Supplemental Table 1. The list of the 641 differentially expressed genes.

Probe ID	Gene Symbol	Description	log FC	p-value	adjusted p-value	Enriched Pathways
A_24_P914495	MARK2	MAP/microtubule affinity-regulating kinase 2	2.10	1.11E-19	5.60E-15	
A_33_P3371493	TOP1	topoisomerase (DNA) I	1.01	4.52E-19	1.14E-14	
A_24_P226108	RBM47	RNA binding motif protein 47	1.59	1.38E-18	2.21E-14	
A_23_P135769	ACTB	actin, beta	1.15	1.75E-18	2.21E-14	Adherens junction, Proteoglycans in cancer, Bacterial invasion of epithelial cells, Focal adhesion, Hippo signaling pathway, Apoptosis, Pathogenic Escherichia coli infection, Shigellosis, Salmonella infection
A_19_P00808320	EEF1A1	Eukaryotic Translation Elongation Factor 1 Alpha 1	-1.49	3.92E-18	3.97E-14	
A_23_P108922	MOB1A	MOB kinase activator 1A	1.12	5.64E-17	3.57E-13	Hippo signaling pathway
A_24_P831309	C1orf229	chromosome 1 open reading frame 229	-1.50	2.71E-16	1.37E-12	
A_33_P3319463	NCOA4	nuclear receptor coactivator 4	1.26	3.20E-16	1.47E-12	Pathways in cancer, Thyroid cancer
A_33_P3257140	ROCK2	Rho-associated, coiled-coil containing protein kinase 2	1.29	3.53E-16	1.48E-12	Pathways in cancer, Chemokine signaling pathway, Proteoglycans in cancer, Focal adhesion, Pathogenic Escherichia coli infection, Shigellosis, Salmonella infection
A_33_P3326349	SMG5	smg-5 homolog, nonsense mediated mRNA decay factor	1.52	3.91E-16	1.48E-12	

		(C. elegans)				
A_23_P215980	KIAA1429	KIAA1429	1.00	4.10E-16	1.48E-12	
A_33_P3277407	MLL5	myeloid/lymphoid or mixed-lineage leukemia 5 (trithorax homolog, Drosophila)	1.28	5.63E-16	1.78E-12	
A_33_P3368188	SEPT9	septin 9	1.64	6.06E-16	1.80E-12	Bacterial invasion of epithelial cells
A_33_P3247237	CIZ1	CDKN1A interacting zinc finger protein 1	1.20	7.20E-16	2.03E-12	
A_19_P00807615	XLOC_l2_015397		-1.19	1.03E-15	2.75E-12	
A_33_P3288942	FAM107B	family with sequence similarity 107, member B	1.36	2.11E-15	5.34E-12	
A_33_P3317305	AGAP1	ArfGAP with GTPase domain, ankyrin repeat and PH domain 1	1.16	2.85E-15	6.87E-12	
A_23_P216080	HOOK3	hook homolog 3 (Drosophila)	1.29	3.01E-15	6.91E-12	
A_24_P130865	PHF8	PHD finger protein 8	3.20	5.85E-15	1.29E-11	
A_23_P376239	PAPOLA	poly(A) polymerase alpha	1.30	6.30E-15	1.33E-11	
A_33_P3256894	FAM21C	family with sequence similarity 21, member C	1.52	8.41E-15	1.70E-11	
A_23_P366230	LATS1	LATS, large tumor suppressor, homolog 1 (Drosophila)	1.52	8.83E-15	1.72E-11	Hippo signaling pathway
A_24_P405190	USP33	ubiquitin specific peptidase 33	1.10	1.08E-14	1.96E-11	
A_33_P3346573	MAP4	microtubule-associated protein 4	1.22	1.08E-14	1.96E-11	
A_24_P315500	LOC100130557	uncharacterized LOC100130557	-1.21	1.21E-14	2.12E-11	
A_24_P108738	SCARF2	scavenger receptor class F, member 2	-1.09	1.58E-14	2.58E-11	
A_33_P3275310	ATXN3	ataxin 3	1.29	1.85E-14	2.92E-11	
A_21_P0000238	SNORD12C	small nucleolar RNA, C/D box 12C	-2.18	2.17E-14	3.33E-11	
A_19_P00	ARHGAP	Rho GTPase activating	1.0	2.56E	3.81E	

811843	32	protein 32	7	-14	-11	
A_33_P3383189	SP9	Sp9 transcription factor homolog (mouse)	1.00	2.73E-14	3.94E-11	
A_23_P153084	RALBP1	ralA binding protein 1	1.29	2.83E-14	3.98E-11	Pathways in cancer, Pancreatic cancer
A_21_P0013921	OSTCP2	oligosaccharyltransferase complex subunit pseudogene 2	-1.25	3.83E-14	5.10E-11	
A_33_P3352253	MTUS1	microtubule associated tumor suppressor 1	1.04	5.30E-14	6.73E-11	
A_33_P3242833	PKN2	protein kinase N2	1.06	5.32E-14	6.73E-11	Salmonella infection
A_33_P3243812	WASF1	WAS protein family, member 1	1.27	5.99E-14	7.22E-11	Adherens junction, Bacterial invasion of epithelial cells, Shigellosis, Salmonella infection, Fc gamma R-mediated phagocytosis
A_33_P3380211	AKAP9	A kinase (PRKA) anchor protein (yotiao) 9	1.07	7.21E-14	8.11E-11	
A_24_P14731	PCSK1N	proprotein convertase subtilisin/kexin type 1 inhibitor	-1.16	1.12E-13	1.19E-10	
A_23_P46222	TRIM46	tripartite motif containing 46	-1.14	1.13E-13	1.19E-10	
A_33_P3411991	RABGAP1	RAB GTPase activating protein 1	1.29	1.29E-13	1.34E-10	
A_23_P144999	RAPGEF6	Rap guanine nucleotide exchange factor (GEF) 6	-1.14	2.22E-13	2.08E-10	
A_33_P3238690	TET2	tetmethylcytosine dioxygenase 2	1.24	4.59E-13	3.94E-10	
A_23_P200073	PITHD1	PITH (C-terminal proteasome-interacting domain of thioredoxin-like) domain containing 1	-1.20	5.11E-13	4.31E-10	
A_23_P40240	CTSZ	cathepsin Z	1.90	5.33E-13	4.42E-10	Apoptosis
A_33_P3215557	ADAMTS7	ADAM metallopeptidase with thrombospondin type 1 motif, 7	1.03	5.45E-13	4.45E-10	
A_24_P157342	BRK1	BRICK1, SCAR/WAVE actin-	-1.1	5.93E-13	4.68E-10	

		nucleating complex subunit	7			
A_33_P3495962	SNORA71A	small nucleolar RNA, H/ACA box 71A	-1.28	6.06E-13	4.71E-10	
A_21_P0011838	ANAPC1	anaphase promoting complex subunit 1	1.04	8.93E-13	6.75E-10	Cell cycle
A_33_P3245674	ZNF329	zinc finger protein 329	-1.08	1.03E-12	7.65E-10	
A_23_P111228	COQ3	coenzyme Q3 homolog, methyltransferase (S. cerevisiae)	-1.03	1.09E-12	7.98E-10	
A_24_P368943	EVX1	even-skipped homeobox 1	1.16	1.56E-12	1.09E-09	
A_19_P00318152	SNHG11	Small Nucleolar RNA Host Gene 11	-1.04	1.86E-12	1.29E-09	
A_33_P3349252	DKFZP547L112	uncharacterized protein DKFZp547L112	-1.48	2.14E-12	1.44E-09	
A_33_P3361811	NAA16	N(alpha)-acetyltransferase 16, NatA auxiliary subunit	1.05	2.27E-12	1.51E-09	
A_23_P315286	C19orf22	chromosome 19 open reading frame 22	1.04	2.46E-12	1.61E-09	
A_24_P235316	VDAC3	voltage-dependent anion channel 3	-1.08	2.56E-12	1.62E-09	Hepatitis B, NOD-like receptor signaling pathway
A_33_P3370634	CNIH	cornichon homolog (Drosophila)	-1.33	3.02E-12	1.80E-09	
A_33_P3345743	PFN1P2	profilin 1 pseudogene 2	-1.50	3.69E-12	2.10E-09	
A_33_P3315929	PTBP3	polypyrimidine tract binding protein 3	1.10	5.64E-12	3.14E-09	
A_33_P3356341	MSL1	male-specific lethal 1 homolog (Drosophila)	1.00	6.26E-12	3.45E-09	
A_24_P323545	MYH14	myosin, heavy chain 14, non-muscle	1.15	6.59E-12	3.58E-09	Salmonella infection
A_23_P258570	PSMD10	proteasome (prosome, macropain) 26S subunit, non-ATPase, 10	-1.02	6.90E-12	3.64E-09	
A_21_P0000760	LOC100526771	uncharacterized LOC100526771	-1.04	7.66E-12	3.91E-09	

A_21_P0012053	LOC728323	uncharacterized LOC728323	1.21	7.82E-12	3.96E-09
A_33_P3345608	C10orf137	chromosome 10 open reading frame 137	1.06	1.11E-11	5.33E-09
A_24_P49349	RABGAP1L	RAB GTPase activating protein 1-like	-1.12	1.22E-11	5.77E-09
A_33_P3345504	RC3H2	ring finger and CCCH-type domains 2	1.30	1.31E-11	6.06E-09
A_24_P219378	CASKIN1	CASK interacting protein 1	-1.14	1.81E-11	7.94E-09
A_21_P0000597	CTSL1P8	cathepsin L1 pseudogene 8	-1.52	1.82E-11	7.96E-09
A_23_P321452	PDZD8	PDZ domain containing 8	1.20	1.89E-11	8.11E-09
A_23_P368681	GIMAP2	GTPase, IMAP family member 2	-1.13	2.14E-11	8.93E-09
A_33_P3329607	RAB1B	RAB1B, member RAS oncogene family	1.15	2.17E-11	8.98E-09
A_21_P0000199	HOXA6	homeobox A6	1.24	2.18E-11	8.98E-09
A_24_P100742	ADD1	adducin 1 (alpha)	1.05	2.22E-11	9.05E-09
A_33_P3298617	TGFBR3L	Transforming Growth Factor Beta Receptor 3 Like	-1.25	2.56E-11	1.00E-08
A_23_P109133	AVP	arginine vasopressin	-1.27	3.20E-11	1.21E-08
A_21_P0010834	ZNF532	zinc finger protein 532	1.04	3.38E-11	1.27E-08
A_33_P3349827	RBM3	RNA binding motif (RNP1, RRM) protein 3	-1.52	3.57E-11	1.32E-08
A_32_P223189	SUMO1P3	SUMO1 pseudogene 3	-1.16	3.71E-11	1.36E-08
A_33_P3238455	SRSF6	serine/arginine-rich splicing factor 6	1.41	4.11E-11	1.46E-08
A_33_P3233105	MLLT4	myeloid/lymphoid or mixed-lineage leukemia (trithorax homolog, Drosophila); translocated to, 4	1.16	4.17E-11	1.47E-08
A_33_P3326817	HNRNPLL	Heterogeneous Nuclear Ribonucleoprotein L	-1.0	4.31E-11	1.50E-08

		Like	4		
A_33_P3253634	LOC390660	FLJ00317 protein	-1.12	4.47E-11	1.55E-08
A_23_P140527	FOXB1	forkhead box B1	-1.50	4.56E-11	1.55E-08
A_23_P405282	MGC45922	uncharacterized LOC284365	-1.01	4.87E-11	1.64E-08
A_23_P214658	PBX2	pre-B-cell leukemia homeobox 2	1.05	5.31E-11	1.76E-08
A_21_P0011770	XLOC_l2_006718		1.06	5.95E-11	1.93E-08
A_21_P0013961	LOC100506447	uncharacterized protein LOC100506447	-1.10	7.05E-11	2.23E-08
A_23_P390116	SPATA13	spermatogenesis associated 13	1.12	7.81E-11	2.39E-08
A_23_P203540	EHF	ets homologous factor	1.76	9.52E-11	2.87E-08
A_24_P603890	SLC25A5P7	Solute carrier family 25 member 5 pseudogene 7	-1.11	9.76E-11	2.91E-08
A_24_P406006	LPCAT1	lysophosphatidylcholine acyltransferase 1	-1.25	9.84E-11	2.91E-08
A_33_P3375528	MIER3	mesoderm induction early response 1, family member 3	1.03	1.04E-10	3.05E-08
A_33_P3273459	SPATA21	spermatogenesis associated 21	-1.08	1.05E-10	3.08E-08
A_33_P3346680	EIF3C	Eukaryotic Translation Initiation Factor 3 Subunit C	1.08	1.08E-10	3.14E-08
A_21_P0000484	SNORD76	small nucleolar RNA, C/D box 76	-1.39	1.13E-10	3.24E-08
A_21_P0011796	XLOC_l2_007271		-1.33	1.19E-10	3.39E-08
A_24_P358245	ATP8B5P	ATPase, class I, type 8B, member 5, pseudogene	-1.19	1.52E-10	4.14E-08
A_21_P0012376	GEMIN2	gem (nuclear organelle) associated protein 2	-1.08	1.74E-10	4.67E-08

A_23_P127288	IL2RA	interleukin 2 receptor, alpha	-1.16	1.76E-10	4.67E-08	
A_23_P106887	FUS	fused in sarcoma	-1.38	1.91E-10	5.00E-08	
A_23_P61524	CCDC71	coiled-coil domain containing 71	1.22	2.38E-10	5.99E-08	
A_33_P3281686	TSC2	tuberous sclerosis 2	1.21	2.39E-10	5.99E-08	Insulin signaling pathway
A_21_P0007430	XLOC_009080		-1.31	2.40E-10	5.99E-08	
A_23_P36513	PRKAG1	protein kinase, AMP-activated, gamma 1 non-catalytic subunit	-1.36	2.52E-10	6.22E-08	Circadian rhythm, Adipocytokine signaling pathway, Insulin signaling pathway
A_23_P309292	C12orf51	chromosome 12 open reading frame 51	1.28	2.54E-10	6.23E-08	
A_33_P3308626	MON1B	MON1 homolog B (yeast)	-1.01	2.69E-10	6.51E-08	
A_33_P3234540	ABCA17P	ATP Binding Cassette Subfamily A Member 17, Pseudogene	1.03	2.82E-10	6.69E-08	
A_33_P3379763	LOC100289186	succinate dehydrogenase complex, subunit D, integral membrane protein pseudogene	-1.49	3.39E-10	7.76E-08	
A_23_P115885	MINPP1	multiple inositol-polyphosphate phosphatase 1	-1.08	3.49E-10	7.93E-08	
A_32_P31182	RPL7	ribosomal protein L7	-1.02	4.04E-10	8.73E-08	
A_23_P218807	ZC3H7B	zinc finger CCCH-type containing 7B	1.59	4.25E-10	9.11E-08	
A_19_P00805273	PSMD14	proteasome (prosome, macropain) 26S subunit, non-ATPase, 14	-1.09	5.02E-10	1.03E-07	Proteasome, Epstein-Barr virus infection
A_32_P122240	ASCL5	Achaete-Scute Family BHLH Transcription Factor 5	1.23	5.37E-10	1.09E-07	
A_33_P3275330	NADK	NAD kinase	1.01	5.40E-10	1.09E-07	
A_24_P28	FBRSL1	fibrosin-like 1	1.0	5.90E	1.17E	

0497			0	-10	-07
A_33_P3313622	MIR17HG	miR-17-92 cluster host gene (non-protein coding)	1.07	6.21E-10	1.20E-07
A_33_P3713357	ALCAM	activated leukocyte cell adhesion molecule	1.12	6.43E-10	1.24E-07
A_33_P3245539	PNMA1	paraneoplastic antigen MA1	-1.03	7.27E-10	1.39E-07
A_21_P0010857	XLOC_l2_001853		-1.38	7.44E-10	1.41E-07
A_33_P3301620	RNF32	ring finger protein 32	-1.23	7.45E-10	1.41E-07
A_21_P0013986	LOC100287063	uncharacterized LOC100287063	-1.02	8.23E-10	1.51E-07
A_21_P0010580	XLOC_l2_000657		-1.02	9.55E-10	1.72E-07
A_24_P204204	VDAC3P1	Voltage Dependent Anion Channel 3 Pseudogene 1	-1.34	1.04E-09	1.83E-07
A_23_P218079	SLC38A2	solute carrier family 38, member 2	1.14	1.07E-09	1.86E-07
A_33_P3375910	GALK1	galactokinase 1	1.08	1.17E-09	2.01E-07
A_33_P3229958	ZNF354C	Zinc Finger Protein 354C	-1.73	1.19E-09	2.03E-07
A_24_P408457	NAGA	N-acetylgalactosaminidase, alpha-	-1.12	1.31E-09	2.19E-07
A_33_P3353343	SRRM2	serine/arginine repetitive matrix 2	1.46	1.43E-09	2.33E-07
A_33_P3232624	LOC100288069	general transcription factor IIi pseudogene	1.02	1.59E-09	2.55E-07
A_24_P303480	RAB32	RAB32, member RAS oncogene family	-1.05	1.70E-09	2.66E-07
A_21_P0000255	SNORD30	small nucleolar RNA, C/D box 30	-1.47	1.72E-09	2.70E-07
A_33_P3327842	ZNF436	zinc finger protein 436	1.07	1.77E-09	2.76E-07
A_33_P3242373	AFF1	AF4/FMR2 family, member 1	1.21	1.89E-09	2.93E-07
A_33_P32	ZC3H11A	zinc finger CCCH-type	1.0	2.54E	3.71E

73969		containing 11A	5	-09	-07	
A_33_P3292896	SFXN5	sideroflexin 5	-1.10	2.57E-09	3.73E-07	
A_23_P316511	HOXB3	homeobox B3	1.10	2.84E-09	3.99E-07	
A_23_P137856	MUC1	mucin 1, cell surface associated	1.69	3.08E-09	4.29E-07	
A_24_P384200	RANP6	RAN, Member RAS Oncogene Family Pseudogene 6	-1.26	3.24E-09	4.44E-07	
A_24_P297078	C20orf3	chromosome 20 open reading frame 3	-1.05	3.26E-09	4.45E-07	
A_33_P3318861	DYTN	dystrotelin	1.11	3.49E-09	4.72E-07	
A_33_P3421163	TP53INP1	tumor protein p53 inducible nuclear protein 1	1.15	3.79E-09	5.03E-07	
A_33_P3840630	FRYL	FRY-like	1.24	3.84E-09	5.03E-07	
A_24_P499215	FAM21FP	Family with sequence similarity 21 member F, pseudogene	1.09	3.85E-09	5.03E-07	
A_33_P3413671	ABL2	v-abl Abelson murine leukemia viral oncogene homolog 2	1.04	4.39E-09	5.55E-07	ErbB signaling pathway
A_21_P0000374	SNORD59B	small nucleolar RNA, C/D box 59B	-1.07	4.67E-09	5.84E-07	
A_32_P133670	ANP32A	acidic (leucine-rich) nuclear phosphoprotein 32 family, member A	-1.01	4.70E-09	5.84E-07	
A_24_P66780	FAM83B	family with sequence similarity 83, member B	1.12	4.77E-09	5.89E-07	
A_33_P3311046	OR2M7	olfactory receptor, family 2, subfamily M, member 7	1.12	6.37E-09	7.51E-07	
A_23_P36120	MS4A6A	membrane-spanning 4-domains, subfamily A, member 6A	-1.29	6.55E-09	7.66E-07	
A_32_P76853	LOC653075	golgin A8 family, member A pseudogene	1.26	6.81E-09	7.88E-07	
A_19_P00327297	XLOC_008015		-1.16	7.08E-09	8.18E-07	
A_33_P3305840	SRSF7	serine/arginine-rich splicing factor 7	-1.0	7.30E-09	8.34E-07	

			1			
A_33_P3305458	ATF6B	activating transcription factor 6 beta	1.10	7.73E-09	8.69E-07	TNF signaling pathway, Hepatitis B
A_21_P0011150	DHX9	DEAH (Asp-Glu-Ala-His) box polypeptide 9	-1.04	8.04E-09	8.92E-07	
A_33_P3376379	CNST	consortin, connexin sorting protein	1.38	8.12E-09	8.99E-07	
A_24_P233850	SDHC	succinate dehydrogenase complex, subunit C, integral membrane protein, 15kDa	-1.36	8.22E-09	9.06E-07	Citrate cycle (TCA cycle)
A_24_P320103	MECOM	MDS1 and EVI1 complex locus	1.15	8.62E-09	9.40E-07	Pathways in cancer, MAPK signaling pathway, Chronic myeloid leukemia
A_33_P3405897	PLEKHM1	pleckstrin homology domain containing, family M (with RUN domain) member 1	1.17	9.08E-09	9.80E-07	
A_21_P0000277	SNORD37	small nucleolar RNA, C/D box 37	-1.14	9.46E-09	1.01E-06	
A_24_P64393	MARCH5	membrane-associated ring finger (C3HC4) 5	-1.04	1.03E-08	1.09E-06	
A_23_P138105	MED18	mediator complex subunit 18	1.26	1.04E-08	1.10E-06	
A_24_P338187	HNRNPH3	heterogeneous nuclear ribonucleoprotein H3 (2H9)	-1.10	1.13E-08	1.18E-06	
A_33_P3415062	KIAA1671	KIAA1671	1.07	1.23E-08	1.27E-06	
A_33_P3301514	NRCAM	neuronal cell adhesion molecule	1.56	1.30E-08	1.31E-06	
A_21_P0007502	LINC00173	long intergenic non-protein coding RNA 173	-1.05	1.47E-08	1.45E-06	
A_33_P3703501	GALNT10	UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltransferase 10 (GalNAc-T10)	1.34	1.48E-08	1.45E-06	
A_33_P3397051	EXOC8	exocyst complex component 8	1.06	1.66E-08	1.60E-06	
A_33_P33	MGA	MAX gene associated	1.1	1.67E	1.60E	

30323			1	-08	-06	
A_23_P370588	HOXB8	homeobox B8	1.33	1.70E-08	1.63E-06	
A_23_P101516	KCNC3	potassium voltage-gated channel, Shaw-related subfamily, member 3	1.28	1.75E-08	1.67E-06	
A_33_P3290443	SCARNA9	smallCajal body-specific RNA 9	1.07	1.78E-08	1.69E-06	
A_33_P3246543	MAT2B	methionineadenosyltransferase II, beta	-1.06	1.86E-08	1.76E-06	
A_33_P3303572	EDA	ectodysplasin A	1.49	2.25E-08	2.05E-06	
A_33_P3399443	SH3TC1	SH3 domain and tetratricopeptide repeats 1	-1.18	2.27E-08	2.05E-06	
A_23_P121898	PARP8	poly (ADP-ribose) polymerase family, member 8	-1.03	2.35E-08	2.12E-06	
A_24_P152094	PPIAP26	Peptidylprolyl Isomerase A Pseudogene 26	-1.03	2.37E-08	2.13E-06	
A_23_P81392	WWC1	WW and C2 domain containing 1	1.30	2.74E-08	2.41E-06	Hippo signaling pathway
A_21_P0011938	ANKRD36B	ankyrin repeat domain 36B	1.21	2.84E-08	2.49E-06	
A_33_P3340666	KRTAP19-5	keratin associated protein 19-5	-1.00	3.18E-08	2.73E-06	
A_33_P3379644	ALDH1A1	aldehyde dehydrogenase 1 family, member A1	-1.40	3.68E-08	3.11E-06	
A_23_P123071	CAV2	caveolin 2	-1.20	3.77E-08	3.17E-06	Proteoglycans in cancer, Bacterial invasion of epithelial cells, Focal adhesion
A_23_P376449	CTSLP4	Cathepsin L Pseudogene 4	-1.54	3.77E-08	3.17E-06	
A_23_P111888	CTHRC1	collagen triple helix repeat containing 1	-1.23	4.15E-08	3.43E-06	
A_33_P3323842	BDNF-AS1	BDNF antisense RNA 1 (non-protein coding)	1.13	4.35E-08	3.57E-06	
A_33_P3352712	CDR2L	cerebellar degeneration-related protein 2-like	1.17	4.37E-08	3.58E-06	
A_21_P00	SNORD1	small nucleolar RNA,	-	4.60E	3.72E	

00365	2	C/D box 12	1.17	-08	-06	
A_23_P3014	RNASE6	ribonuclease, RNase A family, k6	-1.00	4.60E-08	3.72E-06	
A_32_P216426	HNRNPA1L2	heterogeneous nuclear ribonucleoprotein A1-like 2	-1.05	5.12E-08	4.07E-06	
A_24_P683011	LOC100127983	uncharacterized LOC100127983	-1.03	5.45E-08	4.29E-06	
A_33_P3261957	CALCRL	calcitonin receptor-like	1.38	6.20E-08	4.80E-06	
A_24_P372932	PEX5	peroxisomal biogenesis factor 5	-1.01	6.36E-08	4.90E-06	
A_33_P3378880	HIST1H4C	Histone Cluster 1 H4 Family Member C	-1.20	6.65E-08	5.09E-06	
A_24_P734720	CCNYL1	cyclin Y-like 1	-1.08	7.23E-08	5.41E-06	
A_23_P7827	FAM26F	family with sequence similarity 26, member F	-1.28	7.33E-08	5.46E-06	
A_33_P3395369	AMD1	adenosylmethionine decarboxylase 1	1.10	8.49E-08	6.21E-06	
A_33_P3325229	LOC389906	zinc finger protein 839 pseudogene	1.07	8.59E-08	6.27E-06	
A_23_P409168	NBEAL2	neurobeachin-like 2	1.21	1.04E-07	7.39E-06	
A_33_P3383029	MXI1	MAX interactor 1	1.00	1.06E-07	7.52E-06	
A_33_P3233916	SOX6	SRY (sex determining region Y)-box 6	1.54	1.15E-07	8.03E-06	
A_21_P0009831	XLOC_013475		1.17	1.24E-07	8.48E-06	
A_23_P210726	CDC25B	cell division cycle 25 homolog B (S. pombe)	-1.07	1.42E-07	9.47E-06	MAPK signaling pathway, Cell cycle
A_24_P96234	QTRT1	queuinetRNA-ribosyltransferase 1	-1.00	1.48E-07	9.79E-06	
A_32_P456537	TCP1	t-complex 1	-1.02	1.52E-07	9.97E-06	
A_24_P55295	GJA1	gap junction protein, alpha 1, 43kDa	-1.70	1.52E-07	9.97E-06	

A_33_P3237899	CHN2	chimerin (chimaerin) 2	1.08	1.64E-07	1.06E-05	
A_23_P313828	CENPV	centromere protein V	-1.00	1.77E-07	1.12E-05	
A_23_P162386	BIN2	bridging integrator 2	-1.06	1.84E-07	1.16E-05	
A_23_P408473	HEATR7A	HEAT repeat containing 7A	1.03	2.02E-07	1.25E-05	
A_23_P19479	STK19	serine/threonine kinase 19	-1.26	2.34E-07	1.42E-05	
A_23_P135239	TLE1	transducin-like enhancer of split 1 (E(sp1) homolog, Drosophila)	1.06	2.47E-07	1.47E-05	
A_23_P206018	TPM1	tropomyosin 1 (alpha)	-1.19	2.74E-07	1.60E-05	
A_24_P3461	MORF4	Mortality Factor 4 (Pseudogene)	-1.03	2.75E-07	1.60E-05	
A_24_P313993	CAPS	calcyphosine	1.07	2.77E-07	1.61E-05	
A_33_P3218783	ANK3	ankyrin 3, node of Ranvier (ankyrin G)	2.19	2.78E-07	1.61E-05	Proteoglycans in cancer
A_23_P19084	HNRNPAB	heterogeneous nuclear ribonucleoprotein A/B	-1.03	2.86E-07	1.65E-05	
A_23_P43504	ABCA2	ATP-binding cassette, sub-family A (ABC1), member 2	1.07	3.05E-07	1.74E-05	
A_23_P205738	BCL11B	B-cell CLL/lymphoma 11B (zinc finger protein)	-1.06	3.16E-07	1.79E-05	
A_33_P3254695	RNU105A	RNA, U105A small nucleolar	1.44	3.53E-07	1.96E-05	
A_23_P207680	ARL17B	ADP-ribosylation factor-like 17B	1.21	3.58E-07	1.97E-05	
A_23_P328034	C20orf96	chromosome 20 open reading frame 96	1.35	3.62E-07	2.00E-05	
A_33_P3335371	MAML3	mastermind-like 3 (Drosophila)	1.07	4.11E-07	2.21E-05	
A_21_P0002474	ANKRD36	ankyrin repeat domain 36	1.12	4.24E-07	2.26E-05	
A_24_P298027	AXIN2	axin 2	1.09	4.40E-07	2.32E-05	Pathways in cancer, Colorectal cancer, Endometrial cancer,

						Hippo signaling pathway
A_24_P117942	TOMM20L	translocase of outer mitochondrial membrane 20 homolog (yeast)-like	1.04	4.76E-07	2.47E-05	
A_23_P748	IRF6	interferon regulatory factor 6	1.01	5.05E-07	2.58E-05	
A_24_P134195	MYADM	myeloid-associated differentiation marker	-1.06	5.49E-07	2.76E-05	
A_23_P97810	PARG	poly (ADP-ribose) glycohydrolase	-1.02	5.53E-07	2.77E-05	
A_33_P3364463	NKAIN3	Na+/K+ transporting ATPase interacting 3	-1.14	5.89E-07	2.91E-05	
A_24_P69095	ENC1	ectodermal-neural cortex 1 (with BTB-like domain)	-1.93	6.38E-07	3.10E-05	
A_23_P142872	TCF7L1	transcription factor 7-like 1 (T-cell specific, HMG-box)	1.13	6.68E-07	3.22E-05	Pathways in cancer, Adherens junction, Colorectal cancer, Endometrial cancer, Prostate cancer, Thyroid cancer, Hippo signaling pathway
A_21_P0000470	SNORD12B	small nucleolar RNA, C/D box 12B	-1.01	7.35E-07	3.45E-05	
A_24_P159648	BAIAP2	BAI1-associated protein 2	1.05	7.67E-07	3.56E-05	Adherens junction
A_33_P3338634	SYT14	synaptotagmin XIV	1.19	7.98E-07	3.67E-05	
A_33_P3236392	PVRL4	poliovirus receptor-related 4	1.10	8.11E-07	3.71E-05	
A_33_P3338724	LENG9	leukocyte receptor cluster (LRC) member 9	1.11	8.29E-07	3.77E-05	
A_24_P333326	CTAGE5	CTAGE family, member 5	1.02	8.70E-07	3.94E-05	
A_33_P3249349	PRAME	preferentially expressed antigen in melanoma	1.61	9.43E-07	4.20E-05	
A_24_P58187	HNRNPA1P60	Heterogeneous nuclear ribonucleoprotein A1 pseudogene 60	-1.52	1.02E-06	4.44E-05	
A_33_P33	NOS1	nitric oxide synthase 1	1.1	1.05E	4.55E	Long-term

65167		(neuronal)	8	-06	-05	depression
A_33_P3325978	TRIB2	tribbles homolog 2 (Drosophila)	-1.28	1.08E-06	4.68E-05	
A_23_P62890	GBP1	guanylate binding protein 1, interferon-inducible	-1.20	1.17E-06	5.01E-05	NOD-like receptor signaling pathway
A_23_P38427	RAB11FIP4	RAB11 family interacting protein 4 (class II)	1.15	1.20E-06	5.09E-05	
A_23_P111402	RSPO3	R-spondin 3	-1.71	1.31E-06	5.46E-05	
A_33_P3408221	LOC729799	SEC14-like 1 pseudogene	1.16	1.32E-06	5.50E-05	
A_23_P77048	SLC25A29	solute carrier family 25, member 29	1.41	1.37E-06	5.65E-05	
A_23_P251075	MAMLD1	mastermind-like domain containing 1	-1.11	1.38E-06	5.69E-05	
A_23_P374082	ADAM19	ADAM metallopeptidase domain 19	-1.04	1.51E-06	6.13E-05	
A_23_P159974	KLHL13	kelch-like 13 (Drosophila)	-1.04	1.53E-06	6.17E-05	
A_33_P3365392	LOC401557	uncharacterized LOC401557	1.09	1.66E-06	6.58E-05	
A_23_P6099	PLCB1	phospholipase C, beta 1 (phosphoinositide-specific)	1.47	1.67E-06	6.62E-05	Pathways in cancer, Chemokine signaling pathway, GnRH signaling pathway, Long-term depression, NOD-like receptor signaling pathway
A_21_P0014782	LOC100652913	uncharacterized LOC100652913	1.12	1.69E-06	6.68E-05	
A_33_P3276615	APOL4	apolipoprotein L, 4	1.59	1.81E-06	7.06E-05	
A_23_P34345	VCAM1	vascular cell adhesion molecule 1	-1.37	1.86E-06	7.25E-05	NF-kappa B signaling pathway, TNF signaling pathway
A_23_P91764	TNFRSF13C	tumor necrosis factor receptor superfamily, member 13C	1.09	2.23E-06	8.32E-05	NF-kappa B signaling pathway
A_23_P314760	PRKAG2	protein kinase, AMP-activated, gamma 2	1.38	2.32E-06	8.60E-05	Circadian rhythm, Adipocytokine

		non-catalytic subunit				signaling pathway, Insulin signaling pathway
A_21_P0000386	SNORD89	small nucleolar RNA, C/D box 89	1.04	2.36E-06	8.75E-05	
A_23_P405110	CDC14A	CDC14 cell division cycle 14 homolog A (S. cerevisiae)	1.38	2.72E-06	9.75E-05	Cell cycle
A_33_P3247540	LOC389834	ankyrin repeat domain 57 pseudogene	1.07	2.84E-06	1.01E-04	
A_33_P3256725	PIP5K1B	phosphatidylinositol-4-phosphate 5-kinase, type I, beta	1.42	2.90E-06	1.02E-04	Fc gamma R-mediated phagocytosis
A_23_P104563	CPT1A	carnitinepalmitoyltransferase 1A (liver)	1.39	3.03E-06	1.05E-04	Adipocytokine signaling pathway
A_24_P561341	FAM150B	family with sequence similarity 150, member B	1.50	3.14E-06	1.09E-04	
A_23_P430948	ATP13A4	ATPase type 13A4	1.49	3.27E-06	1.12E-04	
A_23_P397910	CBLC	Cas-Br-M (murine) ecotropic retroviral transforming sequence c	1.74	3.34E-06	1.14E-04	Pathways in cancer, ErbB signaling pathway, Proteoglycans in cancer, Bacterial invasion of epithelial cells, Insulin signaling pathway, Chronic myeloid leukemia
A_23_P216448	NFIB	nuclear factor I/B	1.36	3.53E-06	1.19E-04	
A_33_P3290707	MME	membranemetallo-endopeptidase	1.31	3.57E-06	1.20E-04	Renin-angiotensin system
A_23_P139919	CHST11	carbohydrate (chondroitin 4) sulfotransferase 11	-1.24	3.96E-06	1.30E-04	
A_33_P3420259	RN28S1	RNA, 28S ribosomal 1	-1.07	4.15E-06	1.36E-04	
A_23_P99292	RAD51AP1	RAD51 associated protein 1	-1.69	4.18E-06	1.36E-04	
A_32_P181222	KCNMA1	potassium large conductance calcium-activated channel, subfamily M, alpha member 1	1.05	4.31E-06	1.39E-04	
A_33_P34	SHROOM	shroom family member	1.0	4.51E	1.43E	

17339	3	3	9	-06	-04	
A_24_P940166	PAPSS2	3'-phosphoadenosine 5'-phosphosulfate synthase 2	-1.62	4.82E-06	1.51E-04	
A_24_P327181	WNK4	WNK lysine deficient protein kinase 4	2.15	4.96E-06	1.55E-04	
A_23_P134347	CPVL	carboxypeptidase, vitellogenic-like	-1.02	5.03E-06	1.56E-04	
A_33_P3417086	NIPAL1	NIPA-like domain containing 1	1.04	5.08E-06	1.57E-04	
A_24_P931443	GPR68	G protein-coupled receptor 68	-1.05	5.19E-06	1.60E-04	
A_21_P0000236	SNORA64	small nucleolar RNA, H/ACA box 64	-1.09	5.41E-06	1.65E-04	
A_23_P5301	TFCP2L1	transcription factor CP2-like 1	1.97	5.87E-06	1.76E-04	
A_23_P39465	BST2	bone marrow stromal cell antigen 2	-1.29	5.91E-06	1.77E-04	
A_33_P3231557	CDC14B	CDC14 cell division cycle 14 homolog B (S. cerevisiae)	1.13	5.94E-06	1.78E-04	Cell cycle
A_21_P0014344	LOC100507263	uncharacterized LOC100507263	-1.34	5.95E-06	1.78E-04	
A_33_P3550894	GATA2	GATA binding protein 2	1.15	6.01E-06	1.79E-04	
A_23_P151634	SUPT16H	suppressor of Ty 16 homolog (S. cerevisiae)	-1.05	6.22E-06	1.84E-04	
A_24_P406986	SLC43A3	solute carrier family 43, member 3	-1.21	6.44E-06	1.89E-04	
A_24_P248240	SYT11	synaptotagmin XI	-1.03	6.74E-06	1.96E-04	
A_24_P383356	SLC39A14	solute carrier family 39 (zinc transporter), member 14	2.53	7.15E-06	2.05E-04	
A_33_P3254390	CERKL	ceramide kinase-like	1.22	7.57E-06	2.14E-04	
A_23_P204087	OAS2	2'-5'-oligoadenylate synthetase 2, 69/71kDa	-1.23	8.04E-06	2.24E-04	NOD-like receptor signaling pathway
A_33_P3343066	PAX2	paired box 2	1.51	8.04E-06	2.24E-04	

A_21_P0005785	XLOC_006973		1.21	8.06E-06	2.24E-04	
A_23_P143994	FANCD2	Fanconi anemia, complementation group D2	-1.31	8.50E-06	2.35E-04	
A_24_P565556	ALG1	asparagine-linked glycosylation 1, beta-1,4-mannosyltransferase homolog (S. cerevisiae)	-1.10	8.91E-06	2.44E-04	
A_23_P360754	ADAMTS4	ADAM metallopeptidase with thrombospondin type 1 motif, 4	-1.06	9.05E-06	2.47E-04	
A_33_P3441639	LOC145694	uncharacterized LOC145694	-1.01	9.25E-06	2.51E-04	
A_21_P0004167	XLOC_004956		-1.11	9.83E-06	2.65E-04	
A_23_P32115	LCN12	lipocalin 12	1.83	1.00E-05	2.69E-04	
A_21_P0013548	XLOC_l2_014694		1.10	1.01E-05	2.69E-04	
A_23_P216429	ASPN	asporin	-1.21	1.10E-05	2.89E-04	
A_24_P71973	KDR	kinase insert domain receptor (a type III receptor tyrosine kinase)	-1.03	1.18E-05	3.05E-04	Proteoglycans in cancer, Focal adhesion, VEGF signaling pathway
A_21_P0010876	XLOC_l2_001971		1.02	1.21E-05	3.10E-04	
A_32_P305020	GNG4	guanine nucleotide binding protein (G protein), gamma 4	-1.21	1.23E-05	3.14E-04	Pathways in cancer, Chemokine signaling pathway
A_24_P347378	ALOX5AP	arachidonate 5-lipoxygenase-activating protein	-1.16	1.24E-05	3.17E-04	Fc epsilon RI signaling pathway
A_23_P85682	NFIA	nuclear factor I/A	1.28	1.36E-05	3.39E-04	
A_21_P0005766	XLOC_006934		-1.02	1.46E-05	3.60E-04	
A_23_P100642	PNMT	phenylethanolamine N-methyltransferase	2.33	1.50E-05	3.68E-04	
A_23_P501822	JUP	junctionplakoglobin	1.06	1.50E-05	3.69E-04	Pathways in cancer

A_23_P125233	CNN1	calponin 1, basic, smooth muscle	-1.92	1.52E-05	3.73E-04	
A_24_P911906	PCDH17	protocadherin 17	-1.42	1.56E-05	3.79E-04	
A_33_P3286066	PHLDB2	pleckstrin homology-like domain, family B, member 2	-1.28	1.56E-05	3.80E-04	
A_23_P83347	RNF183	ring finger protein 183	1.75	1.57E-05	3.81E-04	
A_23_P45324	TMEM35	transmembrane protein 35	-1.30	1.82E-05	4.29E-04	
A_23_P84860	FAM107A	family with sequence similarity 107, member A	1.70	1.93E-05	4.49E-04	
A_33_P3246244	NAA60	N(Alpha)-Acetyltransferase 60, NatF Catalytic Subunit	1.29	2.00E-05	4.62E-04	
A_23_P314712	CABYR	calcium binding tyrosine-(Y)-phosphorylation regulated	1.21	2.02E-05	4.65E-04	
A_21_P0010267	XLOC_013994		-1.39	2.05E-05	4.70E-04	
A_23_P331928	CD109	CD109 molecule	-1.16	2.16E-05	4.92E-04	
A_24_P54174	TNFRSF1B	tumor necrosis factor receptor superfamily, member 1B	-1.04	2.17E-05	4.93E-04	Adipocytokine signaling pathway, TNF signaling pathway
A_33_P3772937	KRT8P12	keratin 8 pseudogene 12	1.48	2.27E-05	5.11E-04	
A_33_P3268472	CTSC	cathepsin C	-1.01	2.29E-05	5.14E-04	Apoptosis
A_21_P0008172	XLOC_010634		-1.04	2.33E-05	5.22E-04	
A_23_P107612	RAB27B	RAB27B, member RAS oncogene family	1.73	2.44E-05	5.41E-04	
A_23_P7727	HAPLN1	hyaluronan and proteoglycan link protein 1	-1.73	2.45E-05	5.42E-04	
A_23_P392384	AIF1L	allograft inflammatory factor 1-like	-1.0	2.48E-05	5.49E-04	

			4			
A_23_P150053	ACTA2	actin, alpha 2, smooth muscle, aorta	-1.35	2.50E-05	5.53E-04	
A_23_P156390	JAKMIP2	janus kinase and microtubule interacting protein 2	-1.01	2.71E-05	5.87E-04	
A_23_P386320	MFI2	antigen p97 (melanoma associated) identified by monoclonal antibodies 133.2 and 96.5	-1.18	2.75E-05	5.96E-04	
A_33_P3288246	MCC	mutated in colorectal cancers	1.25	2.83E-05	6.10E-04	
A_33_P3266550	ABO	ABO blood group (transferase A, alpha 1-3-N-acetylgalactosaminyltransferase; transferase B, alpha 1-3-galactosyltransferase)	1.60	2.92E-05	6.26E-04	
A_19_P00315647	LOC100507165	uncharacterized LOC100507165	-1.21	2.94E-05	6.30E-04	
A_33_P3284045	NEK10	NIMA (never in mitosis gene a)- related kinase 10	1.11	2.98E-05	6.38E-04	
A_21_P0013574	MTHFD1L	methylenetetrahydrofolate dehydrogenase (NADP+ dependent) 1-like	-1.11	3.14E-05	6.65E-04	
A_23_P98974	LGR5	leucine-rich repeat containing G protein-coupled receptor 5	1.14	3.21E-05	6.77E-04	
A_33_P3259775	DOCK5	dedicator of cytokinesis 5	1.06	3.21E-05	6.77E-04	
A_24_P153456	ZDHHC11	zinc finger, DHHC-type containing 11	1.28	3.32E-05	6.93E-04	
A_32_P183765	ERBB4	v-erb-a erythroblastic leukemia viral oncogene homolog 4 (avian)	1.41	3.36E-05	6.96E-04	ErbB signaling pathway, Proteoglycans in cancer
A_24_P256380	WLS	wntless homolog (Drosophila)	-1.32	3.42E-05	7.06E-04	
A_23_P83134	GAS1	growth arrest-specific 1	-1.46	3.43E-05	7.07E-04	
A_23_P25	SGK223	homolog of rat pragma	-	3.53E	7.23E	

0212		of Rnd2	1.11	-05	-04
A_33_P3399768	LOC100129269	uncharacterized LOC100129269	-1.09	3.75E-05	7.59E-04
A_23_P99906	HOMER2	homer homolog 2 (Drosophila)	1.50	3.82E-05	7.69E-04
A_23_P29939	SNCA	synuclein, alpha (non A4 component of amyloid precursor)	-1.19	3.97E-05	7.92E-04
A_21_P0013836	XLOC_l2_015849		-1.21	4.04E-05	8.00E-04
A_33_P3306510	NUP153	nucleoporin 153kDa	1.31	4.12E-05	8.14E-04
A_32_P55804	CDC5L	CDC5 cell division cycle 5-like (S. pombe)	-1.16	4.25E-05	8.34E-04
A_23_P166823	TNNC1	troponin C type 1 (slow)	2.39	4.39E-05	8.58E-04
A_23_P357983	STOML3	stomatin (EPB72)-like 3	1.00	4.62E-05	8.92E-04
A_23_P380208	VEPH1	ventricular zone expressed PH domain homolog 1 (zebrafish)	1.43	4.75E-05	9.11E-04
A_23_P169819	EPHA3	EPH receptor A3	-1.09	5.01E-05	9.50E-04
A_32_P148345	ANXA2	annexin A2	-1.02	5.04E-05	9.54E-04
A_21_P0008252	XLOC_010588		-1.04	5.23E-05	9.84E-04
A_33_P3219651	BMPER	BMP binding endothelial regulator	-1.29	5.25E-05	9.86E-04
A_23_P25246	AVPR1A	arginine vasopressin receptor 1A	1.02	5.31E-05	9.94E-04
A_23_P164057	MFAP4	microfibrillar-associated protein 4	-1.29	5.80E-05	1.07E-03
A_21_P0006558	XLOC_007949		1.03	5.99E-05	1.09E-03
A_32_P234184	HES5	hairy and enhancer of split 5 (Drosophila)	1.17	6.08E-05	1.10E-03
A_33_P3227231	ZNF783	zinc finger family member 783	1.15	6.35E-05	1.14E-03
A_23_P38	COL23A1	collagen, type XXIII,	1.0	6.37E	1.14E

7031		alpha 1	5	-05	-03	
A_23_P137931	ADORA3	adenosine A3 receptor	-1.00	6.65E-05	1.18E-03	
A_23_P518	VTCN1	V-set domain containing T cell activation inhibitor 1	1.46	6.73E-05	1.19E-03	
A_23_P23639	MCOLN2	mucolipin 2	1.55	7.20E-05	1.26E-03	
A_33_P3260134	NTRK3	neurotrophic tyrosine kinase, receptor, type 3	1.02	7.28E-05	1.27E-03	Neurotrophin signaling pathway
A_32_P44568	LDHA	lactate dehydrogenase A	-1.06	7.47E-05	1.29E-03	Pyruvate metabolism
A_33_P3420224	ENTPD8	ectonucleoside triphosphate diphosphohydrolase 8	1.93	8.39E-05	1.42E-03	Epstein-Barr virus infection
A_23_P370454	KCNAB3	potassium voltage-gated channel, shaker-related subfamily, beta member 3	-1.11	8.60E-05	1.45E-03	
A_24_P158946	FGD4	FYVE, RhoGEF and PH domain containing 4	1.03	8.85E-05	1.48E-03	
A_33_P3398917	C15orf59	chromosome 15 open reading frame 59	1.21	9.05E-05	1.51E-03	
A_32_P19294	GLT1D1	glycosyltransferase 1 domain containing 1	-1.77	9.19E-05	1.53E-03	
A_33_P3247205	MARC1	mitochondrialamidoxime reducing component 1	2.27	9.40E-05	1.55E-03	
A_23_P207445	MAP2K6	mitogen-activated protein kinase kinase 6	1.84	9.49E-05	1.56E-03	GnRH signaling pathway, MAPK signaling pathway, Epstein-Barr virus infection, TNF signaling pathway, Fc epsilon RI signaling pathway
A_33_P3321642	GRHL2	grainyhead-like 2 (Drosophila)	1.29	9.82E-05	1.61E-03	
A_33_P3366028	C20orf118	chromosome 20 open reading frame 118	-1.14	9.99E-05	1.63E-03	
A_24_P252996	FOLR3	folate receptor 3 (gamma)	1.41	1.05E-04	1.70E-03	
A_23_P132956	UCHL1	ubiquitin carboxyl-terminal esterase L1	-1.2	1.05E-04	1.70E-03	

		(ubiquitin thiolesterase)	5			
A_33_P3215948	MPZL2	myelin protein zero-like 2	1.36	1.07E-04	1.72E-03	
A_33_P3400973	ATP2B2	ATPase, Ca++ transporting, plasma membrane 2	1.61	1.09E-04	1.75E-03	
A_23_P107981	SULT2B1	sulfotransferase family, cytosolic, 2B, member 1	1.74	1.11E-04	1.77E-03	
A_21_P0000588	LOC404266	uncharacterized LOC404266	1.08	1.13E-04	1.79E-03	
A_23_P21990	SLC23A1	solute carrier family 23 (nucleobase transporters), member 1	1.08	1.17E-04	1.83E-03	
A_23_P436048	LPAR3	lysophosphatidic acid receptor 3	1.08	1.18E-04	1.85E-03	Pathways in cancer
A_33_P3258056	PALM3	paralemmin 3	-1.00	1.20E-04	1.87E-03	
A_33_P3218089	CLDN24	claudin 24	2.36	1.20E-04	1.88E-03	
A_23_P128744	BDKRB1	bradykinin receptor B1	-1.08	1.21E-04	1.88E-03	Pathways in cancer, Complement and coagulation cascades
A_23_P142574	MOGAT1	monoacylglycerol O-acyltransferase 1	1.30	1.22E-04	1.90E-03	
A_21_P0010439	XLOC_014366		-1.35	1.26E-04	1.94E-03	
A_23_P163099	POLE2	polymerase (DNA directed), epsilon 2 (p59 subunit)	-1.01	1.26E-04	1.94E-03	DNA replication
A_23_P120794	SLC7A4	solute carrier family 7 (orphan transporter), member 4	2.71	1.29E-04	1.98E-03	
A_21_P0014943	LOC100653284	uncharacterized LOC100653284	-1.03	1.37E-04	2.07E-03	
A_24_P247074	KRT8P37	Keratin 8 Pseudogene 37	1.35	1.44E-04	2.15E-03	
A_33_P3276856	HYDIN	hydrocephalus inducing homolog (mouse)	1.05	1.48E-04	2.20E-03	
A_23_P31921	ASS1	argininosuccinate synthase 1	-1.19	1.49E-04	2.20E-03	

A_32_P61495	FHAD1	forkhead-associated (FHA) phosphopeptide binding domain 1	1.00	1.55E-04	2.28E-03	
A_33_P3283515	PDZD2	PDZ domain containing 2	1.11	1.57E-04	2.30E-03	
A_23_P145978	VIPR2	vasoactive intestinal peptide receptor 2	-1.08	1.58E-04	2.30E-03	
A_23_P99642	SLC7A7	solute carrier family 7 (amino acid transporter light chain, y+L system), member 7	-1.04	1.62E-04	2.35E-03	
A_33_P3405728	PKP2	plakophilin 2	1.06	1.65E-04	2.39E-03	
A_33_P3302881	KLHL31	kelch-like 31 (Drosophila)	1.34	1.68E-04	2.43E-03	
A_33_P3269208	STX19	syntaxin 19	1.35	1.68E-04	2.43E-03	
A_24_P133905	CCL23	chemokine (C-C motif) ligand 23	-1.18	1.72E-04	2.48E-03	Chemokine signaling pathway
A_33_P3375185	TCTEX1D4	Tctex1 domain containing 4	1.07	1.78E-04	2.54E-03	
A_24_P120537	SH3RF2	SH3 domain containing ring finger 2	1.10	1.82E-04	2.59E-03	
A_23_P218675	WFDC2	WAP four-disulfide core domain 2	1.05	1.85E-04	2.62E-03	
A_32_P199429	NCAM2	neural cell adhesion molecule 2	-1.07	1.85E-04	2.62E-03	
A_24_P26792	TRPM6	transient receptor potential cation channel, subfamily M, member 6	2.40	1.93E-04	2.70E-03	
A_23_P144778	CKMT2	creatine kinase, mitochondrial 2 (sarcomeric)	1.21	1.94E-04	2.71E-03	
A_33_P3842551	IKZF2	IKAROS family zinc finger 2 (Helios)	1.13	1.97E-04	2.75E-03	
A_23_P127781	SCGB1D1	secretoglobin, family 1D, member 1	1.39	2.10E-04	2.89E-03	
A_24_P355057	SLC13A1	solute carrier family 13 (sodium/sulfate symporters), member 1	-1.06	2.20E-04	2.99E-03	
A_19_P00323082	H19	H19, imprinted maternally expressed transcript (non-protein coding)	-1.15	2.24E-04	3.03E-03	
A_33_P32	CLDN22	claudin 22	2.1	2.46E	3.25E	

91816			6	-04	-03	
A_21_P0013564	CNTNAP3B	contactin associated protein-like 3B	-1.17	2.46E-04	3.25E-03	
A_23_P150555	SCGB1D2	secretoglobin, family 1D, member 2	1.65	2.52E-04	3.30E-03	
A_21_P0014829	LOC100652760	uncharacterized LOC100652760	-1.20	2.52E-04	3.30E-03	
A_21_P0014502	LOC100287803	uncharacterized LOC100287803	1.31	2.54E-04	3.33E-03	
A_24_P810290	PPAPDC1A	phosphatidic acid phosphatase type 2 domain containing 1A	-1.54	2.58E-04	3.36E-03	
A_24_P923251	TGM2	transglutaminase 2 (C polypeptide, protein-glutamine-gamma-glutamyltransferase)	-1.01	2.60E-04	3.38E-03	
A_33_P3397865	TNNT1	troponin T type 1 (skeletal, slow)	1.29	2.60E-04	3.38E-03	
A_24_P10233	DAPK2	death-associated protein kinase 2	1.00	2.61E-04	3.40E-03	Pathways in cancer, Bladder cancer
A_23_P14986	HSD11B2	hydroxysteroid (11-beta) dehydrogenase 2	1.40	2.62E-04	3.41E-03	
A_23_P77529	MSLN	mesothelin	1.15	2.72E-04	3.50E-03	
A_23_P52336	UNC5B	unc-5 homolog B (C. elegans)	1.07	2.89E-04	3.68E-03	
A_23_P110802	CENPH	centromere protein H	-1.08	2.92E-04	3.71E-03	
A_23_P2814	SMAD9	SMAD family member 9	1.02	2.98E-04	3.77E-03	TGF-beta signaling pathway
A_33_P3336686	CLIC3	chloride intracellular channel 3	1.07	2.99E-04	3.78E-03	
A_24_P234838	PCDH1	protocadherin 1	1.02	3.12E-04	3.91E-03	
A_32_P133916	BNC2	basonuclin 2	-1.04	3.22E-04	4.01E-03	
A_24_P412156	CXCL12	chemokine (C-X-C motif) ligand 12	-1.27	3.23E-04	4.01E-03	Pathways in cancer, Chemokine signaling pathway, NF-kappa B signaling pathway
A_23_P56978	PTK6	PTK6 protein tyrosine kinase 6	1.26	3.25E-04	4.03E-03	

A_24_P250922	PTGS2	prostaglandin-endoperoxide synthase 2 (prostaglandin G/H synthase and cyclooxygenase)	1.40	3.27E-04	4.05E-03	Pathways in cancer, NF-kappa B signaling pathway, TNF signaling pathway, Small cell lung cancer, VEGF signaling pathway
A_32_P65616	PRL	prolactin	-1.20	3.40E-04	4.16E-03	
A_33_P3310276	PIWIL2	Piwi Like RNA-Mediated Gene Silencing 2	1.84	3.44E-04	4.20E-03	
A_23_P141035	CHST4	carbohydrate (N-acetylglucosamine 6-O) sulfotransferase 4	2.27	3.54E-04	4.31E-03	
A_21_P0009106	XLOC_011736		1.05	3.57E-04	4.33E-03	
A_33_P3228014	SCGB1D4	secretoglobin, family 1D, member 4	2.38	3.59E-04	4.36E-03	
A_24_P299685	PDPN	podoplanin	-1.00	3.62E-04	4.38E-03	
A_23_P133036	SLC34A2	solute carrier family 34 (sodium phosphate), member 2	1.12	3.72E-04	4.47E-03	
A_23_P48669	CDKN3	cyclin-dependent kinase inhibitor 3	-1.63	3.80E-04	4.53E-03	
A_33_P3358397	LGI2	leucine-rich repeat LGI family, member 2	-1.06	3.82E-04	4.55E-03	
A_19_P00319588	XLOC_003202		1.52	3.92E-04	4.64E-03	
A_24_P317907	SORBS1	sorbin and SH3 domain containing 1	-1.14	3.96E-04	4.68E-03	Adherens junction, Insulin signaling pathway
A_21_P0012785	1/2-SBSRNA4	lncRNA_BC009800	1.54	4.12E-04	4.83E-03	
A_32_P381593	SLC26A7	solute carrier family 26, member 7	1.14	4.23E-04	4.93E-03	
A_23_P361544	CES4A	carboxylesterase 4A	1.47	4.42E-04	5.09E-03	
A_23_P398836	TXNDC16	thioredoxin domain containing 16	1.08	4.70E-04	5.33E-03	
A_23_P343366	MAB21L3	mab-21-like 3 (C. elegans)	1.07	4.81E-04	5.42E-03	
A_23_P20	MICALC	MICAL C-terminal	1.1	5.00E	5.58E	

41	L	like	3	-04	-03
A_32_P85999	CDH13	cadherin 13, H-cadherin (heart)	-1.13	5.09E-04	5.65E-03
A_33_P3275707	AP1S3	adaptor-related protein complex 1, sigma 3 subunit	1.31	5.09E-04	5.66E-03
A_23_P393620	TFPI2	tissue factor pathway inhibitor 2	1.59	5.27E-04	5.80E-03
A_33_P3332081	KHDRBS3	KH domain containing, RNA binding, signal transduction associated 3	1.29	5.33E-04	5.86E-03
A_23_P53176	FOLR1	folate receptor 1 (adult)	1.65	5.36E-04	5.87E-03
A_33_P3290403	IMPA2	inositol(myo)-1(or 4)-monophosphatase 2	-1.36	5.49E-04	5.99E-03
A_24_P13285	PPP1R1A	protein phosphatase 1, regulatory (inhibitor) subunit 1A	1.30	5.52E-04	6.01E-03
A_23_P14072	KRT8	keratin 8	1.11	5.52E-04	6.01E-03
A_23_P128281	KLRC3	killer cell lectin-like receptor subfamily C, member 3	-1.09	5.62E-04	6.10E-03
A_33_P3709317	SNORA28	small nucleolar RNA, H/ACA box 28	-1.20	5.70E-04	6.16E-03
A_33_P3297360	CCSER1	Coiled-Coil Serine Rich Protein 1	1.41	5.70E-04	6.17E-03
A_33_P3290239	DUOXA1	dual oxidase maturation factor 1	2.02	5.82E-04	6.26E-03
A_23_P161563	RAB38	RAB38, member RAS oncogene family	-1.14	5.94E-04	6.36E-03
A_33_P3221980	CHRM2	Cholinergic Receptor Muscarinic 2	1.11	5.97E-04	6.38E-03
A_23_P35277	FAM5B	family with sequence similarity 5, member B	-1.49	6.00E-04	6.41E-03
A_23_P155236	MUC13	mucin 13, cell surface associated	-1.05	6.02E-04	6.43E-03
A_23_P81590	PDE6A	phosphodiesterase 6A, cGMP-specific, rod, alpha	1.78	6.19E-04	6.56E-03
A_23_P132515	SIDT1	SID1 transmembrane family, member 1	1.46	6.20E-04	6.56E-03

A_33_P3268313	PGAM2	phosphoglycerate mutase 2 (muscle)	1.11	6.21E-04	6.57E-03	
A_21_P0012575	XLOC_l2_010601		1.18	6.36E-04	6.69E-03	
A_33_P3254136	PKHD1L1	polycystic kidney and hepatic disease 1 (autosomal recessive)-like 1	2.46	6.38E-04	6.70E-03	
A_33_P3394689	SLC6A2	solute carrier family 6 (neurotransmitter transporter, noradrenalin), member 2	-1.26	6.58E-04	6.86E-03	
A_23_P40217	DOK5	docking protein 5	-1.50	6.65E-04	6.93E-03	
A_23_P129133	OCA2	oculocutaneous albinism II	1.31	6.88E-04	7.09E-03	
A_23_P79488	STON1-GTF2A1L	STON1-GTF2A1L readthrough	-1.05	6.96E-04	7.16E-03	
A_23_P122924	INHBA	inhibin, beta A	-1.22	6.96E-04	7.16E-03	TGF-beta signaling pathway
A_24_P97374	EOMES	eomesodermin	-1.08	6.98E-04	7.16E-03	
A_32_P128701	USP53	ubiquitin specific peptidase 53	1.01	7.08E-04	7.24E-03	
A_23_P428248	TTC21A	tetratricopeptide repeat domain 21A	1.47	7.22E-04	7.35E-03	
A_23_P118834	TOP2A	topoisomerase (DNA) II alpha 170kDa	-1.44	7.29E-04	7.41E-03	
A_23_P128855	SLC39A2	solute carrier family 39 (zinc transporter), member 2	1.30	7.31E-04	7.42E-03	
A_33_P3746549	PLEKHG4B	pleckstrin homology domain containing, family G (with RhoGef domain) member 4B	1.21	7.41E-04	7.50E-03	
A_21_P0013713	XLOC_l2_015100		1.05	7.53E-04	7.59E-03	
A_21_P0004255	PART1	prostate androgen-regulated transcript 1 (non-protein coding)	2.30	7.53E-04	7.59E-03	
A_33_P3246028	DCDC2B	doublecortin domain containing 2B	1.09	7.54E-04	7.59E-03	
A_33_P32	C9orf169	chromosome 9 open	1.1	7.92E	7.88E	

32504		reading frame 169	3	-04	-03	
A_23_P85441	IGSF9	immunoglobulin superfamily, member 9	1.03	8.09E-04	8.01E-03	
A_23_P216966	PTGS1	prostaglandin-endoperoxide synthase 1 (prostaglandin G/H synthase and cyclooxygenase)	1.45	9.09E-04	8.73E-03	
A_23_P217570	CAPN6	calpain 6	2.70	9.39E-04	8.94E-03	
A_33_P3221284	CCDC80	coiled-coil domain containing 80	-1.26	9.48E-04	8.99E-03	
A_19_P00321009	LOC100505633	uncharacterized LOC100505633	1.71	9.59E-04	9.07E-03	
A_23_P53763	KIAA0226L	KIAA0226-like	-1.19	9.68E-04	9.14E-03	
A_23_P98350	BIRC3	baculoviral IAP repeat containing 3	1.58	9.98E-04	9.36E-03	Pathways in cancer, NF-kappa B signaling pathway, Focal adhesion, TNF signaling pathway, Small cell lung cancer, Apoptosis, NOD-like receptor signaling pathway
A_23_P126649	PGBD5	piggyBac transposable element derived 5	-1.11	1.00E-03	9.37E-03	
A_33_P3212257	MMRN1	multimerin 1	-1.09	1.02E-03	9.50E-03	
A_23_P115261	AGT	angiotensinogen (serpin peptidase inhibitor, clade A, member 8)	-1.33	1.02E-03	9.50E-03	Renin-angiotensin system
A_33_P3281435	IGKV1D-8	Immunoglobulin Kappa Variable 1D-8	-1.04	1.07E-03	9.88E-03	
A_33_P3342563	PITPNM3	PITPNM family member 3	1.08	1.13E-03	1.02E-02	
A_23_P204286	MGP	matrixGla protein	-1.10	1.14E-03	1.03E-02	
A_24_P314571	SPC24	SPC24, NDC80 kinetochore complex component, homolog (S. cerevisiae)	-1.07	1.17E-03	1.05E-02	

A_33_P3220827	PEA15	phosphoprotein enriched in astrocytes 15	1.09	1.20E-03	1.07E-02	
A_23_P116037	TM7SF2	transmembrane 7 superfamily member 2	1.05	1.20E-03	1.07E-02	
A_23_P308722	CCDC164	coiled-coil domain containing 164	1.05	1.20E-03	1.07E-02	
A_23_P83351	DFNB31	deafness, autosomal recessive 31	1.17	1.24E-03	1.10E-02	
A_24_P321766	SERPINA5	serpin peptidase inhibitor, clade A (alpha-1 antiproteinase, antitrypsin), member 5	1.60	1.25E-03	1.11E-02	Complement and coagulation cascades
A_23_P58819	RANBP17	RAN binding protein 17	1.09	1.27E-03	1.12E-02	
A_24_P189997	PCSK6	proprotein convertase subtilisin/kexin type 6	1.08	1.29E-03	1.14E-02	
A_24_P61490	NKX2-1	NK2 homeobox 1	-1.04	1.31E-03	1.15E-02	
A_19_P00321316	XLOC_003204		1.14	1.32E-03	1.15E-02	
A_23_P201066	SUSD4	sushi domain containing 4	1.22	1.34E-03	1.17E-02	
A_24_P277657	GMPR	guanosine monophosphate reductase	1.30	1.35E-03	1.17E-02	
A_21_P0000731	LOC100507632	uncharacterized LOC100507632	-1.15	1.38E-03	1.19E-02	
A_23_P110319	CWH43	cell wall biogenesis 43 C-terminal homolog (S. cerevisiae)	1.29	1.46E-03	1.25E-02	
A_23_P52121	PDZK1	PDZ domain containing 1	-1.90	1.48E-03	1.26E-02	
A_23_P73097	RGS20	regulator of G-protein signaling 20	-1.11	1.53E-03	1.30E-02	
A_24_P213161	NLRP2	NLR family, pyrin domain containing 2	1.29	1.53E-03	1.30E-02	
A_33_P3244473	LRRC1	leucine rich repeat containing 1	1.33	1.56E-03	1.32E-02	
A_24_P555066	SMTNL2	smoothelin-like 2	-1.07	1.57E-03	1.32E-02	
A_23_P114414	LONRF3	LON peptidase N-terminal domain and ring finger 3	1.13	1.61E-03	1.35E-02	

A_33_P3618429	PRKXP1	protein kinase, X-linked, pseudogene 1	1.01	1.62E-03	1.35E-02	
A_33_P3639068	GFRA1	GDNF family receptor alpha 1	-1.04	1.64E-03	1.36E-02	
A_24_P303091	CXCL10	chemokine (C-X-C motif) ligand 10	-1.03	1.65E-03	1.37E-02	Chemokine signaling pathway, TNF signaling pathway
A_23_P52939	SLC43A1	solute carrier family 43, member 1	1.18	1.65E-03	1.37E-02	
A_21_P0013594	XLOC_l2_014865		1.94	1.67E-03	1.38E-02	
A_21_P0004757	XLOC_005748		1.13	1.67E-03	1.38E-02	
A_33_P3229122	HIST1H2BF	histone cluster 1, H2bf	-1.03	1.74E-03	1.43E-02	
A_23_P397120	C19orf77	chromosome 19 open reading frame 77	1.85	1.76E-03	1.44E-02	
A_23_P202810	OVOL1	ovo-like 1(Drosophila)	1.15	1.78E-03	1.45E-02	
A_21_P0013976	LOC100130476	uncharacterized LOC100130476	1.21	1.80E-03	1.47E-02	
A_23_P4096	CA4	carbonic anhydrase IV	1.06	1.82E-03	1.48E-02	
A_21_P0000697	LOC100505912	uncharacterized LOC100505912	2.68	1.89E-03	1.52E-02	
A_33_P3418833	FLRT3	fibronectin leucine rich transmembrane protein 3	-1.21	1.90E-03	1.53E-02	
A_23_P24311	ALDH3B2	aldehyde dehydrogenase 3 family, member B2	1.47	1.90E-03	1.53E-02	
A_23_P388812	CKAP2L	cytoskeleton associated protein 2-like	-1.14	1.93E-03	1.54E-02	
A_23_P404536	ENPP3	ectonucleotidepyrophosphatase/phosphodiesterase 3	2.21	1.96E-03	1.56E-02	
A_33_P3388948	SNX30	sorting nexin family member 30	1.00	1.97E-03	1.57E-02	
A_33_P3376214	FMO5	flavin containing monooxygenase 5	1.35	1.98E-03	1.57E-02	
A_23_P301021	ASTN1	astrotactin 1	-1.22	2.00E-03	1.59E-02	
A_23_P510	PLD5	phospholipase D family, member 5	1.30	2.01E-03	1.59E-02	

A_23_P155786	SULT1E1	sulfotransferase family 1E, estrogen-preferring, member 1	1.42	2.03E-03	1.60E-02	
A_23_P75083	ZMYND11	zinc finger, MYND-type containing 11	1.00	2.08E-03	1.63E-02	
A_21_P0012786	XLOC_l2_011218		1.11	2.09E-03	1.63E-02	
A_23_P164068	DNAH9	dynein, axonemal, heavy chain 9	1.02	2.25E-03	1.73E-02	
A_23_P54291	DUOX1	dual oxidase 1	2.19	2.27E-03	1.74E-02	
A_23_P161507	MTL5	metallothionein-like 5, testis-specific (tesmin)	1.08	2.32E-03	1.77E-02	
A_33_P3327642	AIM1L	absent in melanoma 1-like	1.48	2.33E-03	1.77E-02	
A_23_P98121	FXYD4	FXYD domain containing ion transport regulator 4	2.17	2.33E-03	1.78E-02	
A_33_P3234571	MAP2K3	mitogen-activated protein kinase kinase 3	1.25	2.35E-03	1.79E-02	GnRH signaling pathway, MAPK signaling pathway, Epstein-Barr virus infection, TNF signaling pathway, Fc epsilon RI signaling pathway
A_21_P0002648	XLOC_002010		1.52	2.41E-03	1.82E-02	
A_23_P165624	TNFAIP6	tumor necrosis factor, alpha-induced protein 6	-1.34	2.42E-03	1.83E-02	
A_23_P100240	CDH16	cadherin 16, KSP-cadherin	2.04	2.43E-03	1.83E-02	
A_32_P5276	ARHGEF26	Rho guanine nucleotide exchange factor (GEF) 26	-1.09	2.45E-03	1.84E-02	Bacterial invasion of epithelial cells
A_21_P0008432	XLOC_011012		-1.05	2.47E-03	1.85E-02	
A_32_P157208	LOC572558	uncharacterized LOC572558	-1.20	2.48E-03	1.86E-02	
A_23_P155463	LRRC2	leucine rich repeat containing 2	-1.05	2.51E-03	1.87E-02	
A_33_P3421118	IL20RA	interleukin 20 receptor, alpha	1.03	2.53E-03	1.88E-02	
A_23_P165783	MLPH	melanophilin	-1.2	2.54E-03	1.89E-02	

			2			
A_33_P3349671	ERVI-1	endogenous retrovirus group I, member 1	1.09	2.56E-03	1.90E-02	
A_23_P85903	TLR5	toll-like receptor 5	1.03	2.73E-03	1.99E-02	Pathogenic Escherichia coli infection, Salmonella infection
A_23_P31996	SLC46A2	solute carrier family 46, member 2	1.65	2.81E-03	2.04E-02	
A_23_P213893	MEGF10	multiple EGF-like-domains 10	1.85	2.95E-03	2.12E-02	
A_33_P3276918	FAM64A	family with sequence similarity 64, member A	-1.01	3.06E-03	2.17E-02	
A_24_P368575	SLC4A7	solute carrier family 4, sodium bicarbonate cotransporter, member 7	1.14	3.13E-03	2.21E-02	
A_23_P25720	SERPINA4	serpin peptidase inhibitor, clade A (alpha-1 antiproteinase, antitrypsin), member 4	1.39	3.17E-03	2.23E-02	
A_21_P0000191	PSG6	pregnancy specific beta-1-glycoprotein 6	-1.01	3.21E-03	2.25E-02	
A_21_P0003154	LOC100302640	uncharacterized LOC100302640	1.40	3.23E-03	2.26E-02	
A_33_P3391220	SULT1C2P1	sulfotransferase family, cytosolic, 1C, member 2 pseudogene 1	1.80	3.23E-03	2.26E-02	
A_23_P253536	NPR3	natriuretic peptide receptor C/guanylate cyclase C (atrionatriuretic peptide receptor C)	1.44	3.24E-03	2.26E-02	
A_21_P0014210	LOC100506689	uncharacterized LOC100506689	1.31	3.25E-03	2.27E-02	
A_23_P138524	CPXM2	carboxypeptidase X (M14 family), member 2	-1.22	3.28E-03	2.28E-02	
A_33_P3212575	NNAT	neuronatin	-1.05	3.34E-03	2.32E-02	
A_33_P3289536	SNX10	sorting nexin 10	-1.21	3.35E-03	2.33E-02	

A_24_P147169	PLA2G4F	phospholipase A2, group IVF	1.72	3.35E-03	2.33E-02	GnRH signaling pathway, MAPK signaling pathway, Long-term depression, VEGF signaling pathway, Fc epsilon RI signaling pathway, Fc gamma R-mediated phagocytosis
A_23_P138655	CYP26A1	cytochrome P450, family 26, subfamily A, polypeptide 1	3.00	3.44E-03	2.37E-02	
A_33_P3315385	MPPED2	metallophosphoesterase domain containing 2	1.20	3.53E-03	2.41E-02	
A_23_P306987	SOX7	SRY (sex determining region Y)-box 7	1.36	3.56E-03	2.43E-02	
A_23_P139654	KLRC1	killer cell lectin-like receptor subfamily C, member 1	-1.05	3.71E-03	2.51E-02	
A_21_P0014013	LOC100652777	group 10 secretory phospholipase A2-like	1.16	3.86E-03	2.59E-02	
A_23_P348146	SLAIN1	SLAIN motif family, member 1	1.31	4.03E-03	2.67E-02	
A_33_P3267198	DLG5	Discs Large MAGUK Scaffold Protein 5	1.92	4.09E-03	2.70E-02	
A_24_P50248	FAM110C	family with sequence similarity 110, member C	1.40	4.13E-03	2.71E-02	
A_21_P0011456	PLA2G10	phospholipase A2, group X	1.15	4.15E-03	2.72E-02	
A_23_P107465	KRT31	keratin 31	1.25	4.16E-03	2.73E-02	
A_33_P3423420	ZNF750	zinc finger protein 750	1.55	4.19E-03	2.74E-02	
A_24_P330263	EDNRB	endothelin receptor type B	-1.17	4.20E-03	2.75E-02	Pathways in cancer
A_23_P254733	MLF1IP	MLF1 interacting protein	-1.01	4.33E-03	2.81E-02	
A_23_P259692	PSAT1	phosphoserine aminotransferase 1	1.07	4.34E-03	2.82E-02	
A_33_P3418125	GLIPR1	GLI pathogenesis-related 1	-1.03	4.35E-03	2.83E-02	
A_33_P3272209	MFSD6	major facilitator superfamily domain	1.08	4.40E-03	2.84E-02	

		containing 6				
A_23_P23303	EXO1	exonuclease 1	-1.05	4.46E-03	2.87E-02	
A_23_P146284	SQLE	squalene epoxidase	1.01	4.47E-03	2.88E-02	
A_33_P3379606	RGS7BP	regulator of G-protein signaling 7 binding protein	1.19	4.47E-03	2.88E-02	
A_24_P330518	CA12	carbonic anhydrase XII	-1.10	4.66E-03	2.96E-02	
A_32_P208350	TDRD9	tudor domain containing 9	1.02	4.74E-03	3.00E-02	
A_23_P18447	PPARGC1A	peroxisome proliferator-activated receptor gamma, coactivator 1 alpha	-1.19	4.76E-03	3.01E-02	Adipocytokine signaling pathway, Insulin signaling pathway
A_23_P3379	RASGRF1	Ras protein-specific guanine nucleotide-releasing factor 1	-1.02	4.83E-03	3.04E-02	MAPK signaling pathway, Focal adhesion
A_23_P157865	TNC	tenascin C	-1.05	4.84E-03	3.05E-02	Focal adhesion
A_24_P37409	DUSP2	dual specificity phosphatase 2	1.08	4.90E-03	3.08E-02	MAPK signaling pathway
A_23_P501007	EFEMP1	EGF containing fibulin-like extracellular matrix protein 1	-1.12	5.02E-03	3.13E-02	
A_23_P120953	SERHL2	serine hydrolase-like 2	1.12	5.02E-03	3.13E-02	
A_33_P3256334	PRB3	proline-rich protein BstNI subfamily 3	1.08	5.04E-03	3.14E-02	
A_23_P77103	SORD	sorbitol dehydrogenase	1.17	5.11E-03	3.17E-02	
A_24_P168925	CHRDL1	chordin-like 1	-1.07	5.14E-03	3.18E-02	
A_33_P3237000	GLYATL3	glycine-N-acyltransferase-like 3	1.86	5.25E-03	3.23E-02	
A_23_P125278	CXCL11	chemokine (C-X-C motif) ligand 11	-1.14	5.27E-03	3.24E-02	Chemokine signaling pathway
A_19_P00321466	LOC100294145	uncharacterized LOC100294145	1.11	5.30E-03	3.25E-02	
A_24_P398147	NEBL	nebulette	1.02	5.51E-03	3.35E-02	

A_33_P3246833	IL1RN	interleukin 1 receptor antagonist	1.34	5.51E-03	3.35E-02	
A_32_P140139	F13A1	coagulation factor XIII, A1 polypeptide	-1.10	5.55E-03	3.36E-02	Complement and coagulation cascades
A_33_P3525263	A2ML1	alpha-2-macroglobulin-like 1	1.02	5.58E-03	3.38E-02	
A_23_P152791	SLC16A6	solute carrier family 16, member 6 (monocarboxylic acid transporter 7)	1.47	5.65E-03	3.41E-02	
A_33_P3555937	STEAP4	STEAP family member 4	1.77	5.84E-03	3.50E-02	
A_21_P0014709	LOC100509100	uncharacterized LOC100509100	-1.14	5.86E-03	3.51E-02	
A_19_P00321391	LOC100422737	uncharacterized LOC100422737	-1.15	5.91E-03	3.53E-02	
A_33_P3398156	CYS1	cystin 1	-1.68	5.95E-03	3.54E-02	
A_33_P3247057	C17orf109	chromosome 17 open reading frame 109	1.30	5.99E-03	3.56E-02	
A_32_P227605	RGS9BP	regulator of G protein signaling 9 binding protein	1.05	6.00E-03	3.57E-02	
A_33_P3359084	TAS1R3	taste receptor, type 1, member 3	1.11	6.02E-03	3.57E-02	
A_32_P119033	PLCXD3	phosphatidylinositol-specific phospholipase C, X domain containing 3	1.28	6.38E-03	3.74E-02	
A_33_P3511265	POSTN	periostin, osteoblast specific factor	-1.13	6.46E-03	3.77E-02	
A_21_P0007062	LOC100507008	uncharacterized LOC100507008	2.16	6.59E-03	3.83E-02	
A_23_P157593	CHRNA6	cholinergic receptor, nicotinic, alpha 6	1.00	6.61E-03	3.83E-02	
A_23_P131330	LRRTM1	leucine rich repeat transmembrane neuronal 1	1.09	6.72E-03	3.88E-02	
A_23_P115161	DARC	Duffy blood group, chemokine receptor	-1.20	6.88E-03	3.94E-02	
A_21_P0007446	XLOC_009249		-1.09	6.92E-03	3.96E-02	

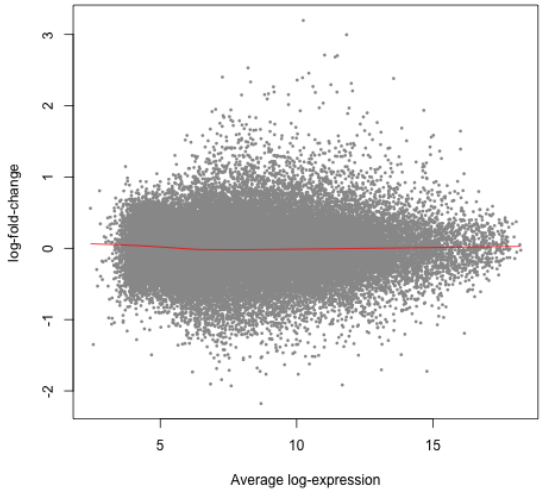
A_21_P0012685	XLOC_l2_011291		-1.06	6.96E-03	3.97E-02	
A_23_P417918	PENK	proenkephalin	-1.84	7.06E-03	4.02E-02	
A_24_P222872	UGT1A6	UDP glucuronosyltransferase 1 family, polypeptide A6	-1.36	7.10E-03	4.03E-02	
A_24_P102293	SLITRK5	SLIT and NTRK-like family, member 5	1.01	7.19E-03	4.07E-02	
A_23_P166297	ABCG1	ATP-binding cassette, sub-family G (WHITE), member 1	1.13	7.25E-03	4.09E-02	
A_33_P3389842	PROM1	prominin 1	-1.08	7.51E-03	4.20E-02	
A_33_P3299066	NR4A2	nuclear receptor subfamily 4, group A, member 2	1.27	7.52E-03	4.20E-02	
A_21_P0005622	XLOC_007085		1.11	7.53E-03	4.20E-02	
A_23_P250800	ST3GAL6	ST3 beta-galactoside alpha-2,3-sialyltransferase 6	1.15	7.54E-03	4.21E-02	
A_24_P225616	RRM2	ribonucleotide reductase M2	-1.14	7.62E-03	4.24E-02	
A_33_P3304372	TMEM144	transmembrane protein 144	1.20	7.63E-03	4.24E-02	
A_23_P319232	KIAA1045	KIAA1045	1.30	7.85E-03	4.32E-02	
A_23_P137573	LEFTY2	left-right determination factor 2	-1.04	7.98E-03	4.38E-02	TGF-beta signaling pathway
A_21_P0000875	LOC100505967	uncharacterized LOC100505967	1.17	8.10E-03	4.43E-02	
A_33_P3343432	THEM4	thioesterase superfamily member 4	1.09	8.12E-03	4.44E-02	
A_23_P86751	ADARB2	adenosine deaminase, RNA-specific, B2	1.42	8.13E-03	4.44E-02	
A_23_P250164	HGD	homogentisate 1,2-dioxygenase	1.21	8.29E-03	4.50E-02	
A_23_P22647	FAM155B	family with sequence similarity 155, member B	1.47	8.31E-03	4.51E-02	
A_21_P0011496	CES1	carboxylesterase 1	-1.0	8.61E-03	4.63E-02	

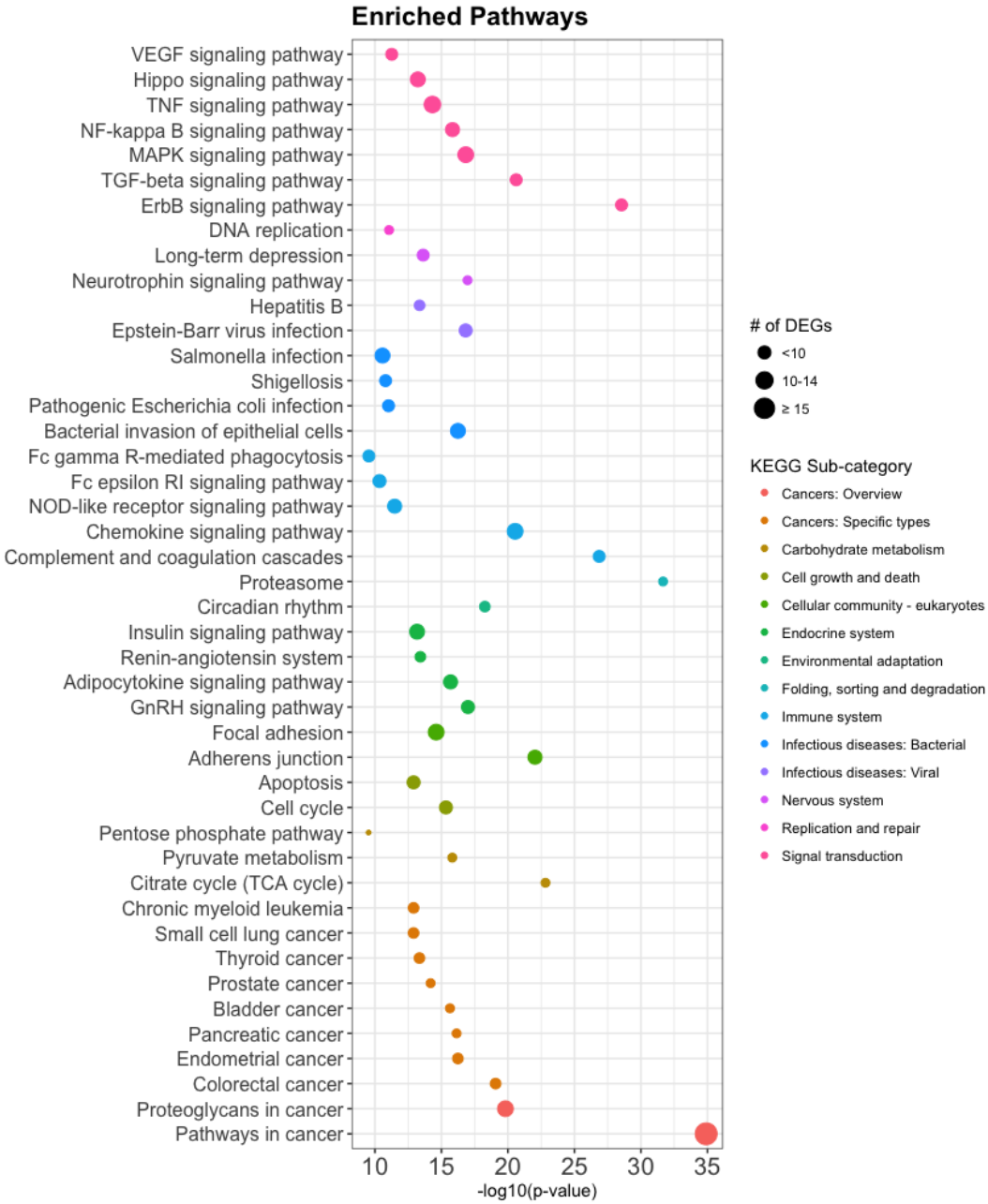
			5		
A_23_P51376	NKAIN1	Na+/K+ transporting ATPase interacting 1	-1.11	8.77E-03	4.69E-02
A_23_P130815	KIR2DS2	killer cell immunoglobulin-like receptor, two domains, short cytoplasmic tail, 2	-1.06	9.00E-03	4.78E-02
A_33_P3780505	MT1DP	metallothionein 1D, pseudogene	1.01	9.64E-03	5.00E-02

Supplemental Table 2. The list of pathways also identified in other studies with the involved DEGs.

Involved DEGs	Associated Pathway	Change Direction	Reference(s) identifying the same pathway
TCF7L1	Adherens junction	Up	Koler et al. (50); Revel et al. (51)
WASF1		Up	
BAIAP2		Up	
ACTB		Up	
SORBS1		Down	
ANAPC1	Cell cycle	Up	Koler et al. (50); Revel et al. (51)
CDC14B		Up	
CDC14A		Up	
CDC25B		Down	
CBLC	Pathways in cancer	Up	Revel et al. (51)
AXIN2		Up	
NCOA4		Up	
RALBP1		Up	
TCF7L1		Up	
MECOM		Up	
JUP		Up	
PTGS2		Up	
BIRC3		Up	
DAPK2		Up	
LPAR3		Up	
ROCK2		Up	
PLCB1		Up	
BDKRB1		Down	
EDNRB		Down	
GNG4		Down	
CXCL12		Down	
SERPINA5	Complement and coagulation cascades	Up	Koler et al. (50)
F13A1		Down	
BDKRB1		Down	
PRKAG2	Circadian rhythm	Up	Koler et al. (50)
PRKAG1		Down	

Supplemental Figure 1. MA plot of differential expression analysis, RIF vs. Control





Supplemental Figure 2. 44 KEGG pathways found to be enriched via PANOGA, colored and grouped by KEGG sub-categories. Vertical axis denotes the individual enriched pathways. Horizontal axis represents the $-\log_{10}$-transformed p-value of the enriched pathways; increased values indicate higher significance. Size indicates number of DEGs identified in the corresponding pathway.