

**Kojonazarov, PPAR $\beta$ / $\delta$  agonist protects the right heart – Supplemental material**

**SUPPLEMENTAL TABLES**

**Supplemental Table S1. Top bio functions in sham operated C57BL/6 mice treated with GW0742**

<b>Disease and Disorders</b>	<b>No of Molecules</b>	<b><i>p</i>-value</b>
Cancer	7	3.03x10 <sup>-3</sup> -4.96x10 <sup>-2</sup>
Gastrointestinal Disease	8	3.03x10 <sup>-3</sup> -4.96x10 <sup>-2</sup>
Dermatological Disease and conditions	5	5.71x10 <sup>-3</sup> -4.96x10 <sup>-2</sup>
Genetic Disorder	7	8.23x10 <sup>-3</sup> -3.48x10 <sup>-2</sup>
Neurological Disease	2	8.23x10 <sup>-3</sup> -8.23x10 <sup>-3</sup>
<b>Molecular and Cellular Functions</b>		<b><i>p</i>-value</b>
Cell Cycle	2	1.08x10 <sup>-3</sup> -4.54x10 <sup>-2</sup>
DNA Replication, Recombination and Repair	3	1.08x10 <sup>-3</sup> -4.54x10 <sup>-2</sup>
Gene Expression	6	3.03x10 <sup>-3</sup> -4.54x10 <sup>-2</sup>
Molecular Transport	2	4.31x10 <sup>-3</sup> -3.48x10 <sup>-2</sup>
Small Molecule Biochemistry	4	8.23x10 <sup>-3</sup> -8.23x10 <sup>-3</sup>
<b>Physiological Systems Development and Function</b>		<b><i>p</i>-value</b>
Connective Tissue and Development and Function	2	5.38x10 <sup>-3</sup> -1.82x10 <sup>-2</sup>
Hair and Skin Development and Function	2	5.38x10 <sup>-3</sup> -1.29x10 <sup>-2</sup>
Reproductive System Development and Function	1	7.53x10 <sup>-3</sup> -7.53x10 <sup>-3</sup>
Skeletal and Muscular System Development and Function	1	7.53x10 <sup>-3</sup> -7.53x10 <sup>-3</sup>
Embryonic Development	1	1.18x10 <sup>-2</sup> -1.18x10 <sup>-2</sup>

Table shows the top bio functions identified from genes differentially expressed in C57BL/6 mice that have been sham operated and treated with GW0742. Animals underwent a sham operation and after several days animals were orally dosed with vehicle or GW0742 (30 mg/kg) and after 14 days the right ventricle was excised and RNA extracted from each sample. Gene

expression was measured using the Illumina MouseRef-6v2 BeadChip array and data analysed using the syntax package *R* (version 2.3.1) with “Bioconductor” and “limma”. Genes that were significantly modified, as calculated using a moderated *t*-test followed by Benjamini-Hochberg false discovery rate correction, were imported into Ingenuity Pathway Analysis software. The range of p-values is reflective of the range of molecules that are represented in each network.

**Supplemental Table S2. Top canonical pathways in in sham operated C57BL/6 mice treated with GW0742.**

Canonical Pathways	Molecules in Network	p-value	Ratio
Cell Cycle: G1/S Checkpoint Regulation	CDK2, HDAC4	1.52x10 <sup>-3</sup>	2/59 (0.03)
Ubiquinone Biosynthesis	MAP2K3, RORA	2.54x10 <sup>-3</sup>	2/71 (0.03)
Inositol Metabolism	CDK2, HDAC4	3.06x10 <sup>-3</sup>	2/87 (0.02)
Mitochondrial Dysfunction	CDK2, MAP2K3	4.90x10 <sup>-3</sup>	2/98 (0.02)
Oxidative Phosphorylation	MAP2K3, PPAT	8.60x10 <sup>-3</sup>	2/141 (0.01)

Table shows the top canonical pathways identified from genes significantly elevated in sham operated C57BL/6 mice that have been treated with GW0742 (30 mg/kg). Animals underwent a sham operation and after several days animals were orally dosed with vehicle or GW0742 (30 mg/kg). After 14 days the right ventricle was excised and RNA extracted from each sample. Gene expression was measured using the Illumina MouseRef-6v2 BeadChip array and data analysed using the syntax package *R* (version 2.3.1) with “Bioconductor” and “limma”. Genes that were significantly modified using a moderated *t*-test followed by Benjamini-Hochberg false discovery rate correction were imported into Ingenuity Pathway Analysis software. The P-value for association of genes and the described canonical pathways, and the ratio of significantly differentially expressed pathway components compared to the total components in that pathway was generated using Fisher’s exact test.

**Supplemental Table S3. Top bio functions in pulmonary artery banded C57BL/6 mice treated with 30 mg/kg GW0742.**

<b>Disease and Disorders</b>	<b>No of Molecules</b>	<b>p-value</b>
Cardiovascular Disease	5	$1.73 \times 10^{-3}$ - $4.42 \times 10^{-2}$
Development Disorder	4	$1.73 \times 10^{-3}$ - $3.46 \times 10^{-3}$
Genetic Disorder	10	$1.73 \times 10^{-3}$ - $4.07 \times 10^{-2}$
Haematological Disease	3	$1.73 \times 10^{-3}$ - $4.73 \times 10^{-2}$
Connective Tissue Disease	2	$1.73 \times 10^{-3}$ - $2.23 \times 10^{-2}$
<b>Molecular and Cellular Functions</b>	<b>No of Molecules</b>	<b>p-value</b>
Carbohydrate Metabolism	4	$2.88 \times 10^{-5}$ - $4.73 \times 10^{-2}$
Molecular Transport	8	$2.88 \times 10^{-5}$ - $4.07 \times 10^{-2}$
Small Molecule Biochemistry	7	$2.88 \times 10^{-5}$ - $4.07 \times 10^{-2}$
Amino Acid Metabolism	2	$1.73 \times 10^{-3}$ - $1.55 \times 10^{-2}$
Cellular Assembly and Organisation	8	$1.73 \times 10^{-3}$ - $2.23 \times 10^{-2}$
<b>Physiological Systems Development and Function</b>	<b>No of Molecules</b>	<b>p-value</b>
Organismal Development	5	$2.89 \times 10^{-6}$ - $4.07 \times 10^{-2}$
Cardiovascular System Development and Function	4	$1.73 \times 10^{-3}$ - $4.85 \times 10^{-2}$
Connective Tissue Development and Function	3	$1.73 \times 10^{-3}$ - $5.18 \times 10^{-3}$
Embryonic Development	1	$1.73 \times 10^{-3}$ - $1.73 \times 10^{-3}$
Haematological System Development and Function	2	$1.73 \times 10^{-3}$ - $4.13 \times 10^{-2}$

Table shows the top bio functions identified from genes significantly expressed in pulmonary artery banded C57BL/6 mice treated with GW0742 compared with vehicle controls. Animal's pulmonary arteries were occluded and after several days animals were orally dosed with vehicle or GW0742 (30 mg/kg). After 14 days the right ventricle was excised and RNA extracted from each sample. Gene expression was measured using the Illumina MouseRef-6v2 BeadChip array

and data analysed using the syntax package *R* (version 2.3.1) with “Bioconductor” and “limma”. Genes that were significantly modified as calculated using a moderated *t*-test followed by Benjamini-Hochberg false discovery rate correction were imported into Ingenuity Pathway Analysis software. The range of p-values is reflective of the range of molecules that are represented in each network.

**Supplemental Table S4. Top canonical pathways in pulmonary artery banded C57BL/6 mice treated with 30 mg/kg GW0742.**

Canonical Pathways	Molecules in Network	p-value	Ratio
<b>Pyruvate Metabolism</b>	LDHD, MDH2 (includes EG:17448)	5.62x10 <sup>-3</sup>	2/65 (0.03)
<b>Ubiquinone Biosynthesis</b>	NDUFB10, NDUFV3	5.79x10 <sup>-3</sup>	2/66 (0.03)
<b>Inositol Metabolism</b>	ALDOA	8.62x10 <sup>-3</sup>	1/5 (0.2)
<b>Mitochondrial Dysfunction</b>	NDUFB10, NDUFV3	2.24x10 <sup>-2</sup>	2/136(0.02)
<b>Oxidative Phosphorylation</b>	NDUFB10, NDUFV3	2.33x10 <sup>-2</sup>	2/137 (0.02)

Table shows the top canonical pathways from genes significantly elevated in C57BL/6 mice that have been pulmonary artery banded and treated with GW0742 (30 mg/kg). Animal's pulmonary arteries were occluded and after several days animals were orally dosed with vehicle or GW0742 (30 mg/kg). After 14 days the right ventricle was excised and RNA extracted from each sample. Gene expression was measured using the Illumina MouseRef-6v2 BeadChip array and data analysed using the syntax package *R* (version 2.3.1) with "Bioconductor" and "limma". Genes that were significantly modified using a moderated *t*-test followed by Benjamini-Hochberg false discovery rate correction, were imported into Ingenuity Pathway Analysis software. The P-value for association of genes and the described canonical pathways, and the ratio of significantly differentially expressed pathway components compared to the total components in that pathway was generated using Fisher's exact test.

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**SUPPLEMENTAL TABLES**

**Supplemental table S5. Transcripts altered  $\geq 1.5$  fold in sham-operated C57BL/6 mice treated with GW0742.**

<b>Symbol</b>	<b>Probe ID</b>	<b>Accession No</b>	<b>FC</b>	<b>p value</b>
Nppb	ILMN_2726837	NM_010118.1	4191.85	2.75E-08
Acta1	ILMN_2738825	NM_133753.1	1984.64	6.63E-09
Ptgds	ILMN_1248316	NM_020581.1	161.86	3.46E-08
Myh7	ILMN_2945491	NM_007913.5	139.96	1.94E-02
Ankrd23	ILMN_2741117	NM_001037493.1	117.16	3.90E-08
S100a8	ILMN_2710905	NM_010234.2	90.76	2.42E-02
Egr2	ILMN_2623983	NM_008416.1	82.44	5.07E-06
Ankrd1	ILMN_2625451	NM_010516.1	81.45	2.43E-06
Tnfrsf12a	ILMN_2424299	NM_010516.1	66.45	1.25E-06
Bdh1	ILMN_1231553	NM_008036.2	46.15	3.58E-07
Meox1	ILMN_1213886	NM_030612.2	37.88	1.96E-06
Spon2	ILMN_1229547	NM_007715.5	30.91	1.71E-02
Gdf15	ILMN_2735350	NM_001037493.1	25.70	8.79E-05
Ankrd1	ILMN_2950286	NM_011756.4	22.38	2.75E-08
Timp1	ILMN_3103896	NM_144903.2	21.74	6.77E-05
Timp1	ILMN_2769918	NM_172520.2	18.10	3.80E-04
Mfap5	ILMN_1225835	NM_001039522.1	18.01	8.51E-03
Rcan1	ILMN_1259180	NM_010321.1	17.48	3.57E-03
Dscr1	ILMN_2701991	NM_001033437.1	15.91	3.69E-05
Mmp14	ILMN_1240726	NM_007393.3	14.20	4.78E-06
Errfi1	ILMN_2714031	NM_145999.2	13.38	8.35E-04

Fbn1	ILMN_1223552	NM_001042541.1	13.32	3.75E-04
Fcgr4	ILMN_2631161	NM_001081244.1	12.64	5.27E-03
Gck	ILMN_2698004	NM_013807.1	12.19	1.44E-04
Itgb11	ILMN_2636424	NM_001013365.1	11.89	2.74E-03
Mybpc2	ILMN_2676012	NM_008800.1	11.72	4.18E-06
Sex	ILMN_1226016	NM_172904.2	11.54	4.77E-05
Ppp1r3c	ILMN_2667091	NM_144896.4	11.47	3.91E-06
Ptn	ILMN_2638114	NM_021880.2	11.21	9.52E-03
Abra	ILMN_2732401	NM_008743.1	11.13	5.27E-06
Egr1	ILMN_2662926	NM_025579.1	10.42	1.65E-05
Col1a1	ILMN_2687872	NM_153405.2	10.34	3.53E-02
LOC100045780	ILMN_2772155	NM_178577.3	10.29	5.08E-04
Emp1	ILMN_2642913	NM_011337.2	10.20	9.52E-05
Tubb2b	ILMN_2588051	NM_011671.3	10.01	6.35E-06
Ehbp111	ILMN_1227131	NM_008838.1	9.51	6.35E-06
Lgals3	ILMN_1223317	NM_183316.2	9.30	7.14E-04
Pfkip	ILMN_1237695	NM_173735.2	9.28	2.27E-04
Sphk1	ILMN_1232884	NM_011818.2	8.83	2.70E-03
Lox	ILMN_2997494	NM_172606.2	8.57	6.88E-03
Col4a2	ILMN_2822579	NM_008928.3	8.26	1.72E-03
Tubb2b	ILMN_1377919	NM_007584.2	8.24	2.19E-05
Fxyd6	ILMN_2609998	NM_024473.3	8.19	5.41E-04
Fxyd5	ILMN_2967266	NM_027249.2	8.15	1.55E-05
Nrap	ILMN_3138732	NM_183417.2	8.06	6.35E-06
Adprhl1	ILMN_1247158	NM_178656.2	8.04	2.97E-07
Col4a1	ILMN_2621643	NM_152808.2	7.87	9.65E-04
Adprhl1	ILMN_2786973	XM_001002886.2	7.84	3.16E-07
Uck2	ILMN_2880536	NM_013646.1	7.76	4.99E-04



Lman11	ILMN_3127595	NM_001005423.1	7.68	8.14E-05
Upp1	ILMN_2959291	NM_207225.1	7.63	9.68E-06
Col6a1	ILMN_2768087	NM_026384.3	7.55	1.59E-02
Cyr61	ILMN_2794645	NM_175930.4	7.41	8.42E-04
Adprh1	ILMN_1257998	NM_027722.2	7.28	6.22E-04
Unc5b	ILMN_2523316	NM_172874.2	7.08	2.01E-06
Pi16	ILMN_2669062	NM_001042671.1	7.07	1.66E-03
Hspa11	ILMN_2654682	NR_002858.1	6.96	9.52E-05
Nedd9	ILMN_2654186	NM_001042672.1	6.79	3.23E-05
Svep1	ILMN_2691951	NM_001039710.1	6.77	5.28E-03
LOC641240	ILMN_2607675	NM_144544.1	6.76	4.25E-03
Nfkbiz	ILMN_2755008		6.75	3.92E-04
Wisp2	ILMN_2486906		6.74	2.20E-02
Cdkn1a	ILMN_2846776	ACCESSION	6.73	2.54E-02
1110032E23Rik	ILMN_1235811	NM_008726.3	6.67	6.89E-03
H2-Ab1	ILMN_1226525	NM_009606.2	6.65	7.40E-03
2810405K02Rik	ILMN_1238542	NM_008963.1	6.58	1.17E-04
2310039E09Rik	ILMN_2897214	NM_080728.2	6.53	1.45E-06
Bhlhb2	ILMN_1249378	NM_153502.3	6.53	3.83E-03
Ctgf	ILMN_2909150	NM_013650.2	6.53	7.90E-03
H2-Eb1	ILMN_1239102	NM_010118.1	6.49	4.50E-03
Eln	ILMN_2697304	NM_013468.3	6.45	1.07E-02
Cyr61	ILMN_2710253	NM_013749.1	6.35	8.29E-04
Mmp2	ILMN_2678218	NM_175177.3	6.29	1.42E-02
Nedd9	ILMN_1223678	NM_010791.3	6.28	2.06E-04
Twf2	ILMN_1234388	NM_133903.2	6.26	7.28E-05
Synpo2l	ILMN_1214563	NM_011819.1	6.18	2.72E-03
LOC100048556	ILMN_2771766	NM_013468.2	6.14	1.60E-03

Rbp7	ILMN_2733708	NM_011593.2	6.13	5.68E-04
Hn1	ILMN_2758452	NM_011593	6.11	5.75E-05
Nav1	ILMN_2647873	NM_015776.2	6.09	2.30E-05
Serpinf1	ILMN_2639239	NM_019466.3	6.07	6.99E-03
Lox11	ILMN_1255871	NM_019466.2	6.01	3.33E-04
Rrp12	ILMN_2728118	NM_008608.2	5.96	8.37E-07
Esm1	ILMN_1257574	NM_133753.1	5.91	3.51E-04
Fos	ILMN_2750515	NM_007993	5.86	5.90E-03
2410004L22Rik	ILMN_2749747	NM_144559.1	5.58	3.73E-05
H2-Ab1	ILMN_2913716	NM_010292.4	5.48	6.31E-03
Nupr1	ILMN_2742042	NM_145467.1	5.48	7.28E-03
Uck2	ILMN_1242013	NM_178067.3	5.46	6.96E-04
Junb	ILMN_1220034	NM_198885.2	5.44	1.28E-03
Fstl4	ILMN_2655058	NM_016854.2	5.43	1.29E-05
Vat1	ILMN_2440530	NM_008973.2	5.43	1.31E-03
Fxyd5	ILMN_1235493	NM_175456.4	5.30	3.33E-04
LOC100041504	ILMN_2602139	NM_007913.5	5.29	1.56E-02
Actb	ILMN_2698799	NM_007742.2	5.26	2.93E-05
Nav1	ILMN_2883016	XM_001475019.1	5.19	3.78E-05
H2-Ab1	ILMN_2631423	NM_010128.4	5.04	1.07E-02
Spsb4	ILMN_1243507	NM_023716.1	4.97	1.10E-03
Cldn5	ILMN_1241293	NM_053252.2	4.96	7.11E-03
E430002G05Rik	ILMN_2870864	NM_010705.2	4.87	3.22E-02
Mybpc3	ILMN_2689136	NM_019703.3	4.85	1.18E-05
Tnc	ILMN_2463181	NM_011451.2	4.84	3.44E-03
Srpx2	ILMN_2698728	NM_010728.1	4.83	1.92E-03
Cd93	ILMN_1226829	NM_009932.2	4.83	5.45E-03
Ctsk	ILMN_2711163	NM_023716.2	4.81	1.12E-02

Nrap	ILMN_1235070	NM_022004.6	4.76	7.04E-06
Rnf144a	ILMN_2678127	NM_008761.2	4.70	6.61E-05
Ets1	ILMN_3157483	NM_008733.3	4.69	2.58E-05
Elk3	ILMN_3119014	NM_172750.3	4.68	1.29E-05
Ccnd2	ILMN_2700166	NM_009931.1	4.68	3.06E-04
Tuba6	ILMN_2476139	NM_172750.1	4.64	1.68E-04
Stk40	ILMN_2793844	NM_030724.1	4.62	1.40E-04
Rab11fip5	ILMN_1216781	NM_199222.1	4.62	6.35E-06
Pdlim7	ILMN_2430813	NM_009477.1	4.61	6.97E-04
Cox19	ILMN_1221936	NM_009933.2	4.61	8.37E-07
C230093N12Rik	ILMN_1225348	NM_010516.1	4.55	1.08E-03
2010111I01Rik	ILMN_2838372	NM_172750.3	4.52	2.53E-03
Anxa5	ILMN_2680142	NM_029770.2	4.46	7.72E-06
Col16a1	ILMN_1248099	NM_023734.3	4.45	1.40E-02
AA407659	ILMN_2876010	NM_013558.1	4.44	1.04E-03
Enpp1	ILMN_2782964	NM_017464.2	4.41	7.91E-03
Litaf	ILMN_2665490	NM_022814.2	4.39	1.29E-03
Ddah1	ILMN_1256676	XM_918601.3	4.30	5.39E-03
Ch25h	ILMN_2702303	NM_030612.2	4.29	1.17E-03
Adamtsl2	ILMN_2650115	NM_016873.1	4.28	3.13E-02
Cd74	ILMN_3089584	NM_007669.2	4.26	2.02E-02
Tspan17	ILMN_2817714	NM_133187.2	4.26	2.79E-05
D630042P16Rik	ILMN_2894604	NM_207105.2	4.26	2.96E-05
B2m	ILMN_1216746	NM_025582.3	4.23	1.57E-02
Arntl	ILMN_2707510	NM_026509.1	4.22	3.58E-02
Ms4a7	ILMN_3091003	NM_011498.4	4.21	2.00E-04
Nuak1	ILMN_1227458	NM_010217.1	4.21	8.52E-04
Plekho2	ILMN_2749448	NM_010382.2	4.17	2.34E-03

2900073G15Rik	ILMN_2682046	NM_007925.3	4.16	1.47E-04
Adamts2	ILMN_2729103	NM_010516.1	4.16	4.25E-02
Sema3f	ILMN_1248740	NM_008610.2	4.13	2.38E-03
Kctd12b	ILMN_2945560	NM_017464.2	4.12	3.59E-03
Phlda1	ILMN_2754985	NM_011876.3	4.11	1.11E-02
Fmnl3	ILMN_2599657	NM_175132.3	4.06	4.16E-05
Mapt	ILMN_2740020	XM_001480891.1	4.04	1.21E-05
Fmnl3	ILMN_2599659	NM_022020.2	4.04	1.34E-04
Icam1	ILMN_2896601	NM_008258.1	4.01	4.48E-03
Clcnkb	ILMN_2757283	NM_173437.1	4.01	1.48E-04
Prkar1a	ILMN_1235481	NM_011340.3	3.98	4.64E-07
6330406I15Rik	ILMN_2642517	NM_010729.2	3.97	2.52E-03
Clip1	ILMN_1238497	NM_199447.2	3.96	6.79E-04
Fhl1	ILMN_2713285	NM_023612.3	3.94	2.20E-03
Coro1a	ILMN_2714796	NM_010234.2	3.94	1.35E-03
Tgfb3	ILMN_2748966	NM_029621.2	3.90	5.82E-03
Slmap	ILMN_1224516	NM_207105.1	3.89	2.00E-04
Cd74	ILMN_1221817	NM_019738.1	3.83	3.91E-02
Lmna	ILMN_2662387	NM_030724.3	3.82	9.21E-04
Clic5	ILMN_2677634	NM_008416.1	3.81	8.79E-05
Rab11fip5	ILMN_3139693	NM_177059.3	3.81	5.02E-05
Rasgrp3	ILMN_2908687	NM_012037.2	3.80	5.09E-05
Gngt2	ILMN_1246056	NM_008761.2	3.79	5.30E-05
Podxl	ILMN_2604494	XM_001473258.1	3.78	5.73E-03
Pfkfb2	ILMN_1253966	NM_007393.3	3.77	7.90E-03
Rasl11b	ILMN_2793062	NM_173437.1	3.76	1.24E-02
Pdgfb	ILMN_2618714	NM_207105.2	3.74	5.42E-04
Pdzd3	ILMN_1258691	NM_145134.2	3.74	2.61E-04

Rhoc	ILMN_2790097	NM_013805.3	3.72	2.68E-02
Ednrb	ILMN_2589640	NM_173749.3	3.71	1.18E-04
4922503N01Rik	ILMN_2939503	NM_008653.2	3.70	1.80E-05
Cd52	ILMN_2910934	NM_011607.2	3.69	8.64E-03
Rapgef1	ILMN_3140516	NM_001083895.1	3.69	1.80E-05
Tmem53	ILMN_2859917	NM_010740.3	3.68	3.59E-04
Upp1	ILMN_2959292	NM_007802.3	3.68	1.35E-04
D230007K08Rik	ILMN_1217913	NM_198059.2	3.68	2.87E-04
Higd1b	ILMN_2852925	NM_080563.3	3.68	1.61E-03
Arpc1b	ILMN_1227836	NM_001038642.1	3.66	9.77E-04
Slc15a3	ILMN_2987709	NM_205536.1	3.64	4.94E-04
Cygb	ILMN_2801891	NM_009829.3	3.63	1.94E-02
Slc12a7	ILMN_2650953	XM_147357.1	3.63	1.97E-03
Hlx	ILMN_2637757	NM_028800.2	3.62	9.03E-03
LOC100048556	ILMN_3161805	NM_001003955.2	3.61	1.87E-02
Mapt	ILMN_1257750	NM_026131	3.61	4.07E-04
Fxyd5	ILMN_2742928	NM_197980.1	3.59	1.15E-04
Psmbl10	ILMN_2914843	NM_153560.4	3.58	1.77E-03
Lmna	ILMN_3121891	NM_028079.1	3.58	1.18E-04
Abi3	ILMN_1223041	NM_009673.1	3.57	1.17E-03
Unc119b	ILMN_1245813	NM_028266.4	3.57	7.37E-04
LOC626578	ILMN_2808485	NM_175352.2	3.57	1.98E-02
LOC100046608	ILMN_1249366	NM_008813.2	3.57	6.29E-03
Rsad2	ILMN_1225204	NM_019980.1	3.57	5.67E-03
Clip1	ILMN_2920759	NM_026993	3.56	6.57E-04
Cd63	ILMN_2653617	NM_009890.1	3.55	3.50E-05
Srpx	ILMN_2629486	NM_029981.1	3.54	5.54E-03
Klhl34	ILMN_1242984	NM_010545.3	3.52	5.20E-03

Dpysl3	ILMN_1250075	NM_028841.1	3.50	3.54E-03
Vegfa	ILMN_2484527	NM_175525.2	3.49	2.35E-02
EG625054	ILMN_2998173	NM_009735.2	3.48	3.96E-04
Rras2	ILMN_2909782	NM_007489.3	3.48	7.19E-05
Ccbp2	ILMN_2650557	NM_027836.5	3.47	3.66E-04
Prnp	ILMN_2619316	NM_001004363.1	3.46	2.63E-04
Rhoj	ILMN_2653567	NM_153119.2	3.46	2.46E-03
Coro1a	ILMN_2787257	NM_026064.1	3.44	9.77E-03
Ugp2	ILMN_1244631	NM_175643.2	3.44	2.69E-03
Tnc	ILMN_2463180	NM_011349.3	3.43	1.07E-02
Srpx2	ILMN_2818294	NM_175429.3	3.43	5.28E-03
Prmt2	ILMN_3099751	NM_009344.1	3.43	4.61E-06
Mcam	ILMN_2955919	NM_011711.1	3.43	2.11E-03
Notch3	ILMN_2697380	NM_010838.2	3.42	7.16E-04
Optn	ILMN_2676606	NM_011711.1	3.42	5.43E-05
Anxa2	ILMN_2657175	NM_010493.2	3.42	1.12E-03
Comp	ILMN_2869110	NM_019701.1	3.41	4.41E-02
Pcolce	ILMN_1253741	NM_021880.2	3.41	3.28E-02
Sema3f	ILMN_2635631	NM_027519.1	3.38	7.18E-03
Dhdds	ILMN_2637845	NM_019765.4	3.38	2.88E-06
Upp1	ILMN_2959293	NM_001077361.1	3.35	2.61E-04
Capg	ILMN_2773113	NM_009898.2	3.34	8.51E-04
Slain2	ILMN_2686270	NM_009368.2	3.34	7.09E-04
Hn1	ILMN_2914744	NM_032008.3	3.34	3.10E-05
Vtn	ILMN_1234111	NM_001042605.1	3.33	9.65E-04
Rap1b	ILMN_1229741	NM_019390.1	3.32	3.23E-04
8430408G22Rik	ILMN_2894211	NM_172621.2	3.32	4.06E-02
Wdr1	ILMN_2460168	NM_001003955.2	3.32	6.19E-03

1700012H17Rik	ILMN_1239592	NM_207246.2	3.31	6.15E-04
Fhl1	ILMN_3117381	NM_001038664.2	3.30	3.72E-03
F2r	ILMN_2740852	NM_013723.2	3.29	1.55E-03
Phlda3	ILMN_2628567	NM_008825.3	3.29	1.47E-02
Olfml3	ILMN_1233455	NM_026878.1	3.28	2.34E-03
Rab31	ILMN_2665008	NM_011057.2	3.28	2.87E-04
Psmbl10	ILMN_2757870	NM_133226.2	3.27	2.05E-03
Adcy4	ILMN_1250417	NM_007484.1	3.27	5.02E-05
Lhfp12	ILMN_2721357	NM_007904.3	3.27	1.74E-03
Pea15	ILMN_2624938	NM_153392.1	3.26	4.94E-04
BC087945	ILMN_3160842	NM_013706.1	3.24	9.58E-04
Clock	ILMN_2610973	NM_001039086.1	3.24	1.72E-03
Lmna	ILMN_2597710	NM_026837.1	3.21	5.02E-05
Itga11	ILMN_2701778	NM_009477.1	3.21	3.87E-02
Carhsp1	ILMN_1225035	XM_980391.1	3.20	4.21E-03
Tie1	ILMN_2928560	NM_080846.1	3.20	2.98E-02
Lhfp	ILMN_1220198	NM_023142.1	3.20	1.55E-02
Tnfrsf22	ILMN_2454204	NM_023044.1	3.17	1.83E-02
Golga4	ILMN_2987937	NM_030206.1	3.17	2.34E-03
Timeless	ILMN_3097131	NM_011390.2	3.17	5.65E-04
Eng	ILMN_1229161	NM_008250.1	3.16	4.25E-02
Prkcdbp	ILMN_2956942	XM_001480891.1	3.16	1.11E-02
Scarf2	ILMN_2676127	NM_010838.3	3.14	1.13E-02
Arpc1b	ILMN_2860480	NM_008761.2	3.12	1.58E-03
Phlda3	ILMN_2923607	NM_013640.1	3.11	1.74E-02
Slc6a8	ILMN_2605212	NM_001002011.1	3.10	2.52E-04
Ltbp4	ILMN_2829262	NM_025659	3.10	3.35E-02
Nuak1	ILMN_2928720	NM_175352.4	3.09	7.79E-04

Trim47	ILMN_2504823	NM_001039646.2	3.09	2.70E-03
Ctsz	ILMN_2839569	XM_001476583.1	3.08	1.28E-03
AA407659	ILMN_2876015	NM_021384.3	3.08	1.74E-02
Tspo	ILMN_2727920	NM_019765.2	3.07	1.08E-02
2310066E14Rik	ILMN_1235324	NM_007653.1	3.07	4.66E-03
Ctnnbip1	ILMN_1232182	NM_016911.4	3.06	1.09E-03
Cdh5	ILMN_2866951	NM_001081667.1	3.06	1.23E-02
Adcy4	ILMN_2847004	NM_009468.3	3.05	6.91E-04
Cdv3	ILMN_3150963	NM_009505.3	3.05	4.94E-04
LOC100048295	ILMN_2470646	NR_003363.1	3.04	1.70E-02
Kremen	ILMN_1228479	NM_025846.1	3.03	1.11E-02
Grk5	ILMN_1249435	NM_021609.3	3.03	9.47E-04
Bok	ILMN_2772077	NM_011170.1	3.03	6.15E-04
LOC100046883	ILMN_2679037	NM_023275.2	3.03	3.57E-03
Lasp1	ILMN_2879746	NM_009898.2	3.02	8.80E-04
Arpc1b	ILMN_2860479	NM_139297.4	3.01	6.67E-04
Rpl3	ILMN_2974021	NM_011607.1	3.01	8.40E-04
Angpt2	ILMN_1234487	NM_026838.1	3.01	5.19E-03
Picalm	ILMN_2769656	NM_001077638.1	3.01	1.57E-02
Icam2	ILMN_2618408	NM_023061.1	3.00	1.49E-02
Nbl1	ILMN_2886618	NM_008716.2	2.99	3.73E-02
Doc2g	ILMN_2781153	NM_181848.4	2.99	2.69E-03
Wdr1	ILMN_2497268	NM_007585.3	2.99	4.98E-04
Mfge8	ILMN_2771034	NM_016685.1	2.99	2.91E-05
Atp6v1h	ILMN_2812935	NM_008788.2	2.99	1.28E-04
Thbd	ILMN_1249767	NM_011349.2	2.98	1.28E-02
Mcam	ILMN_2614531	NM_026144.4	2.98	7.29E-04
Gabarap11	ILMN_1236958	NM_009477.1	2.98	6.50E-03



LOC100046608	ILMN_2706514	NM_007599.3	2.96	2.24E-03
6330406I15Rik	ILMN_1213736	NM_153567.1	2.96	5.42E-03
Cd63	ILMN_3128907	NM_008258.1	2.95	5.09E-03
Cd44	ILMN_3114585	NM_011707.1	2.95	2.92E-03
Anxa3	ILMN_1241171	NM_024457.2	2.94	1.53E-04
Mif	ILMN_2867835	NM_145980.1	2.94	1.20E-04
Cx3cl1	ILMN_2627041	NM_011715.2	2.93	2.82E-03
Tjap1	ILMN_2656465	NM_173426.2	2.93	1.26E-02
Lmna	ILMN_1254405	NM_001077362.1	2.92	2.27E-04
Tlr4	ILMN_2752966	NM_010169.3	2.92	2.65E-04
Tmem204	ILMN_3162005	NM_013750.1	2.92	1.72E-04
Syp12	ILMN_2625299	NM_133859.2	2.91	3.72E-04
Traf3	ILMN_2439638	NM_133685.1	2.90	1.61E-03
Eltd1	ILMN_1224540	NM_013640.2	2.90	5.49E-03
H2-DMb1	ILMN_1244977	NM_080435.1	2.89	1.08E-02
Fbln1	ILMN_2870672	NM_172589.2	2.89	2.73E-02
Arhgef15	ILMN_3094506	NM_008556.1	2.89	1.54E-03
Panx1	ILMN_2946088	NM_001013792.1	2.89	4.05E-04
Lmna	ILMN_1255510	NM_007715.5	2.88	2.78E-04
Cap1	ILMN_2648661	NM_019390.1	2.88	4.26E-03
Tax1bp3	ILMN_2746086	NM_176922.4	2.88	2.56E-03
Olfml2b	ILMN_2745551	NM_025821.2	2.86	4.46E-02
Plcg2	ILMN_2601833	NM_011587.1	2.85	1.22E-04
Parp14	ILMN_2825803	NM_175386.3	2.84	3.09E-03
Traf3	ILMN_3144289	NM_023680	2.84	2.97E-03
Trpc3	ILMN_3001313	NM_018748.3	2.84	1.33E-03
Myh9	ILMN_2672626	NM_011589.1	2.83	1.27E-02
Tmod3	ILMN_2479359	NM_007932.1	2.83	4.45E-03

Itgb5	ILMN_2663613	NM_028444.1	2.82	9.95E-03
Arpc5l	ILMN_2626260	NM_153790.2	2.82	7.57E-04
Cdv3	ILMN_2673894	NM_023142.1	2.82	5.36E-04
Csrp3	ILMN_2789651	NM_013750.1	2.82	3.60E-04
Gpr176	ILMN_2742912	NM_133987.1	2.82	4.99E-04
Hspb1	ILMN_2706269	NM_175641.1	2.81	3.14E-02
Actn1	ILMN_2844996	NM_001004363.1	2.81	3.41E-02
Cxcl16	ILMN_2687586	NM_172570.4	2.81	6.94E-03
Zfp608	ILMN_2939367	NM_022325.3	2.81	1.91E-02
Samd9l	ILMN_1224855	NM_175352.2	2.80	2.13E-03
Dct	ILMN_1251894	NM_009775.2	2.80	7.41E-03
Abcb4	ILMN_2648742	NM_001081241.2	2.78	8.38E-04
Pdlim1	ILMN_1234072	NM_023465.3	2.78	5.02E-05
Lxn	ILMN_2694275	NM_009868.3	2.78	1.93E-02
St6galnac4	ILMN_2660837	NM_080435.1	2.78	1.51E-03
Dlgap4	ILMN_3105499	NM_175833.1	2.78	1.58E-03
Hbegf	ILMN_2698449	XR_034465.1	2.77	3.18E-02
Rai14	ILMN_2682928	NM_032396	2.77	3.90E-03
Ppap2a	ILMN_2759079	NM_018869.2	2.76	2.21E-05
Galntl4	ILMN_2736514	NM_016778	2.76	2.35E-03
Gimap6	ILMN_1224859	XM_001476984.1	2.76	2.69E-03
Scotin	ILMN_2651077	NM_010688.2	2.75	7.34E-03
Klhl6	ILMN_2619528	NM_023142.1	2.75	7.57E-04
Mfge8	ILMN_3133448	NM_013762.1	2.75	6.94E-04
Sh3rf1	ILMN_2602597	NM_007426.3	2.75	3.97E-05
Gng8	ILMN_1259653	NM_146194	2.74	1.45E-02
Bri3	ILMN_2700334	NM_010494.1	2.74	5.96E-05
Ckb	ILMN_1224754	NM_008675.1	2.72	2.02E-02

Endod1	ILMN_2733356	NM_021791.2	2.72	1.04E-02
Aqp8	ILMN_2854157	NM_011715.2	2.72	1.94E-03
Mcam	ILMN_1229960	NM_008594	2.71	6.56E-03
Sh3tc1	ILMN_2847906	NM_133826.2	2.71	2.46E-04
9130404D14Rik	ILMN_2686975	NM_009378.2	2.71	3.92E-03
Anxa3	ILMN_3135781	NM_023061.1	2.70	3.28E-04
Tubb6	ILMN_2718217	NM_020590.4	2.69	1.36E-02
Pam	ILMN_2626294	XM_001476583.1	2.69	2.69E-04
BC029169	ILMN_2840430	NM_027519.3	2.69	1.07E-02
Gnao1	ILMN_2773191	NM_007653.3	2.68	3.12E-02
H2-Q7	ILMN_2924419	NM_001039150.1	2.68	3.18E-02
Sh3pxd2b	ILMN_1230423	NM_013470.1	2.67	9.29E-03
Cxcl12	ILMN_2658908	NM_010798.2	2.67	4.94E-04
Lrp11	ILMN_2672708	NM_009142.3	2.66	3.24E-03
Igf2r	ILMN_2931096	NM_028751.2	2.66	1.18E-04
Pik3r3	ILMN_1226157	NM_019390.1	2.65	5.10E-03
D16Ert472e	ILMN_1260073	NM_021297.2	2.65	2.56E-03
Myo9b	ILMN_2617835	NM_001001183.1	2.65	6.88E-05
Tmem49	ILMN_2767635	NM_008596.1	2.64	2.15E-03
Rgs4	ILMN_1244081	NM_011632.2	2.64	2.44E-03
Asph	ILMN_1259678	NM_133222.2	2.64	2.81E-02
Prkcdbp	ILMN_1243602	NM_010387.2	2.64	2.96E-03
Hk1	ILMN_2644025	NM_010180.1	2.64	1.51E-03
Pcdh1	ILMN_1260020	NM_177566.3	2.63	4.02E-02
1110003E01Rik	ILMN_1225158	NM_019482.2	2.63	4.74E-04
Prmt2	ILMN_1216953	NM_019390.1	2.62	8.42E-04
Mobkl2a	ILMN_3008924	NM_007598.2	2.62	3.48E-03
Uck2	ILMN_2880529	NM_029564.2	2.61	1.82E-02

S100a13	ILMN_2987984	NM_177068.3	2.61	1.30E-03
Lamb2	ILMN_2699488	NM_172285.1	2.60	1.44E-02
Arhgap18	ILMN_1248002	NM_001039530.1	2.60	2.81E-02
Lmo2	ILMN_2767605	NM_011632.2	2.60	2.81E-03
Mllt11	ILMN_1221429	NM_019510.1	2.59	3.70E-03
Emr1	ILMN_1216880	NM_022410.1	2.59	3.28E-03
Hexa	ILMN_2773624	NM_016963.2	2.58	3.33E-04
Glipr2	ILMN_3053593	NM_010580.1	2.58	2.46E-02
2310022B05Rik	ILMN_1257333	NM_028809.1	2.56	2.34E-02
1300001I01Rik	ILMN_1217040	NM_175565.3	2.55	4.70E-02
Adamts15	ILMN_2692399	NM_013808.3	2.55	1.28E-04
Fkhl18	ILMN_2935157	NM_201367.2	2.54	6.75E-04
Akap12	ILMN_2624622	NM_013560.1	2.54	1.46E-02
Ddah2	ILMN_2770183	NM_134156.1	2.53	2.23E-03
Setd5	ILMN_2743650	NM_023158.6	2.53	1.00E-02
Bcl2	ILMN_1249021	NM_175751.3	2.53	1.89E-03
Dennd3	ILMN_1224129	XM_620286.3	2.53	9.21E-04
Pls3	ILMN_2764781	NM_010024.2	2.52	1.52E-02
S100a6	ILMN_2712120	NM_008830.1	2.52	8.57E-03
BC063749	ILMN_2995794	NM_016861.3	2.51	7.74E-03
Dbn1	ILMN_2736005	NM_016753.4	2.51	5.28E-03
Scotin	ILMN_2651076	NM_011373.2	2.51	6.29E-03
Klhl6	ILMN_2840514	NM_001042487.1	2.51	7.48E-03
Rhbdf1	ILMN_2657828	NM_010415.1	2.50	1.07E-02
Tnfrsf1a	ILMN_1241228	NM_030690.2	2.50	4.35E-02
Asns	ILMN_2643513	NM_008247.2	2.49	1.66E-03
Maff	ILMN_1256996	NM_173739.3	2.49	4.05E-04
Vamp3	ILMN_2881480	NM_153175.3	2.49	5.00E-02

Tnfrsf1a	ILMN_2469333	NM_026381.3	2.49	2.41E-02
Tmem184b	ILMN_2697433	NM_183390.1	2.49	1.45E-04
Actn2	ILMN_2797061	NM_001045489.1	2.48	6.05E-05
Hdac7	ILMN_2768755	NM_021506.2	2.48	6.32E-03
Tubb5	ILMN_1227164	NM_010320.3	2.47	8.17E-03
LOC100047200	ILMN_1247220	NM_018772.1	2.47	3.78E-03
Ankrd37	ILMN_2595857	NM_021273.3	2.47	3.18E-02
Alpk3	ILMN_3001417	NM_028013.2	2.46	7.57E-04
Plekhg2	ILMN_2738054	NM_007474.1	2.46	2.59E-02
Nkd2	ILMN_1228631	NM_023061.1	2.46	3.19E-02
Nos3	ILMN_2788593	NM_194344.1	2.45	2.56E-02
S100a11	ILMN_2883392	NM_146119.1	2.45	4.49E-02
Tnip2	ILMN_2874491	NM_013470.1	2.45	2.85E-03
Uaca	ILMN_2492716	NM_026473.2	2.45	2.13E-03
Srpx2	ILMN_2644515	NM_013626.1	2.44	3.47E-02
Ddit3	ILMN_2927373	NM_153782.1	2.44	1.34E-02
BC029214	ILMN_2768209	NM_010308.3	2.43	3.29E-03
Map3k1	ILMN_3006611	NM_010394.2	2.43	7.41E-03
Mcc	ILMN_2918907	NM_177364.3	2.43	1.24E-02
Eif1a	ILMN_2698107	NM_013655.2	2.43	1.29E-03
Elovl1	ILMN_3143506	NM_172784.2	2.43	5.08E-04
Ctsz	ILMN_2666007	NM_010515.1	2.42	7.28E-03
Slc9a3r2	ILMN_2710274	NM_181585.5	2.42	5.06E-03
Atf4	ILMN_2642681	NM_025967.2	2.42	1.02E-02
Cyr61	ILMN_1235571	NM_015742.2	2.42	4.28E-02
Cdc42bpb	ILMN_2867696	NM_029478.3	2.42	1.69E-02
Wipfl	ILMN_1257209	NM_009062.3	2.41	6.31E-03
Plekha4	ILMN_1243826	NM_133723.2	2.41	1.75E-02

Irf1	ILMN_2649068	NM_028444.1	2.41	9.40E-03
Rapgef3	ILMN_1256335	NM_010438.2	2.41	1.55E-03
Gbp6	ILMN_2860645	NM_029357.3	2.41	4.89E-02
Arfgap3	ILMN_2648618	NM_133697.3	2.40	1.78E-04
Optn	ILMN_2907370	NM_001077638.1	2.39	5.28E-04
Sergef	ILMN_1249444	NM_172457.2	2.39	3.31E-04
Snx10	ILMN_2609614	NM_030724.1	2.39	3.92E-04
Ankrd10	ILMN_2624749	NM_009113.3	2.39	3.59E-02
Ccdc68	ILMN_2929572	NM_008483.2	2.38	1.24E-04
Tmbim1	ILMN_2908056	NM_176837.2	2.38	2.18E-02
Pde1b	ILMN_1224034	NM_008505.3	2.38	3.23E-04
Plekhg2	ILMN_2987027	NM_019914.3	2.38	1.19E-02
Rsn	ILMN_2473620	NM_010130.3	2.37	1.59E-02
Pip4k2a	ILMN_2717439	NM_010421.4	2.37	3.78E-03
Zfp361l	ILMN_2780424	NM_027450.3	2.37	3.42E-02
Srf	ILMN_2988299	NM_175149.3	2.37	2.13E-03
Tmem49	ILMN_2591777	NM_001081158.2	2.36	1.31E-03
Plxdc1	ILMN_1248298	NM_025629.2	2.36	1.08E-03
Tubb2c	ILMN_2702061	NM_010226.1	2.36	4.66E-02
Dok4	ILMN_1241168	NM_031185.2	2.36	1.49E-02
Slc6a6	ILMN_2641467	NM_016765.2	2.35	2.64E-03
Cpne8	ILMN_3151149	NM_028385.1	2.34	2.56E-02
Marecks	ILMN_1256142	NM_009741.2	2.34	3.65E-02
Map3k14	ILMN_2665050	NM_001081066.1	2.34	6.93E-04
Myo9b	ILMN_2612484	NM_145629.1	2.34	1.17E-03
Ly6a	ILMN_1255416	NM_011313.2	2.33	3.34E-02
Pxn	ILMN_3123303	NM_001001738.2	2.33	4.33E-02
Ciita	ILMN_2678211	NM_019813	2.33	2.14E-02

Dusp3	ILMN_2684693	NM_025858.1	2.33	3.81E-04
Rab8a	ILMN_2928051	NM_183390.1	2.33	2.13E-04
Mvp	ILMN_2887065	NM_010117.1	2.33	1.68E-02
Cnn2	ILMN_1226666	NM_011609.2	2.31	4.12E-03
Pla1a	ILMN_2722024	NM_012055.3	2.31	1.34E-02
Leo1	ILMN_2903351	NM_010755.3	2.31	3.22E-02
Slc38a2	ILMN_2955671	NM_009498.3	2.30	1.19E-02
Trak2	ILMN_2872698	NM_011609.2	2.30	9.15E-04
BC004728	ILMN_1247198	NM_172608.1	2.30	1.08E-02
Polr1e	ILMN_2709047	NM_033268.3	2.30	2.11E-02
Casp1	ILMN_1247592	NM_019572.2	2.30	2.74E-02
Egfl7	ILMN_1215919	NM_011655.4	2.29	3.94E-02
Ifitm3	ILMN_2658501	XM_001477632.1	2.29	4.62E-02
Thbs1	ILMN_2659151	NM_001039562.1	2.29	6.20E-03
Robo4	ILMN_2942011	NM_054085.2	2.29	3.86E-04
St8sia4	ILMN_2784230	NM_138752.2	2.29	1.18E-02
Dab2	ILMN_1243329	NM_028186.3	2.29	3.59E-02
Mical2	ILMN_1217875	NM_008713.2	2.28	1.26E-03
LOC100045542	ILMN_1230893	NM_016740.3	2.28	3.73E-02
Lamp2	ILMN_1217454	NM_139064.1	2.28	3.78E-03
LOC675228	ILMN_1218325	NM_028283.2	2.28	6.56E-04
Acsl5	ILMN_2892222	NM_001083895.1	2.28	2.95E-03
9030425E11Rik	ILMN_2724194	NM_007837.2	2.28	1.76E-03
Tmc6	ILMN_1213001	NM_153557.1	2.27	3.18E-03
Hist2h2aa1	ILMN_2751948	NM_011945.2	2.27	4.39E-03
Rhot2	ILMN_2839134	NM_001033406.1	2.27	1.61E-02
1810015A11Rik	ILMN_2883952	NM_010120.4	2.27	6.85E-04
Rgs1	ILMN_2625377	NM_019422.2	2.26	4.20E-02

Enoph1	ILMN_1233630	NM_022325.4	2.26	3.09E-04
Fgf6	ILMN_2958386	NM_023055.1	2.26	4.59E-03
Cugbp1	ILMN_2667971	NM_009716.2	2.26	1.60E-03
Entpd2	ILMN_1237670	NM_010516.1	2.26	2.45E-02
Nek3	ILMN_1252297	NM_183016.1	2.26	1.27E-03
Pcdh1	ILMN_2597660	NM_153138.3	2.25	2.04E-03
Ehd1	ILMN_2628757	NM_148927.1	2.25	9.02E-03
Dap	ILMN_1234812	NM_008390.1	2.25	2.79E-02
Sox9	ILMN_3007428	NM_144850.1	2.25	2.95E-03
1200009O22Rik	ILMN_2615431	NM_145545.2	2.24	1.31E-02
Fbxo30	ILMN_2431871	NM_025445.4	2.24	3.35E-02
Ltbp3	ILMN_2776619	NM_181848.3	2.24	4.44E-02
Ngfb	ILMN_2660233	NM_013789.1	2.24	2.00E-03
Mtap4	ILMN_2633367	NM_028035.3	2.24	2.69E-03
Pkp2	ILMN_2927565	NM_133971.1	2.23	2.25E-03
Vps37c	ILMN_2675152	NM_201362.1	2.23	2.41E-03
Plaa	ILMN_1221702	NM_027154.3	2.23	6.64E-03
Tap2	ILMN_2686721	NM_008800.1	2.22	3.69E-02
Ncf4	ILMN_2743013	NM_138752.1	2.22	8.23E-03
Ubtd2	ILMN_2822552	NM_019765	2.22	3.97E-03
Kctd10	ILMN_2596117	NM_008845.4	2.21	7.55E-04
Elovl1	ILMN_2723491	NM_007564.2	2.21	3.58E-03
Prune	ILMN_2706495	NM_020493.1	2.21	4.08E-02
Relb	ILMN_1246841	NM_029478.3	2.21	3.61E-03
Muted	ILMN_2705131	NM_028199.2	2.20	2.69E-03
Ppp2ca	ILMN_2611821	NM_146116.1	2.20	3.53E-02
Zfp346	ILMN_1253077	NM_053246.2	2.20	1.26E-02
2310046K01Rik	ILMN_2675760	NM_009320.3	2.19	9.77E-03



Galnt10	ILMN_2878781	NM_001033851.1	2.19	4.15E-03
Mtmr11	ILMN_2642922	NM_008538.2	2.18	1.80E-02
Use1	ILMN_2667101	NM_016896.3	2.18	1.19E-04
Tmc6	ILMN_2513778	NM_015742.2	2.18	7.26E-03
Card10	ILMN_2606660	NM_010738.2	2.18	1.55E-02
Samd4	ILMN_3128535	NM_133915.2	2.18	1.94E-03
Slc12a2	ILMN_2700059	NM_007575.2	2.18	3.83E-03
Arhgdig	ILMN_2950622	NM_028207.2	2.18	7.57E-04
Unc119b	ILMN_2590771	NM_023126.2	2.18	8.21E-03
Kif1b	ILMN_3034877	NM_080638.1	2.17	8.04E-03
Egfl7	ILMN_3163288	NM_007725.2	2.17	1.57E-02
St5	ILMN_3154820	NM_134102.3	2.17	4.06E-03
Itga6	ILMN_1231492	NM_001039522.1	2.16	1.48E-02
EG667977	ILMN_2835683	NM_175121.3	2.16	3.88E-02
Camkk1	ILMN_1242310	NM_172406.2	2.16	4.54E-04
Pacsin3	ILMN_2693815	NM_174992.2	2.16	2.27E-02
Lst1	ILMN_2609323	NM_022811.2	2.16	1.07E-02
Klk8	ILMN_2675232	NM_009807.2	2.15	5.54E-03
Odc1	ILMN_3008406	NM_198724.1	2.15	1.87E-03
Ywhaz	ILMN_2952914	NM_025378.2	2.15	3.48E-02
Tmem49	ILMN_2591781	NM_011580.3	2.15	1.08E-02
Ythdf2	ILMN_1225360	NM_028783.2	2.15	3.21E-03
Supt5h	ILMN_2661458	NM_009183.1	2.14	2.18E-02
LOC100047749	ILMN_1255207	NM_023118.1	2.14	7.18E-03
Heatr3	ILMN_3007728	NM_177282.4	2.14	4.29E-02
Reep3	ILMN_1250538	XM_001473941.1	2.14	5.74E-04
Fsd2	ILMN_1215238	NM_010685.3	2.13	3.56E-03
Fes	ILMN_2695793	XR_034614.1	2.13	2.89E-02

Tmem53	ILMN_2656884	NM_027976.2	2.13	4.24E-03
Pacsin3	ILMN_2589015	NM_133733.4	2.13	3.96E-03
Slc39a6	ILMN_2681516	NM_145439.1	2.12	8.14E-03
Mdfic	ILMN_2704637	NM_013549	2.12	3.51E-03
Stat3	ILMN_2698046	NM_145999.2	2.12	4.20E-02
Lrrc8d	ILMN_2766455	NM_026940.1	2.12	1.30E-03
Centg3	ILMN_2754598	NM_015811.1	2.12	1.30E-03
Cdc42	ILMN_2946862	NM_026421.2	2.12	1.92E-03
Ednrb	ILMN_2917471	NM_010204.1	2.12	1.91E-02
Emilin1	ILMN_2668462	NM_198683.1	2.11	3.19E-02
Rasip1	ILMN_2740217	NM_009849.1	2.11	2.79E-02
Arf3	ILMN_1252195	NM_011848.2	2.10	1.08E-02
Mical1	ILMN_1215951	NM_029357.3	2.10	4.10E-03
Nfat5	ILMN_2612448	NM_010119.5	2.10	5.23E-03
Slc19a2	ILMN_1250531	NM_146057.1	2.10	2.75E-02
Bach2	ILMN_2819558	NM_011448.2	2.09	3.95E-02
Eif3k	ILMN_2718416	NM_025817.3	2.09	4.52E-03
Extl1	ILMN_2879534	XM_125493	2.09	2.58E-02
Unc119b	ILMN_1214441	NM_008520.2	2.09	7.46E-03
Plxdc1	ILMN_2827162	NM_013609.1	2.08	8.40E-03
Csrp3	ILMN_2789650	NM_008633.2	2.08	3.64E-05
Luzp1	ILMN_2942276	NM_026163.1	2.08	2.14E-02
Pros1	ILMN_1235499	NM_181403.2	2.08	4.05E-03
Tuba1b	ILMN_2986393	NM_172695.2	2.08	2.12E-03
Tcirlg1	ILMN_2954881	NM_011530.2	2.08	1.62E-02
Wipi1	ILMN_1236411	NM_008677.1	2.07	2.38E-03
Acot10	ILMN_2910627	NM_173784.3	2.07	1.44E-03
Parp3	ILMN_2870302	NM_026145.3	2.07	4.02E-03

9130005N14Rik	ILMN_1217235	NM_001039175.1	2.07	2.64E-02
Skap2	ILMN_2936671	NM_173347.2	2.07	5.59E-03
Aqp8	ILMN_2756379	NM_009046.2	2.07	3.56E-03
Ddit3	ILMN_2652909	NM_139063.1	2.07	3.18E-02
Tnip1	ILMN_2417863	NM_019411.4	2.06	2.80E-02
Uchl1	ILMN_1225261	NM_012017.2	2.06	1.37E-02
Dab2	ILMN_3091641	NM_027172.2	2.06	2.86E-02
Aldoa	ILMN_2599130	NM_134189.2	2.06	2.93E-05
2810405J04Rik	ILMN_1224651	NM_181409.2	2.06	1.30E-02
Gcap14	ILMN_3130768	NM_025917.3	2.05	2.39E-02
Gimap8	ILMN_3088269	NM_145439.1	2.05	2.42E-02
Tcf4	ILMN_2636463	NM_130859.2	2.05	1.31E-02
Kifc3	ILMN_1229531	NM_001037221.1	2.05	4.29E-03
Alg5	ILMN_1222503	NM_009194.2	2.05	2.65E-04
Nomo1	ILMN_2626389	NM_008113.3	2.05	2.72E-03
Zfp768	ILMN_2721919	NM_175352.4	2.05	3.51E-02
Numa1	ILMN_2735625	NM_008441.2	2.05	4.92E-02
Sez6l2	ILMN_2811861	NM_198725.1	2.05	3.98E-03
Fkbp11	ILMN_1224635	NM_029811.2	2.05	8.36E-04
Atp8b1	ILMN_2977129	NM_008397.3	2.04	1.39E-02
Hdgfrp2	ILMN_2617112	NM_001081032.1	2.04	7.53E-03
Notch1	ILMN_1241915	NM_018883.2	2.04	1.99E-02
Dusp3	ILMN_2918927	NM_030880.1	2.04	1.72E-03
Ncald	ILMN_2652414	XM_359281.1	2.04	2.95E-02
1700025G04Rik	ILMN_2669982	NM_008940.2	2.04	2.17E-02
Kcnj8	ILMN_1253409	NM_013614.1	2.04	2.02E-02
Nostrin	ILMN_2821676	NM_011740.2	2.03	3.26E-02
Snx33	ILMN_1212693	NM_029478.2	2.03	6.65E-03

Stard4	ILMN_1240445	NM_145393.3	2.03	1.55E-02
Gnb1	ILMN_2733852	NM_013676.1	2.03	4.98E-02
Rassf5	ILMN_2825020	XM_001478817.1	2.03	1.43E-02
Mylc2b	ILMN_2953531	NM_172757.3	2.03	4.98E-02
Ets2	ILMN_2594714	NM_178606.4	2.03	1.67E-02
1200002N14Rik	ILMN_1219820	NM_172904.2	2.03	1.76E-02
Il2rg	ILMN_2886646	NM_010194.2	2.03	7.48E-03
St6galnac4	ILMN_1259566	NM_026837.2	2.02	4.14E-02
St8sia4	ILMN_2671195	NM_028733.2	2.02	1.89E-02
Osm	ILMN_2919411	NM_139143.2	2.02	8.95E-03
Creb3	ILMN_1216285	NM_175088.3	2.02	2.00E-04
2310022A10Rik	ILMN_3004931	NM_213659.2	2.02	3.21E-03
Thbs3	ILMN_2654651	NM_178701.2	2.02	2.79E-02
Tpd52	ILMN_3091288	NM_139153.1	2.02	2.90E-02
Uap1l1	ILMN_2467800	NM_009861.1	2.02	4.50E-03
LOC100044475	ILMN_2596917	NM_007904.2	2.02	1.55E-02
Riok1	ILMN_2676512	NM_133918.1	2.02	2.05E-02
Centg3	ILMN_2754596	NM_028544.1	2.02	3.66E-02
4933428G20Rik	ILMN_1247490	NM_007478.3	2.02	3.27E-02
Coro1c	ILMN_2665387	NM_138315.1	2.02	2.08E-02
Gimap1	ILMN_3141165	NM_133957.2	2.01	2.07E-02
Clic1	ILMN_2596611	NM_054087.2	2.01	2.09E-02
Wsb1	ILMN_1250815	NM_007521.2	2.00	2.57E-02
Naca	ILMN_2651642	NM_028659.2	2.00	2.80E-02
Pfkl	ILMN_1236539	NM_019578.1	2.00	6.89E-03
Tgfb2	ILMN_1225196	NM_175352.4	2.00	1.67E-02
Cbr3	ILMN_2896768	NM_028199.2	2.00	9.87E-03
Rps6kl1	ILMN_2649333	NM_013808.3	2.00	1.89E-02

Ngfb	ILMN_2937596	NM_024452.2	2.00	4.21E-02
Golga3	ILMN_1260175	NM_011173.2	1.99	1.26E-02
Faim3	ILMN_1221820	NM_011654.2	1.99	3.86E-03
Pde4dip	ILMN_2751354	NM_016921.2	1.99	1.70E-02
Rhog	ILMN_2592620	NM_145940.2	1.98	1.76E-02
Nln	ILMN_2756113	NM_022816.1	1.98	6.89E-03
LOC100042777	ILMN_1217879	NM_145619.2	1.98	2.66E-02
Rgs16	ILMN_2600744	NM_026667.2	1.98	3.56E-02
Cd97	ILMN_2694170	NM_018773.2	1.98	1.51E-02
Sdc3	ILMN_2715042	NM_007474.1	1.97	1.06E-02
Ramp3	ILMN_2749052	NM_007837.2	1.97	1.04E-02
Oas1g	ILMN_1253808	NM_021327.1	1.97	3.47E-02
Aif1	ILMN_2804487	NM_011670.1	1.97	3.60E-02
Gnl3	ILMN_2601639	NM_001008702.1	1.97	4.24E-03
Gusb	ILMN_2855334	NM_007438.3	1.97	2.57E-02
Ankfy1	ILMN_2771712	NM_133747.2	1.97	9.33E-03
Col8a2	ILMN_2839646	NM_028407.3	1.96	3.38E-02
Spsb3	ILMN_2994108	NM_212486.2	1.96	3.76E-02
Cdr2	ILMN_1255513	NM_013685.2	1.96	3.61E-02
Dnajb6	ILMN_3060442	NM_010631.2	1.95	1.60E-02
Tax1bp3	ILMN_1217309	NM_025442.3	1.95	1.58E-02
Tmem192	ILMN_3162499	NM_153057.3	1.94	7.93E-03
Centd3	ILMN_1243107	NM_146202.1	1.94	9.47E-03
Bin1	ILMN_2946466	NM_133947.2	1.94	2.13E-02
Luzp1	ILMN_2718645	NM_144926.2	1.94	2.18E-02
Dgat1	ILMN_2807284	NM_024169.3	1.94	7.68E-03
Slc9a3r2	ILMN_1218241	NM_001001488.3	1.94	3.04E-02
Cugbp1	ILMN_2667972	NM_008233.2	1.94	1.06E-02

Csrp3	ILMN_2742068	NM_008714.2	1.93	1.78E-04
Rab5c	ILMN_1225414	NM_028207.1	1.93	6.75E-03
Rab32	ILMN_1221274	NM_134094.3	1.93	1.47E-02
Tbx3	ILMN_3139514	NM_197990.2	1.93	4.57E-02
Spred1	ILMN_2490252	NM_008428.4	1.93	2.69E-03
Abi1	ILMN_1234139	NM_181547.2	1.93	1.54E-02
Coro1a	ILMN_2733793	NM_175483.5	1.93	1.51E-02
Mapk4	ILMN_1226868	NM_133774.4	1.92	2.88E-02
Rapgef1	ILMN_1226718	NM_008142.3	1.92	2.88E-02
Rap2c	ILMN_3135473	NM_018750.2	1.92	3.61E-03
LOC100047856	ILMN_2589785	NM_023402.1	1.92	3.25E-02
Tro	ILMN_2484147	NM_011809.2	1.92	1.61E-02
Eef1a1	ILMN_2588052	NM_027878.2	1.92	3.73E-02
Gsdmdc1	ILMN_2941324	NM_013563.3	1.92	8.92E-03
Sp100	ILMN_2846812	NM_011373.2	1.92	4.01E-02
Gnao1	ILMN_2753422	NM_009183.1	1.91	5.45E-03
Ammecr11	ILMN_1229706	NM_001013365.1	1.91	3.18E-03
Ensa	ILMN_3032778	NM_013497.3	1.91	1.56E-03
2510012J08Rik	ILMN_1255323	NM_175107.3	1.91	2.18E-02
Tmc6	ILMN_2471166	NM_013691.1	1.91	1.87E-02
Flna	ILMN_1245994	NM_009412.2	1.91	4.79E-02
Rap2c	ILMN_1249467	NM_001033293.2	1.91	1.36E-02
Akap1	ILMN_3146196	XM_001472256.1	1.91	4.81E-02
Zfp259	ILMN_1241970	NM_024242.2	1.91	4.27E-02
Anapc7	ILMN_2870688	NM_139153.1	1.91	6.15E-03
Nt5c2	ILMN_2788065	NM_021493.2	1.91	9.59E-03
Ints4	ILMN_2678269	NM_011779.3	1.90	8.60E-03
Ube2f	ILMN_2614522	NM_008376.3	1.90	2.24E-02

Erp29	ILMN_1239185	NM_033444.1	1.90	1.15E-02
Coro2b	ILMN_2902228	NM_001042565.2	1.90	1.66E-02
Myo6	ILMN_2656854	NM_013608.2	1.90	6.93E-03
Jund1	ILMN_2682788	NM_008826.3	1.90	4.17E-02
Supt5h	ILMN_2950441	NM_009367.2	1.90	1.57E-02
Rps6ka1	ILMN_2975718	NM_173047.2	1.90	6.70E-03
Exoc3l	ILMN_1236298	NM_146244.3	1.90	2.34E-02
Cenpt	ILMN_2653972	NM_013609.1	1.90	1.57E-02
Dmwd	ILMN_2914010	NM_008146.3	1.90	1.43E-02
Xpo5	ILMN_1216198	NM_026976.2	1.89	7.37E-03
Fbxw17	ILMN_2615145	NM_178080.4	1.89	9.60E-03
Pgam2	ILMN_2588815	NM_019566.3	1.89	2.07E-02
LOC100045981	ILMN_1233402	NM_029447.1	1.89	3.64E-02
Fadd	ILMN_1223126	XM_001478939.1	1.89	2.18E-02
Aoc3	ILMN_2625920	NM_011267.2	1.89	8.21E-03
Dync1h1	ILMN_2689274	NM_011925.1	1.89	3.73E-02
Tspan14	ILMN_1257666	NM_011520.3	1.89	2.50E-02
Coro1b	ILMN_2788546	NM_019511.3	1.89	1.85E-02
LOC622404	ILMN_2872552	NM_011852.2	1.89	2.47E-02
Lgals1	ILMN_2619107	NM_019467.2	1.89	1.87E-02
Serpinb6a	ILMN_1250279	NM_178846.2	1.88	3.76E-02
Pik3r6	ILMN_3160107	NM_010368.1	1.88	3.18E-02
Gmppb	ILMN_2744909	NM_009671.5	1.88	1.58E-02
Serf2	ILMN_1223346	NM_199473.2	1.88	1.60E-03
Actl6a	ILMN_1254256	NM_027141.1	1.88	4.81E-02
Wwc2	ILMN_2685464	NM_007672.1	1.88	1.50E-03
Bicd2	ILMN_2469294	NM_001037940.1	1.87	2.13E-02
Csnk1g3	ILMN_2793946	NM_029564.2	1.87	1.56E-02

Sae1	ILMN_2423789	NM_028427.2	1.87	1.59E-03
Kif3c	ILMN_2593410	NM_139206.1	1.87	2.38E-03
Vps29	ILMN_2955883	NM_009668.1	1.87	2.78E-02
Rem1	ILMN_1228010	NM_024452.2	1.86	1.85E-03
Fez2	ILMN_2761876	NM_010046.2	1.86	3.59E-02
Frap1	ILMN_2756460	NM_023449.2	1.86	9.94E-03
Gprc5b	ILMN_2974506	NM_198683.1	1.85	8.37E-03
Snai1	ILMN_2904765	NM_013808.3	1.85	3.53E-02
Zbtb46	ILMN_2619179	NM_024456.2	1.85	9.33E-03
Chrnbl	ILMN_3001481	NM_026405.3	1.85	3.42E-02
AA536749	ILMN_1254067	NM_011535.2	1.85	4.60E-02
Gpc1	ILMN_2635784	NM_033524	1.85	2.76E-02
Cdkl2	ILMN_2657790	NM_001077190.1	1.85	1.33E-02
Erlin2	ILMN_1241908	NM_009898.2	1.85	1.37E-02
BC037034	ILMN_1257019	NM_172632.2	1.85	4.59E-03
LOC100045005	ILMN_1238838	NM_054050.2	1.85	3.35E-02
C230078M08Rik	ILMN_1245335	NM_172413.2	1.84	1.53E-02
Lman1l	ILMN_1212980	XM_001479297.1	1.84	2.98E-02
Poldip3	ILMN_2694397	NM_001002272.2	1.84	2.67E-02
St5	ILMN_1250665	NM_010106.2	1.84	4.81E-02
Mrps18b	ILMN_2865239	NM_026960.1	1.84	2.36E-02
Aacs	ILMN_1253601	NM_013673.2	1.84	2.07E-02
Rgs12	ILMN_2686745	NM_010308.3	1.84	1.05E-02
Gimap9	ILMN_1236553	NM_153515.3	1.84	1.77E-02
Slc25a45	ILMN_1251109	NM_001026212.1	1.83	1.23E-02
Zc3h7a	ILMN_2430275	NM_027381.1	1.83	9.10E-03
Hspb8	ILMN_2944366	NM_145439.1	1.83	4.08E-02
B230380D07Rik	ILMN_1214163	NM_010227.2	1.83	4.07E-02



Micall2	ILMN_2711772	NM_172413.2	1.83	4.73E-02
Galnt2	ILMN_1242677	NM_001042541.1	1.82	4.90E-03
Des	ILMN_2836982	NM_011752.2	1.82	3.34E-02
D030070L09Rik	ILMN_2613182	NM_019805.2	1.82	4.35E-02
Cbfb	ILMN_2757743	NM_029810.2	1.82	1.55E-02
Sacm11	ILMN_2929952	NM_027256.1	1.82	9.46E-03
Nckipsd	ILMN_2619380	NM_026454.3	1.82	1.37E-02
Large	ILMN_1249514	NM_026129.2	1.82	4.92E-02
Xpnpep1	ILMN_1253317	NM_175484.1	1.82	9.29E-03
Prr7	ILMN_3162239	NM_001039546.1	1.82	3.56E-02
Slc1a2	ILMN_3076439	NM_010592.3	1.82	7.48E-03
Bid	ILMN_3161878	NM_013676.1	1.82	8.29E-03
Zc3hc1	ILMN_2602588	NM_009097.1	1.82	4.13E-02
Arpc5	ILMN_2792809	NM_177788.4	1.81	1.61E-02
Zfp90	ILMN_2487482	NM_177150.2	1.81	1.77E-02
Dusp6	ILMN_2925711	NM_010058.1	1.81	6.60E-03
Nola1	ILMN_1226280	NM_028198.1	1.81	4.03E-02
Acly	ILMN_1240770	NM_175401.3	1.81	1.60E-03
Fadd	ILMN_2662509	NM_018870.2	1.80	1.87E-02
Stk24	ILMN_2749235	XM_001475298.1	1.80	1.82E-02
Tex264	ILMN_3111593	NM_010175.4	1.80	1.69E-02
Cugbp2	ILMN_1252673	NM_009675.1	1.80	3.34E-02
Purb	ILMN_1247990	NM_030238.2	1.80	1.85E-02
Nagk	ILMN_2653215	NM_145928.1	1.80	1.17E-02
Nt5c2	ILMN_2630939	NM_011778.1	1.80	2.17E-02
Mbc2	ILMN_1240994	NM_001037913.1	1.80	8.04E-03
Sec63	ILMN_2714822	NM_008495.1	1.80	4.06E-02
Slc35c2	ILMN_2729374	NM_009254.2	1.79	2.05E-02

Il27ra	ILMN_3002095	NM_001004435.2	1.79	4.07E-03
Trove2	ILMN_2952466	NM_177910.2	1.79	4.92E-02
Kns2	ILMN_3042059	NM_011354.2	1.79	1.30E-02
Cib1	ILMN_2621847	NM_019673.1	1.79	6.41E-03
Itgb1bp1	ILMN_2924243	NM_133791.4	1.79	1.04E-02
5730589K01Rik	ILMN_2779636	NM_029791	1.79	4.23E-02
Arhgef19	ILMN_1212875	NM_152809.2	1.79	3.92E-02
Cdca4	ILMN_1214671	NM_019748.2	1.79	3.35E-02
Rbm45	ILMN_3163340	NM_008445.2	1.79	4.07E-03
Cox4nb	ILMN_2766580	NM_019780.1	1.79	4.52E-02
St6galnac4	ILMN_1248439	NM_009047.5	1.79	1.21E-02
Sox13	ILMN_1244292	NM_199448.1	1.79	9.19E-03
Pdpk1	ILMN_3124885	NM_020009.1	1.78	3.18E-02
Sdcbp2	ILMN_2825446	NM_022420.1	1.78	3.18E-02
Tek	ILMN_1220170	NM_011427.2	1.78	1.74E-02
Tmem127	ILMN_2746107	NM_028125.2	1.78	1.16E-03
Chmp4b	ILMN_2776764	NM_009601.3	1.78	4.08E-02
Dlgap4	ILMN_1220861	NM_201245.2	1.78	9.11E-03
Prkd3	ILMN_2834728	NM_016696.3	1.78	6.02E-03
Gnb3	ILMN_1218235	NM_177270.3	1.78	4.22E-03
Rbm5	ILMN_2942499	NM_153592.1	1.78	2.62E-02
Tmed4	ILMN_2906414	NM_153161.1	1.78	4.24E-03
Lcp1	ILMN_1216871	XR_031422.1	1.78	2.98E-02
Rela	ILMN_2740859	NM_176995.2	1.78	1.29E-02
Arhgap4	ILMN_2677876	NM_199222.2	1.78	9.87E-03
Elk3	ILMN_1224644	NM_178627.3	1.77	3.56E-03
Ap2a2	ILMN_1237891	NM_001001326.1	1.77	1.56E-02
Hspa4	ILMN_2716838	NM_025878.1	1.77	4.24E-03

Atp13a1	ILMN_2942669	NM_030210.1	1.77	2.14E-02
Efha1	ILMN_2645165	NM_173402.1	1.76	4.40E-02
Zfp646	ILMN_2991339	NM_174960.2	1.76	1.54E-02
Nnmt	ILMN_2665411	NM_134154.3	1.76	4.49E-02
Dpagt1	ILMN_2641111	NM_145931.1	1.76	2.04E-03
Irf5	ILMN_2621752	NM_030704.1	1.76	1.18E-02
Arrb2	ILMN_2700848	NM_172772.2	1.76	1.31E-02
Lima1	ILMN_1228374	NM_174850.2	1.76	3.26E-02
Pelo	ILMN_2853658	NM_139272.2	1.76	1.80E-02
Lasp1	ILMN_2879745	NM_010043.1	1.76	3.11E-02
Fnbp1l	ILMN_2746132	NM_172625.2	1.75	4.74E-02
Rtn4	ILMN_2699645	NM_022309.3	1.75	4.76E-02
Mgat1	ILMN_2667234	NM_030692.1	1.75	3.02E-03
Elovl5	ILMN_2652757	NM_030729.4	1.75	3.40E-02
BB146404	ILMN_1245328	NM_010687.1	1.75	2.33E-02
Myo1b	ILMN_2671235	NM_133216.2	1.75	9.20E-03
Ampd2	ILMN_2701534	NM_001030296.3	1.75	2.25E-02
4922503N01Rik	ILMN_2603888	NM_001077515.1	1.75	7.13E-03
Asphd2	ILMN_3162247	NM_007544.3	1.75	4.06E-02
BC022687	ILMN_2631663	NM_172735.2	1.75	9.06E-03
Srpk2	ILMN_1251876	NM_026369.1	1.75	1.15E-02
1110012M11Rik	ILMN_2753109	NM_011764.2	1.75	9.65E-03
Dpy30	ILMN_2602396	NM_026268.1	1.74	1.37E-03
Hip1r	ILMN_2780848	NM_026578.2	1.74	2.22E-03
Chfr	ILMN_2985111	NM_134037.2	1.74	4.95E-02
Dusp3	ILMN_2637538	NM_010175.4	1.74	1.80E-02
Nelf	ILMN_3129497	NM_145465.1	1.74	3.18E-02
Prr13	ILMN_2657516	NM_011573.2	1.74	4.82E-02

Fermt2	ILMN_2670022	NM_010160.2	1.73	2.42E-02
6330442E10Rik	ILMN_2834294	NM_011221.2	1.73	3.05E-02
Mobk1b	ILMN_1230545	NM_019542.1	1.73	3.94E-02
Pik3r6	ILMN_3160361	NM_029810.3	1.72	1.59E-02
Tmco4	ILMN_2891104	NM_011843.2	1.72	1.52E-02
Cc2d1b	ILMN_2731197	NM_153055.2	1.72	2.63E-02
Zfp106	ILMN_2482427	NM_144893.1	1.72	2.39E-02
Myom1	ILMN_2626442	NM_016671.2	1.72	4.28E-02
Cdkl2	ILMN_2657791	NM_013835.1	1.72	2.23E-02
1810055E12Rik	ILMN_2805697	NM_001025360.1	1.72	8.21E-03
Stx6	ILMN_2704177	NM_011870.2	1.71	1.60E-02
4930453N24Rik	ILMN_2888766	NM_008403.2	1.71	2.58E-02
Man1b1	ILMN_1239921	NM_023434.1	1.71	2.50E-02
Wdr75	ILMN_2849571	NM_172520.2	1.71	3.73E-02
Snx18	ILMN_2597886	NM_028023.3	1.71	3.73E-02
LOC100046056	ILMN_2679937	NM_153405.2	1.71	1.70E-02
Tnks	ILMN_1250052	NM_010926.4	1.70	2.14E-02
1110039B18Rik	ILMN_2739128	NM_011373.2	1.70	4.06E-02
Muted	ILMN_2705128	NM_011439.2	1.70	2.02E-02
Hecw2	ILMN_3098718	NM_001080773.1	1.70	2.51E-03
Sipa1	ILMN_2642133	NM_145535.1	1.70	3.05E-02
Mras	ILMN_1252830	NM_013690.2	1.70	1.33E-02
Gnl3	ILMN_3097726	NM_175145.3	1.70	6.35E-03
Lman11	ILMN_3051282	NM_029362.3	1.70	2.51E-02
Ric3	ILMN_3072117	NM_001042487.1	1.70	2.35E-02
2310033P09Rik	ILMN_1232120	NM_029239.2	1.70	1.28E-02
Arf2	ILMN_1214810	NM_013530.1	1.69	1.80E-02
Csf3r	ILMN_1255648	NM_148930.2	1.69	3.64E-02

Rdh11	ILMN_2899318	NM_134020.1	1.69	4.17E-02
D14Ert668e	ILMN_2827780	NM_008879.3	1.69	2.02E-02
Coro1a	ILMN_2747060	NM_009045.4	1.69	4.43E-02
Galnt10	ILMN_2750011	NM_138630.1	1.68	1.48E-02
BC067047	ILMN_2705235	NM_013508.1	1.68	4.92E-02
Tmbim4	ILMN_2730714	NM_007459.2	1.68	2.25E-02
Ncoa5	ILMN_2794460	NM_008300.3	1.68	4.83E-02
LOC100041103	ILMN_2761720	NM_133224.1	1.68	1.42E-02
Kpna3	ILMN_1247312	NM_028643.3	1.67	4.30E-02
Cd97	ILMN_2694175	NM_172749.3	1.67	4.96E-02
Scarb1	ILMN_1223315	NM_010924.1	1.67	1.66E-02
AI606181	ILMN_2762863	NM_007875.2	1.67	3.42E-02
Sell	ILMN_3009860	NM_012057.3	1.67	9.77E-03
Klhdc4	ILMN_2740710	NM_145429.4	1.66	4.40E-02
Ptpm	ILMN_2875876	NM_023063.1	1.66	3.35E-02
BC004728	ILMN_3130403	NM_134058.1	1.66	4.80E-02
Csk	ILMN_1229530	NM_010688.2	1.66	3.85E-02
Efs	ILMN_2634222	NM_153118.1	1.66	4.91E-02
EG622339	ILMN_3006990	NM_194054.2	1.65	3.62E-02
Slc15a4	ILMN_2790312	NM_010794.2	1.65	4.10E-02
Ctnnb1	ILMN_1249568	NM_134255.2	1.65	2.84E-02
Cbfb	ILMN_2837855	NM_178908.3	1.65	2.04E-02
Txlna	ILMN_1218078	NM_010863.2	1.65	9.07E-03
Nrp2	ILMN_3136656	NM_028779.4	1.65	3.42E-02
Ctdspl	ILMN_2632489	NM_153392.1	1.64	2.28E-02
Golga1	ILMN_1225918	NM_028386.1	1.64	2.09E-02
Csnk1g2	ILMN_2875163	NM_145450.3	1.64	3.76E-02
Ptk2	ILMN_2615901	NM_009274	1.64	4.79E-02

Dhdds	ILMN_2637850	NM_028617.2	1.63	1.97E-02
AI451617	ILMN_2695412	NM_024428.3	1.63	3.82E-03
Zcchc6	ILMN_1220072	NM_145070.2	1.63	1.98E-02
8430410A17Rik	ILMN_2604263	NM_172717.1	1.62	4.87E-02
Arpc3	ILMN_2603725	NM_028207.2	1.62	4.60E-02
Ptdss1	ILMN_2745130	NM_001039387.1	1.62	1.05E-02
Mapre1	ILMN_2664972	NM_025385.2	1.62	1.04E-02
Gsdmdc1	ILMN_2748928	NM_146054.2	1.62	4.06E-02
Aars	ILMN_1258394	NM_178745.3	1.61	8.93E-03
AI413582	ILMN_2857595	NM_145571	1.61	3.50E-02
Cpsf1	ILMN_3139668	NM_001004435.2	1.61	2.76E-02
Atp9b	ILMN_2700425	NM_029857.2	1.61	2.20E-02
Senp2	ILMN_1250929	NM_177045.2	1.61	2.59E-02
Dnttip1	ILMN_1256348	NM_011743.2	1.61	9.69E-03
Cyb561d1	ILMN_2624358	NM_010867.2	1.61	4.86E-02
Rabgef1	ILMN_1226143	NM_177270.3	1.61	3.18E-02
Nrip3	ILMN_2875404	NM_026437.1	1.61	1.73E-02
Slc25a5	ILMN_2660099	NM_021433.3	1.60	3.20E-02
AI450540	ILMN_2704690	NM_026273.1	1.60	1.58E-02
Pou2af1	ILMN_1228328	NM_001029983.1	1.60	4.80E-02
1810020D17Rik	ILMN_2896944	NM_028599.1	1.60	3.02E-02
Zhx1	ILMN_2479530	NM_130796.3	1.60	4.44E-02
Abi2	ILMN_3006643	XM_001475483.1	1.59	3.17E-02
Prmt3	ILMN_2948712	NM_175091.3	1.59	3.64E-02
Slc35c2	ILMN_2895000	NM_144525	1.59	3.94E-02
Dclk2	ILMN_2990152	NM_139063.1	1.58	1.65E-02
2310002L09Rik	ILMN_1214119	NM_001001883.2	1.58	2.29E-02
Rnf185	ILMN_2957036	NM_011379.3	1.58	2.17E-02

Yeats4	ILMN_3002281	NM_008624.3	1.58	1.90E-02
Tubb2b	ILMN_2825574	NM_178846.1	1.58	4.73E-02
Hook2	ILMN_1235962	NM_199222.1	1.58	1.03E-02
Mov10	ILMN_2915279	NM_001038624.1	1.58	1.58E-02
Cpsf1	ILMN_3062133	NM_024210.2	1.58	3.58E-02
Zdhhc18	ILMN_3162113	NM_007477.4	1.57	3.53E-02
Pou2f2	ILMN_2687602	NM_007782.1	1.57	4.14E-02
Gpatch4	ILMN_1219670	NM_021557.2	1.57	4.10E-02
Naip5	ILMN_3059557	NM_199015.1	1.57	4.37E-02
Slc25a24	ILMN_1213947	NM_009898.2	1.57	2.39E-02
Napsa	ILMN_1230302	NM_134189.2	1.57	9.00E-03
Cstf1	ILMN_1216029	NM_177782.3	1.57	1.16E-02
Dbnl	ILMN_2710604	NM_026617.3	1.57	1.61E-02
Renbp	ILMN_2674533	NM_144892.1	1.57	4.65E-02
8430427H17Rik	ILMN_2910020	XM_001476013.1	1.57	2.46E-02
Bax	ILMN_2907655	NM_008466.3	1.56	3.83E-02
Cdk5rap2	ILMN_2842859	NM_011925.1	1.56	1.77E-02
Arhgap9	ILMN_2650739	NM_016741.1	1.56	1.87E-02
Naca	ILMN_2955104	XR_035118.1	1.55	2.27E-02
5033414D02Rik	ILMN_2818396	NM_011346.1	1.55	4.74E-02
Fadd	ILMN_2665625	NM_145605.1	1.55	4.40E-02
Tcf25	ILMN_2769733	NM_008984.1	1.55	3.85E-02
Sh3bgrl2	ILMN_2622804	NM_174992.3	1.55	1.18E-02
Pdcd10	ILMN_2806851	NM_007783.2	1.55	1.89E-02
Lincr	ILMN_1220349	NM_010112.3	1.54	1.02E-02
Park7	ILMN_2728754	NM_001081297.1	1.54	4.28E-02
Sema7a	ILMN_2666526	NM_133895.1	1.54	3.51E-02
Skp2	ILMN_2592285	NM_025680.3	1.54	4.69E-02

Arsj	ILMN_1237725	NM_022309.2	1.54	2.80E-02
Pomp	ILMN_2625352	NM_001005506.2	1.54	1.84E-02
C330016O10Rik	ILMN_2685222	NM_001077406.1	1.54	9.66E-03
Ddx17	ILMN_1234672	NM_133710.1	1.53	4.69E-02
Ptpn	ILMN_1245627	NM_029793.1	1.52	3.48E-02
Pygo2	ILMN_2609568	NM_134002.1	1.52	1.99E-02
Cd6	ILMN_2769330	NM_007982.1	1.52	3.97E-02
Sdc1	ILMN_1228718	NM_026144.2	1.52	3.53E-02
Ttc1	ILMN_2464381	NM_199146.1	1.52	4.44E-02
LOC100044322	ILMN_2417316	NM_153538.2	1.51	3.36E-02
Tpra40	ILMN_2440066	NM_173737.2	1.51	3.76E-02
Ppyr1	ILMN_3001106	NM_019824.3	1.50	3.16E-02
Klr1a	ILMN_2602983	NM_008959.2	1.50	2.41E-02
Tbcb	ILMN_2620061	NM_007896.3	1.50	2.79E-02
Numb	ILMN_2727687	NM_026960.3	1.50	3.16E-02
Pmf1	ILMN_2711410	NM_025928.3	0.66	9.40E-03
Hspa9	ILMN_1222803	NM_010481.1	0.66	2.98E-02
Fech	ILMN_1228534	NM_007998.5	0.66	4.70E-02
Cux1	ILMN_1223862	NM_009986.3	0.66	2.90E-02
Gemin6	ILMN_1214319	NM_026053.1	0.66	3.98E-02
Rnf141	ILMN_1229687	NM_025999.2	0.66	3.73E-02
Sgcb	ILMN_1255256	NM_011890.4	0.66	2.80E-02
Rnf138	ILMN_2683822	NM_019706.2	0.66	4.05E-02
1500041J02Rik	ILMN_2639498	NM_026424	0.66	1.80E-02
Fcer1a	ILMN_2863390	NM_010184.1	0.66	1.68E-02
Impad1	ILMN_1216426	NM_177730.3	0.66	4.52E-02
1500005I02Rik	ILMN_2835694	NM_028055.1	0.65	1.90E-02
Aox1	ILMN_2679131	NM_009676.2	0.65	4.71E-02



Rspo1	ILMN_2686865	NM_138683.1	0.65	2.20E-02
Rab24	ILMN_2946440	NM_009000.2	0.65	3.91E-02
Txnrd3	ILMN_2453086	NM_153162.3	0.65	3.82E-02
Cox6b1	ILMN_2616405	NM_025628.2	0.65	2.27E-02
Itpka	ILMN_2752431	NM_146125.1	0.65	1.88E-02
Glb1l2	ILMN_2755372	NM_153803.1	0.65	3.22E-02
Hfe2	ILMN_2688089	NM_027126.2	0.65	5.00E-02
Spc24	ILMN_2615709	NM_026282.4	0.65	1.23E-02
Dhcr7	ILMN_2660471	NM_007856.2	0.65	3.76E-02
Klf17	ILMN_2469125	NM_029416.2	0.65	3.41E-02
Ndufa5	ILMN_1216007	NM_026614.2	0.65	2.39E-02
Copz2	ILMN_2878274	NM_019877.1	0.65	3.18E-02
Abca6	ILMN_2965612	NM_147218.1	0.65	3.66E-02
Defb8	ILMN_2814551	NM_153108.3	0.65	4.65E-02
Cox6b1	ILMN_1254971	NM_025628.2	0.64	1.89E-02
Fhl1	ILMN_2780489	NM_010209.1	0.64	3.18E-02
Krt26	ILMN_2765981	NM_001033397.2	0.64	1.88E-02
Hadhsc	ILMN_2661733	NM_008212.1	0.64	4.95E-02
Rdh10	ILMN_2804091	NM_133832.2	0.64	1.61E-02
Pdha1	ILMN_2679851	NM_008810.2	0.64	2.43E-02
Ahcy11	ILMN_1245795	NM_145542.3	0.64	4.85E-02
E130309D14Rik	ILMN_3161884	NM_001013784.1	0.64	4.94E-02
6720467C03Rik	ILMN_2837189	NM_026558.2	0.64	4.72E-02
A030007L17Rik	ILMN_2864906	NM_026637.2	0.64	4.89E-02
Nup85	ILMN_2890574	NM_001002929.3	0.64	4.56E-02
Mrpl10	ILMN_2822621	NM_026154.1	0.64	9.09E-03
BC025920	ILMN_2918278	NM_001033363.1	0.64	1.18E-02
Csf3	ILMN_2744018	NM_009971.1	0.64	3.66E-02

Pcdhgb6	ILMN_2722632	NM_033578.3	0.64	1.72E-02
Wdr34	ILMN_1233784	NM_001008498.2	0.63	9.07E-03
Zfp606	ILMN_3135284	NM_001039951.1	0.63	7.96E-03
Stra13	ILMN_1226798	NM_016665.1	0.63	2.95E-02
2310079N02Rik	ILMN_2635801	NM_025636.3	0.63	3.98E-02
Tbp	ILMN_2869461	NM_013684.2	0.63	1.18E-02
Dis3l2	ILMN_2592496	NM_153530.1	0.63	1.81E-02
Slmap	ILMN_2443464	NM_032008	0.63	9.45E-03
Mtfmt	ILMN_2715152	NM_027134.1	0.63	2.53E-02
Mcee	ILMN_2707494	NM_028626.1	0.63	3.12E-02
Rbed1	ILMN_2742244	NM_144917.4	0.63	2.59E-02
Pxmp4	ILMN_2688639	NM_021534.3	0.63	3.72E-02
Rpo1-4	ILMN_2836664	NM_009088.2	0.63	3.64E-02
Sc5d	ILMN_1225039	NM_172769	0.63	3.10E-02
Avpr1a	ILMN_1242999	NM_016847.2	0.63	9.84E-03
Ap1s3	ILMN_2606532	NM_183027.1	0.63	2.09E-02
Yy2	ILMN_2594376	NM_001098723.1	0.63	3.73E-02
2610101N10Rik	ILMN_2719131	NM_026476.1	0.63	3.66E-02
Otud7b	ILMN_3122383	NM_001025613.1	0.63	4.01E-02
Dbr1	ILMN_1254380	NM_031403.3	0.62	6.97E-03
Pdzd11	ILMN_2972646	NM_028303.1	0.62	2.84E-02
Fbxo38	ILMN_1217700	NM_134136.2	0.62	1.36E-02
Ppt1	ILMN_2736168	NM_008917.2	0.62	3.33E-02
Anapc13	ILMN_2796089	NM_181394.1	0.62	1.85E-02
Slamf1	ILMN_2721571	NM_013730.4	0.62	2.82E-02
Ppt2	ILMN_2796869	NM_019441.2	0.62	3.61E-02
Hyal1	ILMN_2644375	NM_008317.4	0.62	4.14E-02
Tmem59l	ILMN_2698911	NM_182991.2	0.62	2.18E-02

Xpnpep3	ILMN_2642546	NM_177310.2	0.62	2.47E-02
Acss2	ILMN_2734181	NM_019811.3	0.62	3.73E-02
Impdh2	ILMN_2588398	NM_011830	0.62	2.82E-02
Rab11b	ILMN_1259068	NM_008997.3	0.62	2.21E-02
Hoxa6	ILMN_2724039	NM_010454.1	0.62	1.23E-02
Acadv1	ILMN_2956932	NM_017366.1	0.62	4.38E-02
Spata2L	ILMN_1229246	NM_030176.2	0.62	3.61E-02
Ctnna3	ILMN_2834525	NM_177612.1	0.62	1.26E-02
Phka2	ILMN_2725082	NM_172783.1	0.62	3.42E-02
Mrpl48	ILMN_1236131	NM_198831.2	0.62	3.06E-02
0610040J01Rik	ILMN_2915716	NM_029554.2	0.62	1.77E-02
Bnip1	ILMN_2648648	NM_172149.4	0.62	4.48E-03
E130014J05Rik	ILMN_2630039	NM_145989	0.62	2.47E-02
Rnf5	ILMN_3161066	NM_019403.3	0.62	4.66E-02
Ufc1	ILMN_2744693	NM_025388.2	0.62	3.99E-02
Rnf113a2	ILMN_1250750	NM_025525.2	0.62	4.34E-02
Gphn	ILMN_2910990	NM_172952.1	0.61	4.67E-02
Tdrd3	ILMN_3075157	NM_172605.2	0.61	4.86E-02
Il15ra	ILMN_1220603	NM_133836.1	0.61	4.25E-02
Ralgps2	ILMN_2884869	NM_023884.2	0.61	3.53E-02
Aifm2	ILMN_1216842	NM_001039194.2	0.61	3.97E-02
Ppm1g	ILMN_2643832	NM_008014.3	0.61	1.52E-02
Cox17	ILMN_3160517	NM_001017429.2	0.61	2.27E-02
Mllt3	ILMN_3035795	NM_027326.3	0.61	1.89E-02
Gfra4	ILMN_2738522	NM_020014.1	0.61	2.15E-03
Atad4	ILMN_1246558	NM_146026.1	0.61	1.49E-02
Phc1	ILMN_3142248	NM_007905.2	0.61	1.44E-02
Ift20	ILMN_2592093	NM_018854.3	0.61	4.46E-02

Tmem135	ILMN_2669991	NM_028343.3	0.61	3.41E-02
Nipa1	ILMN_2705349	NM_153578.2	0.61	1.69E-02
1810030N24Rik	ILMN_2873180	NM_025471.1	0.61	2.42E-02
Setdb2	ILMN_1228453	NM_001081024.1	0.61	3.90E-02
LOC100047606	ILMN_2675199	XR_033719.1	0.61	6.25E-03
9030025P20Rik	ILMN_2716783	NM_001039552.1	0.61	2.28E-02
Akap9	ILMN_2678495	NM_194462.2	0.61	5.92E-03
Hnrph1	ILMN_2684987	NM_021510.2	0.61	4.09E-02
Ssr3	ILMN_2838645	NM_026155.1	0.61	7.91E-03
Atp2a1	ILMN_2666864	NM_007504.2	0.61	1.13E-02
Ak2	ILMN_2641360	NM_001033966.3	0.61	4.83E-02
Fahd2a	ILMN_1214593	NM_029629.1	0.61	2.84E-02
Cd9912	ILMN_1230457	NM_138309.2	0.61	3.35E-02
Eif2b1	ILMN_2600508	NM_145371.1	0.61	3.19E-02
D10Jhu81e	ILMN_2991545	NM_138601.1	0.61	1.89E-02
Dap3	ILMN_2722542	NM_022994.2	0.61	9.14E-03
Slc1a7	ILMN_2707789	NM_146255.1	0.61	6.59E-03
Mrps28	ILMN_2752224	NM_025434.2	0.61	4.63E-02
Gpr180	ILMN_3161518	NM_021434.4	0.61	2.78E-02
Lsm8	ILMN_2883907	NM_133939.1	0.61	2.46E-02
Agxt2l2	ILMN_1228943	NM_028398.2	0.61	3.29E-02
Clec9a	ILMN_2929768	NM_172732.2	0.60	3.56E-02
Ccdc44	ILMN_1219565	NM_027346.1	0.60	2.09E-02
1810037C20Rik	ILMN_2724415	NM_025473.2	0.60	1.53E-02
Max	ILMN_3068231	NM_008558.1	0.60	2.59E-02
Hist1h2bm	ILMN_2891646	NM_178200.1	0.60	4.46E-02
Sdhd	ILMN_2592389	NM_023374.3	0.60	1.80E-02
Bfar	ILMN_2987995	NM_025976.1	0.60	1.87E-02

Sds	ILMN_1255497	NM_145565.1	0.60	1.76E-03
Scp2	ILMN_2705886	NM_011327.2	0.60	2.13E-02
2310037I24Rik	ILMN_2625058	NM_133714.4	0.60	4.43E-02
Mas1	ILMN_1253860	NM_008552.3	0.60	3.07E-02
Ndufa7	ILMN_2629044	NM_023202.3	0.60	1.20E-02
Ndufc1	ILMN_1229975	NM_025523.1	0.60	2.41E-02
Nme7	ILMN_2635105	NM_138314.2	0.60	1.68E-02
Nhej1	ILMN_2991107	NM_029342.3	0.60	4.31E-02
Dak	ILMN_1246429	NM_145496.1	0.60	3.87E-02
Rabgap11	ILMN_1214241	NM_013862.4	0.60	1.57E-02
Sra1	ILMN_2876554	NM_025291.1	0.60	2.16E-02
Stxbp51	ILMN_3000703	NM_172440.1	0.60	1.57E-02
Zdhhc13	ILMN_1215722	NM_028031.1	0.60	1.80E-02
Chrd	ILMN_2765047	NM_009893.1	0.60	3.26E-02
Mef2c	ILMN_1214950	NM_025282.2	0.60	2.99E-02
1110012L19Rik	ILMN_3144761	NM_026787.1	0.60	2.56E-02
Mboat2	ILMN_1229343	NM_001083341.1	0.60	4.74E-02
1700088E04Rik	ILMN_1239196	NM_138581.2	0.60	1.49E-02
Entpd4	ILMN_2589312	NM_026174.2	0.59	3.36E-02
Hfe	ILMN_2592519	NM_010424.4	0.59	4.90E-02
Aes	ILMN_2808336	NM_010347.2	0.59	3.64E-02
Klf15	ILMN_1235255	NM_023184.3	0.59	2.78E-02
Bex4	ILMN_3118584	NM_212457.1	0.59	3.16E-03
Arl16	ILMN_1231868	NM_197995.2	0.59	3.94E-02
l7Rn6	ILMN_3162224	NM_026304.2	0.59	1.12E-02
Cd28	ILMN_2589871	NM_007642.2	0.59	3.05E-02
Nudt6	ILMN_1253773	NM_153561.2	0.59	3.60E-02
Hbs11	ILMN_1229378	NM_019702.2	0.59	9.84E-03

Pccb	ILMN_2875938	NM_025835.1	0.59	1.87E-02
1110018J18Rik	ILMN_2674655	NM_025370.2	0.59	2.78E-02
Chrm2	ILMN_2971508	NM_203491.1	0.59	1.06E-02
Rpusd4	ILMN_2718974	NM_028040.2	0.59	1.89E-02
Ubac1	ILMN_2431046	NM_133835.1	0.59	1.31E-02
Hint1	ILMN_2723631	NM_008248.2	0.59	9.14E-03
Mdh1	ILMN_2655677	NM_008618.2	0.59	3.95E-02
Vps35	ILMN_2844784	NM_022997.2	0.59	1.40E-02
2010012O05Rik	ILMN_2748300	NM_025563.3	0.59	2.92E-02
1110049F12Rik	ILMN_1255697	NM_025411.3	0.59	1.71E-02
Sdf4	ILMN_2726315	NM_011341.4	0.59	2.25E-02
Tctex1d2	ILMN_2720925	NM_025329.3	0.59	1.98E-02
1810030N24Rik	ILMN_1246756	NM_025471.2	0.59	3.33E-02
Ank3	ILMN_2622306	NM_170687.3	0.59	5.13E-03
2310045A20Rik	ILMN_2663281	NM_172710.3	0.59	2.12E-02
Edg7	ILMN_3009440	NM_022983.2	0.59	7.37E-03
Asb3	ILMN_2663555	NM_023906.3	0.59	3.91E-02
Irf6	ILMN_1216279	NM_016851.2	0.58	2.53E-02
Hrsp12	ILMN_2610706	NM_008287.2	0.58	1.54E-02
Commd1	ILMN_1231658	NM_144514.2	0.58	9.03E-04
Pbx3	ILMN_2642147	NM_016768.1	0.58	9.87E-03
Osbp12	ILMN_1259132	NM_144500.3	0.58	1.80E-02
Birc2	ILMN_2741621	NM_007465.1	0.58	2.50E-03
Slc35a1	ILMN_2702767	NM_011895.2	0.58	1.58E-02
Fen1	ILMN_1259473	NM_007999.3	0.58	3.61E-02
Hbs11	ILMN_3139405	NM_001042593.1	0.58	1.03E-02
Blm	ILMN_3150996	NM_001042527.1	0.58	4.90E-02
Opn4	ILMN_2689040	NM_013887.1	0.58	1.63E-02

Arl6ip2	ILMN_3138157	NM_019717.2	0.58	2.49E-02
Nudt2	ILMN_1259148	NM_025539.2	0.58	3.47E-02
Cops7a	ILMN_2875812	NM_012003.1	0.58	6.70E-03
Zmpste24	ILMN_2435079	NM_172700.2	0.58	3.07E-02
Osbpl6	ILMN_1221789	NM_145525.2	0.58	1.96E-02
2810003C17Rik	ILMN_2741063	NM_145144.1	0.58	3.54E-02
B3gnt1	ILMN_1257876	NM_175383.2	0.58	3.50E-02
Map2k4	ILMN_2920549	NM_009157.2	0.58	5.39E-03
Myocd	ILMN_3072880	NM_145136.2	0.58	2.65E-02
Wbp1	ILMN_2951120	NM_016757.1	0.58	3.81E-03
Slc7a4	ILMN_2639360	NM_144852.3	0.58	3.87E-02
Fahd2a	ILMN_1245115	NM_029629.1	0.57	1.20E-02
Rabggtb	ILMN_2589819	NM_011231.1	0.57	4.15E-03
Snrpg	ILMN_2975640	NM_026506.1	0.57	9.65E-04
Armc8	ILMN_2735080	NM_028768.2	0.57	3.14E-02
Topors	ILMN_2442075	NM_134097.3	0.57	3.11E-02
Ndufb6	ILMN_1242233	NM_001033305.2	0.57	6.54E-03
Sec61a2	ILMN_2655668	NM_021305.3	0.57	4.15E-03
Ccdc28a	ILMN_2619718	NM_144820.3	0.57	3.91E-02
Synj2bp	ILMN_1252068	NM_025292.4	0.57	4.43E-02
Orai3	ILMN_1260367	NM_198424.3	0.57	5.73E-03
Furin	ILMN_3148489	NM_011046.2	0.57	3.16E-02
Slu7	ILMN_1237003	NM_148673.3	0.57	6.87E-03
Cd207	ILMN_2785648	NM_144943.2	0.57	3.05E-02
Smcr7	ILMN_2995370	NM_001009927.1	0.57	4.54E-02
Uqcrc2	ILMN_2435140	NM_025899.2	0.57	4.20E-02
Aaas	ILMN_2686898	NM_153416.1	0.57	3.07E-02
Khdrbs1	ILMN_1256052	NM_011317.3	0.57	8.99E-03

Echs1	ILMN_2888181	NM_053119.1	0.57	1.53E-02
Etfa	ILMN_2649966	NM_145615.3	0.57	3.42E-02
Atp6ap2	ILMN_2725286	NM_027439.3	0.57	4.04E-02
Iqgap2	ILMN_2908846	NM_027711.1	0.57	1.93E-03
Armc8	ILMN_1230072	NM_028768.2	0.57	1.87E-02
Rpo2tc1	ILMN_2590860	NM_011294.2	0.57	5.04E-03
Mapk9	ILMN_2591066	NM_016961.2	0.57	1.66E-02
Lsm14b	ILMN_2782663	NM_177727.2	0.57	2.91E-02
Rhobtb3	ILMN_1221243	NM_028493.2	0.57	2.46E-02
Vdac1	ILMN_2832808	NM_011694.1	0.57	7.04E-03
Anxa6	ILMN_2878060	NM_013472.2	0.57	2.28E-02
Scey1	ILMN_2613399	NM_007926.2	0.57	2.17E-02
Foxred1	ILMN_2832884	NM_172291.1	0.57	1.01E-02
Extl2	ILMN_1213855	NM_021388.3	0.57	3.98E-02
LOC100044294	ILMN_1234172	XM_001471475.1	0.57	1.39E-02
Nme4	ILMN_1244161	NM_019731.1	0.57	4.86E-02
Nup88	ILMN_3034381	NM_172394.2	0.57	4.16E-02
Lsm14b	ILMN_2613313	NM_177727.4	0.57	2.77E-02
Pcca	ILMN_2674924	NM_144844.1	0.57	1.58E-02
Mapk1	ILMN_2601071	NM_011949.3	0.57	1.89E-02
Sec23a	ILMN_1213958	NM_009147.2	0.56	3.35E-02
Mrrf	ILMN_2940766	NM_026422.1	0.56	4.94E-02
Podxl2	ILMN_2836312	NM_176973.3	0.56	2.46E-02
Rock2	ILMN_1248041	NM_009072.2	0.56	4.95E-02
Rbm4	ILMN_2769133	NM_009032.2	0.56	7.70E-03
Accn2	ILMN_2643241	NM_009597.1	0.56	7.42E-03
Idh3b	ILMN_1235050	NM_130884.3	0.56	9.49E-03
Dbi	ILMN_3150159	NM_007830.3	0.56	3.75E-02



Atp5s	ILMN_2642158	NM_026536.1	0.56	6.59E-03
1810021J13Rik	ILMN_2639402	NM_025464.2	0.56	9.11E-03
0610010K14Rik	ILMN_2674228	NM_026757.1	0.56	1.13E-02
Dclre1b	ILMN_2638404	NM_133865.2	0.56	1.32E-02
Pnpla7	ILMN_2695047	NM_146251.3	0.56	2.76E-02
Prkce	ILMN_2993204	NM_011104.1	0.56	1.54E-02
Esrra	ILMN_2972292	NM_007953.2	0.56	4.23E-02
Ctnna1	ILMN_2780205	NM_009818.1	0.56	7.44E-03
Rpo1-4	ILMN_2700107	NM_009088.2	0.56	3.41E-02
Cog6	ILMN_1219661	NM_026225.2	0.56	1.84E-02
1700034H14Rik	ILMN_2897476	NM_025969.1	0.56	4.85E-02
Rps7	ILMN_2916116	NM_011300.2	0.56	2.96E-03
Ercc5	ILMN_2769261	NM_011729.1	0.56	2.20E-02
Scrn1	ILMN_1241383	NM_027268	0.56	7.37E-03
Mcrs1	ILMN_1257515	NM_016766.2	0.56	2.46E-02
Fahd2a	ILMN_2882425	NM_029629.1	0.56	2.18E-03
Arl6ip2	ILMN_3060766	NM_019717.2	0.56	1.19E-02
Fchsd2	ILMN_2798086	NM_199012.1	0.56	4.24E-03
Tmtc4	ILMN_2897110	NM_028651.1	0.56	1.13E-02
2300002D11Rik	ILMN_3119914	NM_001081156.1	0.55	3.35E-02
Lifr	ILMN_2829015	NM_013584.1	0.55	1.23E-02
Trim23	ILMN_2879225	NM_030731.1	0.55	3.72E-02
Vamp8	ILMN_2499400	NM_016794.2	0.55	3.28E-02
Suox	ILMN_2912532	NM_173733.2	0.55	1.10E-02
Dnajc5b	ILMN_2619505	NM_025489.2	0.55	1.35E-02
1700034H14Rik	ILMN_2684388	NM_025969.3	0.55	1.63E-02
Mrp63	ILMN_2790113	NM_026401.1	0.55	1.61E-02
Eprs	ILMN_3069857	NM_029735.1	0.55	7.52E-03

Ndufa12	ILMN_1220362	NM_025551.3	0.55	2.33E-03
Ufsp2	ILMN_2717569	NM_138668.1	0.55	2.88E-02
Oat	ILMN_2933112	NM_016978.1	0.55	2.07E-02
Trp53bp2	ILMN_2419247	NM_173378.2	0.55	6.41E-03
Tmco7	ILMN_1241914	NM_173037.1	0.55	1.66E-02
Ptp4a3	ILMN_1226848	NM_008975.2	0.55	3.24E-02
Crybb1	ILMN_2702122	NM_023695.2	0.55	9.66E-03
Coq9	ILMN_2774456	NM_026452.2	0.55	1.53E-02
Tg	ILMN_2658878	NM_009375.2	0.55	7.37E-03
Acadm	ILMN_2810473	NM_007382.1	0.55	4.11E-03
Agtpbp1	ILMN_3117612	NM_001048008.1	0.55	1.21E-03
Asph	ILMN_2606990	NM_023066.2	0.55	4.94E-02
Yif1b	ILMN_2607609	NM_029887.2	0.55	9.19E-03
Nedd4l	ILMN_2878501	NM_031881.1	0.54	1.16E-02
Suc1g2	ILMN_3122427	NM_011507.1	0.54	6.02E-03
Pigp	ILMN_2592239	NM_019543.2	0.54	3.53E-02
Adnp	ILMN_2805261	NM_009628.2	0.54	2.62E-02
Rnf11	ILMN_2654403	NM_013876.3	0.54	3.00E-02
Flot2	ILMN_3152380	NM_001040403.1	0.54	3.54E-02
Scp2	ILMN_2705881	NM_011327.1	0.54	2.35E-03
Gnpat	ILMN_2605941	NM_010322.2	0.54	8.91E-03
2310003L22Rik	ILMN_2747677	NM_027093.3	0.54	3.37E-02
5330431N19Rik	ILMN_1237049	NM_172639.2	0.54	4.05E-02
Cml3	ILMN_2735046	NM_053097.1	0.54	6.48E-03
2410166I05Rik	ILMN_2629718	NM_029759.2	0.54	3.66E-02
Gatad1	ILMN_2594205	NM_026033.1	0.54	4.27E-02
Pmvk	ILMN_1227596	NM_026784.2	0.54	4.20E-03
Hint3	ILMN_2972627	NM_025798.2	0.54	1.56E-02

Pcca	ILMN_2921698	NM_144844.1	0.54	4.84E-02
1110018J18Rik	ILMN_2647669	NM_025370.2	0.54	2.17E-03
Plec1	ILMN_2602697	NM_201385.1	0.54	1.23E-03
Cs	ILMN_1241236	NM_026444.3	0.54	1.56E-03
Avpi1	ILMN_2755585	NM_027106.3	0.54	1.61E-02
Uros	ILMN_2498173	NM_009479.2	0.54	3.70E-02
Pex7	ILMN_2739123	NM_008822.1	0.54	2.49E-03
Ndufb7	ILMN_2717460	NM_025843.3	0.54	3.70E-02
Thtpa	ILMN_2794825	NM_153083.2	0.54	5.13E-03
Nudc	ILMN_1249749	NM_010948.1	0.54	1.20E-02
Asah1	ILMN_2629591	NM_019734.1	0.54	4.53E-02
Jam2	ILMN_2790839	NM_023844.2	0.54	4.13E-03
5830468K18Rik	ILMN_2688721	NM_172644	0.54	1.55E-02
Pdzd11	ILMN_2972645	NM_028303.1	0.54	8.14E-03
Cxxc4	ILMN_3123909	NM_001004367.2	0.54	1.50E-02
Kbtbd4	ILMN_2806291	NM_025991.1	0.54	1.98E-02
2610034E13Rik	ILMN_2612091	NM_029365	0.54	2.12E-02
Sfxn5	ILMN_2632073	NM_178639.2	0.54	1.61E-02
Cldn10	ILMN_2515816	NM_021386.3	0.54	1.24E-02
D8Ert738e	ILMN_2820559	NM_001007571.1	0.54	1.68E-02
1200003C05Rik	ILMN_2943319	NM_024205.1	0.54	1.04E-02
Sorcs2	ILMN_2695085	NM_030889.2	0.54	1.95E-03
LOC100048613	ILMN_2647188	XM_001480380.1	0.54	2.70E-03
Phka2	ILMN_2725083	NM_172783.2	0.54	2.22E-03
Camk2g	ILMN_2765196	NM_178597.4	0.54	4.91E-03
1300018J18Rik	ILMN_2687854	NM_027905.2	0.54	8.36E-04
Grc10	ILMN_2722678	NM_013535.1	0.54	4.25E-03
Rab4a	ILMN_1212902	NM_009003.2	0.53	1.66E-03

Etv1	ILMN_2649709	NM_007960.1	0.53	4.12E-02
Rdm1	ILMN_1218934	NM_025654.2	0.53	1.10E-02
Ggnbp1	ILMN_2960522	NM_027544.1	0.53	3.58E-02
Kcna2	ILMN_2727857	NM_008417.3	0.53	1.74E-02
Imp3	ILMN_2593208	NM_133976.1	0.53	4.14E-03
Xpa	ILMN_2968515	NM_011728.1	0.53	1.82E-02
Senp7	ILMN_2706451	NM_001003971.1	0.53	4.04E-02
Gab1	ILMN_1222009	NM_021356.2	0.53	3.96E-03
Rgs6	ILMN_1235475	NM_015812.3	0.53	1.39E-03
Jph1	ILMN_1217728	NM_020604.1	0.53	2.78E-02
Cox7b	ILMN_2671689	NM_025379.2	0.53	4.74E-02
Ddo	ILMN_1238706	NM_027442.4	0.53	5.10E-03
C030006K11Rik	ILMN_2692853	NM_145472.1	0.53	1.64E-02
Asb12	ILMN_2965123	NM_080858.1	0.53	3.14E-02
Hsd3b7	ILMN_3114124	NM_133943.2	0.53	4.40E-02
Psmc1	ILMN_2986309	NM_011189.1	0.53	3.46E-02
Eif2b1	ILMN_1215242	NM_145371.3	0.53	1.71E-02
Ulk1	ILMN_2506115	NM_009469.3	0.53	3.24E-02
Man2a2	ILMN_2650255	NM_172903.3	0.53	8.55E-03
1190007F08Rik	ILMN_2893564	NM_001033144.1	0.53	5.02E-03
Rab9	ILMN_1258125	NM_019773.1	0.53	1.94E-03
1700034H14Rik	ILMN_2685133	NM_025969.3	0.53	5.99E-03
Hic2	ILMN_2677332	NM_178922.3	0.53	3.51E-02
Stk39	ILMN_2751494	NM_016866.2	0.53	4.80E-02
Dir2	ILMN_1224927	NM_153550.3	0.53	1.36E-03
9030224M15Rik	ILMN_1255780	NM_177793.3	0.53	4.13E-03
Hsd3b7	ILMN_1260456	NM_133943.2	0.53	6.89E-03
Rapgef4	ILMN_2945940	NM_019688.1	0.53	3.47E-02

Cdk2	ILMN_2770759	NM_183417.2	0.53	8.10E-03
Tmem126a	ILMN_2803627	NM_025460.1	0.53	6.02E-03
LOC329575	ILMN_3144820	NM_001024849.1	0.53	3.71E-02
Acad9	ILMN_2656805	NM_172678.2	0.53	2.69E-03
Atp8a1	ILMN_1246298	NM_009727.2	0.53	1.18E-02
2610204L23Rik	ILMN_2706057	NM_026009.1	0.53	9.01E-03
LOC100047155	ILMN_2732827	XM_001477537.1	0.53	3.01E-02
Ccdc47	ILMN_2706051	NM_026009.2	0.53	5.07E-03
Paip2b	ILMN_3005212	NM_146169.1	0.52	9.30E-03
Tmem38b	ILMN_2795792	NM_028053.1	0.52	1.00E-02
Cyp4b1	ILMN_2790496	NM_007823.2	0.52	3.48E-02
Jtb	ILMN_1226138	NM_206924.2	0.52	2.49E-03
Gemin6	ILMN_2631813	NM_026053.1	0.52	6.19E-03
Peo1	ILMN_1243077	NM_153796.3	0.52	3.64E-02
Acot3	ILMN_2644827	NM_134246.3	0.52	1.07E-02
Atp51	ILMN_2973897	NM_013795.4	0.52	9.07E-03
Ncoa4	ILMN_3132361	NM_001033988.1	0.52	2.59E-02
1190003M12Rik	ILMN_2856588	NM_026860.1	0.52	1.86E-03
Cidec	ILMN_1222679	NM_178373.3	0.52	5.67E-03
Slc25a16	ILMN_2822071	NM_175194.2	0.52	3.02E-02
Mkks	ILMN_1257332	NM_021527.1	0.52	9.79E-04
Gca	ILMN_2733482	NM_145523.3	0.52	4.59E-03
Psmc3ip	ILMN_2999654	NM_008949.2	0.52	7.04E-03
Atp5j	ILMN_2611261	NM_016755.2	0.52	1.19E-02
Setd6	ILMN_1223358	NM_001035123.3	0.52	3.57E-02
Cgrrf1	ILMN_2635850	NM_026832.3	0.52	3.34E-02
Aff1	ILMN_3154640	NM_133919.3	0.52	1.26E-02
Eno3	ILMN_2757569	NM_007933.2	0.52	3.21E-02

Pkig	ILMN_3090731	NM_001039391.1	0.52	5.20E-03
Klhl21	ILMN_1229082	NM_001033352.3	0.52	2.50E-02
Mapk14	ILMN_2721809	NM_011951.2	0.52	6.59E-03
0610006I08Rik	ILMN_2896528	NM_025791.1	0.52	3.87E-02
Rab3a	ILMN_2991912	NM_009001.3	0.52	2.32E-02
BC026585	ILMN_1221257	XM_129546.2	0.52	3.33E-02
Zfp810	ILMN_1231164	NM_145612.2	0.52	4.67E-02
Flot2	ILMN_1227357	NM_008028.2	0.52	1.89E-02
Aph1b	ILMN_2588682	NM_177583.4	0.52	4.22E-03
Mboat5	ILMN_1237328	NM_145130.1	0.52	1.28E-03
Cdk2	ILMN_2717613	NM_016756.1	0.52	1.47E-02
Cog6	ILMN_2974945	NM_026225.1	0.52	1.93E-02
1200003C05Rik	ILMN_1223051	NM_024205.1	0.52	8.81E-03
Mrps33	ILMN_1214937	NM_010270.2	0.52	2.50E-03
Uchl5	ILMN_1226422	NM_019562.1	0.51	2.09E-02
Eprs	ILMN_3148398	NM_029735.1	0.51	2.57E-02
Banf1	ILMN_2745971	NM_011793.2	0.51	2.39E-02
Asf1a	ILMN_1239345	NM_025541.3	0.51	8.51E-03
Ilvbl	ILMN_2844370	NM_173751.3	0.51	3.71E-02
Fgfr1op2	ILMN_2628188	NM_026218.2	0.51	1.12E-02
Lgi1	ILMN_2740419	NM_020278.2	0.51	6.01E-04
2410137M14Rik	ILMN_2739645	NM_029747.2	0.51	3.49E-02
Mrvi1	ILMN_2746283	NM_194464.2	0.51	1.01E-02
Ifngr2	ILMN_2784272	NM_008338.2	0.51	4.49E-02
Nsmce2	ILMN_1255898	NM_026746.2	0.51	6.21E-03
Tlcd1	ILMN_2781458	NM_026708.1	0.51	7.30E-03
Krr1	ILMN_1258846	NM_178610.3	0.51	7.10E-03
Capn7	ILMN_2675535	NM_009796.2	0.51	6.25E-03

Cox6b2	ILMN_2764551	NM_183405.1	0.51	6.49E-03
Nqo2	ILMN_2968729	NM_020282.2	0.51	2.20E-03
Stxbp4	ILMN_2753444	NM_011505.1	0.51	2.13E-03
Smyd3	ILMN_1231094	NM_027188.3	0.51	1.31E-02
Egln1	ILMN_2617090	NM_053207.1	0.51	1.61E-02
2810403A07Rik	ILMN_1227212	NM_028814.2	0.51	5.82E-03
Ak3	ILMN_2791121	NM_021299.1	0.51	1.58E-02
Calr3	ILMN_1232231	NM_029782.3	0.51	1.16E-02
Cutc	ILMN_2686087	NM_025530.2	0.51	2.64E-02
Tmem47	ILMN_3124787	NM_138751.1	0.51	1.19E-02
A030007L17Rik	ILMN_2623886	NM_026637.3	0.51	1.44E-02
Zadh2	ILMN_1232404	NM_146090.4	0.51	2.87E-03
Lysmd4	ILMN_2701435	NM_175215.3	0.51	2.49E-02
LOC100045617	ILMN_2613641	XM_001474613.1	0.51	3.73E-02
Fert2	ILMN_3080371	NM_001037997.1	0.51	2.04E-02
Krba1	ILMN_2876712	NM_133922.2	0.51	1.57E-02
Pde7b	ILMN_2747728	NM_013875.2	0.51	1.80E-02
Ubl5	ILMN_2469689	NM_025401.3	0.51	1.19E-03
Nup133	ILMN_2654013	NM_172288.1	0.51	1.10E-03
Wnt5a	ILMN_2472917	NM_009524.2	0.51	1.33E-03
Rad1	ILMN_2671447	NM_011232.2	0.51	1.05E-02
Phpt1	ILMN_2626143	NM_029293.2	0.51	4.49E-03
Cbx5	ILMN_3055904	NM_001076789.1	0.51	6.87E-04
Adra1a	ILMN_1259043	NM_013461.3	0.51	4.60E-03
Zmpste24	ILMN_2471634	NM_172700.2	0.50	1.68E-02
Tmem41b	ILMN_2738090	NM_153525.5	0.50	1.80E-02
Echdc2	ILMN_2687040	NM_026728.2	0.50	2.94E-03
Rars2	ILMN_2857581	NM_181406.2	0.50	9.66E-03

Hspb2	ILMN_2613904	NM_024441.1	0.50	4.24E-03
Pex11a	ILMN_2700265	NM_011068.1	0.50	2.99E-02
D19Wsu162e	ILMN_2416424	NM_146099.2	0.50	3.16E-02
Ppp1r3f	ILMN_1255926	NM_138605.2	0.50	3.94E-02
Isca1	ILMN_2888842	NM_026921.2	0.50	6.53E-03
Son	ILMN_2763871	NM_019973.2	0.50	1.64E-02
Gtf2ird2	ILMN_2808186	NM_053266.1	0.50	2.62E-02
Nfs1	ILMN_2978163	NM_010911.1	0.50	2.70E-03
Pbx3	ILMN_2642148	NM_016768.1	0.50	4.87E-05
Siva1	ILMN_2699003	NM_013929.1	0.50	6.19E-03
Mthfd1	ILMN_2960407	NM_138745.1	0.50	4.36E-03
Snapc4	ILMN_2675433	NM_172339.2	0.50	2.74E-03
Idh3a	ILMN_2740134	NM_029573.2	0.50	3.24E-02
Ap1gbp1	ILMN_2935734	NM_194341.1	0.50	7.58E-03
Urod	ILMN_2453695	NM_009478.3	0.50	1.93E-02
1110012L19Rik	ILMN_2604806	NM_026787.1	0.50	1.13E-02
Clcn3	ILMN_2722081	NM_007711.2	0.50	4.34E-02
Kcnb1	ILMN_2674184	NM_008420.3	0.50	3.18E-02
Dbi	ILMN_1215469	NM_007830.3	0.50	1.13E-02
Acad9	ILMN_1253361	NM_172678.3	0.50	1.48E-04
Adhfe1	ILMN_2989650	NM_175236.2	0.50	5.19E-03
Tor1aip1	ILMN_2751215	NM_144791.1	0.50	2.49E-02
Apip	ILMN_1244908	NM_019735.3	0.50	4.36E-02
Gstm2	ILMN_1251449	NM_008183.2	0.50	3.35E-02
Etfb	ILMN_3104414	NM_026695.2	0.50	9.43E-03
2610301F02Rik	ILMN_2991166	NM_001025576.1	0.50	1.99E-02
0610007C21Rik	ILMN_3033922	NM_027855.2	0.50	2.97E-02
Slc25a15	ILMN_2643032	NM_181325.2	0.50	6.58E-04



Pitx2	ILMN_1220244	NM_011098.3	0.50	9.11E-03
Dctn6	ILMN_1233586	NM_011722.2	0.50	1.61E-02
Supt4h2	ILMN_2850839	NM_011509.1	0.50	3.61E-02
1810014F10Rik	ILMN_1251065	NM_026928.2	0.49	4.49E-02
Rock1	ILMN_2742675	NM_009071.2	0.49	9.77E-03
Mat2b	ILMN_2959037	NM_134017.1	0.49	1.14E-03
LOC100047837	ILMN_1248647	XM_001478863.1	0.49	2.46E-02
Fbxo9	ILMN_2695306	NM_023605.2	0.49	2.74E-03
Agxt2l2	ILMN_2916008	NM_028398.1	0.49	2.51E-02
Itfg2	ILMN_1252621	NM_133927.1	0.49	4.15E-03
Mt3	ILMN_2764651	NM_013603.1	0.49	1.39E-02
D10Ert322e	ILMN_2727992	NM_026065.2	0.49	2.85E-03
Vps25	ILMN_3000008	NM_026776.3	0.49	2.10E-03
BC038156	ILMN_2731424	NM_177768.2	0.49	1.54E-02
Aldh1l2	ILMN_2757008	NM_153543.1	0.49	4.03E-04
Tmem65	ILMN_2987564	NM_175212.4	0.49	4.50E-03
Retsat	ILMN_2769680	NM_026159.4	0.49	5.82E-03
Abcb8	ILMN_2864834	NM_029020.2	0.49	1.61E-03
Rora	ILMN_1243741	NM_013646.1	0.49	2.63E-02
Cops4	ILMN_2729985	NM_012001.1	0.49	7.48E-03
Aldh2	ILMN_2733179	NM_009656.3	0.49	2.57E-02
LOC100045882	ILMN_1246390	XM_001475083.1	0.49	2.52E-02
Sh3rf2	ILMN_2942554	NM_172966.1	0.49	4.60E-03
Prdx3	ILMN_2732229	NM_007452.1	0.49	1.61E-02
Tmem201	ILMN_3068535	NM_001025106.1	0.49	8.78E-03
Dhrs7	ILMN_2939702	NM_025522.1	0.49	4.43E-03
Alad	ILMN_2655015	NM_008525.3	0.49	2.63E-02
Ctsc	ILMN_1238486	NM_009982.3	0.49	5.90E-03

Ccb1l	ILMN_2986051	NM_172404.2	0.49	1.59E-03
Atp5o	ILMN_2917540	NM_138597.2	0.49	2.79E-02
Ube2b	ILMN_2959247	NM_009458.2	0.49	4.61E-03
Fgf9	ILMN_2648289	NM_013518.1	0.49	1.50E-02
Pcdh7	ILMN_2881857	NM_018764.1	0.49	2.64E-02
LOC100046320	ILMN_1243283	XR_032844.1	0.49	1.95E-02
Mrpl18	ILMN_2659762	NM_026310.3	0.49	2.25E-02
Hdac11	ILMN_2614912	NM_144919.2	0.49	2.17E-02
Hdac5	ILMN_3112922	NM_001077696.1	0.49	1.12E-03
Plxnb3	ILMN_2759012	NM_019587.1	0.48	3.56E-03
Top1	ILMN_1232251	NM_009408.2	0.48	1.58E-02
Nt5e	ILMN_2636285	NM_011851.3	0.48	2.34E-02
Glt8d2	ILMN_2836637	NM_029102.1	0.48	9.87E-03
Chpt1	ILMN_2740149	NM_144807.2	0.48	3.57E-02
Mtrf1	ILMN_2646556	NM_145960.2	0.48	7.26E-03
Etfdh	ILMN_2669804	NM_025794.1	0.48	3.94E-03
Mapk1ip1	ILMN_1224936	NM_027115.2	0.48	3.20E-02
Stard10	ILMN_2625601	NM_019990.4	0.48	1.14E-02
Hpgd	ILMN_2649199	NM_008278	0.48	1.97E-02
Ank3	ILMN_1227817	NM_170687.3	0.48	8.84E-03
Nfic	ILMN_1218384	NM_026756.2	0.48	4.74E-02
Ndufc2	ILMN_2976591	NM_024220.1	0.48	5.90E-03
Pitpnc1	ILMN_2705846	NM_145823.2	0.48	4.09E-02
Alox5	ILMN_2928453	NM_009662.2	0.48	1.68E-04
Depdc6	ILMN_3163001	NM_145470.2	0.48	7.96E-03
Wdr45l	ILMN_1242852	NM_025793.2	0.48	1.52E-02
Magi3	ILMN_1218573	NM_133853.2	0.48	3.24E-02
Zfyve21	ILMN_2508745	NM_026752.2	0.48	3.45E-02

2610034E13Rik	ILMN_2612090	NM_029365	0.48	8.99E-03
Itgb3bp	ILMN_1213858	NM_026348.3	0.48	7.79E-04
Gpsn2	ILMN_2606579	NM_134118.3	0.48	3.19E-02
Nfs1	ILMN_2648867	NM_010911.1	0.48	6.64E-04
Pknox2	ILMN_3135037	NM_001029838.1	0.48	1.77E-02
Cd1d1	ILMN_2734212	NM_007639.2	0.48	4.36E-03
Ttc33	ILMN_2713039	NM_026213.3	0.48	2.18E-03
Ybx2	ILMN_3086192	NM_016875.2	0.48	8.72E-03
Nmb	ILMN_2756334	NM_026523.2	0.48	3.27E-03
Tspsy11	ILMN_2482766	NM_009433.2	0.48	2.31E-03
Ard1	ILMN_2744280	NM_019870.1	0.48	1.68E-02
L2hgdh	ILMN_2999167	NM_145443.1	0.47	8.41E-03
Nme4	ILMN_2786229	NM_019731.1	0.47	1.23E-03
Ptprd	ILMN_3103904	NM_001014288.2	0.47	4.89E-02
Tmem33	ILMN_1234558	NM_030108.1	0.47	3.87E-02
Gstp1	ILMN_1223230	NM_013541.1	0.47	5.05E-04
Ebag9	ILMN_1224670	NM_019480.4	0.47	3.19E-04
Lpar3	ILMN_2596435	NM_022983.3	0.47	1.04E-03
Rgs7bp	ILMN_2733314	NM_029879.2	0.47	2.26E-02
Stat5a	ILMN_2976191	NM_011488.2	0.47	3.73E-02
Dut	ILMN_1227159	NM_023595.5	0.47	4.27E-03
Nme4	ILMN_1233339	NM_019731.1	0.47	1.39E-02
Spag7	ILMN_2830771	NM_172561.1	0.47	2.73E-02
Setd6	ILMN_2983669	NM_001035123.1	0.47	6.87E-03
0610009O20Rik	ILMN_1213681	NM_024179.4	0.47	3.56E-03
Efcab2	ILMN_2904339	NM_026626.2	0.47	1.12E-02
Mrps11	ILMN_2786708	NM_026498.1	0.47	6.19E-04
Net1	ILMN_3151722	NM_019671.2	0.47	8.04E-03

Fbxo21	ILMN_1244991	NM_145564.3	0.47	9.09E-03
Gsta3	ILMN_3138685	NM_010356.3	0.47	1.65E-02
Acvr2b	ILMN_1230145	NM_007397.2	0.47	4.78E-02
Igfals	ILMN_1222609	NM_008340.3	0.47	3.88E-02
Gatad1	ILMN_2982097	NM_026033.1	0.47	9.68E-03
Cdk2	ILMN_1233064	NM_183417.2	0.47	6.34E-04
Snx2	ILMN_2664491	NM_026386	0.47	5.16E-03
Camk2a	ILMN_2596479	NM_177407.3	0.47	2.42E-02
Mtap7	ILMN_1252545	NM_008635.1	0.46	1.07E-02
Xrcc2	ILMN_2483748	NM_020570.2	0.46	1.03E-03
Mapk1ip1	ILMN_3142573	NM_001045483.1	0.46	2.09E-02
Atg10	ILMN_2667100	NM_025770.3	0.46	7.59E-04
Tmem77	ILMN_3051608	NM_026013.2	0.46	4.39E-03
Clec3b	ILMN_2845778	NM_011606.1	0.46	1.14E-03
2010305C02Rik	ILMN_1249828	NM_027249.2	0.46	1.92E-03
1700040I03Rik	ILMN_2881024	NM_028505.1	0.46	5.12E-04
Mbp	ILMN_2737200	NM_010777.3	0.46	3.42E-03
Ggcx	ILMN_1232184	NM_019802.3	0.46	1.58E-02
1810049H13Rik	ILMN_2680665	NM_025560.2	0.46	2.76E-02
LOC654426	ILMN_2876629	NR_002690.1	0.46	6.63E-05
Hdac5	ILMN_2659160	NM_001077696.1	0.46	1.24E-03
Fzd5	ILMN_3161263	NM_022721.3	0.46	7.91E-03
Acy1	ILMN_2945472	NM_025371.1	0.46	1.39E-02
Retsat	ILMN_1240471	NM_026159.4	0.46	2.30E-02
Arfrp1	ILMN_2631745	NM_029702.3	0.46	1.91E-03
Drctnbl1a	ILMN_2771087	NM_053090	0.46	3.29E-02
Rufy1	ILMN_1236988	NM_172557.2	0.46	8.62E-05
Hdlbp	ILMN_2795359	NM_133808.2	0.46	1.47E-03

Mobkl3	ILMN_2776910	NM_025283.3	0.46	9.45E-03
Peci	ILMN_2985282	NM_011868.1	0.46	5.55E-03
Tmtc1	ILMN_2810955	NM_198967.1	0.46	1.66E-02
Spes1	ILMN_2728320	NM_026911.1	0.46	4.57E-03
Snn	ILMN_2790373	NM_009223.2	0.46	1.08E-02
Armet11	ILMN_2721460	NM_177647.4	0.46	7.91E-03
Rbm38	ILMN_1240979	NM_019547.2	0.46	4.60E-02
Cdkn2c	ILMN_1228366	NM_007671.2	0.46	1.14E-03
Psmb7	ILMN_1221340	NM_011187.1	0.46	3.38E-03
Cmtm8	ILMN_1249046	NM_027294.2	0.46	1.77E-02
Bcap29	ILMN_2866752	NM_007530.2	0.45	7.37E-03
Ocrl	ILMN_1244077	NM_177215.3	0.45	3.21E-03
Tmem49	ILMN_2616768	NM_029478.3	0.45	8.52E-03
Xpnpep2	ILMN_1248998	NM_133213.2	0.45	9.00E-05
Tmem42	ILMN_2604467	NM_025339.3	0.45	5.67E-05
Aifm2	ILMN_1259418	NM_153779.1	0.45	1.90E-03
Mpv17	ILMN_2626383	NM_008622.3	0.45	4.24E-03
Aldh5a1	ILMN_2664660	NM_172532.2	0.45	3.35E-02
Ucp3	ILMN_1233132	NM_009464.3	0.45	1.09E-02
Hint3	ILMN_2757092	NM_025798.3	0.45	2.33E-03
Ndufb11	ILMN_2747885	NM_019435.2	0.45	2.21E-03
Snx2	ILMN_1254113	NM_026386	0.45	2.68E-04
Rcan2	ILMN_3033007	NM_207649.1	0.45	2.61E-02
Hey2	ILMN_2657210	NM_013904.1	0.45	1.14E-02
Bcap29	ILMN_2645620	NM_007530.2	0.45	5.29E-03
Ptprd	ILMN_2501929	NM_001014288.2	0.45	4.27E-02
Nrbp2	ILMN_2594031	NM_144847.1	0.45	3.74E-02
Zhx3	ILMN_2502623	NM_177263.3	0.45	4.89E-04

Rgs2	ILMN_2666622	NM_009061	0.45	1.47E-02
Ank	ILMN_1232621	NM_020332.3	0.45	4.52E-02
LOC100045697	ILMN_1255772	XR_031796.1	0.45	3.16E-05
Rapgef5	ILMN_2674602	NM_175930.4	0.45	2.78E-02
Ctla4	ILMN_2631752	NM_009843.3	0.45	3.07E-04
1110048D14Rik	ILMN_2664522	NM_183120.1	0.45	1.52E-03
Klhl9	ILMN_2592779	NM_172871.2	0.45	3.48E-03
Lrrc8	ILMN_2744193	NM_177725.2	0.45	3.74E-02
Mrpl48	ILMN_2663679	NM_026971.2	0.45	7.25E-04
Ppat	ILMN_1245424	XM_001002886.2	0.45	9.84E-03
Klhl32	ILMN_2987102	NM_001033531.1	0.45	2.84E-02
Dbi	ILMN_3071356	NM_007830.3	0.45	4.54E-05
Timp3	ILMN_2741096	NM_011595.2	0.45	4.21E-02
Timp3	ILMN_2614759	NM_011595.2	0.45	5.29E-03
Bbs2	ILMN_1253752	NM_026116.2	0.45	2.14E-02
2700038C09Rik	ILMN_2590015	NM_025598.2	0.45	8.68E-04
Hey2	ILMN_2657207	NM_013904.1	0.45	3.22E-03
Slc36a2	ILMN_2946410	NM_153170.1	0.45	8.12E-03
1110038D17Rik	ILMN_3000080	NM_175133.1	0.45	8.36E-04
Kcnj2	ILMN_2875048	NM_008425.2	0.45	1.28E-03
Itga3	ILMN_2616164	NM_013565.2	0.44	6.29E-03
Slc23a3	ILMN_1218441	NM_194333.3	0.44	4.79E-02
Dars	ILMN_2589477	NM_145507.1	0.44	1.01E-02
Cacna2d1	ILMN_2752030	NM_009784.1	0.44	8.72E-03
2310003H01Rik	ILMN_1238640	NM_027980.1	0.44	7.98E-03
Plcl2	ILMN_1228330	NM_013880.2	0.44	3.95E-02
Tmem98	ILMN_2827646	NM_029537.1	0.44	7.90E-03
Gm347	ILMN_2911307	NM_001005420.1	0.44	2.78E-02

1110036O03Rik	ILMN_1231457	NM_176830.2	0.44	1.28E-04
Ola1	ILMN_3163044	NM_025942.2	0.44	1.81E-03
Akap7	ILMN_2944413	NM_018747.3	0.44	3.56E-03
Mrps11	ILMN_2681946	NM_026498.1	0.44	1.10E-03
Avpr1a	ILMN_2890935	NM_016847.2	0.44	3.23E-02
Stard7	ILMN_2676066	NM_139308.1	0.44	3.56E-03
Hist2h2be	ILMN_1231066	NM_178214.3	0.44	1.19E-02
Tmem9	ILMN_1235494	NM_025439.2	0.44	7.09E-04
Arhgap26	ILMN_1213838	NM_175164.4	0.44	4.57E-03
Mrps31	ILMN_2732565	NM_020560.1	0.43	2.06E-04
Tpd52l1	ILMN_2434472	NM_009413.1	0.43	3.24E-03
Rarb	ILMN_2886828	NM_011243.1	0.43	3.77E-02
Cdkn1c	ILMN_2708203	NM_009876.3	0.43	4.13E-03
2700094K13Rik	ILMN_3088934	NM_001037279.1	0.43	3.79E-04
Ndufs4	ILMN_1234521	NM_010887.1	0.43	5.09E-05
Fbxo31	ILMN_2687032	NM_133765.2	0.43	4.92E-02
Fbxo31	ILMN_1252057	NM_133765.2	0.43	4.81E-02
Slc45a3	ILMN_1218226	NM_145977.1	0.43	3.29E-02
Nudt11	ILMN_2615810	NM_021431.2	0.43	3.32E-04
Rdh14	ILMN_2685477	NM_023697.1	0.43	4.20E-04
Msln	ILMN_1231379	NM_018857.1	0.43	9.33E-03
Cdkn2c	ILMN_1215651	NM_007671.2	0.43	3.72E-04
Rbed1	ILMN_2748742	NM_144917.4	0.43	1.07E-04
Hrsp12	ILMN_2610703	NM_008287.2	0.43	3.35E-04
Tmem57	ILMN_2657921	NM_025382.5	0.43	2.78E-02
Cldn12	ILMN_1242248	NM_022890.1	0.43	2.59E-02
Mbd1	ILMN_1224291	NM_013594.1	0.43	9.02E-03
Glud1	ILMN_3149251	NM_008133.3	0.43	1.68E-02

Abca4	ILMN_2829604	NM_007378.1	0.43	1.57E-02
Ptp4a2	ILMN_2647282	NM_008974.3	0.43	3.79E-03
Tmem16d	ILMN_2973774	NM_178773.4	0.43	5.06E-03
Slc38a3	ILMN_2750089	NM_023805.2	0.43	2.80E-02
Med30	ILMN_2616792	NM_027212.2	0.43	1.16E-03
Magix	ILMN_2705203	NM_018832.2	0.43	2.86E-02
Mettl9	ILMN_2713471	NM_021554.2	0.43	5.12E-04
Cep63	ILMN_2935979	NM_001081122.1	0.43	5.42E-04
Zranb3	ILMN_2493067	NM_027678.2	0.43	1.88E-02
Cited2	ILMN_2905866	NM_010828.2	0.43	5.62E-03
Rab5a	ILMN_2786764	NM_025887.2	0.43	6.45E-03
Gstm2	ILMN_2862470	NM_008183.2	0.43	6.20E-03
Cbr2	ILMN_2756665	NM_007621.1	0.43	2.65E-02
Rbbp7	ILMN_2691192	NM_009031.2	0.42	2.18E-02
Ank2	ILMN_3158444	NM_178655.3	0.42	2.17E-02
Scp2	ILMN_1221684	NM_011327.2	0.42	3.81E-03
Tmem98	ILMN_2658815	NM_029537.1	0.42	3.29E-03
Nsmaf	ILMN_2688569	NM_010945.1	0.42	5.12E-04
Prkab1	ILMN_2653081	NM_031869.2	0.42	1.48E-02
Tmem35	ILMN_2892650	NM_026239.2	0.42	7.79E-04
Slc26a6	ILMN_2668261	NM_134420.3	0.42	4.89E-02
Schip1	ILMN_1244514	NM_013928.4	0.42	8.86E-04
Slc31a2	ILMN_2634656	NM_025286.1	0.42	2.90E-03
Rwdd1	ILMN_2642525	NM_025614.3	0.42	1.22E-02
3110004L20Rik	ILMN_3142391	NM_001033167.1	0.42	1.05E-02
Atp5g2	ILMN_2691528	NM_026468.1	0.42	4.48E-03
Rbbp7	ILMN_2691187	NM_009031.2	0.42	4.69E-02
Dap3	ILMN_2646230	NM_022994.2	0.42	1.19E-02



Ssbp2	ILMN_2693459	NM_024186.1	0.42	1.20E-02
Acot2	ILMN_2745889	NM_134188.2	0.42	2.02E-02
Trp53inp1	ILMN_2506012	NM_021897.1	0.42	1.74E-02
Smtnl2	ILMN_2723293	NM_177776.3	0.42	3.11E-02
Dph3	ILMN_3134412	NM_001047433.1	0.42	2.50E-04
Stard13	ILMN_2745689	NM_146258.1	0.42	6.19E-03
Tmc7	ILMN_2501267	NM_172476.4	0.42	5.20E-03
Brp44	ILMN_2895991	NM_027430.1	0.42	2.95E-02
Rab27a	ILMN_2614966	NM_023635.4	0.42	2.15E-04
Ctage5	ILMN_2653619	NM_146034.2	0.42	5.96E-04
Rilpl1	ILMN_2848163	NM_021430.2	0.42	3.28E-04
LOC100046918	ILMN_2699167	XM_001477065.1	0.42	1.70E-04
Lrpprc	ILMN_2845214	NM_028233.1	0.41	3.38E-04
Rsrc2	ILMN_3111334	NM_001005525.1	0.41	8.42E-04
Rtn2	ILMN_1250904	NM_013648.5	0.41	3.72E-03
Vps25	ILMN_1259848	NM_026776.3	0.41	7.77E-04
Zfp579	ILMN_1222760	NM_026741.2	0.41	6.85E-04
Acsl6	ILMN_3125814	NM_001033597.1	0.41	2.78E-02
LOC333331	ILMN_1256019	XR_032458.1	0.41	3.31E-02
Dhrs7	ILMN_1213456	NM_025522.3	0.41	6.58E-04
Abhd1	ILMN_1245678	NR_003522.1	0.41	2.50E-04
2410129H14Rik	ILMN_1249032	NM_175245.2	0.41	2.78E-04
Sgk3	ILMN_3108894	NM_133220.2	0.41	3.03E-03
Pex11a	ILMN_2960982	NM_011068.1	0.41	1.66E-03
Kcnj12	ILMN_2695900	NM_010603.4	0.41	4.12E-03
Nudt12	ILMN_2635813	NM_026497.2	0.41	2.99E-02
BC022224	ILMN_2746830	NM_177564.4	0.41	2.04E-03
Tirap	ILMN_2792268	NM_054096.1	0.41	3.05E-03

Arl6ip2	ILMN_2661107	NM_178050.3	0.41	6.26E-04
Ccbl1	ILMN_2623735	NM_172404.2	0.41	1.08E-03
Ssbp2	ILMN_2693461	NM_024186.1	0.41	4.50E-03
Nsmaf	ILMN_1225324	NM_010945.1	0.41	9.79E-04
Cyp2s1	ILMN_2758264	NM_028775.3	0.41	1.45E-02
Chpt1	ILMN_2740152	NM_144807.2	0.41	7.87E-03
Tmod4	ILMN_2488846	NM_016712.2	0.40	3.11E-02
Gmpr	ILMN_2602581	NM_025508.3	0.40	1.17E-03
Fntb	ILMN_2670517	NM_145927.2	0.40	1.56E-03
Ldhd	ILMN_2825080	NM_027570.3	0.40	1.17E-03
Ptp4a2	ILMN_1243291	NM_008974.2	0.40	6.94E-04
Gpc3	ILMN_2719973	NM_016697.2	0.40	3.18E-02
Dci	ILMN_2615207	NM_010023.3	0.40	4.13E-03
Mrps31	ILMN_2736094	NM_020560.1	0.40	3.34E-04
Lonrf1	ILMN_3111383	NM_001081150.1	0.40	5.85E-03
Ift81	ILMN_2634702	NM_009879.2	0.40	4.38E-03
Rps2	ILMN_2946616	NM_008503.2	0.40	6.14E-05
Hsd17b4	ILMN_2912239	NM_008292.2	0.40	7.16E-04
Pnpla8	ILMN_2751653	NM_026164.2	0.40	1.31E-02
Mme	ILMN_2863362	NM_008604.2	0.40	1.52E-04
Golm1	ILMN_3148550	NM_001035122.2	0.40	2.00E-04
Macrodl	ILMN_2683986	NM_134147.3	0.40	5.28E-04
Tnni3k	ILMN_1254265	NM_177066.4	0.40	1.20E-03
Mboat5	ILMN_2980858	NM_145130.1	0.40	3.87E-04
Folr2	ILMN_2865285	NM_008035.1	0.40	1.23E-02
Unc13b	ILMN_1220360	NM_001081413.1	0.40	2.78E-02
LOC100044122	ILMN_2777879	XM_001474594.1	0.40	1.39E-03
Dlat	ILMN_2757993	NM_145614.3	0.40	2.25E-02

Pvr	ILMN_2627296	NM_027514.1	0.39	3.78E-03
Cpeb3	ILMN_2589525	NM_198300.2	0.39	1.09E-02
Csde1	ILMN_2670662	NM_144901.2	0.39	1.70E-03
2010305C02Rik	ILMN_2814385	NM_027249.2	0.39	1.52E-05
LOC100048299	ILMN_1233187	XM_001479961.1	0.39	7.20E-03
1700113I22Rik	ILMN_2662036	NM_026865.2	0.39	2.98E-02
Plekhf1	ILMN_2993334	NM_024413.1	0.39	3.97E-02
Snurf	ILMN_2748091	NM_033174.2	0.39	6.07E-04
4732479N06Rik	ILMN_2912170	NM_172540.1	0.39	6.91E-04
March6	ILMN_2745741	NM_172606.2	0.39	1.93E-05
Rab12	ILMN_1232851	NM_024448.2	0.39	3.56E-03
Ppm11	ILMN_2698757	NM_178726.3	0.39	1.68E-02
Abcc9	ILMN_3104271	NM_021042.2	0.39	4.80E-02
Tpd52l1	ILMN_1249224	NM_009413.1	0.39	2.15E-03
Gca	ILMN_2688888	NM_145523.3	0.39	1.52E-02
Egln1	ILMN_2617087	NM_053207.1	0.39	8.56E-04
Scd4	ILMN_2653871	NM_183216.3	0.39	2.20E-03
Epb4.113	ILMN_1244272	NM_013813.1	0.39	1.28E-02
Acp6	ILMN_1242352	NM_019800.3	0.39	8.51E-03
Paqr7	ILMN_1222036	NM_027995.2	0.39	2.64E-02
3110057O12Rik	ILMN_1259606	NM_026622.2	0.39	7.37E-03
Ppp1r1b	ILMN_2954824	NM_144828.1	0.39	1.52E-03
Pde7a	ILMN_2604556	NM_008802.1	0.39	7.26E-03
Tcea3	ILMN_2907214	NM_011542.1	0.38	3.57E-03
Art1	ILMN_3161382	NM_009710.4	0.38	1.10E-03
Aqp1	ILMN_2980663	NM_007472.1	0.38	1.43E-02
Rev1	ILMN_2928573	NM_019570.3	0.38	2.24E-03
Abcd3	ILMN_2925281	NM_008991.2	0.38	2.04E-03

1110057K04Rik	ILMN_2633457	NM_172401.2	0.38	1.77E-04
Egln1	ILMN_2617086	NM_053207.1	0.38	3.81E-03
Atp10d	ILMN_1235196	NM_153389.2	0.38	1.61E-03
Lpin1	ILMN_3111744	NM_172950.2	0.38	2.63E-03
Khdrbs3	ILMN_2590488	NM_010158.2	0.38	4.35E-04
Nudt7	ILMN_3123836	NM_024437.1	0.38	6.39E-03
Eral1	ILMN_2734969	NM_022313.1	0.38	3.65E-04
2410091C18Rik	ILMN_2598520	NM_028611.2	0.38	5.09E-05
Igsf1	ILMN_1258853	NM_183336.1	0.38	1.41E-02
Thnsl2	ILMN_3147331	NM_001033929.1	0.38	1.67E-04
ORF28	ILMN_2592571	NM_138664.2	0.38	4.30E-04
Thnsl2	ILMN_2773485	NM_178413.4	0.38	1.78E-04
Ccng1	ILMN_2710229	NM_009831.2	0.38	2.65E-04
Lrp4	ILMN_1244134	NM_172668.2	0.38	5.48E-04
Gm826	ILMN_3007971	NM_001033411.1	0.38	2.12E-03
Rarres2	ILMN_3003130	NM_027852.1	0.38	1.94E-03
Mrpl48	ILMN_1216122	NM_198831.2	0.38	6.24E-05
Gstk1	ILMN_2792924	NM_029555.2	0.38	5.19E-03
Echdc2	ILMN_2846198	NM_026728.1	0.38	5.00E-04
Reep1	ILMN_2791644	NM_178608.2	0.38	1.57E-03
Stc2	ILMN_2739544	NM_011491.3	0.38	1.92E-03
Snurf	ILMN_1247894	NM_033174.2	0.38	6.25E-03
Txndc13	ILMN_2811282	NM_029148.1	0.38	1.65E-02
Rpl3l	ILMN_2649810	NM_025425.3	0.38	4.05E-03
Upk3b	ILMN_2941715	NM_175309.3	0.37	3.22E-03
D830007F02Rik	ILMN_3141648	NM_175441.3	0.37	1.36E-02
Tnni2	ILMN_2481133	NM_009405.2	0.37	9.45E-03
D830007F02Rik	ILMN_2628613	NM_175441.2	0.37	6.66E-03

Apom	ILMN_2916782	NM_018816.1	0.37	1.64E-03
Ppm1l	ILMN_2662456	NM_178726.3	0.37	1.32E-03
Smoc1	ILMN_1225376	NM_022316.1	0.37	2.65E-02
E2f6	ILMN_2734152	NM_033270.1	0.37	2.27E-04
Ctf1	ILMN_2678336	NM_007795.1	0.37	2.38E-03
Psme4	ILMN_1230087	NM_134013.3	0.37	5.47E-04
Nqo2	ILMN_1247930	NM_020282.2	0.37	7.19E-05
Tppp	ILMN_2696110	NM_182839.1	0.37	1.51E-03
Dhrs7	ILMN_2747820	NM_025522.3	0.37	9.26E-04
Rnf207	ILMN_2823733	NM_001033489.1	0.37	1.09E-02
Prodh	ILMN_2908406	NM_011172.2	0.37	1.89E-02
Ldhd	ILMN_2639662	NM_027570.3	0.37	1.40E-04
Hdac4	ILMN_1219682	NM_207225.1	0.37	4.99E-03
Chpt1	ILMN_2740151	NM_144807.2	0.37	3.03E-03
Psme1	ILMN_2671204	NM_011189.1	0.37	3.31E-04
LOC100047012	ILMN_2512043	XM_001477380.1	0.37	2.00E-04
Acaa2	ILMN_2788984	NM_177470.2	0.37	4.89E-04
Tnfaip8	ILMN_2511953	NM_134131.1	0.37	1.37E-02
Myh11	ILMN_2622217	NM_013607.1	0.37	3.53E-02
Klf13	ILMN_1218206	NM_021366.2	0.36	9.77E-03
Fbxo3	ILMN_1228298	NM_212433.1	0.36	2.12E-03
Hsd17b11	ILMN_2642985	NM_053262.3	0.36	1.94E-03
Il1rl11	ILMN_1214974	NM_010744.1	0.36	1.57E-02
Gal3st2	ILMN_3042923	NM_199366.2	0.36	3.88E-02
Pdzn3	ILMN_3156010	NM_018884.1	0.36	3.20E-02
Msrb2	ILMN_2699556	NM_029619.2	0.36	6.77E-05
Dusp7	ILMN_2804523	NM_153459.2	0.36	9.07E-03
Sort1	ILMN_3005873	NM_019972.2	0.36	1.17E-03

1190003J15Rik	ILMN_2734924	NM_029821.2	0.36	2.00E-04
Nqo2	ILMN_2968731	NM_020282.2	0.36	5.94E-05
2900046G09Rik	ILMN_2713060	NM_133778.2	0.36	3.37E-03
Idh3g	ILMN_1224368	NM_008323.1	0.36	1.05E-04
Pitx2	ILMN_3118071	NM_001042502.1	0.36	1.13E-02
Rarb	ILMN_2617194	NM_011243.1	0.36	2.63E-04
Ncapd3	ILMN_2701851	NM_178113.2	0.36	1.68E-04
Sra1	ILMN_2659132	NM_025291.2	0.36	8.34E-04
Pkhd111	ILMN_3000909	NM_138674.2	0.35	3.92E-05
Actr3b	ILMN_2933346	NM_001004365.1	0.35	3.91E-06
Fcna	ILMN_2718589	NM_007995.3	0.35	3.38E-03
Zfp386	ILMN_3142440	NM_019565.3	0.35	4.66E-05
Kcnh2	ILMN_3123864	NM_013569.1	0.35	2.09E-02
Amigo2	ILMN_2678355	NM_178114.3	0.35	3.22E-03
Selenbp2	ILMN_2939652	NM_019414.2	0.35	3.03E-03
Aldh3a1	ILMN_1253178	NM_007436.1	0.35	2.63E-03
Lrrc39	ILMN_2746123	NM_175413.2	0.35	1.32E-02
A2bp1	ILMN_1238309	NM_021477.2	0.35	3.47E-02
Cabc1	ILMN_2800813	NM_023341.2	0.35	5.28E-04
Echdc2	ILMN_2846194	NM_026728.1	0.35	3.59E-04
Golm1	ILMN_2623536	NM_027307.4	0.35	2.32E-05
1700034H14Rik	ILMN_2732877	NM_025969.3	0.35	2.00E-04
Slc25a20	ILMN_3138499	NM_020520.2	0.35	6.02E-04
Ube2e3	ILMN_2512042	NM_009454.2	0.35	3.54E-04
Zfp691	ILMN_2813594	NM_183140.1	0.34	1.82E-02
Lyve1	ILMN_2483304	NM_053247.4	0.34	2.46E-02
Mgea6	ILMN_1259488	NM_146034.1	0.34	1.29E-05
Cux2	ILMN_1234471	NM_007804.2	0.34	3.78E-03

Ucp3	ILMN_2452102	NM_009464.3	0.34	1.47E-02
Mgst1	ILMN_2669416	NM_019946.4	0.34	1.47E-02
Slc44a2	ILMN_2599719	NM_152808.2	0.34	4.98E-05
Eef2k	ILMN_2431150	NM_007908	0.34	3.16E-03
Acs11	ILMN_2622671	NM_007981.3	0.34	3.48E-03
Mtch2	ILMN_1229238	NM_019758.2	0.34	3.40E-03
Pxmp2	ILMN_1219748	NM_008993.2	0.34	1.48E-04
Tarsl2	ILMN_2749382	NM_172310.1	0.34	7.40E-05
Acsm5	ILMN_1220520	NM_178758.3	0.34	1.58E-02
Adi1	ILMN_3143557	NM_134052.2	0.34	3.23E-05
Fgf16	ILMN_2629362	NM_030614.2	0.34	5.93E-03
Gzmm	ILMN_1229500	NM_008504.2	0.34	6.44E-03
Paqr9	ILMN_3094043	NM_198414.2	0.33	1.91E-03
Sv2a	ILMN_1213495	NM_022030.3	0.33	8.04E-03
Sesn1	ILMN_3059476	NM_001013370.1	0.33	3.56E-03
Ccb12	ILMN_1256103	NM_173763.3	0.33	7.72E-06
H3f3a	ILMN_3145213	NM_008210.2	0.33	1.24E-04
Tmod1	ILMN_2977404	NM_021883.1	0.33	1.44E-04
Acot11	ILMN_2799351	NM_025590.3	0.33	2.32E-03
Sort1	ILMN_1219717	NM_019972.2	0.33	1.80E-05
Adamts14	ILMN_2459899	NM_144899.2	0.33	4.63E-04
Ddc	ILMN_2628647	NM_016672	0.33	2.17E-03
Sumo1	ILMN_2632940	NM_009460	0.33	7.97E-04
Fas	ILMN_2479290	NM_007987.1	0.33	1.92E-03
Nude	ILMN_2962958	NM_010948.1	0.33	9.66E-03
Rbbp7	ILMN_1219275	NM_009031.2	0.33	1.85E-03
Hbp1	ILMN_3092415	NM_153198.1	0.33	3.21E-03
Wnt5a	ILMN_2511913	NM_009524.2	0.33	2.69E-03

2010311D03Rik	ILMN_1241035	NM_133839.2	0.33	1.36E-03
9330186A19Rik	ILMN_2692554	NM_178781.2	0.33	2.75E-02
Fas	ILMN_2902979	NM_007987.1	0.33	1.90E-02
Ctsh	ILMN_2872058	NM_007801.1	0.33	7.28E-05
Epdr1	ILMN_1225494	NM_134065.3	0.33	7.31E-04
Rilpl1	ILMN_2702628	NM_021430.2	0.33	5.55E-04
Upk1b	ILMN_2936646	NM_178924.2	0.32	1.39E-03
6030405A18Rik	ILMN_2958067	NM_177854.2	0.32	3.54E-04
5230400G24Rik	ILMN_2732961	NM_029409.2	0.32	6.69E-05
Mat2b	ILMN_1248381	NM_134017.1	0.32	2.05E-03
Meis2	ILMN_2850391	NM_010825.2	0.32	7.51E-04
Tmem16k	ILMN_1223335	NM_133979.2	0.32	3.93E-03
Spsb1	ILMN_1224336	NM_029035.2	0.32	3.13E-04
Cobll1	ILMN_1234199	NM_177025.4	0.32	1.77E-03
Acot11	ILMN_1227579	NM_025590.3	0.32	1.84E-02
Atp5f1	ILMN_2790486	NM_009725.2	0.32	7.19E-05
Hnrnpa2b1	ILMN_2615855	NM_182650.3	0.32	2.11E-03
Amd2	ILMN_2992239	NM_007444.2	0.32	2.87E-03
Smarca2	ILMN_3075712	NM_011416.2	0.32	2.69E-03
Atpbd1c	ILMN_2745005	NM_024216.1	0.32	5.09E-05
A530088H08Rik	ILMN_2901131	NM_178656.2	0.32	1.93E-04
2400010D15Rik	ILMN_2747331	NM_029623.1	0.32	1.63E-04
LOC100047214	ILMN_1255556	XM_001477665.1	0.32	1.07E-03
Lifr	ILMN_2829008	NM_013584.1	0.32	4.25E-07
Palld	ILMN_3092653	NM_001081390.1	0.32	2.06E-04
Txndc1	ILMN_1232489	NM_028339.1	0.32	7.16E-04
Adk	ILMN_2702471	NM_134079.3	0.32	1.27E-04
Aldob	ILMN_2840533	NM_144903.2	0.31	6.91E-04



Ift81	ILMN_2993804	NM_009879.2	0.31	1.30E-02
Gstp1	ILMN_2677046	NM_013541.1	0.31	2.50E-03
Mapkapk3	ILMN_2909346	NM_178907.1	0.31	3.56E-03
Cmb1	ILMN_2713673	NM_181588.3	0.31	6.01E-04
Rgma	ILMN_1214500	NM_177740.4	0.31	5.62E-03
Lgmn	ILMN_2597868	NM_011175.2	0.31	3.03E-04
EG434858	ILMN_3013874	NR_002883.1	0.31	3.12E-02
Lrig1	ILMN_2640862	NM_008377.2	0.31	8.89E-04
4930572J05Rik	ILMN_3065373	NM_198607.1	0.31	1.05E-02
Tspan3	ILMN_1232099	NM_019793.2	0.31	8.32E-05
Tbc1d10c	ILMN_2842338	NM_178650.3	0.31	9.33E-03
Sumo1	ILMN_2632942	NM_009460.2	0.30	8.04E-04
D930001I22Rik	ILMN_2858399	NM_173397.2	0.30	1.17E-03
Whrn	ILMN_3082031	NM_001008795.1	0.30	1.54E-02
Car3	ILMN_2630047	NM_007606.3	0.30	3.98E-02
Mreg	ILMN_2976159	NM_001005423.1	0.30	3.79E-04
Bcat2	ILMN_2794608	NM_009737.1	0.30	2.57E-04
S3-12	ILMN_2588249	NM_020568.2	0.30	1.55E-02
Lrpprc	ILMN_2683718	NM_028233.2	0.30	8.28E-05
Bhlhb9	ILMN_1251595	NM_198161.1	0.30	1.55E-04
Cryba4	ILMN_1258732	NM_021351.1	0.30	5.85E-03
Tmod4	ILMN_2438793	NM_016712.2	0.30	2.83E-03
Slc22a5	ILMN_2834915	NM_011396.2	0.30	1.23E-03
Slc25a34	ILMN_3052781	NM_001013780.1	0.30	1.76E-03
Wdr21	ILMN_2460745	NM_030246.1	0.30	1.99E-04
Cpt2	ILMN_2885532	NM_009949.1	0.30	2.10E-04
Dusp23	ILMN_3160863	NM_026725.2	0.30	3.23E-04
Osgepl1	ILMN_1225723	NM_028091.3	0.30	5.09E-05

Ifngr2	ILMN_2592709	NM_008338.2	0.30	3.22E-03
Ghr	ILMN_3138922	NM_001048178.1	0.30	2.27E-04
Bmp4	ILMN_1215252	NM_007554.2	0.30	3.61E-02
Tmem41a	ILMN_1244836	NM_025693.3	0.30	3.29E-03
Impa2	ILMN_2662160	NM_053261.2	0.29	2.31E-04
Anxa11	ILMN_3107156	NM_013469.1	0.29	1.23E-03
1110028A07Rik	ILMN_1243516	NM_026808.1	0.29	1.86E-03
Rpl7a	ILMN_2819841	NM_013721.2	0.29	5.86E-03
Mpst	ILMN_2669690	NM_138670.2	0.29	2.91E-05
Herpud1	ILMN_2790246	NM_022331.1	0.29	1.90E-02
2310005E10Rik	ILMN_2733753	NM_172398.3	0.29	2.01E-06
Dsg2	ILMN_1242566	NM_007883.1	0.29	1.68E-04
Rit1	ILMN_1228359	NM_009069.3	0.29	1.31E-02
Tgfbr3	ILMN_2606601	NM_011578	0.29	4.08E-05
Cox15	ILMN_1235186	NM_144874.3	0.29	3.50E-03
Cacna1h	ILMN_1246201	NM_021415.3	0.29	4.80E-02
Flvcr2	ILMN_1248190	NM_145447.2	0.29	6.57E-03
Plp1	ILMN_1240381	NM_011123.2	0.29	2.05E-03
Suclg1	ILMN_1216493	NM_019879.2	0.29	1.25E-06
Tarsl2	ILMN_1237234	NM_172310.1	0.29	4.78E-06
F13a1	ILMN_2914938	NM_028784.2	0.28	3.45E-02
Tst	ILMN_2493175	NM_009437.4	0.28	9.19E-06
Ppp1r9a	ILMN_2632092	NM_181595.3	0.28	4.99E-03
Adamts7	ILMN_2624328	NM_001003911.2	0.28	3.97E-05
Ccl11	ILMN_2647757	NM_011330.2	0.28	5.10E-05
C2	ILMN_2612895	NM_013484.1	0.28	8.81E-03
Cobll1	ILMN_2782634	NM_177025.3	0.28	1.64E-03
Hsd17b11	ILMN_2705361	NM_053262.3	0.28	4.15E-03

Eif4g2	ILMN_1213167	NM_013507.2	0.28	4.79E-04
Slc22a5	ILMN_2834916	NM_011396.2	0.28	4.54E-04
3632451O06Rik	ILMN_2753589	NM_026142.1	0.28	6.31E-03
Stard10	ILMN_2759762	NM_019990.4	0.28	4.33E-03
C1qtnf4	ILMN_1252584	NM_026161.3	0.27	1.41E-04
0610006I08Rik	ILMN_2721178	NM_025791.1	0.27	1.16E-03
Herpud1	ILMN_2790241	NM_022331.1	0.27	4.27E-03
Srp54	ILMN_2852380	NM_011899.3	0.27	4.07E-04
Pim3	ILMN_2717667	NM_145478.1	0.27	1.77E-02
Pts	ILMN_1217378	NM_011220.2	0.27	3.31E-05
Cd59b	ILMN_2660766	NM_181858.1	0.27	5.95E-06
As3mt	ILMN_2707198	NM_020577.1	0.27	4.44E-07
Tmem50b	ILMN_2671286	NM_030018.2	0.27	4.44E-07
Nt5e	ILMN_2813830	NM_011851.2	0.27	2.78E-02
1110018G07Rik	ILMN_2661005	NM_178065.3	0.27	1.95E-04
EG633640	ILMN_2977390	NM_001039244.1	0.27	1.84E-02
Ctnnal1	ILMN_1232261	NM_018761.2	0.26	2.14E-03
Sv2a	ILMN_2702887	NM_022030.2	0.26	3.81E-04
Gpc3	ILMN_2832979	NM_016697.2	0.26	9.50E-04
Bcl2l11	ILMN_3157568	NM_207680.2	0.26	5.54E-03
Gpt1	ILMN_2832524	NM_182805.1	0.26	3.84E-03
Art3	ILMN_1223147	NM_181728.1	0.26	6.02E-04
Htra1	ILMN_2966104	NM_019564.1	0.26	4.61E-06
Agtr1a	ILMN_2972521	NM_177322.2	0.26	3.81E-03
Tef	ILMN_2715400	NM_153484.2	0.25	7.84E-06
Il15	ILMN_1219869	NM_008357.1	0.25	5.90E-06
Podn	ILMN_1229370	NM_172874.2	0.25	1.35E-04
Nsbp1	ILMN_2740445	NM_016710.2	0.25	1.93E-05

Kcnj3	ILMN_2714252	NM_008426.1	0.25	1.40E-04
Nhs1	ILMN_2744492	NM_173390.3	0.25	1.32E-04
Klhdc1	ILMN_2843019	NM_178253.2	0.25	5.15E-06
Fgf1	ILMN_2701233	NM_010197.3	0.25	1.96E-06
Fgf13	ILMN_2745480	NM_010200.2	0.24	2.27E-04
Lypla1	ILMN_2678547	NM_008866.2	0.24	3.81E-04
3110057O12Rik	ILMN_2635871	NM_026622.2	0.24	1.28E-04
Htra1	ILMN_2746738	NM_019564.2	0.24	1.49E-05
Entpd5	ILMN_1215096	NM_007647.2	0.24	5.10E-05
Fah	ILMN_2614494	NM_010176.2	0.24	1.72E-04
Slc22a1	ILMN_1248318	NM_009202.4	0.24	1.82E-03
Fgf13	ILMN_1257196	NM_010200.2	0.24	5.17E-05
E130012A19Rik	ILMN_2963091	NM_175332.3	0.24	8.28E-05
Fndc5	ILMN_3107467	NM_027402.2	0.23	4.44E-05
Ank2	ILMN_2718030	NM_001034168.1	0.23	3.16E-02
Npr3	ILMN_3127391	NM_008728.2	0.23	8.32E-05
Tmem100	ILMN_1224014	NM_026433.2	0.23	1.61E-02
Ift81	ILMN_2735422	NM_009879.2	0.23	1.67E-05
2310005E10Rik	ILMN_2616422	NM_172398.3	0.23	3.23E-05
BC055107	ILMN_2768972	NM_183187.3	0.23	4.83E-02
Pik3r1	ILMN_2473531	NM_001024955.1	0.23	3.83E-03
Klhdc1	ILMN_2649635	NM_178253.2	0.23	1.21E-05
Adhfe1	ILMN_2675064	NM_175236	0.23	4.05E-04
Gstp2	ILMN_2917386	NM_181796.2	0.22	3.58E-07
Entpd5	ILMN_3149143	NM_001026214.1	0.22	1.73E-03
Paqr9	ILMN_2752524	NM_198414.2	0.22	4.01E-06
Idh1	ILMN_2729458	NM_010497.2	0.22	4.03E-04
Pik3r1	ILMN_3114641	NM_001077495.1	0.22	3.36E-03

BC031353	ILMN_2757807	NM_153584.1	0.22	6.89E-03
Klhdc1	ILMN_2649636	NM_178253.4	0.22	4.81E-06
Ttl1	ILMN_1253538	NM_178869.3	0.22	2.75E-02
Ppm2c	ILMN_3162452	NM_001098231.1	0.22	2.01E-06
Fgf1	ILMN_2721110	NM_010197.3	0.22	5.20E-03
Slc22a1	ILMN_1247071	NM_009202.4	0.22	4.11E-03
Pik3r1	ILMN_3040050	NM_001077495.1	0.21	1.65E-05
Kcnd2	ILMN_2625435	NM_019697.3	0.21	1.63E-04
Tgfbr3	ILMN_2789239	NM_011578.2	0.21	6.60E-04
Cat	ILMN_2826110	NM_009804.1	0.21	6.82E-03
Ddx5	ILMN_1215167	NM_007840.3	0.21	4.81E-06
Slc25a33	ILMN_2761046	NM_027460.2	0.21	3.92E-03
Cebpb	ILMN_2756435	NM_009883.3	0.21	3.32E-03
LOC100044204	ILMN_2742426	XM_001471696.1	0.21	2.27E-04
4833426J09Rik	ILMN_3057482	NM_001024606.1	0.21	8.84E-04
Zfp809	ILMN_2651359	NM_172763.2	0.21	5.17E-06
Car14	ILMN_2973824	NM_011797.1	0.21	8.42E-04
Slc25a12	ILMN_2972855	NM_172436.2	0.20	2.51E-02
Frat2	ILMN_2824002	NM_177603.1	0.20	9.52E-05
P2ry1	ILMN_2684316	NM_008772.4	0.20	5.77E-03
Retnla	ILMN_1226472	NM_020509.3	0.20	2.47E-03
Usp2	ILMN_1240264	NM_198091.2	0.20	9.65E-04
Pkig	ILMN_2616262	NM_011106.2	0.20	1.26E-04
Gdf10	ILMN_1249941	NM_145741.2	0.20	3.76E-03
Slc25a42	ILMN_2810937	NM_001007570.1	0.20	3.86E-04
Gypc	ILMN_1218358	NM_001048207.1	0.19	9.08E-07
Arrdc2	ILMN_2693835	NM_027560.1	0.19	4.25E-03
Hmgcs2	ILMN_1216322	NM_008256.3	0.19	3.38E-02

Wfdc1	ILMN_2466164	NM_023395.1	0.19	1.97E-03
Ppm1k	ILMN_2923615	NM_175523.4	0.19	1.60E-03
Dbt	ILMN_2820948	NM_010022.1	0.19	1.25E-03
Zfp612	ILMN_2491719	NM_175480.3	0.19	3.31E-04
As3mt	ILMN_1247626	NM_020577.2	0.19	9.08E-07
Tmem82	ILMN_2666312	NM_145987.2	0.19	8.10E-03
Gadd45a	ILMN_2947568	NM_007836.1	0.19	2.81E-04
Mgst1	ILMN_2940195	NM_019946.3	0.18	1.16E-04
Scara5	ILMN_3008068	NM_028903.1	0.18	2.70E-03
Nudt4	ILMN_1252730	NM_027722.2	0.18	1.52E-05
Whrn	ILMN_2476329	NM_001008792.1	0.18	2.13E-03
Ramp1	ILMN_2734391	NM_016894.2	0.18	3.31E-04
Kcnh2	ILMN_1244402	NM_013569.1	0.17	8.28E-05
Tsc22d1	ILMN_2723108	NM_009366.2	0.17	1.66E-02
Ccrn4l	ILMN_1255422	NM_009834.1	0.17	1.42E-03
Art5	ILMN_2890301	NM_007491.1	0.17	1.15E-04
Gstt1	ILMN_2680533	NM_008185.2	0.17	6.35E-06
Cyt1l	ILMN_2877029	NM_001081106.1	0.17	4.69E-04
Gpt2	ILMN_1234702	NM_173866.3	0.17	2.27E-04
Lypd2	ILMN_1248788	NM_026671.1	0.17	1.65E-04
Dgat2	ILMN_1219915	NM_026384.3	0.17	1.56E-05
Dsg2	ILMN_2955047	NM_007883.1	0.17	4.49E-07
Adora1	ILMN_1254016	NM_001008533.2	0.17	4.01E-06
Prei4	ILMN_2601884	NM_001042671.1	0.17	7.01E-04
Pdlim4	ILMN_2606162	NM_019417.2	0.17	7.84E-06
Maob	ILMN_2719069	NM_172778.1	0.16	4.18E-06
Usp54	ILMN_2418324	NM_030180.2	0.16	1.28E-04
Arhgap20	ILMN_2959729	NM_175535.3	0.16	4.81E-06

Mbd1	ILMN_2893081	NM_013594.1	0.16	3.23E-05
Aldh1l2	ILMN_2898319	NM_153543.1	0.15	6.35E-06
Scd4	ILMN_1259674	NM_183216.3	0.15	2.00E-04
Dpp4	ILMN_2615096	NM_010074.2	0.15	1.50E-05
Mlf1	ILMN_2658425	NM_010801.1	0.14	1.38E-04
Igf2	ILMN_2597769	NM_010514.2	0.14	2.85E-03
Snai3	ILMN_1239726	NM_013914.2	0.14	9.38E-04
4833442J19Rik	ILMN_3160574	NM_177101.4	0.14	3.91E-06
Gpr22	ILMN_2658266	NM_175191.2	0.14	7.78E-03
Hspd1	ILMN_2639036	NM_010477.3	0.14	1.16E-04
Acaa2	ILMN_2704822	NM_177470	0.14	6.35E-06
Mlf1	ILMN_3112219	NM_001039543.1	0.14	5.90E-06
Adh1	ILMN_1258501	NM_007409.2	0.14	1.58E-03
Gadd45a	ILMN_2742152	NM_007836.1	0.13	5.04E-05
Ppl	ILMN_3155363	NM_008909.2	0.13	2.69E-03
Kcnc2	ILMN_1253791	NM_183179.1	0.13	3.23E-05
4833426J09Rik	ILMN_3134598	NM_001024606.1	0.13	2.31E-04
Lgals4	ILMN_2626235	NM_010706.1	0.13	3.37E-03
Hamp	ILMN_1236304	NM_032541.1	0.13	1.92E-03
Acaa2	ILMN_2704826	NM_177470	0.13	6.35E-06
Ii15	ILMN_2938704	NM_008357.1	0.13	6.82E-06
Emilin2	ILMN_2981363	NM_145158.2	0.13	1.31E-04
Rps6ka5	ILMN_1233577	NM_153587.2	0.12	6.17E-07
Acaa2	ILMN_2704823	NM_177470.3	0.12	1.25E-06
Rgs7	ILMN_1237219	NM_011880.2	0.12	4.54E-05
8230402K04Rik	ILMN_2625094	NM_177755.3	0.11	1.65E-04
Mid1ip1	ILMN_2847332	NM_026524.2	0.11	9.20E-04
Slc40a1	ILMN_2747923	NM_016917.2	0.11	1.04E-05

Slc27a1	ILMN_2690122	NM_011977.2	0.11	5.28E-04	
EG241041	ILMN_2911009	NR_002858.1	0.11	2.11E-04	
A530088H08Rik	ILMN_2601705	NM_178656.3	0.11	4.33E-04	
Coq10b	ILMN_3031099	NM_001039710.1	0.10	3.73E-04	
Il15	ILMN_2610234	NM_008357.1	0.10	6.35E-06	
Slc46a3	ILMN_2627733	NM_027872.3	0.09	1.18E-04	
Prei4	ILMN_1251682	NM_001042672.1	0.09	2.01E-06	
Upk3b	ILMN_2941712	NM_175309.3	0.09	8.85E-04	
Figf	ILMN_2680673	NM_021716.3	0.08	4.55E-05	
Acot1	ILMN_3062267	NM_012006.2	0.08	4.44E-05	
Lgals4	ILMN_2968211	NM_010706.1	0.08	1.80E-03	
Angpt1	ILMN_1226520	NM_009640.3	0.08	6.35E-06	
Lamb3	ILMN_2605512	NM_008484.2	0.08	7.19E-05	
Fbp2	ILMN_2634905	NM_007994.3	0.07	1.52E-04	
Adh1	ILMN_2850077	NM_007409.2	0.07	1.78E-04	
	9.33017E+12	ILMN_2776710	XM_988947.1	0.07	6.35E-06
Upk3b	ILMN_2941714	NM_175309.3	0.06	5.12E-04	
Cyp2e1	ILMN_2687014	NM_021282.2	0.06	1.06E-03	
Phkg1	ILMN_2769795	NM_011079.2	0.06	4.61E-06	
Gsta3	ILMN_1241437	NM_010356.3	0.06	5.90E-03	
Chac1	ILMN_2617468	NM_026929.3	0.04	9.35E-04	
Ces3	ILMN_2625893	NM_053200.2	0.04	3.77E-04	
Acot1	ILMN_3139875	NM_012006.2	0.03	7.25E-04	
Aqp4	ILMN_2757232	NM_009700.1	0.02	3.52E-07	
2210407C18Rik	ILMN_1226767	NM_144544.1	0.02	3.58E-07	
Mybphl	ILMN_2689426	NM_026831.1	0.02	2.93E-02	



Animals were sham operated and treated with placebo (vehicle) or 30mg/kg/day GW0742. After 14 days the right ventricle was excised and RNA extracted from each sample. Gene expression was measured using the Illumina MouseRef-6v2 BeadChip array and data analysed using the syntax package *R* (version 2.3.1) with “Bioconductor” and “limma”. Genes that were significantly altered were calculated using a moderated *t*-test followed by Benjamini-Hochberg false discovery rate correction.

Kojonazarov, PPAR $\beta/\delta$  agonist protects the right heart – Supplemental material

**SUPPLEMENTAL TABLES**

**Supplemental Table S6. Top 5 networks in pulmonary artery banded C57BL/6 mice.**

Associated Network functions	Molecules in Network	Focus Molecules	Score
<b>Cell-To-Cell Signalling and Interaction, Haematological System Development and Function, Cellular Movement</b>	ANGPT1, CAT, CCL2, CCL21, CD74, CEBPB(includes EG:1051), CORO1A, CYP2E1, EGR1, ELK3, ERK, FGF1, FOS, FXYD5, GADD45A, GDF15, hCG,HSPD1, ICAM1, IL1, JUNB, LITAF, LMNA, Mek, MGST1, MMP2, NFkB(complex), NFKBIZ, P2RY1, PDGF BB, PHLDA1, Pkc(s), Ras, TNC, TNFRSF12A	27	42
<b>Cellular Movement, Cellular Growth and Proliferation, Immune Cell Trafficking</b>	Akt, ANXA5, BCR, CCND2, CD3, Creb, CTGF, CYR61, DPP4, ERK1/2, ETS1, FCGR3A, Focal adhesion kinase, Hsp27, HTRA1, IGF2, IgG, IL12 (complex), IL15 (includes EG:16168), Immunoglobulin, Interferon alpha, Jnk, LAMB3, LGALS4, MAP2K1/2, MBD1, MMP14, P38 MAPK, PI3K (complex), PTN, SERPINF1, SPHK1, TGFBR3, TIMP1, WISP2	20	27
<b>Tissue Development, Connective Tissue Development and Function, Skeletal and Muscular System Development and Function</b>	ADORA1, AGT, APP, CD93, CEACAM1 (includes others), CHI3L1, COL16A1, DSG2, ESR1, ESRRA, FAM102A, FRAT2, GDF10, HLA-B, KLRK1, MEOX1, mir-22, miR-21/miR-590-5p, MMP8, NUAK1, PLEKHO2, PPP1R3C, PTGS1, S100A8, SLC40A1, SMPD2, SOX9, SVEP1, TGFB2, TGFBR2, TGM2, TIMP3, TNF, USP2, WISP2	16	19
<b>Cancer, Gastrointestinal</b>	C9orf3, CCNE2, CHI3L1, COL6A1, COL6A2,	15	18

<b>Disease, Genetic Disorder</b>	COL6A3, Collagen type IV, CTGF, DUSP6, EGFR, ELK3, EMP1, ENPP1, EREG, ESM1, GPT, GSTA3, hCG, HMGCS2, IL17F, IL1B, KNG1, MAOB, NPPB, NPR3 (includes EG:18162), PDLIM4, PPARA, RXRA, S100A4, SCARB1, SPDEF, STAR, TGFB1 (includes EG:21803), TIMP1, TNC		
<b>Cellular Growth and Proliferation, Cardiac Stenosis, Organismal Injury and Abnormalities</b>	AGTR1, ANKRD1, B2M, Caspase 3/7, CDKN1A, COL4A1, COL4A2, CSPG4, CTSK, DDX5, ELN, ENO1, HDAC5, Histone H1, Histone h3, HNRNP, LBR (includes EG:368360), LGALS3, LGALS3BP, LIMA1, LOX, LOXL1, MHC Class I (complex), NOTCH3, Notch, P-TEFb, PRLR, RAB11FIP5, RCAN1, RNA polymerase II, RPS6, S100A11, SF3B3, ZBTB5, ZBTB7A	14	16

Animal's pulmonary arteries were occluded or underwent a sham operation. After several days animals were orally dosed with vehicle and after 14 days the right ventricle was excised and RNA extracted from each sample. Gene expression was measured using the Illumina MouseRef-6v2 BeadChip array and data analysed using the syntax package *R* (version 2.3.1) with "Bioconductor" and "limma". Genes that were significantly modified by  $\geq 1.5$ -fold, as calculated using a moderated *t*-test followed by Benjamini-Hochberg false discovery rate correction, were imported into Ingenuity Pathway Analysis software. The table shows the top 5 networks identified from genes differentially expressed by  $\geq 1.5$ -fold in pulmonary artery banded C57BL/6 mice compared with sham-operated controls.

**Supplemental Table S7. Top bio functions in pulmonary artery banded C57BL/6 mice.**

<b>Disease and Disorders</b>	<b>No of Molecules</b>	<b>p-value</b>
Cancer	106	$3.85 \times 10^{-14}$ - $2.49 \times 10^{-2}$
Gastrointestinal Disease	64	$6.72 \times 10^{-9}$ - $2.41 \times 10^{-2}$
Reproductive System Disease	70	$7.85 \times 10^{-7}$ - $1.28 \times 10^{-2}$
Cardiovascular Disease	63	$1.91 \times 10^{-6}$ - $2.63 \times 10^{-2}$
Connective Tissue Disease	43	$5.95 \times 10^{-6}$ - $2.33 \times 10^{-2}$
<b>Molecular and Cellular Functions</b>	<b>No of Molecules</b>	<b>p-value</b>
Cellular Movement	51	$7.42 \times 10^{-11}$ - $2.60 \times 10^{-2}$
Cellular Growth and Proliferation	69	$4.66 \times 10^{-8}$ - $2.26 \times 10^{-2}$
Cell Death	62	$3.55 \times 10^{-7}$ - $2.65 \times 10^{-2}$
Cell-To-Cell Signalling and Interaction	39	$4.67 \times 10^{-6}$ - $2.28 \times 10^{-2}$
Cellular Development	40	$7.31 \times 10^{-5}$ - $2.26 \times 10^{-2}$
<b>Physiological Systems Development and Function</b>	<b>No of Molecules</b>	<b>p-value</b>
Cardiovascular Systems Development and Function	23	$5.42 \times 10^{-9}$ - $2.01 \times 10^{-2}$
Organismal Development	18	$3.88 \times 10^{-6}$ - $1.38 \times 10^{-2}$
Tissue Development	38	$3.35 \times 10^{-5}$ - $1.68 \times 10^{-2}$
Immune Cell Trafficking	19	$4.85 \times 10^{-5}$ - $2.60 \times 10^{-2}$
Haematological System Development and Function	29	$7.18 \times 10^{-5}$ - $2.60 \times 10^{-2}$

Table shows the top bio functions identified from genes differentially expressed by  $\geq 1.5$ -fold in C57BL/6 mice that have been pulmonary artery banded. Animal's pulmonary arteries were occluded or underwent a sham operation. After several days animals were orally dosed with vehicle and after 14 days the right ventricle was excised and RNA extracted from each sample. Gene expression was measured using the Illumina MouseRef-6v2 BeadChip array and data

analysed using the syntax package *R* (version 2.3.1) with “Bioconductor” and “limma”. Genes that were significantly modified by  $\geq 1.5$ -fold, as calculated using a moderated *t*-test followed by Benjamini-Hochberg false discovery rate correction, were imported into Ingenuity Pathway Analysis software. The range of p-values is reflective of the range of molecules that are represented in each network.

**Supplemental Table S8. Top canonical pathways in pulmonary artery banded C57BL/6 mice.**

Canonical Pathways	Molecules in Network	p-value	Ratio
<b>Hepatic Fibrosis/Hepatic Stellate Cell Activation</b>	AGTR1, CCL2, CCL21, CTGF, CYP2E1, FGF1, ICAM1, MMP2, MYH7, TGFB3, TIMP1	3.19x10 <sup>-6</sup>	11/140 (0.079)
<b>Tyrosine Metabolism</b>	ADH1C (includes EG:11522), ADHFE1, CYP2E1, DBT, FAH, MAOB	3.24x10 <sup>-4</sup>	6/67 (0.09)
<b>Aryl Hydrocarbon Receptor Signalling</b>	ALDH1L2, CCND2, CDKN1A, FOS, GSTA3, GSTT1, MGST1, TGFB3	5.27x10 <sup>-4</sup>	8/141 (0.057)
<b>Bile Acid Biosynthesis</b>	ACAA2, ADH1C (includes EG:11522, ADHFE1, C1orf93, CYP2E1	5.63x10 <sup>-4</sup>	5/49(0.102)
<b>NRF2-Mediated Oxidative Stress Response</b>	ACTA1, ACTB, CAT, FOS, GSTA3, GSTT1, JUNB, MGST1, PIK3R1	8.45x10 <sup>-4</sup>	9/188 (0.048)

Table shows the top bio functions identified from genes differentially expressed by  $\geq 1.5$ -fold in C57BL/6 mice that have been pulmonary artery banded. Animal's pulmonary arteries were occluded or underwent a sham operation. After several days animals were orally dosed with vehicle and after 14 days the right ventricle was excised and RNA extracted from each sample. Gene expression was measured using the Illumina MouseRef-6v2 BeadChip array and data analysed using the syntax package *R* (version 2.3.1) with "Bioconductor" and "limma". Genes that were significantly modified by  $\geq 1.5$ -fold, as calculated using a moderated *t*-test followed by Benjamini-Hochberg false discovery rate correction, were imported into Ingenuity Pathway

Analysis software. The P-value for association of genes and the described canonical pathways, and the ratio of significantly differentially expressed pathway components compared to the total components in that pathway was generated using Fisher's exact test.

