

**Table S7. Lung genes (n=403) significantly changed at 56 days post-hyperoxia (O2) in wild-type (*Gsr*-WT) mice (moderated t-test, p < 0.01).**

Blue(-): fold lower in neonate-O2. Red : fold higher in neonate-O2.

[C3H/HeN, Air](raw)	[C3H/HeN, O2](raw)	p	RefSeq Tra FC (neonate-Air vs neonate-O2 at PND56)	Gene Symbol	Gene Title	Gene Ontology Biological Process
27.880014	37.659985	0.005276762	NM_019511.135	Astr2	astrotactin 2	2000009 // negative regulation of protein localization to cell surface // inferred from direct assay
36.756874	49.50593	0.003642043	XR_378441.135	Sox6os	SRY (sex determining region Y)-box 6, opposite strand	0001819 // positive regulation of cytokine production // inferred from mutant phenotype//0002519 // natural kille
58.820873	78.94708	0.002647361	NM_134251.134	Haver2	hepatitis A virus cellular receptor 2	0001516 // prostaglandin biosynthetic process // inferred from direct assay//0001516 // prostaglandin biosynthet
23.426474	31.409649	0.005348173	NM_007901.134	Edn2	endothelin 2	0006810 // transport // inferred from electronic annotation//0006869 // lipid transport // not recorded//000815
115.15525	153.72656	0.008440082	NM_147221.133	Abca9	ATP-binding cassette, sub-family A (ABC1), member 9	0043206 // extracellular fibril organization // inferred from direct assay//0060216 // definitive hemopoeisis // infei
573.971	766.05975	0.00690024	NM_015771.133	Mfap5	microfibrillar associated protein 5	0001701 // in utero embryonic development // inferred from genetic interaction//0001970 // positive regulation o
657.6893	875.4245	0.005582593	NM_016701.133	C6	complement component 6	0006147 // guanine catabolic process // inferred from electronic annotation//0031116 // positive regulation of miR
446.70416	594.31305	0.006751983	NM_010261.133	Gda	guanine deaminase	0001953 // negative regulation of cell-matrix adhesion // inferred from mutant phenotype//0030154 // cell differe
792.27637	1044.4856	0.007959247	NM_029631.132	Plet1	placenta expressed transcript 1	0005975 // carbohydrate metabolic process // inferred from electronic annotation//0006032 // chitin catabolic prc
5116.9478	6734.9746	0.0079921	NM_007691.132	Chill	chitinase-like 1	0006629 // lipid metabolic process // inferred from electronic annotation//0006641 // triglyceride metabolic proce
470.82602	618.0451	0.007345832	NM_001161.131	Sema4a	sem domain, immunoglobulin domain (Ig), transmembrane domain (TM) and short cy	0001525 // angiogenesis // inferred from electronic annotation//0001755 // neural crest cell migration // not reco
28.032845	36.780437	0.007910694	NM_019961.131	Brinp1	bone morphogenic protein/retinoic acid inducible neural specific 1	0007049 // cell cycle // inferred from electronic annotation//0007050 // cell cycle arrest // inferred from electroni
733.4679	958.2934	0.009465034	NM_001031.131	Golm1	golgi membrane protein 1	0006997 // nucleus organization // inferred from mutant phenotype//0019216 // regulation of lipid metabolic pro
115.67084	150.88017	0.007378882	NM_001291.130	Hnf1b	HNF1 homeobox B	000122 // negative regulation of transcription from RNA polymerase II promoter // inferred from direct assay//00
1666.4786	2167.2485	0.008717786	NM_010421.130	Hexb	hexosaminidase B	001501 // skeletal system development // inferred from genetic interaction//0005975 // carbohydrate metabolic
757.7507	983.9726	0.004688831	NM_153521.130	Insig1	insulin induced gene 1	0006629 // lipid metabolic process // inferred from electronic annotation//0006641 // triglyceride metabolic prce
71.324974	91.484276	0.006599128	NM_009771.128	C3ar1	complement component 3a receptor 1	0002430 // complement receptor mediated signaling pathway // not recorded//0002462 // tolerance induction to
17.56537	22.414295	0.009616536	XR_376519.128	4933424M12Rik	RIKEN cDNA 4933424M12 gene	
551.6129	702.27747	0.006189729	NM_080411.127	Igsf8	immunoglobulin superfamily, member 8	2000145 // regulation of cell motility // inferred from genetic interaction
55.406307	70.44439	0.004641838	NM_199021.127	Zbtb26	zinc finger and BTB domain containing 26	000122 // negative regulation of transcription from RNA polymerase II promoter // not recorded
17.210206	21.567137	0.009946357	NM_030601.125	Cla2//Cka3a2///Cka1//Cka3a1	chloride channel accessory 2//chloride channel accessory 3A2//chloride channel acc	0006508 // proteolysis // inferred from electronic annotation//0006810 // transport // inferred from electronic an
51.473385	64.1107	0.006528281	NM_170591.125	Igsf11	immunoglobulin superfamily, member 11	0007155 // cell adhesion // inferred from electronic annotation//0040008 // regulation of growth // inferred from
36.60131	45.27813	0.009885551	NM_145981.124	Fam83f	family with sequence similarity 83, member F	
14.085622	17.359968	0.007001574	NM_001031.123	Elavl4	ELAV (embryonic lethal, abnormal vision, Drosophila)-like 4 (Hu antigen D)	0007399 // nervous system development // inferred from electronic annotation//0007568 // aging // inferred from
88.03151	76.520424	0.00980005	NM_176951.125	Fbx17	F-box and leucine-rich repeat protein 7	0000806 // G2/M transition of mitotic cell cycle // inferred from direct assay//0007049 // cell cycle // inferred from
255.51285	217.47406	0.009358007	NM_011531.127	Tbx5	T-box 5	0002009 // morphogenesis of an epithelium // inferred from mutant phenotype//0003166 // bundle of His develop
154.75983	131.20175	0.007055782	NM_011955.125	Chts5	carbohydrate (N-acetylglucosamine 6-O) sulfotransferase 5	0005975 // carbohydrate metabolic process // inferred from electronic annotation//0006044 // N-acetylglucosami
34.832626	29.465021	0.008163204	NM_016661.128	Mtag2	metastasis associated gene 2	
178.32079	150.26088	0.004155105	NM_0010281.129	Dtna	dystrobin	
496.71188	417.474074	0.008160782	NM_172591.129	Arl15	ADP-ribosylation factor-like 15	0007264 // small GTPase mediated signal transduction // inferred from electronic annotation
144.86564	121.54545	0.007822624	NM_138681.129	Wfd12	WAP four-disulfide core domain 12	0010466 // negative regulation of peptidase activity // inferred from electronic annotation//0010951 // negative ri
377.6963	315.73477	0.009568824	NM_007541.120	Prdm1	PR domain containing 1, with ZNF domain	000122 // negative regulation of transcription from RNA polymerase II promoter // inferred from direct assay//00
71.98826	60.03685	0.008354547	NM_009231.120	Sox11	SRY (sex determining region Y)-box 11	000122 // negative regulation of transcription from RNA polymerase II promoter // inferred from direct assay//00
527.78656	437.91776	0.006835324	NM_008581.121	Merk	c-mer proto-oncogene tyrosine kinase	001779 // cancer killer cell differentiation // inferred from genetic interaction//0006468 // protein phosphorylati
327.74048	271.418	0.006430389	NM_010871.121	Nck2	non-catalytic region of tyrosine kinase adaptor protein 2	0017171 // immunological synapse formation // not recorded//0006417 // regulation of translation // inferred fro
23.078152	19.085468	0.009757232	NM_172581.121	Tmem63c	transmembrane protein 63c	0006810 // transport // inferred from electronic annotation//0006811 // ion transport // inferred from electronic
5445.8486	4491.2197	0.008105569	NM_001161.121	Dynlt1//Dynt1b//Dynlt1c//Dynt1d	dynein light chain Tctex-type 1A//dynein light chain Tctex-type 1B//dynein light chain Tctex-type 1C//dynein light chain Tctex-type 1D	0006810 // establishment of mitotic spindle orientation // inferred from mutant phenotype//0006810 // transport
240.80606	198.52603	0.008427013	NM_010810.121	Bod1l	biorientation of chromosomes in cell division 1-like	0006281 // DNA repair // inferred from electronic annotation//0006974 // cellular response to DNA damage stimu
8141.2065	6710.715	0.006518072	NM_0011611.121	Dynlt1a//Dynlt1b//Dynlt1c//Dynt1d	dynein light chain Tctex-type 1A//dynein light chain Tctex-type 1B//dynein light chain Tctex-type 1C//dynein light chain Tctex-type 1D	0000132 // establishment of mitotic spindle orientation // inferred from mutant phenotype//0006810 // transport
391.46735	322.5736	0.00832384	NM_011251.121	Rbm6	RNA binding motif protein 6	
105.23527	86.58028	0.00997164	-1.22	Al428301	expressed sequence Al428301	
35.787224	29.416267	0.008334961	NM_151310.122	Padip6	peptidyl arginine deiminase, type VI	0007010 // cytoskeleton organization // inferred from mutant phenotype//0007028 // cytoplasm organization // ir
50.67753	41.661213	0.005942517	NM_001031.122	Rm12	RM12, RecQL mediated genome instability 2, homolog (S. cerevisiae)	0006260 // DNA replication // inferred from electronic annotation
1008.2284	826.8482	0.006630503	NM_001161.122	Add3	adducin 3 (gamma)	0042493 // response to drug // not recorded
331.26093	271.58884	0.003984637	NM_001281.122	Ddx46	DEAD (Asp-Glu-Ala-Asp) box polypeptide 46	0000398 // mRNA splicing, via spliceosome // not recorded//0006397 // mRNA processing // inferred from electro
291.13568	238.61769	0.004497157	NM_019701.122	Cdh13	cadherin 13	0000278 // mitotic cell cycle // inferred from electronic annotation//0001558 // regulation of cell growth // inferre
190.66716	156.093	0.009322567	NM_008870.122	Nqo1	NAD(P)H dehydrogenase, quinone 1	0006801 // superoxide metabolism process // not recorded//0006797 // response to oxidative stress // inferred fro
270.69284	221.52563	0.008234817	NM_011791.122	Car14	carbonic anhydrase 14	0006885 // regulation of pH // inferred by curator//0008152 // metabolic process // inferred from electronic anno
156.62955	128.11458	0.008070216	NM_182991.122	Tmem59l	transmembrane protein 59-like	
192.96407	157.63745	0.003455828	NM_001081.122	Ref1	remodeling and spacing factor 1	0006334 // nucleosome assembly // not recorded//0006338 // chromatin remodeling // not recorded//0006352 /
2334.7888	1906.2751	0.007780545	NM_021391.122	Sic43a3	solute carrier family 43, member 3	005508 // transmembrane transport // inferred from electronic annotation
330.9814	269.91238	0.00287453	NM_010810.123	Chd2//1810026805Rik	chromodomain helicase DNA binding protein 2//RIKEN cDNA 1810026805 gene	0006351 // transcription, DNA-templated // inferred from electronic annotation//0006355 // regulation of transcri
351.91345	286.9263	0.005019383	NM_153801.123	Dnttp2	deoxyuridine triphosphatase, terminal, interacting protein 2	0006351 // transcription, DNA-templated // inferred from electronic annotation//0006355 // regulation of transcri
549.52026	447.88007	0.003894585	NM_001031.123	Cntf//Zfp911//Zfp911Cntf	ciliary neurotrophic factor//zinc finger protein 91//Zfp911-Cntf readthrough transcript	0007250 // activation of NF-kappaB-inducing kinase activity // not recorded//0007259 // JAK-STAT cascade // not i
1724.6565	1404.5717	0.009684066	NM_010191.123	Fgf1	fibroblast growth factor 1	0001525 // angiogenesis // inferred from electronic annotation//0001759 // organ induction // inferred from direc
151.7211	123.1564	0.002375387	NM_018761.123	Chts2	carbohydrate sulfotransferase 2	0005975 // carbohydrate metabolic process // inferred from electronic annotation//0006044 // N-acetylglucosami
124.54507	100.91543	0.00902426	NM_001001.123	Armcx6	armadillo repeat containing, X-linked 6	
307.45016	247.00006	0.006611202	NM_001171.124	Rapgef3	Rap guanine nucleotide exchange factor (GEF) 3	0001525 // angiogenesis // inferred from electronic annotation//0001932 // regulation of protein phosphorylation
80.819595	64.91005	0.00225584	NM_001001.125	Tro	trophinin	0030308 // negative regulation of cell growth // inferred from direct assay
46.0766	372.63522	0.006544279	NM_178651.125	PKn2	protein kinase N2	0006351 // transcription, DNA-templated // inferred from electronic annotation//0006355 // regulation of transcri
513.2304	412.08582	0.005532311	NM_029931.125	Chts15	carbohydrate (N-acetylgalactosamine 4-sulfate 6-O) sulfotransferase 15	0019319 // hexose biosynthetic process // not recorded
2047.4869	1635.7606	0.006902511	NM_03311.125	Slc20a1	solute carrier organic anion transporter family, member 2a1	0006810 // transport // inferred from electronic annotation//0006811 // ion transport // inferred from electronic
554.6338	442.89008	0.002821337	NM_001081.125	Pphln1	periphilin 1	0006351 // transcription, DNA-templated // inferred from electronic annotation//0006355 // regulation of transcri
569.11163	454.33658	0.008331779	NM_001041.125	Arrdc4	arrestin domain containing 4	00051443 // positive regulation of ubiquitin-protein transferase activity // not recorded
790.74384	630.491	0.009492315	NM_001031.125	Xof1	XIAP associated factor 1	0006915 // apoptotic process // inferred from electronic annotation//0031333 // negative regulation of protein co
146.76526	116.8441	0.004715547	NM_001031.126	4932431P20Rik	RIKEN cDNA 4932431P20 gene	
559.0871	444.96008	0.0059986	NM_080841.126	Higd1b	HIG1 domain family, member 1B	
5264.8296	4175.985	0.004329287	NM_001116.126	Csde1	cold shock domain containing E1, RNA binding	0006355 // regulation of transcription, DNA-templated // inferred from electronic annotation//0070966 // nuclear
40.666904	32.248867	0.003652636	-1.26	D12Ert673e	DNA segment, Chr 12, ERATO Doi 673, expressed	
2245.788	1780.178	0.00854816	NM_011411.126	Smarc2	SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily B, member 2	0006325 // chromatin organization // traceable author statement//0006334 // nucleosome assembly // traceable :
21.243055	16.822937	0.008495412	NM_013781.126	Mme1l	membrane metallo-endopeptidase-like 1	0006508 // proteolysis // inferred from electronic annotation
553.0098	437.9377	0.006690188	NM_153171.126	Gimap6	GTase, IMAP family member 6	0035556 // intracellular signal transduction // inferred from direct assay
1626.4589	1286.786	0.009155978	NM_001031.126	Myzap	myocardial zonular adherens protein	001525 // angiogenesis // inferred from direct assay//0001525 // angiogenesis // inferred from mutant phenotyp
1230.0446	972.98663	0.009750093	NM_001281.126	Angpt1	angiopoietin 1	0007165 // signal transduction // inferred from electronic annotation//0007186 // G-protein coupled receptor sign
405.00385	319.95724	0.004533111	NM_001032.127	Gng2	guanine nucleotide binding protein (G protein), gamma 2	0000079 // regulation of cyclin-dependent protein serine/threonine kinase activity // not recorded//0000082 // G1
2507.4622	1980.404	0.006936397	NM_001130.127	Cdkn2c	cyclin-dependent kinase inhibitor 2C (p18, inhibits CDK4)	
2997.1758	2367.149	0.007392416	NM_001012.127	Npnt	nephronectin	0001657 // ureter bud development // inferred from mutant phenotype//001658 // branching involved in uret
69.42604	54.780785	0.009373836	NM_013471.127	Apoh	apolipoprotein H	0001937 // negative regulation of endothelial cell proliferation // not recorded//0006641 // triglyceride metabolic
573.24414	452.25226	0.005162949	NM_010331.127	Ednra	endothelin receptor type A	0001569 // patterning of blood vessels // inferred from genetic interaction//0001666 // response to hypoxia // inf
158.23666	124.64604	0.007013865	NM_001161.127	Endou	endonuclease, polyU-specific	0006508 // proteolysis // not recorded//0006898 // receptor-mediated endocytosis // inferred from electronic an
294.50735	231.69405	0.004888337	NM_011671.127	Ugcg	UDP-glucose ceramide glucosyltransferase	0006629 // lipid metabolic process // inferred from electronic annotation//0006665 // sphingolipid metabolic proc

[C3H/HeN, Air](raw)	[C3H/HeN, O2](raw)	p	RefSeq Tra FC (neonate-Air vs neonate-O2 at PND56)	Gene Symbol	Gene Title	Gene Ontology Biological Process
1354.9279	1060.6588	0.005993265	NM_18132 -1.28	<i>Ctcf</i>	CCCTC-binding factor	0000122 // negative regulation of transcription from RNA polymerase II promoter // inferred from mutant phenotype
133.64636	104.477394	0.006932467	NM_01953 -1.28	<i>Sh3gl2</i>	SH3-domain GRB2-like 2	0002090 // regulation of receptor internalization // inferred from direct assay//0006897 // endocytosis // inferred
61.262894	47.789597	0.004389897	NM_02348 -1.28	<i>Sync</i>	syncolin	0045103 // intercellular filament-based process // inferred from direct assay
149.13467	115.98326	0.007513741	NM_00119 -1.29	<i>Ddx55</i>	DEAD (Asp-Glu-Ala-Asp) box polypeptide 55	0010501 // RNA secondary structure unwinding // not recorded
53.087296	41.207138	0.006724734	NM_01674 -1.29	<i>Mybph</i>	myosin binding protein H	0007155 // cell adhesion // inferred from electronic annotation
1363.2074	1057.7847	0.004989315	NM_00116 -1.29	<i>Cyth3</i>	cytohesin 3	0016192 // vesicle-mediated transport // --//0032012 // regulation of ARF protein signal transduction // inferred
962.7201	743.7094	0.003754453	NM_02666 -1.29	<i>Ubn1</i>	ubrinuclein 1	0006336 // DNA replication-independent nucleosome assembly // not recorded//0006357 // regulation of transcripti
525.04517	405.39517	0.002391014	NM_00129 -1.30	<i>Eif2</i>	E74-like factor 2	0006351 // transcription, DNA-templated // inferred from electronic annotation//0006355 // regulation of transcri
256.32123	197.8123	0.006339138	NM_01737 -1.30	<i>Tuba8</i>	tubulin, alpha 8	0000226 // microtubule cytoskeleton organization // not recorded//0007017 // microtubule-based process // infer
351.07025	270.8946	0.003168191	NM_17290 -1.30	<i>Olfm11</i>	olfactomedin-like 1	
1304.5967	1006.64343	0.002300988	NM_00103 -1.30	<i>Me2ra</i>	myocyte enhancer factor 2A	
379.8684	292.96353	0.007960286	NM_01886 -1.30	<i>Wisp1</i>	WNT1 inducible signaling pathway protein 1	0000002 // mitochondrial genome maintenance // inferred from mutant phenotype//000122 // negative regulati
5782.0254	4450.121	0.006109754	NM_00116 -1.30	<i>Dynlt1-ps1//Dynlt1a//Dynlt1b//</i>	dynen light chain Tctex-type 1, pseudogene 1///dynen light chain Tctex-type 1A//d	0001558 // regulation of cell growth // inferred from electronic annotation//0007155 // cell adhesion // not recor
107.10526	82.39641	0.001689527	NM_00116 -1.30	<i>Dcaf17</i>	DBB1 and CUL4 associated factor 17	0000132 // establishment of mitotic spindle orientation // inferred from mutant phenotype//0006810 // transport
3882.4314	2980.9773	0.009244345	NM_00124 -1.30	<i>Col6a3</i>	collagen, type VI, alpha 3	0016567 // protein ubiquitination // inferred from electronic annotation
122.36338	93.879654	0.009531946	NM_02389 -1.30	<i>Sapcd1</i>	suppressor APC domain containing 1	0010951 // negative regulation of endopeptidase activity // inferred from electronic annotation
526.7514	403.9221	0.005635986	NM_13377 -1.30	<i>Stard4</i>	STAR-related lipid transfer (START) domain containing 4	
1877.9907	1432.2484	0.002843046	NM_15351 -1.31	<i>BC028528</i>	cDNA sequence BC028528	0006810 // transport // inferred from electronic annotation//0006869 // lipid transport // inferred from electronic
5889.2046	4482.737	0.003757528	NM_01023 -1.31	<i>Fmo1</i>	flavin containing monooxygenase 1	0006082 // organic acid metabolic process // not recorded//0006970 // response to osmotic stress // inferred from
826.41766	628.5506	0.001562718	NM_00115 -1.31	<i>Gj1c</i>	gap junction protein, gamma 1	0001570 // vasculogenesis // inferred from mutant phenotype//0007154 // cell communication // inferred from el
4092.0732	3109.9126	0.009418829	NM_14605 -1.32	<i>Ferm1t2</i>	fermitin family homolog 2 (Drosophila)	0007155 // cell adhesion // inferred from electronic annotation//0007160 // cell-matrix adhesion // inferred from
94.37079	71.71373	0.00626986	NM_00839 -1.32	<i>Itga2</i>	integrin alpha 2	0002687 // positive regulation of leukocyte migration // not recorded//0006929 // substrate-dependent cell migra
2324.9429	1764.7217	9.17E-04	NM_00824 -1.32	<i>Ppp1</i>	phospholipid phosphatase 1	0006470 // protein dephosphorylation // inferred from direct assay//0006470 // protein dephosphorylation // trac
569.5836	431.7645	0.008394625	NM_00127 -1.32	<i>Ackr2</i>	atypical chemokine receptor 2	0006698 // receptor-mediated endocytosis // not recorded//0006935 // chemotaxis // inferred from electronic ani
141.8412	107.273445	0.007077453	NM_00650 -1.32	<i>Aldh6b</i>	alcohol dehydrogenase 6B (class V)	0055114 // oxidation-reduction process // inferred from electronic annotation
599.2929	452.55402	0.008302302	NM_17374 -1.32	<i>Maoa</i>	monoamine oxidase A	0006584 // catecholamine metabolic process // inferred from electronic annotation//0042135 // neurotransmitter
1421.4601	1071.5709	0.004672894	NM_00131 -1.33	<i>Crispld2</i>	cysteine-rich secretory protein LCLL domain containing 2	0030198 // extracellular matrix organization // inferred from direct assay//000324 // lung development // inferre
3688.0056	2779.2708	0.003744515	NM_02708 -1.33	<i>Clic3</i>	chloride intracellular channel 3	0006749 // glutathione metabolic process // --//0006810 // transport // inferred from electronic annotation//001
2579.1719	1941.751	0.003241317	NM_17892 -1.33	<i>Afafp11</i>	actin filament associated protein 1-like 1	
739.07855	555.992	0.006605902	NM_00116 -1.33	<i>Phax</i>	phosphorylated adaptor for RNA export	
337.1927	253.24078	0.008633235	NM_00111 -1.33	<i>Syrrg</i>	syringin, gamma	
1685.3572	1262.7155	0.001672245	NM_00128 -1.33	<i>Doom1</i>	dishevelled associated activator of morphogenesis 1	
2721.9685	2034.5537	0.005853636	NM_00116 -1.34	<i>Snrk</i>	SNF related kinase	0016043 // cellular component organization // inferred from electronic annotation//003036 // actin cytoskeleton
379.24768	282.72717	0.005726045	NM_01381 -1.34	<i>Dnah8</i>	dynein, axonemal, heavy chain 8	00016310 // phosphorylation // inferred from electronic anno
940.12823	700.0069	0.002964669	NM_00128 -1.34	<i>Elk3</i>	ELK3, member of ETS oncogene family	0007018 // microtubule-based movement // inferred from electronic annotation//0008152 // metabolic process //
58.674236	43.522366	0.001734882	NM_01036 -1.35	<i>Gypa</i>	glycophorin A	0001525 // angiogenesis // inferred from mutant phenotype//0006351 // transcription, DNA-templated // inferred
972.37067	721.0148	5.93E-04	NM_00128 -1.35	<i>Rcan2</i>	regulator of calcineurin 2	0007016 // cytoskeletal anchoring at plasma membrane // inferred from mutant phenotype//0047484 // regulatio
749.1642	553.1385	0.001537129	NM_02591 -1.35	<i>Tmem88</i>	transmembrane protein 88	0006950 // response to stress // inferred from genetic interaction//0006950 // response to stress // inferred from
477.73456	352.49316	0.005939077	NM_14479 -1.36	<i>Lmcn1</i>	LIM and cysteine-rich domains 1	0007275 // multicellular organismal development // inferred from electronic annotation//0016055 // Wnt signalin
817.06866	602.78564	0.001245283	NM_00131 -1.36	<i>Prkch</i>	protein kinase C, eta	0000122 // negative regulation of transcription from RNA polymerase II promoter // inferred from genetic interacti
34.840076	25.661274	0.006128062	NM_00891 -1.36	<i>Ppy</i>	pancreatic polypeptide	0006468 // protein phosphorylation // not recorded//0016310 // phosphorylation // inferred from electronic anno
889.69666	655.2427	0.009978712	NM_00116 -1.36	<i>Cdkn1c</i>	cyclin-dependent kinase inhibitor 1C (P57)	0007018 // membrane raft assembly // inferred from electronic annotation//0008152 // metabolic process //
193.39479	142.3918	6.24E-04	NM_01184 -1.36	<i>Mid2</i>	midline 2	0001525 // angiogenesis // inferred from mutant phenotype//0006351 // transcription, DNA-templated // inferred
174.11421	127.99915	4.56E-04	NM_17213 -1.36	<i>Adap2</i>	ArfGAP with dual PH domains 2	0006950 // response to stress // inferred from genetic interaction//0006950 // response to stress // inferred from
388.07947	285.08374	8.45E-04	NM_02608 -1.36	<i>Zc3h13</i>	zinc finger CCCH type containing 13	0007275 // multicellular organismal development // inferred from electronic annotation//0016055 // Wnt signalin
290.53336	213.34914	4.52E-04	NM_17546 -1.36	<i>Nmnat2</i>	nicotinamide nucleotide adenylyltransferase 2	0000122 // negative regulation of transcription from RNA polymerase II promoter // inferred from genetic interacti
3253.2273	2385.698	0.001249235	NM_00127 -1.36	<i>Dog1</i>	dystroglycan 1	0006468 // protein phosphorylation // not recorded//0010744 // positive regulation of macrophage derived foam
9519.707	6951.3833	0.00549867	NM_13874 -1.37	<i>Sdpr</i>	serum deprivation response	0002230 // positive regulation of defense response to virus by host // not recorded//0007218 // neuropeptid sig
757.85187	553.33234	0.003289562	NM_00752 -1.37	<i>Bcl6b</i>	B cell CLL/lymphoma 6, member B	0000122 // negative regulation of transcription from RNA polymerase II promoter // inferred from genetic interacti
98.634964	71.937546	0.003878087	NM_00103 -1.37	<i>Zchc18</i>	zinc finger, CCHC domain containing 18	0010508 // positive regulation of autophagy // inferred from sequence or structural similarity//0016567 // protein
558.375	406.41235	0.004839883	NM_08059 -1.37	<i>Emi1</i>	EMI domain containing 1	0007507 // heart development // non-traceable author statement//0043547 // positive regulation of GTPase activi
161.63545	117.38556	0.009112365	NM_00799 -1.38	<i>Fbp2</i>	fructose bisphosphatase 2	0006767 // water-soluble vitamin metabolite process // not recorded//0009058 // biosynthetic process // inferred
51.934258	37.66331	0.004050829	NM_19903 -1.38	<i>Cep135</i>	centrosomal protein 135	0002011 // morphogenesis of an epithelial sheet // inferred from mutant phenotype//0006509 // membrane prote
1001.4492	724.69794	0.006075849	NM_03356 -1.38	<i>Kif7</i>	Krueppel-like factor 7 (ubiquitous)	0045944 // positive regulation of transcription from RNA polymerase II promoter // not recorded
1332.6403	963.85547	0.001487617	NM_01180 -1.38	<i>Ets2</i>	E26 avian leukemia oncogene 2, 3' domain	0000122 // negative regulation of transcription from RNA polymerase II promoter // not recorded//0001712 // ect
930.3197	672.46949	0.001636808	NM_18154 -1.38	<i>Nostrin</i>	nitric oxide synthase trafficker	0006897 // endocytosis // inferred from electronic annotation//0045892 // negative regulation of transcription, DN
120.21006	86.03727	0.001692596	NM_00129 -1.40	<i>LOC102641273//Ttc14</i>	tetratricopeptide repeat protein 14 pseudogene//tetratricopeptide repeat domain 14	0001947 // heart looping // --//000341 // cillum movement // --//0003356 // regulation of cilium beat frequen
54.444614	38.943493	0.002706605	NM_01160 -1.40	<i>Tnfrsf17</i>	tumor necrosis factor receptor superfamily, member 17	0002250 // adaptive immune response // inferred from electronic annotation//000260 // lymphocyte homeostasi
2082.3865	1488.7704	2.93E-04	NM_00108 -1.40	<i>Scn3b</i>	sodium channel, voltage-gated, type III, beta 2	0006810 // transport // inferred from electronic annotation//0006811 // ion transport // inferred from electronic z
1169.6152	829.3296	0.006166396	NM_00111 -1.41	<i>Ddx6</i>	DEAD (Asp-Glu-Ala-Asp) box polypeptide 6	0006417 // regulation of translation // not recorded//0010501 // RNA secondary structure unwinding // not recor
333.38388	236.18637	0.004603687	NM_01072 -1.41	<i>Lipg</i>	lipase, endothelial	0006629 // lipid metabolic process // inferred from electronic annotation//0007584 // response to nutrient // inf
7442.302	5272.2046	0.002912802	NM_00792 -1.41	<i>Emp2</i>	epithelial membrane protein 2	0001765 // membrane raft assembly // inferred from direct assay//0001913 // T cell mediated cytotoxicity // infer
2587.8662	1826.6166	0.001730402	NM_02583 -1.42	<i>Balap21</i>	BAI1-associated protein 2-like 1	0007009 // plasma membrane organization // inferred from electronic annotation//0008286 // insulin receptor sig
1083.4781	764.56384	0.006663724	NM_02847 -1.42	<i>Bmpr</i>	BMP-binding endothelial regulator	0001657 // ureric bud development // inferred from expression pattern//0002043 // blood vessel endothelial ce
1097.989	774.5618	7.62E-04	NM_18331 -1.42	<i>Synm</i>	synemin, intermediate filament protein	0045104 // intermediate filament cytoskeleton organization // inferred from electronic annotation
1396.2255	980.5527	0.002823039	NM_00116 -1.42	<i>Gucy1b3</i>	guanylate cyclase 1, soluble, beta 3	0006182 // cGMP biosynthetic process // not recorded//0007165 // signal transduction // not recorded//0007263
394.7551	276.3262	0.002817492	NM_01737 -1.43	<i>Pdhl12</i>	protocadherin 12	0005977 // carbohydrate metabolic process // inferred from electronic annotation//0006094 // gluconeogenesis /
90.344536	63.157875	0.002427835	NM_02347 -1.43	<i>Upk3a</i>	uroplakin 3A	0007099 // centriole replication // not recorded//0010457 // centriole-centriole cohesion // not record
1124.4457	784.2161	0.002098427	NM_01158 -1.43	<i>Nr1d2</i>	nuclear receptor subfamily 1, group D, member 2	0006351 // transcription, DNA-templated // inferred from electronic annotation//0006355 // regulation of transcri
83.67772	58.288177	1.83E-04	NM_00103 -1.44	<i>Wfdc6a</i>	WAP four-disulfide core domain 6A	0010466 // negative regulation of peptidase activity // not recorded//001051 // negative regulation of endopepti
880.44916	599.7348	0.003583245	NM_14614 -1.47	<i>Jak1</i>	Janus kinase 1	0006468 // protein phosphorylation // inferred from electronic annotation//0001671 // enzyme linked receptor pr
738.8207	503.1607	0.006593663	NM_02445 -1.47	<i>Luzp1</i>	leucine zipper protein 1	0003281 // ventricular septum development // inferred from mutant phenotype//0021503 // neural fold bendi
2401.713	1635.0742	7.67E-04	NM_00119 -1.47	<i>Lims1</i>	LIM and senescent cell antigen-like domains 1	0007160 // cell-matrix adhesion // inferred from mutant phenotype//0007163 // establishment or maintenance of
124.23487	84.51717	0.001011481	NM_00750 -1.47	<i>Atp2a1</i>	ATPase, Ca++ transporting, cardiac muscle, fast twitch 1	0006810 // transport // inferred from electronic annotation//0006811 // ion transport // inferred from electronic z
53.983192	36.614254	0.003483273	NM_00127 -1.47	<i>Ahsg</i>	alpha-2-H-glycoprotein	0001503 // ossification // inferred from direct assay//0006461 // protein complex assembly // not recorded//0001
155.99841	105.64493	0.001898921	NM_00103 -1.48	<i>Cntf//2fp91//2fp91Cnft</i>	ciliary neurotrophic factor//zin finger protein 91//2fp91-Cntf readthrough transcript	0007250 // activation of NF-kappaB-inducing kinase activity // not recorded//0007259 // JAK-STAT cascade // not r
1211.9332	820.30225	4.85E-04	NM_02580 -1.48	<i>Slc16a9</i>	solute carrier family 16 (monocarboxylic acid transporters), member 9	0006810 // transport // inferred from electronic annotation//00015718 // monocarboxylic acid transport // --//000
131.06548	87.92938	0.001745614	NM_00131 -1.49	<i>Af7</i>	activating transcription factor 7	0000122 // negative regulation of transcription from RNA polymerase II promoter // not recorded//0006351 // trai
106.741684	71.49692	0.006861682	NM_00112 -1.49	<i>Trp53</i>	transformation related protein 53	0006810 // transport // inferred from electronic annotation//00015718 // monocarboxylic acid transport // --//000
1236.9542	821.3603	0.001469482	NM_00865 -1.51	<i>Gadd45b</i>	growth arrest and DNA-damage-inducible 45 beta	0000185 // activation of MAPKKK activity // not recorded//0000186 // activation of MAPKK activity // inferred fro
245.32516	162.25024	1.01E-04	NM_00112 -1.51	<i>Igf2</i>	insulin-like growth factor 2	0001503 // ossification // inferred from electronic annotation//0001649 // osteoblast differentiation // inferred fr

[C3H/HeN, Air](raw)	[C3H/HeN, O2](raw)	p	RefSeq Tra FC (neonate-Air vs neonate-O2 at PND56)	Gene Symbol	Gene Title	Gene Ontology Biological Process
93.168015	61.005875	9.70E-05	NM_15307 -1.53	<i>Gprc6a</i>	G protein-coupled receptor, family C, group 6, member A	0007165 // signal transduction // inferred from electronic annotation//0007186 // G-protein coupled receptor sign
22.566032	14.750648	3.43E-04	NM_01126 -1.53	<i>Rhnag</i>	Rhesus blood group-associated A glycoprotein	0006810 // transport // inferred from electronic annotation//0006873 // cellular ion homeostasis // not recorded/
822.4235	537.4037	2.35E-04	NM_00764 -1.53	<i>Cd38</i>	CD38 antigen	0001666 // response to hypoxia // not recorded//0007204 // positive regulation of cytosolic calcium ion concentr
1286.883	836.3257	0.00551773	NM_00125 -1.54	<i>Mest</i>	mesoderm specific transcript	0007498 // mesoderm development // not recorded//0008152 // metabolic process // not recorded//0012883 //
658.00104	422.8983	9.08E-04	NM_15339 -1.56	<i>Col23a1</i>	collagen, type XXIII, alpha 1	00070207 // protein homotrimerization // not recorded
1259.2003	804.66504	0.005947487	NM_17835 -1.56	<i>Klf11</i>	Kruppel-like factor 11	0000083 // regulation of transcription involved in G1/S transition of mitotic cell cycle // not recorded//000122 //
3325.123	2088.996	0.002306288	NM_01089 -1.59	<i>Nedd4</i>	neural precursor cell expressed, developmentally down-regulated 4	0000122 // negative regulation of transcription from RNA polymerase II promoter // inferred from mutant phenotype
379.88022	234.83817	0.006076203	NM_02996 -1.62	<i>9230104L09Rik</i>	RIKEN cDNA 9230104L09 gene	0010466 // negative regulation of peptidase activity // inferred from electronic annotation//0010951 // negative ri
236.66086	145.57121	0.006097783	NM_00790 -1.63	<i>Edn3</i>	endothelin 3	0001755 // neural crest cell migration // inferred from mutant phenotype//0002690 // positive regulation of leuko
347.34525	212.3035	0.003057372	NM_01140 -1.64	<i>Slc4a1</i>	solute carrier family 4 (anion exchanger), member 1	0006810 // transport // inferred from electronic annotation//0006811 // ion transport // inferred from electronic z
297.37445	180.14381	1.97E-04	NM_00129 -1.65	<i>Adcy8</i>	adenylate cyclase 8	0006171 // cAMP biosynthetic process // not recorded//0007189 // adenylate cyclase-activating G-protein couple
767.60785	453.8218	0.00566817	NM_15345 -1.69	<i>Dusp7</i>	dual specificity phosphatase 7	0000188 // inactivation of MAPK activity // not recorded//0006470 // protein dephosphorylation // not recorded/
34.509075	20.343918	0.008078477	NM_18184 -1.70	<i>Fgb</i>	fibrinogen beta chain	0002250 // adaptive immune response // inferred from electronic annotation//0002376 // immune system proces
525.4309	308.6053	0.002106925	NM_01191 -1.70	<i>Xrn2</i>	5'-3' exoribonuclease 2	0000738 // DNA catabolic process, exonucleolytic // not recorded//0006139 // nucleobase-containing compound n
293.49832	169.69853	0.007421678	NM_00117 -1.73	<i>Cyp26b1</i>	cytochrome P450, family 26, subfamily b, polypeptide 1	0001709 // cell fate determination // inferred from mutant phenotype//0001768 // establishment of T cell polarity
217.13885	125.328575	0.006831768	NM_00119 -1.73	<i>Bend7</i>	BEN domain containing 7	
191.05328	106.985535	6.21E-04	NM_15340 -1.79	<i>Neuril3</i>	neuraled E3 ubiquitin protein ligase 3	0016567 // protein ubiquitination // inferred from genetic interaction
1026.606	574.3703	2.39E-04	NM_00790 -1.79	<i>Sipr1</i>	sphingosine-1-phosphate receptor 1	0001525 // angiogenesis // inferred from direct assay//0001955 // blood vessel maturation // inferred from mutan
3852.278	2151.8381	0.001361943	NR_00284 -1.79	<i>Malot1</i>	metastasis associated lung adenocarcinoma transcript 1 (non-coding RNA)	0000381 // regulation of alternative mRNA splicing, via spliceosome // inferred from mutant phenotype//0035063
185.40262	97.6724	0.003106583	XR_378520 -1.90	<i>Gm33248</i>	predicted gene, 33248	
310.7118	162.58124	1.95E-05	NM_01073 -1.91	<i>Zbtb7a</i>	zinc finger and BTB domain containing 7a	0000122 // negative regulation of transcription from RNA polymerase II promoter // inferred from direct assay//00
408.60727	199.38464	0.005052957	NM_02728 -2.05	<i>Nl5dc2</i>	5'-nucleotidase domain containing 2	0006470 // protein dephosphorylation // --//0016311 // dephosphorylation // --
439.93048	192.35175	0.001140304	NM_14543 -2.29	<i>Nr1d1</i>	nuclear receptor subfamily 1, group D, member 1	0000122 // negative regulation of transcription from RNA polymerase II promoter // not recorded//0005978 // gly
377.5021	162.36482	0.002887926	NM_00127 -2.33	<i>Acta1</i>	actin, alpha 1, skeletal muscle	0009612 // response to mechanical stimulus // inferred from electronic annotation//0009991 // response to extra
235.96065	101.15667	5.56E-05	NM_01697 -2.33	<i>Dbp</i>	D site albumin promoter binding protein	0001889 // liver development // inferred from electronic annotation//0006353 // transcription, DNA-templated//
831.9619	229.24924	6.07E-04	NR_00159 -3.63	<i>H19</i>	H19, imprinted maternally expressed transcript	0008285 // negative regulation of cell proliferation // inferred from genetic interaction//0010468 // regulation of f
225.87642	36.23993	0.009964186	NM_02528 -6.23	<i>Stfα3//BC100530//Stfα1</i>	stefin A3//cDNA sequence BC100530//stefin A1	0010466 // negative regulation of peptidase activity // inferred from electronic annotation//0010951 // negative ri
371.3008	47.51264	0.009735196	NM_00108 -7.81	<i>BC100530///Stfα1//Stfα3</i>	cDNA sequence BC100530//stefin A1//stefin A3	0010466 // negative regulation of peptidase activity // inferred from electronic annotation//0010951 // negative ri
261.86676	16.937466	0.004212725	NM_01201 -15.46	<i>Eif2s3y</i>	eukaryotic translation initiation factor 2, subunit 3, structural gene Y-linked	0001731 // formation of translation preinitiation complex // --//0006412 // translation // inferred from electronic
497.55447	17.751776	0.003091645	NM_01200 -28.03	<i>Ddx3y</i>	DEAD (Asp-Glu-Ala-Asp) box polypeptide 3, Y-linked	0006413 // translational initiation // not recorded//0007059 // chromosome segregation // not recorded//00104