	ATP-binding cassette, sub-family C (CFTR/MRP), member 9	4.92
220331_at	cyp46a1	cytochrome P450, family 46, subfamily A, polypeptide 1	4.92
220017_x_at	CYP2C9	cytochrome P450, family 2, subfamily C, polypeptide 9	4.92
221292_at	PTCH2	patched homolog 2 (Drosophila)	4.92
211891_s_at	ARHGEF4	Rho guanine nucleotide exchange factor (GEF) 4	4.92
215133_s_at	FAM153B	family with sequence similarity 153, member B	4.92
211304_x_at	Kcnj5	potassium inwardly-rectifying channel, subfamily J, member 5	4.92
207800_at	AKAP5	A kinase (PRKA) anchor protein 5	4.92
216779_at	CYLC1	cylicin, basic protein of sperm head cytoskeleton 1	4.92
208604_s_at	HOXA3	homeobox A3	4.92
217235_x_at	IGLV2-23	immunoglobulin lambda variable 2-23	4.92
216825_s_at	mpl	myeloproliferative leukemia virus oncogene	4.92
208105_at	GIPR	gastric inhibitory polypeptide receptor	4.92
217252_at	sqstm1	sequestosome 1	4.92
217535_at	FAM49B	family with sequence similarity 49, member B	4.92
207381_at	ALOX12B	arachidonate 12-lipoxygenase, 12R type	4.92
210751_s_at	rgn	regucalcin (senescence marker protein-30)	4.92
221638_s_at	stx16	syntaxin 16	4.92
213321_at	BCKDHB	branched chain keto acid dehydrogenase E1, beta polypeptide	4.92
215509_s_at	BUB1	budding uninhibited by benzimidazoles 1 homolog (yeast)	4.92
206932_at	CH25H	cholesterol 25-hydroxylase	4.92
217515_s_at	CACNA1S	calcium channel, voltage-dependent, L type, alpha 1S subunit	4.92

Appendix 1; Table 1

212524_x_at	H2afx	H2A histone family, member X	4.92
209550_at	NDN	needin homolog (mouse)	4.92
206810_at	ZNF44	zinc finger protein 44	4.92
215990_s_at	BCL6	B-cell CLL/lymphoma 6	4.92
204024_at	OSGIN2	oxidative stress induced growth inhibitor family member 2	4.92
215692_s_at	MPPED2	metallophosphoesterase domain containing 2	4.92
211877_s_at	PCDHGA11	protocadherin gamma subfamily A, 11	4.92
213042_s_at	ATP2A3	ATPase, Ca <sup>++</sup> transporting, ubiquitous	4.92
206814_at	Ngf	nerve growth factor (beta polypeptide)	4.92
217046_s_at	AGER	advanced glycosylation end product-specific receptor	4.92
211826_s_at	AF4	AF4/FMR2 family, member 1	4.92
207230_at	cdon	Cdon homolog (mouse)	4.92
216408_at	OR2B2	olfactory receptor, family 2, subfamily B, member 2	4.59
209637_s_at	rgs12	regulator of G-protein signaling 12	4.59
207234_at	rfx3	regulatory factor X, 3 (influences HLA class II expression)	4.59
221233_s_at	FAM135A	family with sequence similarity 135, member A	4.59
208329_at	PBOV1	prostate and breast cancer overexpressed 1	4.59
215115_x_at	NTRK3	neurotrophic tyrosine kinase, receptor, type 3	4.59
220490_at	SERINC2	serine incorporator 2	4.59
214424_s_at	Aldob	aldolase B, fructose-bisphosphate	4.59
206634_at	six3	SIX homeobox 3	4.59
211021_s_at	RGS14	regulator of G-protein signaling 14	4.59
205983_at	DPEP1	dipeptidase 1 (renal)	4.59
216254_at	PARVB	parvin, beta	4.59
215368_at	NEB	nebulin	4.59
222117_s_at	ADCK2	aarF domain containing kinase 2	4.59
220435_at	slc30a10	solute carrier family 30, member 10	4.59
206254_at	Egf	epidermal growth factor (beta-urogastrone)	4.59
210061_at	ZNF589	zinc finger protein 589	4.59
215902_at	6-Mar	membrane-associated ring finger (C3HC4) 6	4.59
220662_s_at	heyl	hairy/enhancer-of-split related with YRPW motif-like	4.59
221369_at	MTNR1A	melatonin receptor 1A	4.59
208519_x_at	GNRH2	gonadotropin-releasing hormone 2	4.59
214898_x_at	MUC3B	mucin 3B, cell surface associated; similar to Mucin-3A precursor (Intestinal mucin-3A); mucin 3A, cell surface associated; similar to mucin 3	4.59
214898_x_at	LOC100134674	mucin 3B, cell surface associated; similar to Mucin-3A precursor (Intestinal mucin-3A); mucin 3A, cell surface associated; similar to mucin 3	4.59
214898_x_at	LOC100134216	mucin 3B, cell surface associated; similar to Mucin-3A precursor (Intestinal mucin-3A); mucin 3A, cell surface associated; similar to mucin 3	4.59
214898_x_at	Muc3a	mucin 3B, cell surface associated; similar to Mucin-3A precursor (Intestinal mucin-3A); mucin 3A, cell surface associated; similar to mucin 3	4.59
209800_at	KRT16P2	keratin 16; keratin type 16-like	4.59
209800_at	Krt16	keratin 16; keratin type 16-like	4.59
216968_at	masp2	mannan-binding lectin serine peptidase 2	4.59
207503_at	tcp10	t-complex 10-like 2 (mouse); t-complex 10 homolog (mouse)	4.59
207503_at	TCP10L2	t-complex 10-like 2 (mouse); t-complex 10 homolog (mouse)	4.59
209848_s_at	SILV	silver homolog (mouse)	4.59
217203_at	GLUL	glutamate-ammonia ligase (glutamine synthetase)	4.59
211024_s_at	nkx2-1	NK2 homeobox 1	4.59
211027_s_at	IKBKB	inhibitor of kappa light polypeptide gene enhancer in B-cells, kinase beta	4.59
207459_x_at	GYPB	glycophorin E; glycophorin B (MNS blood group)	4.59
207459_x_at	GYPE	glycophorin E; glycophorin B (MNS blood group)	4.59
210931_at	RNF6	ring finger protein (C3H2C3 type) 6	4.59
217307_at	ACO2	aconitase 2, mitochondrial	4.59
210875_s_at	ZEB1	zinc finger E-box binding homeobox 1	4.59
210794_s_at	MEG3	maternally expressed 3 (non-protein coding)	4.59
206205_at	MPHOSPH9	M-phase phosphoprotein 9	4.59
34210_at	Cd52	CD52 molecule	4.59
214418_at	CT62	hypothetical protein LOC196993	4.59
205978_at	KL	klotho	4.59
216040_x_at	RAB11FIP3	RAB11 family interacting protein 3 (class II)	4.59
211457_at	GABARAPL3	GABA(A) receptors associated protein like 3 (pseudogene); GABA(A) receptor-associated	4.59
211457_at	GABARAPL1	GABA(A) receptors associated protein like 3 (pseudogene); GABA(A) receptor-associated	4.59
206513_at	AIM2	absent in melanoma 2	4.59
204834_at	FGL2	fibrinogen-like 2	4.59
209241_x_at	MINK1	misshapen-like kinase 1 (zebrafish)	4.59
203784_s_at	Ddx28	DEAD (Asp-Glu-Ala-Asp) box polypeptide 28	4.59
221307_at	KCNIP1	Kv channel interacting protein 1	4.59
217687_at	ADCY2	adenylate cyclase 2 (brain)	4.59
214079_at	Dhrs2	dehydrogenase/reductase (SDR family) member 2	4.59
207784_at	arsD	arylsulfatase D	4.59

Appendix 1; Table 1

217296_at	KIR2DL1	killer cell immunoglobulin-like receptor, two domains, long cytoplasmic tail, 2; killer cell immunoglobulin-like receptor, two domains, long cytoplasmic tail, 1; killer-cell Ig-like receptor; killer cell immunoglobulin-like receptor, three domains, pseudogene 1	4.59
217296_at	KIR3DP1	killer cell immunoglobulin-like receptor, two domains, long cytoplasmic tail, 2; killer cell immunoglobulin-like receptor, two domains, long cytoplasmic tail, 1; killer-cell Ig-like receptor; killer cell immunoglobulin-like receptor, three domains, pseudogene 1	4.59
217296_at	KIR2DL2	killer cell immunoglobulin-like receptor, two domains, long cytoplasmic tail, 2; killer cell immunoglobulin-like receptor, two domains, long cytoplasmic tail, 1; killer-cell Ig-like receptor; killer cell immunoglobulin-like receptor, three domains, pseudogene 1	4.59
217494_s_at	PTENP1	phosphatase and tensin homolog; phosphatase and tensin homolog pseudogene 1	4.59
217494_s_at	pten	phosphatase and tensin homolog; phosphatase and tensin homolog pseudogene 1	4.59
211726_s_at	FMO2	flavin containing monooxygenase 2 (non-functional)	4.59
205899_at	CCNA1	cyclin A1	4.59
211314_at	CACNA1G	calcium channel, voltage-dependent, T type, alpha 1G subunit	4.59
220369_at	smek1	SMEK homolog 1, suppressor of mek1 (Dictyostelium)	4.59
215877_at	C14orf56	chromosome 14 open reading frame 56	4.59
207587_at	cryga	crystallin, gamma A	4.29
205031_at	Efnb3	ephrin-B3	4.29
210340_s_at	CSF2RA	colony stimulating factor 2 receptor, alpha, low-affinity (granulocyte-macrophage)	4.29
221051_s_at	ITGB1BP3	integrin beta 1 binding protein 3	4.29
220735_s_at	Senp7	SUMO1/sentrin specific peptidase 7	4.29
206541_at	KLKB1	kallikrein B, plasma (Fletcher factor) 1	4.29
206137_at	RIMS2	regulating synaptic membrane exocytosis 2	4.29
216817_s_at	OR2H1	olfactory receptor, family 2, subfamily H, member 1	4.29
211470_s_at	Sult1c2	sulfotransferase family, cytosolic, 1C, member 2	4.29
205554_s_at	DNASE1L3	deoxyribonuclease I-like 3	4.29
207321_s_at	Abcb9	ATP-binding cassette, sub-family B (MDR/TAP), member 9	4.29
221662_s_at	SLC22A7	solute carrier family 22 (organic anion transporter), member 7	4.29
207869_s_at	CACNA1G	calcium channel, voltage-dependent, T type, alpha 1G subunit	4.29
214421_x_at	CYP2C9	cytochrome P450, family 2, subfamily C, polypeptide 9	4.29
216839_at	Lama2	laminin, alpha 2	4.29
205885_s_at	ITGA4	integrin, alpha 4 (antigen CD49D, alpha 4 subunit of VLA-4 receptor)	4.29
217577_at	xpo1	exportin 1 (CRM1 homolog, yeast)	4.29
205903_s_at	KCNN3	potassium intermediate/small conductance calcium-activated channel, subfamily N, member	4.29
220620_at	Crct1	cysteine-rich C-terminal 1	4.29
220512_at	DLC1	deleted in liver cancer 1	4.29
207818_s_at	HTR7	5-hydroxytryptamine (serotonin) receptor 7 (adenylate cyclase-coupled)	4.29
213277_at	zfp3611	zinc finger protein 36, C3H type-like 1	4.29
201438_at	Col6a3	collagen, type VI, alpha 3	4.29
217644_s_at	SOS2	son of sevenless homolog 2 (Drosophila)	4.29
211110_s_at	Ar	androgen receptor	4.29
207139_at	ATP4A	ATPase, H+/K+ exchanging, alpha polypeptide	4.29
216566_at	rpl14	ribosomal protein L14	4.29
206420_at	Igsf6	immunoglobulin superfamily, member 6	4.29
221080_s_at	DENND1C	DENN/MADD domain containing 1C	4.29
211386_at	MGC12488	hypothetical protein MGC12488	4.29
211604_x_at	Hap1	huntingtin-associated protein 1	4.29
214408_s_at	Rfpl3s	RFPL3 antisense RNA (non-protein coding)	4.29
1320_at	PTPN21	protein tyrosine phosphatase, non-receptor type 21	4.29
214955_at	TMPRSS6	transmembrane protease, serine 6	4.29
202752_x_at	SLC7A8	solute carrier family 7 (cationic amino acid transporter, y+ system), member 8	4.29
216773_at	COMMD1	copper metabolism (Murr1) domain containing 1	4.29
220054_at	IL23A	interleukin 23, alpha subunit p19	4.29
214228_x_at	Tnfrsf4	tumor necrosis factor receptor superfamily, member 4	4.29
210882_s_at	Tro	trophinin	4.29
209261_s_at	NR2F6	nuclear receptor subfamily 2, group F, member 6	4.29
211553_x_at	Apaf1	apoptotic peptidase activating factor 1	4.29
222320_at	Cdc73	cell division cycle 73, Paf1/RNA polymerase II complex component, homolog (S. cerevisiae)	4.29
222253_s_at	POM121L9P	POM121 membrane glycoprotein-like 9 (rat) pseudogene	4.29
206769_at	TMSB4Y	thymosin beta 4, Y-linked	4.29
216738_at	HRH1	histamine receptor H1	4.29
215580_at	MCM3AP	minichromosome maintenance complex component 3 associated protein	4.29
209975_at	CYP2E1	cytochrome P450, family 2, subfamily E, polypeptide 1	4.29
216283_s_at	PVR	poliovirus receptor	4.29
206404_at	FGF9	fibroblast growth factor 9 (glia-activating factor)	4.29
222324_at	obscn	obscurin, cytoskeletal calmodulin and titin-interacting RhoGEF	4.29
206517_at	CDH16	cadherin 16, KSP-cadherin	4.29
221910_at	etv1	ets variant 1	4.29
207889_at	SARDH	sarcosine dehydrogenase	4.29
204760_s_at	thrA	thyroid hormone receptor, alpha (erythroblastic leukemia viral (v-erb-a) oncogene homolog,	4.29
207183_at	GPR19	G protein-coupled receptor 19	4.29
211272_s_at	dgkA	diacylglycerol kinase, alpha 80kDa	4.29

Appendix 1; Table 1

211422_at	TRPM3	transient receptor potential cation channel, subfamily M, member 3	4.29
216939_s_at	HTR4	5-hydroxytryptamine (serotonin) receptor 4	4.29
211753_s_at	RLN1	relaxin 1	4.29
205337_at	dct	dopachrome tautomerase (dopachrome delta-isomerase, tyrosine-related protein 2)	4.29
210597_x_at	PRB2	proline-rich protein BstNI subfamily 1; proline-rich protein BstNI subfamily 2; proline-rich protein BstNI subfamily 4	4.29
210597_x_at	Prb1	proline-rich protein BstNI subfamily 1; proline-rich protein BstNI subfamily 2; proline-rich protein BstNI subfamily 4	4.29
210597_x_at	PRB4	proline-rich protein BstNI subfamily 1; proline-rich protein BstNI subfamily 2; proline-rich protein BstNI subfamily 4	4.29
215661_at	MAST2	microtubule associated serine/threonine kinase 2	4.29
211351_at	C6orf54	chromosome 6 open reading frame 54	4.29
201882_x_at	B4GALT1	UDP-Gal:betaGlcNAc beta 1,4- galactosyltransferase, polypeptide 1	4.29
202137_s_at	zmynd11	zinc finger, MYND domain containing 11	4.29
219734_at	SIDT1	SID1 transmembrane family, member 1	4.29
222106_at	Prnd	prion protein 2 (dublet)	4.29
209854_s_at	KLK2	kallikrein-related peptidase 2	4.29
210964_s_at	gyg2	glycogenin 2	4.29
207070_at	Rgr	retinal G protein coupled receptor	4.29
208378_x_at	FGF5	fibroblast growth factor 5	4.29
213082_s_at	SLC35D2	solute carrier family 35, member D2	4.29
202902_s_at	CTSS	cathepsin S	4.29
205874_at	ITPKA	inositol 1,4,5-trisphosphate 3-kinase A	4.29
213962_s_at	Ankle2	ankyrin repeat and LEM domain containing 2	4.29
207617_at	DDX3X	DEAD (Asp-Glu-Ala-Asp) box polypeptide 3, X-linked	4.29
207675_x_at	Artin	artemin	4.29
206390_x_at	PF4	platelet factor 4	4.29
213884_s_at	Trim3	tripartite motif-containing 3	4.29
220114_s_at	STAB2	stabilin 2	4.29
205419_at	Gpr183	G protein-coupled receptor 183	4.29
214292_at	ITGB4	integrin, beta 4	4.29
205464_at	SCNN1B	sodium channel, nonvoltage-gated 1, beta	4.29
203888_at	THBD	thrombomodulin	4
205960_at	PDK4	pyruvate dehydrogenase kinase, isozyme 4	4
207195_at	CNTN6	contactin 6	4
201547_at	LOC100133760	similar to Jumonji, AT rich interactive domain 1B (RBP2-like); lysine (K)-specific demethylase 5B	4
201547_at	KDM5B	similar to Jumonji, AT rich interactive domain 1B (RBP2-like); lysine (K)-specific demethylase	4
215311_at	NTRK3	neurotrophic tyrosine kinase, receptor, type 3	4
217358_at	Dnajc16	DnaJ (Hsp40) homolog, subfamily C, member 16	4
211848_s_at	CEACAM7	carcinoembryonic antigen-related cell adhesion molecule 7	4
203982_s_at	ABCD4	ATP-binding cassette, sub-family D (ALD), member 4	4
206927_s_at	GUCY1A2	guanylate cyclase 1, soluble, alpha 2	4
202192_s_at	gas7	growth arrest-specific 7	4
216561_x_at	SOX5	SRY (sex determining region Y)-box 5	4
205817_at	six1	SIX homeobox 1	4
205384_at	fxyd1	FXYP domain containing ion transport regulator 1	4
219685_at	TMEM35	transmembrane protein 35	4
210576_at	CYP4F8	cytochrome P450, family 4, subfamily F, polypeptide 8	4
219365_s_at	CAMKV	CaM kinase-like vesicle-associated	4
211111_at	HGC6.3	similar to HGC6.3	4
210516_at	FAM120A	family with sequence similarity 120A	4
221429_x_at	TEX13A	testis expressed 13A	4
217314_at	CDC37P1	cell division cycle 37 homolog (S. cerevisiae) pseudogene 1	4
216956_s_at	itga2b	integrin, alpha 2b (platelet glycoprotein IIb of IIb/IIIa complex, antigen CD41)	4
221225_at	Dcakd	dephospho-CoA kinase domain containing	4
216837_at	Epha5	EPH receptor A5	4
206658_at	UPK3B	uroplakin 3B	4
212562_s_at	CTSZ	cathepsin Z	4
205665_at	tspan9	tetraspanin 9	4
214669_x_at	Igkc	similar to hCG26659; immunoglobulin kappa constant; similar to Ig kappa chain V-I region HK102 precursor	4
214669_x_at	LOC652493	similar to hCG26659; immunoglobulin kappa constant; similar to Ig kappa chain V-I region HK102 precursor	4
214669_x_at	LOC650405	similar to hCG26659; immunoglobulin kappa constant; similar to Ig kappa chain V-I region HK102 precursor	4
214669_x_at	LOC100130100	similar to hCG26659; immunoglobulin kappa constant; similar to Ig kappa chain V-I region HK102 precursor	4
215928_at	ABLIM2	actin binding LIM protein family, member 2	4
214407_x_at	GYPB	glycophorin E; glycophorin B (MNS blood group)	4
214407_x_at	GYPE	glycophorin E; glycophorin B (MNS blood group)	4
207311_at	DOC2B	double C2-like domains, beta	4

Appendix 1; Table 1

210998_s_at	Hgf	hepatocyte growth factor (hepapoietin A; scatter factor)	4
216415_at	DNAH3	dynein, axonemal, heavy chain 3	4
206460_at	AJAP1	adherens junctions associated protein 1	4
216431_at	PARVA	parvin, alpha	4
205794_s_at	NOVA1	neuro-oncological ventral antigen 1	4
208195_at	TTN	titin	4
207329_at	MMP8	matrix metalloproteinase 8 (neutrophil collagenase)	4
205650_s_at	FGA	fibrinogen alpha chain	4
207626_s_at	SLC7A2	solute carrier family 7 (cationic amino acid transporter, y+ system), member 2	4
211253_x_at	PYY	peptide YY	4
219597_s_at	DUOX1	dual oxidase 1	4
207166_at	GNGT1	guanine nucleotide binding protein (G protein), gamma transducing activity polypeptide 1	4
205986_at	AATK	apoptosis-associated tyrosine kinase	4
217481_x_at	SHISA6	FLJ45455 protein	4
219233_s_at	GSDMB	gasdermin B	4
206620_at	GRAP	GRB2-related adaptor protein	4
220214_at	ZNF215	zinc finger protein 215	4
222367_at	Whamm	WAS protein homolog associated with actin, golgi membranes and microtubules	4
211093_at	PDE6C	phosphodiesterase 6C, cGMP-specific, cone, alpha prime	4
220442_at	poc1b	WD repeat domain 51B	4
210082_at	abca4	ATP-binding cassette, sub-family A (ABC1), member 4	4
209906_at	C3AR1	complement component 3a receptor 1	4
206421_s_at	SERPINB7	serpin peptidase inhibitor, clade B (ovalbumin), member 7	4
208476_s_at	Frmf4a	FERM domain containing 4A	4
214233_at	Gga2	golgi associated, gamma adaptin ear containing, ARF binding protein 2	4
208332_at	PRY	PTPN13-like, Y-linked pseudogene 4; PTPN13-like, Y-linked pseudogene 3; PTPN13-like, Y-linked; PTPN13-like, Y-linked 2	4
208332_at	PRYP4	PTPN13-like, Y-linked pseudogene 4; PTPN13-like, Y-linked pseudogene 3; PTPN13-like, Y-linked; PTPN13-like, Y-linked 2	4
208332_at	PRYP3	PTPN13-like, Y-linked pseudogene 4; PTPN13-like, Y-linked pseudogene 3; PTPN13-like, Y-linked; PTPN13-like, Y-linked 2	4
208332_at	PRY2	PTPN13-like, Y-linked pseudogene 4; PTPN13-like, Y-linked pseudogene 3; PTPN13-like, Y-linked; PTPN13-like, Y-linked 2	4
221177_at	Mia2	melanoma inhibitory activity 2	4
209876_at	GIT2	G protein-coupled receptor kinase interacting ArfGAP 2	4
214366_s_at	ALOX5	arachidonate 5-lipoxygenase	4
213563_s_at	Tubgcp2	tubulin, gamma complex associated protein 2	4
207900_at	Ccl17	chemokine (C-C motif) ligand 17	4
209735_at	Abcg2	ATP-binding cassette, sub-family G (WHITE), member 2	4
205938_at	PPM1E	protein phosphatase 1E (PP2C domain containing)	4
221404_at	IL1F6	interleukin 1 family, member 6 (epsilon)	4
217033_x_at	NTRK3	neurotrophic tyrosine kinase, receptor, type 3	4
209546_s_at	APOL1	apolipoprotein L, 1	4
216600_x_at	Aldob	aldolase B, fructose-bisphosphate	4
211478_s_at	DPP4	dipeptidyl-peptidase 4	4
214533_at	Cma1	chymase 1, mast cell	4
211332_x_at	HFE	hemochromatosis	4
204555_s_at	PPP1R3D	protein phosphatase 1, regulatory (inhibitor) subunit 3D	3.73
214296_x_at	C19orf36	chromosome 19 open reading frame 36	3.73
215486_at	Prps11i	phosphoribosyl pyrophosphate synthetase 1; phosphoribosyl pyrophosphate synthetase 1-	3.73
215486_at	PRPS1	phosphoribosyl pyrophosphate synthetase 1; phosphoribosyl pyrophosphate synthetase 1-	3.73
215187_at	FLJ11292	hypothetical protein FLJ11292	3.73
214822_at	Fam5b	family with sequence similarity 5, member B	3.73
209459_s_at	ABAT	4-aminobutyrate aminotransferase	3.73
207562_at	dgkq	diacylglycerol kinase, theta 110kDa	3.73
220920_at	ATP10B	ATPase, class V, type 10B	3.73
219909_at	Mmp28	matrix metalloproteinase 28	3.73
205900_at	KRT1	keratin 1	3.73
216116_at	nckipsd	NCK interacting protein with SH3 domain	3.73
215637_at	Tsga14	testis specific, 14	3.73
204431_at	TLE2	transducin-like enhancer of split 2 (E(sp)1 homolog, Drosophila)	3.73
208263_at	SRP72	signal recognition particle 72kDa	3.73
221851_at	Dcaf15	chromosome 19 open reading frame 72	3.73
221944_at	FLJ42627	hypothetical LOC645644	3.73
210155_at	MYOC	myocilin, trabecular meshwork inducible glucocorticoid response	3.73
215571_at	ncam2	neural cell adhesion molecule 2	3.73
216185_at	fut9	fucosyltransferase 9 (alpha (1,3) fucosyltransferase)	3.73
220026_at	Cica4	chloride channel accessory 4	3.73
218484_at	NDUFA4L2	NADH dehydrogenase (ubiquinone) 1 alpha subcomplex, 4-like 2	3.73
204057_at	IRF8	interferon regulatory factor 8	3.73
221408_x_at	PCDH12	protocadherin beta 12	3.73
220170_at	fhl5	four and a half LIM domains 5	3.73

Appendix 1; Table 1

215964_at	SNTG1	syntrophin, gamma 1	3.73
207649_at	KRT37	keratin 37	3.73
208232_x_at	NRG1	neuregulin 1	3.73
205998_x_at	CYP3A4	cytochrome P450, family 3, subfamily A, polypeptide 4	3.73
221871_s_at	TFG	TRK-fused gene	3.73
221431_s_at	OR12D3	olfactory receptor, family 12, subfamily D, member 3; olfactory receptor, family 5, subfamily V,	3.73
221431_s_at	OR5V1	olfactory receptor, family 12, subfamily D, member 3; olfactory receptor, family 5, subfamily V,	3.73
220959_s_at	OBP2B	odorant binding protein 2B	3.73
210271_at	NEUROD2	neurogenic differentiation 2	3.73
211017_s_at	NF2	neurofibromin 2 (merlin)	3.73
206403_at	ZNF536	zinc finger protein 536	3.73
208119_s_at	ZNF93	zinc finger protein 93	3.73
210755_at	Hgf	hepatocyte growth factor (hepapoietin A; scatter factor)	3.73
213676_at	TMEM151B	transmembrane protein 151B	3.73
221077_at	ARMC4	armadillo repeat containing 4	3.73
215472_at	Pacrg	PARK2 co-regulated	3.73
215104_at	NRIP2	nuclear receptor interacting protein 2	3.73
207306_at	TCF15	transcription factor 15 (basic helix-loop-helix)	3.73
206057_x_at	Spn	sialophorin	3.73
214592_s_at	Snapc5	small nuclear RNA activating complex, polypeptide 5, 19kDa	3.73
222332_at	INADL	InaD-like (Drosophila)	3.73
217525_at	OLFML1	olfactomedin-like 1	3.73
210318_at	RBP3	retinol binding protein 3, interstitial	3.73
213371_at	Ldb3	LIM domain binding 3	3.73
206604_at	OVOL1	ovo-like 1 (Drosophila)	3.73
211839_s_at	csf1	colony stimulating factor 1 (macrophage)	3.73
218876_at	Tppp3	tubulin polymerization-promoting protein family member 3	3.73
211020_at	GCNT2	glucosaminyl (N-acetyl) transferase 2, l-branching enzyme (I blood group)	3.73
208561_at	abcc9	ATP-binding cassette, sub-family C (CFTR/MRP), member 9	3.73
215292_s_at	mk11	megakaryoblastic leukemia (translocation) 1	3.73
206337_at	CCR7	chemokine (C-C motif) receptor 7	3.73
207072_at	IL18RAP	interleukin 18 receptor accessory protein	3.73
206317_s_at	abcb8	ATP-binding cassette, sub-family B (MDR/TAP), member 8	3.73
219218_at	BAHCC1	BAH domain and coiled-coil containing 1	3.73
205539_at	AVIL	advillin	3.73
215518_at	STXBP5L	syntaxin binding protein 5-like	3.73
		G antigen 2A; G antigen 2B; G antigen 12I; G antigen 12F; G antigen 2E; G antigen 12G; G antigen 12D; G antigen 1; G antigen 2C; G antigen 12E; G antigen 2D; G antigen 12B; G antigen 3; G antigen 4; G antigen 12C; G antigen 5; G antigen 6; G antigen 7; G antigen 8	3.73
208283_at	GAGE2A		
		G antigen 2A; G antigen 2B; G antigen 12I; G antigen 12F; G antigen 2E; G antigen 12G; G antigen 12D; G antigen 1; G antigen 2C; G antigen 12E; G antigen 2D; G antigen 12B; G antigen 3; G antigen 4; G antigen 12C; G antigen 5; G antigen 6; G antigen 7; G antigen 8	3.73
208283_at	GAGE2D		
		G antigen 2A; G antigen 2B; G antigen 12I; G antigen 12F; G antigen 2E; G antigen 12G; G antigen 12D; G antigen 1; G antigen 2C; G antigen 12E; G antigen 2D; G antigen 12B; G antigen 3; G antigen 4; G antigen 12C; G antigen 5; G antigen 6; G antigen 7; G antigen 8	3.73
208283_at	GAGE12G		
		G antigen 2A; G antigen 2B; G antigen 12I; G antigen 12F; G antigen 2E; G antigen 12G; G antigen 12D; G antigen 1; G antigen 2C; G antigen 12E; G antigen 2D; G antigen 12B; G antigen 3; G antigen 4; G antigen 12C; G antigen 5; G antigen 6; G antigen 7; G antigen 8	3.73
208283_at	GAGE2E		
		G antigen 2A; G antigen 2B; G antigen 12I; G antigen 12F; G antigen 2E; G antigen 12G; G antigen 12D; G antigen 1; G antigen 2C; G antigen 12E; G antigen 2D; G antigen 12B; G antigen 3; G antigen 4; G antigen 12C; G antigen 5; G antigen 6; G antigen 7; G antigen 8	3.73
208283_at	GAGE12F		
		G antigen 2A; G antigen 2B; G antigen 12I; G antigen 12F; G antigen 2E; G antigen 12G; G antigen 12D; G antigen 1; G antigen 2C; G antigen 12E; G antigen 2D; G antigen 12B; G antigen 3; G antigen 4; G antigen 12C; G antigen 5; G antigen 6; G antigen 7; G antigen 8	3.73
208283_at	GAGE2B		
		G antigen 2A; G antigen 2B; G antigen 12I; G antigen 12F; G antigen 2E; G antigen 12G; G antigen 12D; G antigen 1; G antigen 2C; G antigen 12E; G antigen 2D; G antigen 12B; G antigen 3; G antigen 4; G antigen 12C; G antigen 5; G antigen 6; G antigen 7; G antigen 8	3.73
208283_at	GAGE12E		
		G antigen 2A; G antigen 2B; G antigen 12I; G antigen 12F; G antigen 2E; G antigen 12G; G antigen 12D; G antigen 1; G antigen 2C; G antigen 12E; G antigen 2D; G antigen 12B; G antigen 3; G antigen 4; G antigen 12C; G antigen 5; G antigen 6; G antigen 7; G antigen 8	3.73
208283_at	GAGE2C		
		G antigen 2A; G antigen 2B; G antigen 12I; G antigen 12F; G antigen 2E; G antigen 12G; G antigen 12D; G antigen 1; G antigen 2C; G antigen 12E; G antigen 2D; G antigen 12B; G antigen 3; G antigen 4; G antigen 12C; G antigen 5; G antigen 6; G antigen 7; G antigen 8	3.73
208283_at	GAGE12D		
		G antigen 2A; G antigen 2B; G antigen 12I; G antigen 12F; G antigen 2E; G antigen 12G; G antigen 12D; G antigen 1; G antigen 2C; G antigen 12E; G antigen 2D; G antigen 12B; G antigen 3; G antigen 4; G antigen 12C; G antigen 5; G antigen 6; G antigen 7; G antigen 8	3.73
208283_at	GAGE12C		
		G antigen 2A; G antigen 2B; G antigen 12I; G antigen 12F; G antigen 2E; G antigen 12G; G antigen 12D; G antigen 1; G antigen 2C; G antigen 12E; G antigen 2D; G antigen 12B; G antigen 3; G antigen 4; G antigen 12C; G antigen 5; G antigen 6; G antigen 7; G antigen 8	3.73
208283_at	GAGE12B		
		G antigen 2A; G antigen 2B; G antigen 12I; G antigen 12F; G antigen 2E; G antigen 12G; G antigen 12D; G antigen 1; G antigen 2C; G antigen 12E; G antigen 2D; G antigen 12B; G antigen 3; G antigen 4; G antigen 12C; G antigen 5; G antigen 6; G antigen 7; G antigen 8	3.73
208283_at	GAGE1		

Appendix 1; Table 1

208283_at	GAGE3	G antigen 2A; G antigen 2B; G antigen 12I; G antigen 12F; G antigen 2E; G antigen 12G; G antigen 12D; G antigen 1; G antigen 2C; G antigen 12E; G antigen 2D; G antigen 12B; G antigen 3; G antigen 4; G antigen 12C; G antigen 5; G antigen 6; G antigen 7; G antigen 8	3.73
208283_at	GAGE5	G antigen 2A; G antigen 2B; G antigen 12I; G antigen 12F; G antigen 2E; G antigen 12G; G antigen 12D; G antigen 1; G antigen 2C; G antigen 12E; G antigen 2D; G antigen 12B; G antigen 3; G antigen 4; G antigen 12C; G antigen 5; G antigen 6; G antigen 7; G antigen 8	3.73
208283_at	GAGE4	G antigen 2A; G antigen 2B; G antigen 12I; G antigen 12F; G antigen 2E; G antigen 12G; G antigen 12D; G antigen 1; G antigen 2C; G antigen 12E; G antigen 2D; G antigen 12B; G antigen 3; G antigen 4; G antigen 12C; G antigen 5; G antigen 6; G antigen 7; G antigen 8	3.73
208283_at	GAGE7	G antigen 2A; G antigen 2B; G antigen 12I; G antigen 12F; G antigen 2E; G antigen 12G; G antigen 12D; G antigen 1; G antigen 2C; G antigen 12E; G antigen 2D; G antigen 12B; G antigen 3; G antigen 4; G antigen 12C; G antigen 5; G antigen 6; G antigen 7; G antigen 8	3.73
208283_at	GAGE12I	G antigen 2A; G antigen 2B; G antigen 12I; G antigen 12F; G antigen 2E; G antigen 12G; G antigen 12D; G antigen 1; G antigen 2C; G antigen 12E; G antigen 2D; G antigen 12B; G antigen 3; G antigen 4; G antigen 12C; G antigen 5; G antigen 6; G antigen 7; G antigen 8	3.73
208283_at	GAGE6	G antigen 2A; G antigen 2B; G antigen 12I; G antigen 12F; G antigen 2E; G antigen 12G; G antigen 12D; G antigen 1; G antigen 2C; G antigen 12E; G antigen 2D; G antigen 12B; G antigen 3; G antigen 4; G antigen 12C; G antigen 5; G antigen 6; G antigen 7; G antigen 8	3.73
208283_at	GAGE8	G antigen 2A; G antigen 2B; G antigen 12I; G antigen 12F; G antigen 2E; G antigen 12G; G antigen 12D; G antigen 1; G antigen 2C; G antigen 12E; G antigen 2D; G antigen 12B; G antigen 3; G antigen 4; G antigen 12C; G antigen 5; G antigen 6; G antigen 7; G antigen 8	3.73
214485_at	ODF1	outer dense fiber of sperm tails 1	3.73
203645_s_at	CD163	CD163 molecule	3.73
218033_s_at	SNN	stannin	3.73
222095_s_at	Fam163a	family with sequence similarity 163, member A	3.73
207770_x_at	csh2	chorionic somatomammotropin hormone 2	3.73
217513_at	C17orf60	chromosome 17 open reading frame 60	3.73
221623_at	BCAN	brevican	3.73
215463_at	OR7E24	olfactory receptor, family 7, subfamily E, member 24	3.73
210784_x_at	Lilrb3	leukocyte immunoglobulin-like receptor, subfamily B (with TM and ITIM domains), member 3	3.73
216334_s_at	CYP2A7P1	cytochrome P450, family 2, subfamily A, polypeptide 7 pseudogene 1	3.73
215898_at	TTL5	tubulin tyrosine ligase-like family, member 5	3.73
207029_at	KITLG	KIT ligand	3.73
216230_x_at	SMPD1	sphingomyelin phosphodiesterase 1, acid lysosomal	3.73
90265_at	ADAP1	ArfGAP with dual PH domains 1	3.48
215590_x_at	LOC100128640	hypothetical protein LOC100128640	3.48
217438_at	PACRGL	PARK2 co-regulated-like	3.48
215759_at	ANKRD53	ankyrin repeat domain 53	3.48
219722_s_at	Gdpd3	glycerophosphodiester phosphodiesterase domain containing 3	3.48
210709_at	ZC3H15	zinc finger CCCH-type containing 15	3.48
206122_at	Sox15	SRY (sex determining region Y)-box 15	3.48
217661_x_at	SIX5	SIX homeobox 5	3.48
208388_at	nr2e3	nuclear receptor subfamily 2, group E, member 3	3.48
204280_at	RGS14	regulator of G-protein signaling 14	3.48
220216_at	C8orf44	chromosome 8 open reading frame 44	3.48
216641_s_at	LAD1	ladinin 1	3.48
214189_s_at	Gga2	golgi associated, gamma adaptin ear containing, ARF binding protein 2	3.48
220437_at	LOC55908	hepatocellular carcinoma-associated gene TD26	3.48
207221_at	F2RL3	coagulation factor II (thrombin) receptor-like 3	3.48
219777_at	GIMAP6	GTPase, IMAP family member 6	3.48
203844_at	vhl	von Hippel-Lindau tumor suppressor	3.48
211449_at	msh6	mutS homolog 6 (E. coli)	3.48
213436_at	cnr1	cannabinoid receptor 1 (brain)	3.48
205754_at	F2	coagulation factor II (thrombin)	3.48
206128_at	ADRA2C	adrenergic, alpha-2C-, receptor	3.48
215525_at	Nhej1	nonhomologous end-joining factor 1	3.48
205605_at	HOXD9	homeobox D9	3.48
220037_s_at	LYVE1	lymphatic vessel endothelial hyaluronan receptor 1	3.48
210169_at	SEC14L5	SEC14-like 5 (S. cerevisiae)	3.48
206556_at	CLUL1	clusterin-like 1 (retinal)	3.48
216549_s_at	TBC1D22B	TBC1 domain family, member 22B	3.48
220681_at	C22orf26	chromosome 22 open reading frame 26	3.48
205712_at	Ptprd	protein tyrosine phosphatase, receptor type, D	3.48
215138_s_at	kaz	kazrin	3.48
205271_s_at	CDK20	cell cycle related kinase	3.48
205311_at	ddc	dopa decarboxylase (aromatic L-amino acid decarboxylase)	3.48
207895_at	NAALADL1	N-acetylated alpha-linked acidic dipeptidase-like 1	3.48
207224_s_at	SIGLEC7	sialic acid binding Ig-like lectin 7	3.48
220197_at	ATP6V0A4	ATPase, H+ transporting, lysosomal V0 subunit a4	3.48
211824_x_at	Nlrp1	NLR family, pyrin domain containing 1	3.48
209768_s_at	GP1BB	glycoprotein Ib (platelet), beta polypeptide	3.48

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218923_at	ctbs	chitobiase, di-N-acetyl-	3.48
203808_at	akt2	v-akt murine thymoma viral oncogene homolog 2	3.48
206807_s_at	add2	adducin 2 (beta)	3.48
210626_at	AKAP1	A kinase (PRKA) anchor protein 1	3.48
216533_at	pccA	propionyl Coenzyme A carboxylase, alpha polypeptide	3.48
202410_x_at	INS-IGF2	insulin-like growth factor 2 (somatomedin A); insulin; INS-IGF2 readthrough transcript	3.48
202410_x_at	INS	insulin-like growth factor 2 (somatomedin A); insulin; INS-IGF2 readthrough transcript	3.48
202410_x_at	IGF2	insulin-like growth factor 2 (somatomedin A); insulin; INS-IGF2 readthrough transcript	3.48
216368_s_at	COL4A3	collagen, type IV, alpha 3 (Goodpasture antigen)	3.48
216068_at	KCN12	potassium channel, subfamily T, member 2	3.48
213965_s_at	CHD5	chromodomain helicase DNA binding protein 5	3.48
215341_at	DNAH6	dynein, axonemal, heavy chain 6	3.48
205715_at	Bst1	bone marrow stromal cell antigen 1	3.48
204311_at	Atp1b2	ATPase, Na <sup>+</sup> /K <sup>+</sup> transporting, beta 2 polypeptide	3.48
204101_at	Mtm1	myotubularin 1	3.48
217563_at	CLOCK	clock homolog (mouse)	3.48
205328_at	CLDN10	claudin 10	3.48
210394_x_at	SSX4B	synovial sarcoma, X breakpoint 4; synovial sarcoma, X breakpoint 4B	3.48
210394_x_at	SSX4	synovial sarcoma, X breakpoint 4; synovial sarcoma, X breakpoint 4B	3.48
208482_at	SSTR1	somatostatin receptor 1	3.48
221373_x_at	PSPN	persephin	3.48
220592_at	CCDC40	coiled-coil domain containing 40	3.48
221603_at	Pex16	peroxisomal biogenesis factor 16	3.48
221374_at	FGF16	fibroblast growth factor 16	3.48
210399_x_at	FUT6	fucosyltransferase 6 (alpha (1,3) fucosyltransferase)	3.48
206738_at	APOC4	apolipoprotein C-IV	3.48
220571_at	PRDM11	PR domain containing 11	3.48
206961_s_at	MED20	mediator complex subunit 20	3.48
220441_at	DNAJC22	DnaJ (Hsp40) homolog, subfamily C, member 22	3.48
216273_at	ZNF460	zinc finger protein 460	3.48
210977_s_at	HSF4	heat shock transcription factor 4	3.48
204967_at	SHROOM2	shroom family member 2	3.48
218453_s_at	LOC645100	chromosome 6 open reading frame 35; hCG1820764; tetratricopeptide repeat domain 28	3.48
218453_s_at	C6orf35	chromosome 6 open reading frame 35; hCG1820764; tetratricopeptide repeat domain 28	3.48
218453_s_at	TTC28	chromosome 6 open reading frame 35; hCG1820764; tetratricopeptide repeat domain 28	3.48
214844_s_at	DOK5	docking protein 5	3.48
217220_at	DKFZP586K1520	DKFZP586K1520 protein	3.48
215673_at	tef	thyrotrophic embryonic factor	3.48
214851_at	Hnf4a	hepatocyte nuclear factor 4, alpha	3.48
203368_at	CRELD1	cysteine-rich with EGF-like domains 1	3.48
AFFX-r2-Bs-thr-M_s_at	thrB	Homoserine kinase	3.48
221121_at	CXorf48	similar to chromosome X open reading frame 48; chromosome X open reading frame 48	3.48
221121_at	LOC650024	similar to chromosome X open reading frame 48; chromosome X open reading frame 48	3.48
207085_x_at	CSF2RA	colony stimulating factor 2 receptor, alpha, low-affinity (granulocyte-macrophage)	3.48
220825_s_at	KIRREL	kin of IRRE like (Drosophila)	3.48
217658_at	THAP3	THAP domain containing, apoptosis associated protein 3	3.48
219937_at	TRHDE	thyrotropin-releasing hormone degrading enzyme	3.48
207979_s_at	CD8B	CD8b molecule	3.48
213162_at	DYNC1LI2	dynein, cytoplasmic 1, light intermediate chain 2	3.25
209886_s_at	SMAD6	SMAD family member 6	3.25
210412_at	GRIN2B	glutamate receptor, ionotropic, N-methyl D-aspartate 2B	3.25
210472_at	MT1G	metallothionein 1G	3.25
220599_s_at	CARD14	caspase recruitment domain family, member 14	3.25
210039_s_at	prkcq	protein kinase C, theta	3.25
208467_at	Klf12	Kruppel-like factor 12	3.25
205377_s_at	ache	acetylcholinesterase (Yt blood group)	3.25
208572_at	HIST3H3	histone cluster 3, H3	3.25
215028_at	SEMA6A	sema domain, transmembrane domain (TM), and cytoplasmic domain, (semaphorin) 6A	3.25
222074_at	Urod	uroporphyrinogen decarboxylase	3.25
206022_at	ndp	Norrie disease (pseudoglioma)	3.25
203331_s_at	Inpp5d	inositol polyphosphate-5-phosphatase, 145kDa	3.25
214415_at	PLGLB2	plasminogen-like B2; plasminogen-like B1	3.25
214415_at	PLGLB1	plasminogen-like B2; plasminogen-like B1	3.25
46142_at	LMF1	lipase maturation factor 1	3.25
211412_at	PADI4	peptidyl arginine deiminase, type IV	3.25
211602_s_at	Trpc1	transient receptor potential cation channel, subfamily C, member 1	3.25
204563_at	SELL	selectin L	3.25
204329_s_at	ZNF202	zinc finger protein 202	3.25
211902_x_at	traC	T cell receptor alpha constant; T cell receptor alpha locus; T cell receptor alpha variable 20; T cell receptor delta locus; T cell receptor delta variable 2	3.25



Appendix 1; Table 1

211902_x_at	TRDV2	T cell receptor alpha constant; T cell receptor alpha locus; T cell receptor alpha variable 20; T cell receptor delta locus; T cell receptor delta variable 2	3.25
211902_x_at	tra@	T cell receptor alpha constant; T cell receptor alpha locus; T cell receptor alpha variable 20; T cell receptor delta locus; T cell receptor delta variable 2	3.25
211902_x_at	TRAV20	T cell receptor alpha constant; T cell receptor alpha locus; T cell receptor alpha variable 20; T cell receptor delta locus; T cell receptor delta variable 2	3.25
211902_x_at	TRD@	T cell receptor alpha constant; T cell receptor alpha locus; T cell receptor alpha variable 20; T cell receptor delta locus; T cell receptor delta variable 2	3.25
209443_at	Serpina5	serpin peptidase inhibitor, clade A (alpha-1 antiproteinase, antitrypsin), member 5	3.25
214467_at	GPR65	G protein-coupled receptor 65	3.25
205941_s_at	col10a1	collagen, type X, alpha 1	3.25
210990_s_at	LAMA4	laminin, alpha 4	3.25
209962_at	EPOR	erythropoietin receptor	3.25
210991_s_at	RIMS3	regulating synaptic membrane exocytosis 3	3.25
204856_at	B3gnt3	UDP-GlcNAc:betaGal beta-1,3-N-acetylglucosaminyltransferase 3	3.25
205023_at	rad51	RAD51 homolog (RecA homolog, E. coli) (S. cerevisiae)	3.25
221412_at	VN1R1	vomer nasal 1 receptor 1	3.25
207045_at	CCDC132	coiled-coil domain containing 132	3.25
205509_at	Cpb1	carboxypeptidase B1 (tissue)	3.25
211579_at	ITGB3	integrin, beta 3 (platelet glycoprotein IIIa, antigen CD61)	3.25
206086_x_at	HFE	hemochromatosis	3.25
219759_at	ERAP2	endoplasmic reticulum aminopeptidase 2	3.25
213950_s_at	PPP3CC	protein phosphatase 3 (formerly 2B), catalytic subunit, gamma isoform	3.25
202831_at	GPX2	glutathione peroxidase 2 (gastrointestinal)	3.25
220154_at	DST	dystonin	3.25
213515_x_at	HBG1	hemoglobin, gamma A	3.25
219085_s_at	GEMIN7	gem (nuclear organelle) associated protein 7	3.25
218748_s_at	exoc5	exocyst complex component 5	3.25
208416_s_at	Sptb	spectrin, beta, erythrocytic	3.25
208177_at	SLC34A1	solute carrier family 34 (sodium phosphate), member 1	3.25
214509_at	HIST2H3A	histone cluster 1, H3j; histone cluster 1, H3i; histone cluster 1, H3h; histone cluster 1, H3g; histone cluster 1, H3f; histone cluster 1, H3e; histone cluster 1, H3d; histone cluster 1, H3c; histone cluster 1, H3b; histone cluster 1, H3a; histone cluster 1, H2ad; histone cluster 2, H3a; histone cluster 2, H3c; histone cluster 2, H3d	3.25
214509_at	HIST1H3J	histone cluster 1, H3j; histone cluster 1, H3i; histone cluster 1, H3h; histone cluster 1, H3g; histone cluster 1, H3f; histone cluster 1, H3e; histone cluster 1, H3d; histone cluster 1, H3c; histone cluster 1, H3b; histone cluster 1, H3a; histone cluster 1, H2ad; histone cluster 2, H3a; histone cluster 2, H3c; histone cluster 2, H3d	3.25
214509_at	Hist1h2ad	histone cluster 1, H3j; histone cluster 1, H3i; histone cluster 1, H3h; histone cluster 1, H3g; histone cluster 1, H3f; histone cluster 1, H3e; histone cluster 1, H3d; histone cluster 1, H3c; histone cluster 1, H3b; histone cluster 1, H3a; histone cluster 1, H2ad; histone cluster 2, H3a; histone cluster 2, H3c; histone cluster 2, H3d	3.25
214509_at	hist1h3g	histone cluster 1, H3j; histone cluster 1, H3i; histone cluster 1, H3h; histone cluster 1, H3g; histone cluster 1, H3f; histone cluster 1, H3e; histone cluster 1, H3d; histone cluster 1, H3c; histone cluster 1, H3b; histone cluster 1, H3a; histone cluster 1, H2ad; histone cluster 2, H3a; histone cluster 2, H3c; histone cluster 2, H3d	3.25
214509_at	Hist1h3i	histone cluster 1, H3j; histone cluster 1, H3i; histone cluster 1, H3h; histone cluster 1, H3g; histone cluster 1, H3f; histone cluster 1, H3e; histone cluster 1, H3d; histone cluster 1, H3c; histone cluster 1, H3b; histone cluster 1, H3a; histone cluster 1, H2ad; histone cluster 2, H3a; histone cluster 2, H3c; histone cluster 2, H3d	3.25
214509_at	hist2h3c	histone cluster 1, H3j; histone cluster 1, H3i; histone cluster 1, H3h; histone cluster 1, H3g; histone cluster 1, H3f; histone cluster 1, H3e; histone cluster 1, H3d; histone cluster 1, H3c; histone cluster 1, H3b; histone cluster 1, H3a; histone cluster 1, H2ad; histone cluster 2, H3a; histone cluster 2, H3c; histone cluster 2, H3d	3.25
214509_at	HIST2H3D	histone cluster 1, H3j; histone cluster 1, H3i; histone cluster 1, H3h; histone cluster 1, H3g; histone cluster 1, H3f; histone cluster 1, H3e; histone cluster 1, H3d; histone cluster 1, H3c; histone cluster 1, H3b; histone cluster 1, H3a; histone cluster 1, H2ad; histone cluster 2, H3a; histone cluster 2, H3c; histone cluster 2, H3d	3.25
214509_at	HIST1H3A	histone cluster 1, H3j; histone cluster 1, H3i; histone cluster 1, H3h; histone cluster 1, H3g; histone cluster 1, H3f; histone cluster 1, H3e; histone cluster 1, H3d; histone cluster 1, H3c; histone cluster 1, H3b; histone cluster 1, H3a; histone cluster 1, H2ad; histone cluster 2, H3a; histone cluster 2, H3c; histone cluster 2, H3d	3.25
214509_at	HIST1H3B	histone cluster 1, H3j; histone cluster 1, H3i; histone cluster 1, H3h; histone cluster 1, H3g; histone cluster 1, H3f; histone cluster 1, H3e; histone cluster 1, H3d; histone cluster 1, H3c; histone cluster 1, H3b; histone cluster 1, H3a; histone cluster 1, H2ad; histone cluster 2, H3a; histone cluster 2, H3c; histone cluster 2, H3d	3.25
214509_at	HIST1H3C	histone cluster 1, H3j; histone cluster 1, H3i; histone cluster 1, H3h; histone cluster 1, H3g; histone cluster 1, H3f; histone cluster 1, H3e; histone cluster 1, H3d; histone cluster 1, H3c; histone cluster 1, H3b; histone cluster 1, H3a; histone cluster 1, H2ad; histone cluster 2, H3a; histone cluster 2, H3c; histone cluster 2, H3d	3.25

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214509_at	HIST1H3D	histone cluster 1, H3j; histone cluster 1, H3i; histone cluster 1, H3h; histone cluster 1, H3g; histone cluster 1, H3f; histone cluster 1, H3e; histone cluster 1, H3d; histone cluster 1, H3c; histone cluster 1, H3b; histone cluster 1, H3a; histone cluster 1, H2ad; histone cluster 2, H3a; histone cluster 2, H3c; histone cluster 2, H3d	3.25
214509_at	HIST1H3E	histone cluster 1, H3j; histone cluster 1, H3i; histone cluster 1, H3h; histone cluster 1, H3g; histone cluster 1, H3f; histone cluster 1, H3e; histone cluster 1, H3d; histone cluster 1, H3c; histone cluster 1, H3b; histone cluster 1, H3a; histone cluster 1, H2ad; histone cluster 2, H3a; histone cluster 2, H3c; histone cluster 2, H3d	3.25
214509_at	HIST1H3F	histone cluster 1, H3j; histone cluster 1, H3i; histone cluster 1, H3h; histone cluster 1, H3g; histone cluster 1, H3f; histone cluster 1, H3e; histone cluster 1, H3d; histone cluster 1, H3c; histone cluster 1, H3b; histone cluster 1, H3a; histone cluster 1, H2ad; histone cluster 2, H3a; histone cluster 2, H3c; histone cluster 2, H3d	3.25
214509_at	HIST1H3H	histone cluster 1, H3j; histone cluster 1, H3i; histone cluster 1, H3h; histone cluster 1, H3g; histone cluster 1, H3f; histone cluster 1, H3e; histone cluster 1, H3d; histone cluster 1, H3c; histone cluster 1, H3b; histone cluster 1, H3a; histone cluster 1, H2ad; histone cluster 2, H3a; histone cluster 2, H3c; histone cluster 2, H3d	3.25
206397_x_at	GDF1	growth differentiation factor 1; LAG1 homolog, ceramide synthase 1	3.25
206397_x_at	Lass1	growth differentiation factor 1; LAG1 homolog, ceramide synthase 1	3.25
221440_s_at	RBBP9	retinoblastoma binding protein 9	3.25
206215_at	OPCML	opioid binding protein/cell adhesion molecule-like	3.25
217023_x_at	Tpsab1	tryptase alpha/beta 1; tryptase beta 2	3.25
217023_x_at	TPSB2	tryptase alpha/beta 1; tryptase beta 2	3.25
210356_x_at	MS4A1	membrane-spanning 4-domains, subfamily A, member 1	3.25
219173_at	Myo15b	myosin XVb pseudogene	3.25
206725_x_at	BMP1	bone morphogenetic protein 1	3.25
202444_s_at	ERLIN1	ER lipid raft associated 1	3.25
206726_at	ptgds	prostaglandin D2 synthase, hematopoietic; prostaglandin D2 synthase 21kDa (brain)	3.25
206726_at	HPGDS	prostaglandin D2 synthase, hematopoietic; prostaglandin D2 synthase 21kDa (brain)	3.25
205735_s_at	AFF3	AF4/FMR2 family, member 3	3.25
217384_x_at	LOC100132941	similar to Ig heavy chain; immunoglobulin heavy variable 3-13	3.25
217384_x_at	IGHV3-13	similar to Ig heavy chain; immunoglobulin heavy variable 3-13	3.25
220049_s_at	PDCD1LG2	programmed cell death 1 ligand 2	3.25
214070_s_at	ATP10B	ATPase, class V, type 10B	3.25
216849_at	FLJ116124	FLJ116124 protein	3.25
215839_at	Lilra5	leukocyte immunoglobulin-like receptor, subfamily A (with TM domain), member 5	3.25
221032_s_at	TMPRSS5	transmembrane protease, serine 5	3.25
207777_s_at	SP140	SP140 nuclear body protein	3.25
220582_at	9-Sep	septin 9	3.25
208318_s_at	xylB	xylulokinase homolog (H. influenzae)	3.25
205346_at	ST3GAL2	ST3 beta-galactoside alpha-2,3-sialyltransferase 2	3.25
220859_at	ADAM32	ADAM metallopeptidase domain 32	3.25
217472_at	L3mbtl4	l(3)mbt-like 4 (Drosophila)	3.25
214489_at	FSHB	follicle stimulating hormone, beta polypeptide	3.25
216417_x_at	HOXB9	homeobox B9	3.25
221068_at	KANK2	KN motif and ankyrin repeat domains 2	3.25
207520_at	Trove2	TROVE domain family, member 2	3.25
208302_at	HMHB1	histocompatibility (minor) HB-1	3.25
220283_at	HHIPL2	HHIP-like 2	3.25
203110_at	PTK2B	PTK2B protein tyrosine kinase 2 beta	3.25
217642_at	RNF40	ring finger protein 40	3.25
205844_at	Vnn1	vanin 1	3.25
207795_s_at	KLRD1	killer cell lectin-like receptor subfamily D, member 1	3.25
213973_at	RRBP1	ribosome binding protein 1 homolog 180kDa (dog)	3.25
216104_at	PHF14	PHD finger protein 14	3.25
221167_s_at	CCDC70	coiled-coil domain containing 70	3.25
209395_at	CHI3L1	chitinase 3-like 1 (cartilage glycoprotein-39)	3.25
209713_s_at	SLC35D1	solute carrier family 35 (UDP-glucuronic acid/UDP-N-acetylgalactosamine dual transporter),	3.25
220280_s_at	ANKMY1	ankyrin repeat and MYND domain containing 1	3.25
218054_s_at	c19orf50	chromosome 19 open reading frame 50	3.25
207082_at	csf1	colony stimulating factor 1 (macrophage)	3.25
216312_at	Atp2b3	ATPase, Ca++ transporting, plasma membrane 3	3.25
215238_s_at	dock9	dedicator of cytokinesis 9	3.03
211359_s_at	OPRM1	opioid receptor, mu 1	3.03
214289_at	psmb1	proteasome (prosome, macropain) subunit, beta type, 1	3.03
210397_at	DEFB1	defensin, beta 1	3.03
207328_at	ALOX15	arachidonate 15-lipoxygenase	3.03
206938_at	Srd5a2	steroid-5-alpha-reductase, alpha polypeptide 2 (3-oxo-5 alpha-steroid delta 4-dehydrogenase)	3.03
207167_at	Cd101	immunoglobulin superfamily, member 2	3.03
205276_s_at	GTPBP1	GTP binding protein 1	3.03
211157_at	SEMA4F	sema domain, immunoglobulin domain (Ig), transmembrane domain (TM) and short cytoplasmic domain, (semaphorin) 4F	3.03

Appendix 1; Table 1

206720_at	LOC151162	mannosyl (alpha-1,6-)-glycoprotein beta-1,6-N-acetyl-glucosaminyltransferase; hypothetical	3.03
206720_at	Mgat5	mannosyl (alpha-1,6-)-glycoprotein beta-1,6-N-acetyl-glucosaminyltransferase; hypothetical	3.03
204869_at	Pcsk2	proprotein convertase subtilisin/kexin type 2	3.03
214763_at	ACOT11	acyl-CoA thioesterase 11	3.03
219583_s_at	SPATA7	spermatogenesis associated 7	3.03
202312_s_at	COL1A1	collagen, type I, alpha 1	3.03
218925_s_at	C11orf1	chromosome 11 open reading frame 1	3.03
207101_at	VAMP1	vesicle-associated membrane protein 1 (synaptobrevin 1)	3.03
207426_s_at	TNFSF4	tumor necrosis factor (ligand) superfamily, member 4	3.03
215683_at	C18orf22	chromosome 18 open reading frame 22	3.03
220135_s_at	Slc7a9	solute carrier family 7 (cationic amino acid transporter, y+ system), member 9	3.03
207766_at	CDKL1	cyclin-dependent kinase-like 1 (CDC2-related kinase)	3.03
213482_at	dock3	dedicator of cytokinesis 3	3.03
219232_s_at	egl3	egl nine homolog 3 (C. elegans)	3.03
210708_x_at	casp10	caspase 10, apoptosis-related cysteine peptidase	3.03
211883_x_at	CEACAM1	carcinoembryonic antigen-related cell adhesion molecule 1 (biliary glycoprotein)	3.03
216619_at	GTPBP10	GTP-binding protein 10 (putative)	3.03
210953_at	TSC22D2	TSC22 domain family, member 2	3.03
215014_at	Kcnd3	potassium voltage-gated channel, Shal-related subfamily, member 3	3.03
210451_at	PKLR	pyruvate kinase, liver and RBC	3.03
214936_at	Lrch1	leucine-rich repeats and calponin homology (CH) domain containing 1	3.03
211153_s_at	Tnfrsf11	tumor necrosis factor (ligand) superfamily, member 11	3.03
205742_at	TNNI3	troponin I type 3 (cardiac)	3.03
221049_s_at	Poll	polymerase (DNA directed), lambda	3.03
220378_at	Tcp11	t-complex 11 homolog (mouse)	3.03
204770_at	TAP2	transporter 2, ATP-binding cassette, sub-family B (MDR/TAP)	3.03
211273_s_at	Tbx1	T-box 1	3.03
210905_x_at	POU5F1P4	POU class 5 homeobox 1 pseudogene 4	3.03
220366_at	ELSPBP1	epididymal sperm binding protein 1	3.03
220849_at	LOC100132472	hypothetical LOC100132472; hypothetical LOC79999; hypothetical LOC388436	3.03
220849_at	LOC388436	hypothetical LOC100132472; hypothetical LOC79999; hypothetical LOC388436	3.03
220849_at	LOC79999	hypothetical LOC100132472; hypothetical LOC79999; hypothetical LOC388436	3.03
211741_x_at	PSG3	pregnancy specific beta-1-glycoprotein 3	3.03
214217_at	Grm5	glutamate receptor, metabotropic 5	3.03
206157_at	Ptx3	pentraxin-related gene, rapidly induced by IL-1 beta	3.03
210620_s_at	GTF3C2	general transcription factor IIIC, polypeptide 2, beta 110kDa	3.03
202191_s_at	gas7	growth arrest-specific 7	3.03
220614_s_at	C6orf103	chromosome 6 open reading frame 103	3.03
214058_at	Myc1	v-myc myelocytomatosis viral oncogene homolog 1, lung carcinoma derived (avian)	3.03
209245_s_at	Kif1c	kinesin family member 1C	3.03
210456_at	Pcyt1b	phosphate cytidylyltransferase 1, choline, beta	3.03
214191_at	Ica1	islet cell autoantigen 1, 69kDa	3.03
220277_at	CXXC4	CXXC finger 4	3.03
211506_s_at	IL8	interleukin 8	3.03
221271_at	IL21	interleukin 21	3.03
216329_at	POU6F1	POU class 6 homeobox 1	3.03
222274_at	ZDHHC8P1	zinc finger, DHHC-type containing 8 pseudogene	3.03
216915_s_at	PTPN12	protein tyrosine phosphatase, non-receptor type 12	3.03
217271_at	GNA11	guanine nucleotide binding protein (G protein), alpha 11 (Gq class)	3.03
211307_s_at	Fcar	Fc fragment of IgA, receptor for	3.03
222227_at	GPER	G protein-coupled estrogen receptor 1	3.03
207309_at	NOS1	nitric oxide synthase 1 (neuronal)	3.03
208182_x_at	Ifna14	interferon, alpha 14	3.03
205444_at	ATP2A1	ATPase, Ca++ transporting, cardiac muscle, fast twitch 1	3.03
214105_at	socs3	suppressor of cytokine signaling 3	3.03
211001_at	TRIM29	tripartite motif-containing 29	3.03
219859_at	Clec4e	C-type lectin domain family 4, member E	3.03
219659_at	ATP8A2	ATPase, aminophospholipid transporter-like, class I, type 8A, member 2	3.03
207117_at	ZNF117	zinc finger protein 117	3.03
215367_at	KIAA1614	KIAA1614	3.03
217573_at	grin2c	glutamate receptor, ionotropic, N-methyl D-aspartate 2C	3.03
214725_at	C8orf84	chromosome 8 open reading frame 84	3.03
207048_at	SLC6A11	solute carrier family 6 (neurotransmitter transporter, GABA), member 11	3.03
217480_x_at	IGKV1OR2-118	immunoglobulin kappa variable 1/OR15-118 pseudogene	3.03
208390_s_at	GLP1R	glucagon-like peptide 1 receptor	3.03
220805_at	HRH2	histamine receptor H2	3.03
209995_s_at	TCL1A	T-cell leukemia/lymphoma 1A	3.03
211782_at	ids	iduronate 2-sulfatase	3.03
202628_s_at	SERPINE1	serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor type 1), member 1	3.03
220430_at	GRRP1	glycine/arginine rich protein 1	3.03

Appendix 1; Table 1

207316_at	has1	hyaluronan synthase 1	3.03
211106_at	Supt3h	suppressor of Ty 3 homolog ( <i>S. cerevisiae</i> )	3.03
220891_at	c4orf23	chromosome 4 open reading frame 23	3.03
218162_at	OLFML3	olfactomedin-like 3	3.03
211650_x_at	LOC100126583	hypothetical LOC100126583	3.03
218825_at	egfl7	EGF-like-domain, multiple 7	3.03
217413_s_at	TNXB	tenascin XB; tenascin XA pseudogene	3.03
217413_s_at	TNXA	tenascin XB; tenascin XA pseudogene	3.03
207929_at	grpr	gastrin-releasing peptide receptor	3.03
1438_at	EPHB3	EPH receptor B3	3.03
222196_at	LOC286434	hypothetical protein LOC286434	3.03
204196_x_at	Pknox1	PBX/knotted 1 homeobox 1	3.03
214389_at	SLC5A12	solute carrier family 5 (sodium/glucose cotransporter), member 12	3.03
205915_x_at	GRIN1	glutamate receptor, ionotropic, N-methyl D-aspartate 1	3.03
222124_at	HIF3A	hypoxia inducible factor 3, alpha subunit	3.03
203032_s_at	FH	fumarate hydratase	3.03
206236_at	Gpr4	G protein-coupled receptor 4	3.03
213335_s_at	ST3GAL6	ST3 beta-galactoside alpha-2,3-sialyltransferase 6	3.03