

Supplemental Data 4

EX_p value = Exon 1.0 ST ANOVA p-value

EX_f.c = Exon 1.0 ST fold change

RNA-Seq_p value = RNA-Seq Fisher's Exact Test_raw p-value

RNA-Seq_f.c = RNA-Seq fold change

EX/RNA-Seq_c = Exon/RNASeq_concordance

NA = not differentially expressed in RNA-Seq

Gene	EX_p value	EX_f.c	RNA-Seq_p-value	RNA-Seq_f.c	EX/RNASeq_c
CD209	0.00027	1.99801	0	20.93750	yes
CYFIP2	0.00060	-1.97032	NA	NA	no
SCAMP5	0.00062	1.91745	0	8.46875	yes
SV2B	0.00068	1.78113	3.30E-14	2.61194	yes
ZNF620	0.00074	-1.25142	NA	NA	no
CSF1R	0.00077	2.93596	0	3.90023	yes
ABCC4	0.00180	2.32322	0	5.25641	yes
DNM1	0.00201	1.52764	NA	NA	no
PDGFD	0.00212	1.75249	NA	NA	no
ZNF329	0.00223	-1.36559	NA	NA	no
ZNF35	0.00232	-1.71484	NA	NA	no
LOC100132356	0.00263	-2.01058	NA	NA	no
TBX21	0.00285	1.60352	0	7.09539	yes
TPCN1	0.00308	1.97161	NA	NA	no
CMBL	0.00321	1.64284	0	7.30189	yes
TTC30A	0.00403	-1.50728	NA	NA	no
CORO1B	0.00418	1.48047	0	3.23554	yes
GIPC3	0.00418	1.53341	0	9.63636	yes
LOC100292473	0.00427	-1.34019	NA	NA	no
GIPC1	0.00431	1.62845	0	6.32868	yes
MDFI	0.00449	1.55233	0	43.11304	yes
C18orf21	0.00454	-1.49649	NA	NA	no
LRRC17	0.00473	1.51527	0	63.33333	yes
RUNX3	0.00480	-1.75923	NA	NA	no
THEM4	0.00494	-1.45651	NA	NA	no
PRAME	0.00537	1.92776	0	23.54545	yes
GPX4	0.00549	1.42733	0	2.43715	yes
STXBP1	0.00554	1.70867	0	21.94118	yes
LY6G6C	0.00641	-1.45053	NA	NA	no
KCNE3	0.00675	1.76849	NA	NA	no
TRIM69	0.00681	-1.22812	NA	NA	no
HIP1R	0.00690	-1.6555	0	-10.39109	yes
CTSB	0.00695	2.03314	0	2.54072	yes
GTF2A1	0.00719	1.49205	2.93E-10	4.48193	yes
P2RX5	0.00754	-2.7498	0	-7.52439	yes
RLN2	0.00759	-1.36554	NA	NA	no
SNIP1	0.00783	-1.26403	0	-5.61278	yes
PDIA4	0.00787	1.35418	0	7.39386	yes
CTRL	0.00800	-1.52121	0	-10.53846	yes
OLFML2A	0.00807	1.99741	0	7.22774	yes

CYB5A	0.00823	1.88602	0	12.80769	yes
SEMA4D	0.00831	-1.50798	NA	NA	no
PRDM2	0.00831	-1.50353	0	-8.66268	yes
FCRL3	0.00835	-1.50586	NA	NA	no
TMEM185A	0.00869	-1.67334	NA	NA	no
NHEDC1	0.00883	-1.44697	NA	NA	no
BTG3	0.00884	-2.32682	0	-12.28395	yes
NIPAL2	0.00888	1.81947	NA	NA	no
NUDT13	0.00901	-1.366	NA	NA	no
EPHB3	0.00903	1.47241	0	5.17857	yes
GZMK	0.00941	-2.77611	NA	NA	no
ZBTB49	0.01004	-1.26387	NA	NA	no
FAM50B	0.01006	1.40095	0	5.27857	yes
GPRC5D	0.01016	-1.43809	NA	NA	no
TRIM39	0.01018	-1.37255	NA	NA	no
PCDHGC5	0.01031	1.50809	0	5.41176	yes
C20orf12	0.01041	-1.1947	NA	NA	no
PRPSAP2	0.01042	1.4289	1.00E-15	3.65327	yes
APAF1	0.01099	1.90988	0	2.98726	yes
ZUFSP	0.01107	-1.18119	NA	NA	no
HAAO	0.01110	1.37113	NA	NA	no
FPGT	0.01122	1.4544	NA	NA	no
MCART1	0.01124	1.64506	1.61E-11	9.04651	yes
IQCG	0.01125	-1.21268	0	7.18033	no
MMP17	0.01148	1.62203	0	8.47363	yes
RBPMS	0.01175	1.63966	0	6.35294	yes
RPL27A	0.01183	-1.39897	NA	NA	no
PTGER4	0.01205	-2.39551	6.68E-12	-6.96000	yes
ATP2A3	0.01216	-1.59325	NA	NA	no
PYCR2	0.01229	1.44135	0	5.06586	yes
KCNA3	0.01282	-2.47069	NA	NA	no
TBCC	0.01284	-1.36359	NA	NA	no
CASP1	0.01284	2.02596	0	2.92134	yes
SERPINH1	0.01290	1.45792	0	21.56696	yes
SORBS1	0.01296	1.56283	NA	NA	no
ZNF132	0.01297	-1.33538	NA	NA	no
RNASE1	0.01299	1.92419	0	35.60000	yes
EFNA4	0.01302	1.36165	NA	NA	no
C16orf54	0.01307	-1.399	NA	NA	no
MRPL33	0.01322	1.56749	NA	NA	no
COL6A3	0.01344	2.27229	0	6.16373	yes
E2F5	0.01350	-1.51909	NA	NA	no
PHEX	0.01356	1.5777	0	12.35000	yes
HIST1H2BN	0.01380	-1.41627	NA	NA	no
SPARC	0.01390	2.06281	0	2.87043	yes
KDM6B	0.01413	-1.73175	NA	NA	no
MFI2	0.01436	1.41724	0	4.33333	yes
NUAK2	0.01436	-1.50617	0	-21.85714	yes
OR2AT4	0.01438	-1.35369	NA	NA	no
UNC93B1	0.01443	1.43354	0	3.81319	yes

FMNL1	0.01488	-1.47103	NA	NA	no
BTBD8	0.01492	1.2099	NA	NA	no
ATP5B	0.01544	1.31805	0	2.56890	yes
MACC1	0.01547	-1.47298	NA	NA	no
METTL7B	0.01548	1.43538	NA	NA	no
HPSE	0.01578	1.37033	NA	NA	no
PLVAP	0.01583	2.93746	0	21.55171	yes
HIST1H2AG	0.01595	-1.59819	NA	NA	no
TSPYL5	0.01596	-1.86454	NA	NA	no
CPVL	0.01613	2.04302	0	3.56463	yes
PSMB5	0.01637	1.42119	0	3.50370	yes
ZNF471	0.01638	-1.36111	NA	NA	no
C7orf13	0.01650	-1.58708	NA	NA	no
ARL4C	0.01668	-1.72944	4.41E-09	-2.93750	yes
MRPL17	0.01677	1.30938	0	11.78906	yes
DAB2	0.01680	1.96009	0	4.20833	yes
IRF8	0.01689	2.54514	0	2.84675	yes
HIST1H4L	0.01697	-1.72412	NA	NA	no
CRYL1	0.01717	1.47245	0	3.44764	yes
MRPL43	0.01722	1.27964	0	2.69022	yes
CCR7	0.01744	-1.88207	1.00E-15	-3.40206	yes
METTL7A	0.01793	1.64702	0	4.04307	yes
KIAA0182	0.01837	-1.41285	0	-4.48756	yes
KRTAP6-3	0.01838	-1.66011	NA	NA	no
RWDD1	0.01845	-1.30584	NA	NA	no
C18orf45	0.01851	1.4446	4.10E-14	4.70000	yes
CMTM2	0.01898	1.94524	0	25.03797	yes
SEL1L3	0.01919	3.13407	NA	NA	no
C15orf17	0.01920	1.2806	0	4.75684	yes
XKR6	0.01922	-1.62209	NA	NA	no
ZNF461	0.01932	-1.4666	NA	NA	no
APLP2	0.01952	2.03788	0	4.22469	yes
NEGR1	0.01963	3.10934	0	5.47912	yes
GATC	0.01993	1.19299	NA	NA	no
PEA15	0.01994	1.26603	0	5.14252	yes
SLC39A14	0.02009	1.57522	0	29.03846	yes
ATXN7L1	0.02014	-1.23217	NA	NA	no
PRPS2	0.02025	-1.57571	2.09E-12	3.96739	no
RNASE6	0.02027	2.1943	0	24.77099	yes
SPATA2	0.02029	-1.36382	3.09E-12	-2.06993	yes
OBSL1	0.02044	2.11477	NA	NA	no
DNHD1	0.02046	-1.29499	1.81E-09	-2.72650	yes
GAPT	0.02047	-2.05803	NA	NA	no
SCN1B	0.02069	1.57417	0	17.24333	yes
ITIH4	0.02070	-1.24921	0	-4.62385	yes
TRIM2	0.02095	1.47342	1.17E-13	3.61224	yes
MAGI3	0.02097	1.55612	2.47E-10	2.54348	yes
EIF4E3	0.02109	-1.72125	NA	NA	no
ZNF498	0.02115	-1.15885	NA	NA	no
LDB3	0.02126	1.69801	0	2.91899	yes

NDRG2	0.02127	1.79529	0	4.49735	yes
HIST1H2BO	0.02131	-1.44011	NA	NA	no
FBXO8	0.02136	-1.36281	5.07E-09	-2.36406	yes
PPP1R13B	0.02145	1.58959	0	7.96341	yes
ZNF467	0.02148	1.33543	NA	NA	no
YES1	0.02154	-1.48884	0	-12.04444	yes
CHRNA1	0.02155	-1.34757	NA	NA	no
DEAF1	0.02174	1.37671	0	3.28253	yes
TMEM92	0.02175	1.45045	0	8.43636	yes
PLEKHF1	0.02180	-1.41046	NA	NA	no
FUCA1	0.02185	1.99936	0	6.25916	yes
PCDH12	0.02200	1.74773	0	51.60000	yes
CRTAM	0.02225	-1.30832	NA	NA	no
DYNLL1	0.02236	2.19352	0	30.13947	yes
HINFP	0.02246	1.339	NA	NA	no
PTGR1	0.02269	2.17122	NA	NA	no
TAF11	0.02288	-1.35169	0	-2.77825	yes
KANK1	0.02295	1.49615	NA	NA	no
RTN2	0.02299	1.29558	2.00E-14	6.23684	yes
VANGL1	0.02310	1.60011	0	21.16667	yes
F2RL2	0.02365	1.54455	NA	NA	no
BLCAP	0.02378	1.20506	NA	NA	no
NSF	0.02392	1.40169	NA	NA	no
RLN3	0.02426	-1.56976	NA	NA	no
FZD2	0.02463	1.35606	0	30.60000	yes
RANBP3L	0.02486	2.34974	NA	NA	no
GSTA1	0.02510	-1.3538	NA	NA	no
ZSCAN16	0.02515	-1.30581	NA	NA	no
KLHL11	0.02534	-1.45826	NA	NA	no
DNAJB6	0.02535	1.63052	NA	NA	no
ZNF14	0.02552	-1.52445	1.90E-09	-4.67442	yes
RAB34	0.02592	1.31415	NA	NA	no
ZNF764	0.02594	-1.20836	NA	NA	no
SPINT2	0.02599	1.31396	0	2.14572	yes
FSHB	0.02621	-1.3529	NA	NA	no
CHN2	0.02650	1.87821	NA	NA	no
MLANA	0.02653	-1.29032	NA	NA	no
COPZ1	0.02662	1.54038	0	3.52859	yes
SERPING1	0.02683	1.56953	0	5.33210	yes
SH3GL1P1	0.02687	-1.53394	NA	NA	no
PEG10	0.02709	-3.24219	0	-11.87000	yes
NAGA	0.02715	1.57401	0	6.06070	yes
ATP5L2	0.02741	-1.33198	NA	NA	no
CDRT4	0.02770	-1.31985	NA	NA	no
LOC90925	0.02770	-1.76347	NA	NA	no
EHHADH	0.02778	1.27218	NA	NA	no
PSG4	0.02782	-1.30478	NA	NA	no
HIST1H2AJ	0.02789	-1.98944	NA	NA	no
GAS6	0.02815	1.44724	0	3.71092	yes
KCND1	0.02819	-1.26546	NA	NA	no

RDH11	0.02826	1.30784	0	6.60177	yes
ATP6V0E1	0.02827	1.50151	0	5.14773	yes
UNC45A	0.02835	1.24123	0	5.88148	yes
CPS1	0.02840	1.37181	NA	NA	no
PLEKHB1	0.02854	-1.2689	NA	NA	no
ACTN4	0.02863	1.39318	0	3.43169	yes
IL12RB2	0.02868	-1.36307	NA	NA	no
CASZ1	0.02876	-1.28267	0	-4.00714	yes
ZNF540	0.02936	-1.20407	NA	NA	no
SLC2A9	0.02937	1.77542	0	9.51744	yes
PRKCQ	0.02938	-1.62076	NA	NA	no
DENND1C	0.02950	-1.43972	NA	NA	no
CLPX	0.02951	1.37681	NA	NA	no
VAMP5	0.02974	1.5498	0	2.52382	yes
RELL1	0.02976	-1.52843	NA	NA	no
AKT3	0.03011	-2.16213	NA	NA	no
MARCH9	0.03012	-1.28761	NA	NA	no
LSM11	0.03016	-1.25678	NA	NA	no
MUSTN1	0.03029	-1.28679	0	-2.79294	yes
RARG	0.03033	1.28053	0	3.09778	yes
C13orf1	0.03061	1.37209	0	12.53846	yes
PELI2	0.03064	-1.58427	0	-2.59000	yes
PHF1	0.03078	-1.48787	NA	NA	no
PERP	0.03080	-1.28847	NA	NA	no
ARF3	0.03102	1.27154	0	4.31836	yes
ZNF18	0.03115	-1.27385	NA	NA	no
SEPT1	0.03133	-1.87014	NA	NA	no
LDOC1L	0.03148	-1.3726	NA	NA	no
TNFAIP8L2	0.03159	1.52598	0	8.71233	yes
RNF14	0.03160	1.77706	0	3.40110	yes
HAS2	0.03172	-1.30288	NA	NA	no
KCTD5	0.03184	1.30239	0	4.44490	yes
MAML1	0.03235	-1.11605	NA	NA	no
STYX	0.03250	1.40679	NA	NA	no
PLD4	0.03251	1.54882	0	7.89655	yes
OR2A14	0.03254	-1.48016	NA	NA	no
HIC2	0.03282	-1.33053	0	-2.19742	yes
NOL12	0.03290	1.18135	0	2.72464	yes
TSC22D2	0.03294	-1.3229	NA	NA	no
PRR14	0.03313	-1.23789	NA	NA	no
ZNF530	0.03325	-1.27969	NA	NA	no
HIST4H4	0.03325	-1.49256	NA	NA	no
WFDC10A	0.03338	-1.40393	NA	NA	no
KCTD6	0.03353	-1.32043	NA	NA	no
C17orf68	0.03354	-1.47097	NA	NA	no
ORMDL3	0.03357	1.3045	NA	NA	no
ZNF800	0.03377	-1.40935	0	-5.47059	yes
LOC646470	0.03397	-1.34828	7.00E-15	-20.79412	yes
MRPL2	0.03410	1.2214	0	2.23273	yes
PRM1	0.03420	-1.29114	NA	NA	no

C12orf52	0.03426	1.24268	0	9.11640	yes
SCML4	0.03434	-1.37642	NA	NA	no
LAMP3	0.03435	-1.24906	NA	NA	no
FGF6	0.03445	1.96151	0	10.12500	yes
EHD4	0.03449	1.66593	0	11.75581	yes
MRPL53	0.03455	1.23246	NA	NA	no
CDK11A	0.03478	-1.38303	NA	NA	no
SDC2	0.03479	2.10929	NA	NA	no
USP49	0.03491	-1.1668	NA	NA	no
PHF7	0.03498	-1.17123	NA	NA	no
ZNF335	0.03518	-1.26417	NA	NA	no
ADAM28	0.03527	-1.48368	NA	NA	no
CYB561D2	0.03534	-1.21147	8.59E-11	2.84746	no
LRRC55	0.03539	-1.36276	NA	NA	no
CARNS1	0.03551	-1.30885	NA	NA	no
PRKCA	0.03589	1.85402	0	6.45015	yes
C11orf80	0.03594	-1.34595	NA	NA	no
CUL4A	0.03610	1.52916	NA	NA	no
HIST1H2AM	0.03610	-1.68338	NA	NA	no
C16orf72	0.03632	-1.30094	0	-5.78389	yes
DDB1	0.03671	1.37658	NA	NA	no
NMNAT1	0.03675	1.17981	0	12.31250	yes
ETNK1	0.03680	1.451	NA	NA	no
C16orf58	0.03691	1.20776	0	2.48320	yes
REG1B	0.03692	-1.36018	NA	NA	no
SMPDL3B	0.03694	-1.32883	NA	NA	no
PRKX	0.03707	-1.59718	0	-14.29940	yes
RASAL2	0.03708	1.80611	0	-3.34167	no
MGAT4A	0.03717	2.07943	NA	NA	no
ISCU	0.03720	1.52255	0	2.23909	yes
GMEB2	0.03721	-1.20723	0	-5.35714	yes
SLC18A1	0.03742	-1.42223	NA	NA	no
ACTR10	0.03762	1.31428	NA	NA	no
RPL10L	0.03770	1.19473	NA	NA	no
TFPT	0.03771	1.1699	0	3.43919	yes
RNASE9	0.03781	-1.38266	NA	NA	no
COLO	0.03782	1.70016	NA	NA	no
NAIF1	0.03793	-1.3231	NA	NA	no
CMTM7	0.03810	-1.54449	NA	NA	no
RCBTB2	0.03811	1.93081	NA	NA	no
ZNF295	0.03814	-1.65638	0	-21.75000	yes
OPN5	0.03822	-1.26597	NA	NA	no
GHITM	0.03853	1.48228	NA	NA	no
RAB33B	0.03859	-1.51995	NA	NA	no
C1orf52	0.03926	-1.2712	8.14E-12	-2.16960	yes
ZSCAN18	0.03978	-1.33437	NA	NA	no
HDAC4	0.04020	-1.25461	NA	NA	no
ZNF574	0.04059	-1.3616	NA	NA	no
TGFBR3	0.04071	-1.61926	NA	NA	no
ACCN3	0.04105	-1.39483	NA	NA	no

PCYOX1	0.04108	1.33315	0	5.34921	yes
WASL	0.04124	-1.26737	0	-6.23810	yes
RAB30	0.04137	-1.83421	0	-11.17568	yes
CENPT	0.04141	-1.22208	NA	NA	no
RASL11A	0.04145	-1.35531	NA	NA	no
RASIP1	0.04153	1.421	0	54.66667	yes
ACO2	0.04153	1.25582	0	2.74534	yes
SLC24A1	0.04162	1.25543	0	3.62162	yes
PREB	0.04167	1.25501	0	8.80567	yes
OR1F1	0.04178	-1.39796	NA	NA	no
CCL11	0.04218	-1.32611	NA	NA	no
C20orf27	0.04229	1.346	0	7.11902	yes
ZAK	0.04231	1.37924	NA	NA	no
MIB1	0.04233	1.45197	NA	NA	no
SPRR2A	0.04233	-1.37374	NA	NA	no
PPIC	0.04255	2.03061	NA	NA	no
COQ6	0.04256	1.18839	NA	NA	no
CNIH2	0.04273	-1.27375	NA	NA	no
NARS	0.04286	1.46005	NA	NA	no
KLHL9	0.04298	-1.52872	NA	NA	no
C2orf47	0.04302	-1.28744	NA	NA	no
CREB3L4	0.04307	1.27998	0	5.23404	yes
SLN	0.04336	-1.33504	NA	NA	no
CTNNA1	0.04354	1.59722	0	2.00927	yes
AIM2	0.04354	-1.26398	NA	NA	no
HIST1H4F	0.04387	-1.54851	NA	NA	no
BCAS3	0.04391	1.28206	0	4.32692	yes
ANKRD36B	0.04424	-2.11108	NA	NA	no
ZXDA	0.04432	-1.49333	0	-4.36170	yes
PTGS1	0.04436	1.60358	1.72E-09	2.75000	yes