

**Table S6. Lung genes (n=567) significantly changed by hyperoxia (O<sub>2</sub>) in glutathione reductase-deficient (*Gsr* -KO) mouse neonates at PND5 (moderated t-test, p < 0.01)**

**Blue(-):** fold decreased by O<sub>2</sub>. **Red :** fold increased by O<sub>2</sub>.

[Gr-KO, Air](raw)	[Gr-KO, O2](raw)	RefSeq Transcript ID	p	FC (Air: 02 at PNDS)	Gene Symbol	Gene Title	Gene Ontology	Biological Process
76.7984	4483.964	NM_009394	4.85E-06	<b>57.44</b>	<i>Tnncc2</i>	troponin C2, fast	0003009 // skeletal muscle contraction // not recorded	
58.468548	2832.6384	NM_177369	3.90E-08	<b>47.75</b>	<i>Myh8</i>	myosin, heavy polypeptide 8, skeletal muscle, perinatal	0003009 // skeletal muscle contraction // not recorded//0006936 // muscle contraction // --//0008152 // metabolic process // inferred from electronic annotation//001-0006936 // muscle contraction // not recorded//0006936 // muscle contraction // not recorded	
24.953693	863.6152	NM_001313949//NM_	2.90E-07	<b>34.24</b>	<i>Krt13</i>	keratin 13	0007010 // cytoskeleton organization // not recorded//0009314 // response to damage // inferred from electronic annotation//0043587 // tongue morphogenesis // info	
95.823166	3093.5344	NM_016754//XM_006	1.85E-04	<b>32.25</b>	<i>Mylpf</i>	myosin light chain, phosphorylatable, fast skeletal muscle	0006955 // immune response // inferred from electronic annotation//007519 // skeletal muscle tissue development // inferred from mutant phenotype	
50.705944	1179.135	NM_001163664//NM_	7.71E-06	<b>22.80</b>	<i>Tnnnt3</i>	troponin T3, skeletal, fast	0003009 // skeletal muscle contraction // not recorded//0006937 // regulation of muscle contraction // inferred from electronic annotation//0006942 // regulation of stri	
338.56406	7321.125	NM_001272041//NM_	3.16E-06	<b>21.43</b>	<i>Acta1</i>	actin, alpha 1, skeletal muscle	0009612 // response to mechanical stimulus // inferred from electronic annotation//0009991 // response to extracellular stimulus // inferred from electronic annotation//	
203.46117	4223.8726	NM_001113387//NM_	3.68E-04	<b>20.41</b>	<i>Myl1</i>	myosin, light polypeptide 1	0006936 // muscle contraction // not recorded//0060048 // cardiac muscle contraction // not recorded	
92.97833	1910.9205	NM_008475	1.66E-06	<b>20.20</b>	<i>Krt4</i>	keratin 4	0007010 // cytoskeleton organization // not recorded//0009790 // embryo development // traceable author statement//0030855 // epithelial cell differentiation // info	
66.04276	1225.579	NM_001099635//NM_	0.003312	<b>18.38</b>	<i>Myh3</i>	myosin, heavy polypeptide 3, skeletal muscle, embryonic	0003009 // skeletal muscle contraction // not recorded//0046034 // ATP metabolic process // not recorded	
22.856401	396.6772	NM_010889//XM_006	6.74E-06	<b>16.71</b>	<i>Neb</i>	nebulin	0030832 // regulation of actin filament length // traceable author statement//0045214 // sarcomere organization // traceable author statement	
17.903265	310.30438	NM_001290389//NM_	2.30E-06	<b>16.26</b>	<i>Atp1b4</i>	ATPase, Na+/K+ transporting, beta 4 polypeptide	0006351 // transcription, DNA-templated // inferred from electronic annotation//0006355 // regulation of transcription, DNA-templated // not recorded//0006810 // trans	
26.560461	388.2157	NM_030679//NM_	0.001407	<b>14.45</b>	<i>Myh1//Myh4</i>	myosin, heavy polypeptide 1, skeletal muscle, adult//my	0006936 // muscle contraction // not recorded//0008152 // metabolic process // inferred from electronic annotation//0003009 // skeletal muscle contraction // inferred f	
21.769707	228.27621	NM_001033621//XM_	7.52E-06	<b>10.39</b>	<i>Myot</i>	myotilin		
111.290146	1123.4584	NM_009405//XM_006	7.68E-06	<b>9.88</b>	<i>Tnni2</i>	troponin I, skeletal, fast 2	0003009 // skeletal muscle contraction // not recorded//0006937 // regulation of muscle contraction // not recorded//0045893 // positive regulation of transcription, DN	
30.85324	274.40927	NM_001127169//XM_	7.87E-04	<b>8.76</b>	<i>Cteal7</i>	transcription elongation factor A (SII)-like 7	0006351 // transcription, DNA-templated // inferred from electronic annotation//0006355 // regulation of transcription, DNA-templated // inferred from electronic annota	
17.78789	143.10919	NM_001081123//XM_	1.79E-06	<b>7.66</b>	<i>Arhgap36</i>	Rho GTPase activating protein 36	0007165 // signal transduction // inferred from electronic annotation//0043547 // positive regulation of GTpase activity // inferred from electronic annotation	
66.22598	523.25354	NM_027416	1.13E-04	<b>7.66</b>	<i>Calm3</i>	calmodulin-like 3		
115.3618	804.8055	NM_007066//XM_011	0.001421	<b>6.87</b>	<i>Car3</i>	carbonic anhydrase 3	0006470 // protein dephosphorylation // inferred from electronic annotation//0006730 // one-carbon metabolic process // inferred from electronic annotation//0006979	
49.579773	345.17355	NM_013456	1.54E-05	<b>6.78</b>	<i>Actn3</i>	actinin alpha 3	001649 // osteoblast differentiation // inferred from mutant phenotype//0006936 // muscle contraction // inferred from direct assay//0014728 // regulation of the force	
44.184513	279.04303	NM_001252372//NM_	1.89E-06	<b>6.20</b>	<i>Mybpc1</i>	myosin binding protein C, slow-type	0006936 // muscle contraction // inferred from direct assay//00190355 // positive regulation of protein targeting to mitochondrion // not recorded	
59.477646	348.76804	NM_031189	0.003989	<b>5.70</b>	<i>Myog</i>	myogenin	0001503 // ossification // inferred from mutant phenotype//0006351 // transcription, DNA-templated // inferred from electronic annotation//0006355 // regulation of tra	
12.981329	72.49016	NM_001033239	7.87E-05	<b>5.49</b>	<i>Cstn1</i>	cystatin A1	0010466 // negative regulation of peptidase activity // inferred from electronic annotation//0010951 // negative regulation of endopeptidase activity // --//0010951 // ne	
306.33035	1702.0999	NM_008469	0.004839	<b>5.46</b>	<i>Krt15</i>	keratin 15	0098779 // mitophagy in response to mitochondrial depolarization // not recorded	
32.838654	160.28629	NM_029569//XM_006	1.35E-05	<b>4.89</b>	<i>Asb5</i>	ankyrin repeat and SOCs box-containing 5	0016567 // protein ubiquitination // inferred from electronic annotation//0035556 // intracellular signal transduction // inferred from electronic annotation	
137.86937	696.1657	NM_007504//XM_006	1.25E-06	<b>4.87</b>	<i>Atp2a1</i>	ATPase, Ca++-transporting, cardiac muscle, fast twitch 1	0006810 // transport // inferred from electronic annotation//0006811 // ion transport // inferred from electronic annotation//0006816 // calcium ion transport // not rec	
62.09625	308.34082	NM_001081087	0.004885	<b>4.81</b>	<i>Klh141</i>	kelch-like 14	0016567 // protein ubiquitination // not recorded//0030239 // myofibril assembly // inferred from mutant phenotype//0013275 // regulation of lateral pseudopodium ass	
56.34369	260.24808	NM_009141	0.003056	<b>4.54</b>	<i>Cxcl5</i>	chemokine (C-X-C motif) ligand 5	0001776 // leukocyte homeostasis // inferred from mutant phenotype//001816 // cytokine production // not recorded//0002690 // positive regulation of leukocyte chen	
71.152824	321.5579	NM_028216	5.67E-04	<b>4.41</b>	<i>Psc4</i>	prostate stem cell antigen		
32.55182	141.47806	NM_007582	1.32E-04	<b>4.36</b>	<i>Cacng1</i>	calcium channel, voltage-dependent, gamma subunit 1	0006810 // transport // inferred from electronic annotation//0006811 // ion transport // inferred from electronic annotation//0006816 // calcium ion transport // inferred	
258.07495	1131.0095	NM_001164787//NM_	1.07E-04	<b>4.28</b>	<i>Sprz2a1//Sprz2a2</i>	small proline-rich protein 2A//small proline-rich protein 2B	0008360 // regulation of cell shape // traceable author statement//0008544 // epidermis development // non-traceable author statement//0018149 // peptide cross-linki	
118.66843	514.4454	NM_001101605//NM_	0.001112	<b>4.17</b>	<i>Ifit1b1</i>	interferon induced protein with tetrapeptide repeats 1	0015607 // defense response to virus // not recorded//0006337 // type I interferon signaling pathway // not recorded	
44.905346	188.82568	NM_027898	1.54E-04	<b>4.14</b>	<i>Crtc1</i>	cysteine-rich C-terminal 1	0018149 // peptide cross-linking // not recorded//0030216 // keratinocyte differentiation // not recorded	
52.8892	217.84296	NM_001199556//NM_	3.08E-04	<b>4.03</b>	<i>AW551984</i>	expressed sequence AW551984	0005507 // cardiac muscle cell differentiation // inferred from mutant phenotype//0006923 // cardiac muscle cell fate commitment // inferred from genetic interaction	
30.585264	118.26599	NM_008657//XM_006	7.45E-05	<b>3.89</b>	<i>Myf6</i>	myogenic factor 6	0001756 // somitogenesis // inferred from mutant phenotype//0006355 // regulation of transcription, DNA-templated // inferred from electronic annotation//0006357 //	
28.393096	108.52695	NM_0010910//XM_006	2.89E-05	<b>3.86</b>	<i>Ryr1</i>	ryanodine receptor 1, skeletal muscle	0001666 // response to hypoxia // not recorded//0003151 // outflow tract morphogenesis // inferred from mutant phenotype//0006810 // transport // inferred from elec	
76.60803	288.5503	NM_008476	1.10E-04	<b>3.67</b>	<i>Krt6a</i>	keratin 6A	0002009 // morphogenesis of an epithelium // inferred from genetic interaction//0002009 // morphogenesis of an epithelium // inferred from mutant phenotype//00160:	
57.28121	213.16151	NM_021508	8.82E-06	<b>3.63</b>	<i>Myo2</i>	myozin 1		
43.795063	158.04631	NM_173385	0.006373	<b>3.59</b>	<i>Clip</i>	cartilage intermediate layer protein, nucleotide pyrophos	0043569 // negative regulation of insulin-like growth factor receptor signaling pathway // not recorded	
107.61155	400.9013	NM_026841	6.13E-05	<b>3.58</b>	<i>Prr32</i>	proline rich 32		
38.48617	136.62178	NM_013505//XM_006	3.40E-05	<b>3.53</b>	<i>Dsc2</i>	desmocollin 2	0007155 // cell adhesion // inferred from electronic annotation//0007156 // homophilic cell adhesion via plasma membrane adhesion molecules // inferred from electroni	
60.9142	196.92682	NM_016749//XM_006	0.003253	<b>3.17</b>	<i>Mybph</i>	myosin binding protein H	0007155 // cell adhesion // inferred from electronic annotation	
45.98375	143.36182	NM_007812//NM_009	1.09E-04	<b>3.10</b>	<i>Cyp2d4//Cyp2a5</i>	cytochrome P450, family 2, subfamily a, polypeptide 4//CYP2D6	0008360 // regulation of cell shape // traceable author statement//0008544 // epidermis development // non-traceable author statement//0018149 // peptide cross-linki	
131.00752	412.9011	NM_013712//XM_011	7.68E-04	<b>3.06</b>	<i>Itgb1bp2</i>	integrin beta 1 binding protein 2	0015030 // ossification // inferred from electronic annotation//0001817 // regulation of cytokine production // not recorded//0001895 // retina homeostasis // inferred fr	
97.62915	308.56287	NM_139134//XM_006	1.67E-04	<b>3.05</b>	<i>Chodl</i>	chondrolectin	0010975 // regulation of neuron projection development // inferred from genetic interaction	
199.118	612.06366	NM_008522	5.29E-04	<b>2.97</b>	<i>Ltf</i>	lactotransferrin	0001503 // ossification // inferred from electronic annotation//0001817 // regulation of endopeptidase activity // not recorded//0006937 // muscle contraction // inferred from direct assay//0019373 // epoxygenase P450 pathway // not record	
62.484314	188.89784	NM_001081375//NM_	8.48E-04	<b>2.97</b>	<i>Cnfn</i>	cornifelin	0031424 // keratinization // inferred from electronic annotation	
26.90576	78.44409	NM_001033131	2.15E-05	<b>2.96</b>	<i>Krtdp</i>	keratinocyte differentiation associated protein	0008544 // epidermis development // not recorded//0030154 // cell differentiation // inferred from electronic annotation	
25.22052	73.11003	NM_00117470//NM_	6.30E-05	<b>2.96</b>	<i>Serpib2</i>	serine (or cysteine) peptidase inhibitor, clade B, member	0010466 // negative regulation of peptidase activity // inferred from electronic annotation//0010951 // negative regulation of endopeptidase activity // not recorded//00	
23.13148	82.44814	NM_001081157//NM_	0.001746	<b>2.87</b>	<i>Lmod3</i>	leiomodin 3 ( fetal )	0006936 // muscle contraction // not recorded//0007015 // actin filament organization // not recorded//0030239 // myofibril assembly // not recorded//0015694 // poi	
16.71076	47.89749	NM_011472	0.006858	<b>2.80</b>	<i>Spr2f</i>	small proline-rich protein 2F	0008544 // epidermis development // non-traceable author statement//0018149 // peptide cross-linking // not recorded//0030216 // keratinocyte differentiation // not r	
51.451138	141.78748	NM_028202//XM_006	2.46E-04	<b>2.73</b>	<i>Klh140</i>	kelch-like 40	0007275 // multicellular organismal development // inferred from electronic annotation//0016567 // protein ubiquitination // --//0031397 // negative regulation of prote	
128.54233	363.57333	NM_026414	2.55E-04	<b>2.71</b>	<i>Asprv1</i>	aspartic peptidase, retroviral-like 1	0006508 // proteolysis // inferred from electronic annotation//0016485 // protein processing // inferred from direct assay//0016485 // protein processing // not recorded	
250.01558	683.995	NM_009813	2.24E-04	<b>2.68</b>	<i>Casq1</i>	calsequestrin 1	0006937 // regulation of muscle contraction // traceable author statement//0007029 // endoplasmic reticulum organization // inferred from mutant phenotype//0007515	
58.277485	158.10065	NM_001007580//NM_	9.18E-04	<b>2.67</b>	<i>Fndc3l</i>	fibronectin type III domain containing 3C1		
62.840107	167.70041	NM_161819//XM_006	2.34E-04	<b>2.62</b>	<i>Mybpc2</i>	myosin binding protein C, fast-type	0006936 // muscle contraction // inferred from direct assay//0007155 // cell adhesion // inferred from electronic annotation	
21.105312	53.855396	NM_025867	8.91E-05	<b>2.55</b>	<i>Serpib1</i>	serine (or cysteine) peptidase inhibitor, clade B (ovalbumin)	0010466 // negative regulation of peptidase activity // inferred from electronic annotation//0010951 // negative regulation of endopeptidase activity // not recorded	
67.41971	173.87997	NM_009264	0.00237	<b>2.53</b>	<i>Spr1a</i>	small proline-rich protein 1A	0018149 // peptide cross-linking // not recorded//0030216 // keratinocyte differentiation // not recorded//0031424 // keratinization // inferred from electronic annotatio	
12.686517	32.053776	NM_001033233//NM_	5.09E-04	<b>2.40</b>	<i>Tmrps11a</i>	transmembrane protease, serine 11a	0006508 // proteolysis // inferred from electronic annotation//0007049 // cell cycle // inferred from electronic annotation	
246.73846	604.106	NM_009694	0.0009031	<b>2.39</b>	<i>Apocbc2</i>	apolipoprotein B mRNA editing enzyme, catalytic polypep	0006397 // mRNA processing // inferred from electronic annotation//0016556 // mRNA modification // inferred from mutant phenotype//0008111 // DNA demethylation	
528.7196	1264.5781	NM_009922//XM_006	0.001964	<b>2.39</b>	<i>Cnn1</i>	calponin 1	00301302 // actomyosin structure organization // inferred from electronic annotation	
48.584885	115.7181	NM_00131701//NM_	2.17E-04	<b>2.38</b>	<i>Pkp1</i>	plakophilin 1	0007155 // cell adhesion // inferred from electronic annotation//0016337 // single organismal cell-cell adhesion // inferred from electronic annotation//0045110 // intern	
24.725973	57.088352	NM_001081023//NM_	0.004491	<b>2.37</b>	<i>Cancals</i>	calcium channel, voltage-dependent, L type, alpha 1 sub	0001501 // skeletal system development // inferred from mutant phenotype//0002074 // extraocular skeletal muscle development // inferred from mutant phenotype//001	
48.330772	113.52331	NM_001033033//NM_	7.24E-05	<b>2.35</b>	<i>Ampd1</i>	adenosine monophosphate deaminase 1	0009117 // nucleotide metabolic process // inferred from electronic annotation//0009168 // purine ribonucleoside monophosphate biosynthetic process // inferred from e	
112.7098	271.40237	NM_027111	0.001701	<b>2.31</b>	<i>Krt5</i>	keratin 5	0001017 // negative regulation of transcription from RNA polymerase II promoter // inferred from mutant phenotype//0006879 // cellular iron ion homeostasis // inferred	
65.316025	152.30411	NM_027126//XM_006	2.64E-04	<b>2.30</b>	<i>Hfe2</i>	hemochromatosis type 2 (juvenile) (human homolog)	0001022 // negative regulation of transcription from RNA polymerase II promoter // inferred from mutant phenotype//0006879 // cellular iron ion homeostasis // inferred	
65.18649	150.86432	NM_001204427//NM_	0.002307	<b>2.29</b>	<i>Spr3</i>	small proline-rich protein 3	0018149 // peptide cross-linking // not recorded//0030216 // keratinocyte differentiation // not recorded//0031424 // keratinization // inferred from electronic annotatio	
44.50794	100.58403	NM_007389	0.001612	<b>2.26</b>	<i>Chrnal1</i>	cholinergic receptor, nicotinic, alpha polypeptide 1 (musc	0003009 // skeletal muscle contraction // not recorded//0006810 // transport // inferred from electronic annotation//0016811 // ion transport // inferred from electronic	
78.13614	179.08975	NM_001122683//NM_	2.00E-04	<b>2.25</b>	<i>Bdh1</i>	3-hydroxybutyrate dehydrogenase, type 1	0008152 // metabolic process // inferred from electronic annotation//0055114 // oxidation-reduction process // not recorded	
2106.3872	4656.767	NM_010362	0.002094	<b>2.18</b>	<i>Gsto1</i>	glutathione S-transferase omega 1	0006749 // glutathione metabolic process // not recorded//0008152 // metabolic process // inferred from electronic annotation//0010880 // regulation of release of sequ	
24.626236	53.256237	NM_153179//XM_006	0.0008783	<b>2.16</b>	<i>Khdk1</i>	polycystic kidney and hepatic disease 1	0001822 // kidney development // inferred from direct assay//0006874 // cellular calcium ion homeostasis // not recorded//0008284 // positive regulation of cell prolifer	
50.64267	108.13938	XR_861642//XR_86895	0.004749	<b>2.14</b>	<i>Gm38785</i>	predicted gene, 38785		
75.6316	162.59714	NM_016689	0.001552	<b>2.11</b>	<i>Aqp3</i>	aquaporin 3	0002684 // positive regulation of immune system process // not recorded//0006810 // transport // inferred from electronic annotation//0006833 // water transport // inf	
17.868435	38.00067	NM_009527//XM_006	4.79E-04	<b>2.11</b>	<i>Serpib5</i>	serine (or cysteine) peptidase inhibitor, clade B, member	0002009 // morphogenesis of an epithelium // inferred from mutant phenotype//0010951 // negative regulation of endopeptidase activity // not recorded//0030198 // e	
29.245455	59.957985	NM_137343	4.09E-06	<b>2.10</b>	<i>Lypd3</i>	Ly6/Plaur domain containing 3	0006928 // movement of cell or subcellular component // not recorded//0007160 // cell-matrix adhesion // not recorded	
24.89903	50.04128	NM_175440//XM_011	0.002686	<b>2.08</b>	<i>Prrs27</i>	protease, serine 27	0006508 // proteolysis // inferred from electronic annotation	
151.80606	326.8504	NM_001005423//NM_	0.007568	<b>2.06</b>	<i>Mreg</i>	melanoregulin	0030318 // melanocyte differentiation // inferred from mutant phenotype//0032402 // melanosome transport // inferred from direct assay//0042640 // anagen // inferre	
53.20544	108.66783	NM_001080995//NM_	0.008147	<b>2.04</b>	<i>Ddias</i>	DNA damage-induced apoptosis suppressor	0006915 // apoptotic process // inferred from electronic annotation//0006974 // cellular response to DNA damage stimulus // inferred from mutant phenotype//0007049	



[Gsr-KO, Air](raw)	[Gsr-KO, O2](raw)	RefSeq	Transcript ID	p	FC (Air: O2 at PND5)	Gene Symbol	Gene Title	Gene Ontology Biological Process
166.12988	226.24178 NM_008265	0.007169	1.32 <i>Hmgcs2</i>	3-hydroxy-3-methylglutaryl-Coenzyme A synthase 2	0001822 // kidney development // inferred from electronic annotation//0001889 // liver development // inferred from electronic annotation//0006629 // lipid metabolic process			
64.93632	85.38805 NM_008596//XM_0061	0.002221	1.32 <i>Sypl2</i>	synaptophysin-like 2	0006810 // transport // inferred from electronic annotation//0006874 // cellular calcium ion homeostasis // inferred from mutant phenotype//0021762 // substantia nigra			
47.35126	61.05052 NM_001039545//NM_005736	0.005736	1.31 <i>Myh2</i>	myosin, heavy polypeptide 2, skeletal muscle, adult	0001778 // plasma membrane repair // inferred from mutant phenotype//0006936 // muscle contraction // not recorded//0008152 // metabolic process // inferred from electronic annotation			
126.1869	170.37598 NM_028001//XM_0061	0.006751	1.31 <i>Jsrp1</i>	junctional sarcoplasmic reticulum protein 1	0003009 // skeletal muscle contraction // not recorded//0006941 // striated muscle contraction // inferred from sequence or structural similarity//0060314 // regulation of gene expression			
398.0678	527.39734 NM_153416	0.006368	1.30 <i>Aars</i>	achalasia, adrenocortical insufficiency, alacrimia	0006810 // transport // inferred from electronic annotation//0006913 // nucleocytoplasmic transport // not recorded//0007612 // learning // inferred from mutant phenotype//0006936 // muscle contraction			
161.25446	215.94284 NM_013555	0.002171	1.30 <i>Hoxd9</i>	homeobox D9	0000122 // negative regulation of transcription from RNA polymerase II promoter // not recorded//0006351 // transcription, DNA-templated // inferred from electronic annotation			
26.060797	32.60967 NM_010809	0.007795	1.30 <i>Mmp3</i>	matrix metalloproteinase 3	0006508 // proteolysis // inferred from mutant phenotype//0006508 // proteolysis // not recorded//0010277 // negative regulation of hydrogen peroxide metabolic process			
260.44272	344.72775 NM_009523	0.005829	1.29 <i>Wnt4</i>	wingless-type MTMV integration site family, member 4	001656 // metanephros development // inferred from mutant phenotype//0001656 // metanephros development // traceable author statement//0001658 // branching			
59.45699	75.61617 NM_009626//XM_0061	0.006184	1.28 <i>Adh7</i>	alcohol dehydrogenase 7 (class IV), mu or sigma polypept	0001523 // retinoid metabolic process // not recorded//0006067 // ethanol metabolic process // not recorded//0006068 // ethanol catabolic process // inferred from mutant phenotype//0006068 // ethanol catabolic process			
83.03524	107.12775 NM_001079883//NM_00	0.00391	1.28 <i>Bcl11b</i>	B cell leukemia/lymphoma 11B	0003334 // keratinocyte development // inferred from mutant phenotype//0003382 // epithelial cell morphogenesis // inferred from mutant phenotype//0006351 // transcription, DNA-templated			
507.5207	652.13275 NM_175403	0.009485	1.27 <i>Mlec</i>	maclein	0002250 // adaptive immune response // inferred from electronic annotation//0002376 // immune system process // inferred from electronic annotation//0005975 // cell adhesion			
59.6125	74.83579	0.004324	1.26 <i>AU014973</i>	expressed sequence AU014973				
55.14434	68.23435 NM_017465//XM_0061	0.007781	1.25 <i>Sult2b1</i>	sulfotransferase family, cytosolic, 2B, member 1	0001013 // sulfate assimilation // inferred from direct assay//0006629 // lipid metabolic process // inferred from electronic annotation//0008202 // steroid metabolic process			
528.922	665.83356 NM_016696//XM_0061	0.005326	1.24 <i>Gpc1</i>	glypican 1	0014037 // Schwann cell differentiation // not recorded//0030200 // heparan sulfate proteoglycan catabolic process // not recorded//0032288 // myelin assembly // not recorded			
22.486776	27.05908 NM_001004182//XM_003329		1.24 <i>A930009E05Rik</i> // <i>I</i> 1	RIKEN cDNA A930009E05 gene // transmembrane protein 1788				
28.759649	34.053375 NM_001310716//NM_00	0.009346	1.23 <i>Crypt3</i>	cysteine-rich periculin theca 3	0006816 // calcium ion transport // not recorded//0006821 // chloride transport // not recorded//0006939 // smooth muscle contraction // inferred from electronic annotation			
60.934032	73.76229 NM_001301840//NM_00	0.007853	1.22 <i>Slc7a3</i>	solute carrier family 7 (cationic) amino acid transporter, y <sup>+</sup> 0003333 // amino acid transmembrane transport // inferred from electronic annotation//0006897 // endocytosis // inferred from electronic annotation//0007010 // cytoskeleton organization // not recorded//0016310 // phosphorylation // inferred from electronic annotation				
305.7263	375.90765 NM_001289677//NM_00	0.009666	1.20 <i>Pacsin2</i>	protein kinase C and casein kinase substrate in neurons 3 0006897 // endocytosis // inferred from electronic annotation//0007010 // cytoskeleton organization // not recorded//0016310 // phosphorylation // inferred from electronic annotation				
306.0718	262.83237 NM_177255//XR_8655	0.009734	1.19 <i>Al63005ZC17Rik</i>	RIKEN cDNA Al63005ZC17 gene	0006606 // protein import into nucleus // inferred from electronic annotation//0006607 // NLS-bearing protein import into nucleus // not recorded//0006810 // transport			
85.33072	71.73895 NM_001013774//XM_008644		1.19 <i>Kpn07</i>	karyopherin alpha 7 (importin alpha 8)				
34.163067	27.503218 NM_001033638//NM_00	0.009141	1.20 <i>Crox</i>	cone-road homeobox, opposite strand	0006816 // calcium ion transport // not recorded//0006821 // chloride transport // not recorded//0006939 // smooth muscle contraction // inferred from electronic annotation			
53.344196	43.660404 NM_010341	0.007335	1.20 <i>Nmru1</i>	neuromedin U receptor 1	0006816 // calcium ion transport // not recorded//0006821 // chloride transport // not recorded//0006939 // smooth muscle contraction // inferred from electronic annotation			
158.50389	134.01523 NM_0290111//XM_011	0.008564	1.21 <i>Pyrox2d</i>	pyridine nucleotide-disulphide oxidoreductase domain 2	0055114 // oxidation-reduction process // inferred from electronic annotation			
115.51504	96.61909 NM_199011 NM_0061	0.009758	1.21 <i>Dgkq</i>	dacylglycerol kinase, theta	0006357 // regulation of transcription from RNA polymerase II promoter // not recorded//0007165 // signal transduction // inferred from electronic annotation//0007186			
65.588905	53.55058 NM_001034906//XM_01	0.00746	1.21 <i>Trim43a</i>	tripartite motif-containing 43A				
28.461613	22.596811 NM_028526//NM_008	0.008963	1.21 <i>Pebpb4</i>	phosphatidylethanolamine binding protein 4				
77.786557	63.900677 NM_001205227//NM_008386		1.21 <i>Cyb5r2</i>	cytochrome b5 reductase 2	0006629 // lipid metabolic process // inferred from electronic annotation//0006694 // sterol biosynthetic process // inferred from electronic annotation//0008202 // sterol biosynthetic process			
265.61856	223.18745 NM_001289915//NM_00	0.009307	1.21 <i>Cd83</i>	CD83 antigen	0006952 // defense response // not recorded//0006959 // humoral immune response // not recorded//0007165 // signal transduction // not recorded//0014070 // response to bacterium			
99.9646	82.510735 NM_026094//XM_0061	0.0039	1.22 <i>Atppb3</i>	ATPase, class I, type 8B, member 3	0006810 // transport // inferred from electronic annotation//0006869 // lipid transport // inferred from electronic annotation//0007030 // Golgi organization // not recorded			
2130.624	1767.0013 NM_001025582//NM_00	0.009045	1.22 <i>Dram2</i>	DNA-damage regulated autophagy modulator 2	0006915 // apoptotic process // inferred from electronic annotation//0007601 // visual perception // inferred from sequence or structural similarity//0010506 // regulatory process			
357.122	298.5671 NM_001304965//NM_00	0.00606	1.22 <i>Pou6f1</i>	POU domain, class 6, transcription factor 1	0006351 // transcription, DNA-templated // inferred from electronic annotation//0006355 // regulation of transcription, DNA-templated // inferred from electronic annotation			
202.00877	167.98267 NM_029586//NM_009	0.005152	1.22 <i>Cep112</i>	centrosomal protein 112	00097120 // receptor localization to synapse // not recorded			
166.32745	139.01201 NM_001037923//NM_00	0.00457	1.23 <i>Lekr1</i>	leucine, glutamate and lysine rich 1				
129.40135	107.634636 NR_045504	0.008025	1.23 <i>4933402C06Rik</i>	RIKEN cDNA 4933402C06 gene				
98.06283	79.78423 NM_007831//XM_0061	0.006868	1.23 <i>Dcc</i>	deleted in colorectal carcinoma	0001764 // neuron migration // inferred from mutant phenotype//0006915 // apoptotic process // inferred from electronic annotation//0007275 // multicellular organismal development			
147.86815	122.7708 NM_001033978//XM_00	0.002775	1.23 <i>H2-Eb2</i>	histocompatibility 2, class II antigen E beta2	0002376 // immune system process // inferred from electronic annotation//0002504 // antigen processing and presentation of peptide or polysaccharide antigen via MHC class II molecule			
39.195534	30.670826 NM_145963	0.006784	1.23 <i>Kcnj14</i>	potassium inwardly-rectifying channel, subfamily J, member 1	0006810 // transport // inferred from electronic annotation//0006811 // ion transport // inferred from electronic annotation//0006813 // potassium ion transport // inferred from electronic annotation			
37.747017	29.404402 NM_020216//XM_0061	0.008492	1.24 <i>Impg1</i>	interphotoreceptor matrix proteoglycan 1				
765.1579	621.0499 NM_001252105//NM_00	0.005168	1.24 <i>Cadps2</i>	Ca <sup>2+</sup> -dependent activator protein for secretion 2	0006810 // transport // inferred from electronic annotation//0006887 // exocytosis // inferred from electronic annotation//0009267 // cellular response to starvation // inferred from electronic annotation			
471.33734	386.38416 NM_133840	0.0084	1.24 <i>Clp1</i>	CLP1, cleavage and polyadenylation factor 1 subunit	0006378 // mRNA polyadenylation // not recorded//0006379 // mRNA cleavage // not recorded//0006388 // tRNA splicing, via endonucleolytic cleavage and ligation // not recorded			
60.116016	47.68778 NM_145603//NR_0337	0.007647	1.24 <i>Ces2c2/Ces2d-ps</i>	carboxylesterase 2C//carboxylesterase 2D, pseudogene	0001101 // response to acid chemical // inferred from direct assay//0008152 // metabolic process // inferred from electronic annotation			
134.35194	110.34192 XM_486441	0.005601	1.24 <i>Zfp125</i>	zinc finger protein 125				
1058.2266	858.0948 NM_025587//XM_0061	0.007186	1.25 <i>LOC1026388500</i> // <i>R</i> 405 ribosomal protein S21 pseudogene//ribosomal prote	000447 // endonucleolytic cleavage in IT1 to separate SSU rRNA from 5.8S rRNA and LSU rRNA from tricistronic rRNA transcript (SSU-rRNA, 5.8S rRNA, LSU-rRNA) // not recorded				
164.55176	134.23343 NM_001083925//NR_00	0.004839	1.25 <i>Oas1b</i>	2'-5' oligoadenylate synthetase 1B	0002376 // immune system process // inferred from electronic annotation//0006955 // immune response // inferred from electronic annotation//0008152 // metabolic process			
37.54027	29.06929 NM_172946//XM_0061	0.00453	1.25 <i>Krt22</i>	keratin 22				
352.0987	286.61618 NM_133798//XM_0061	0.003518	1.26 <i>Exd2</i>	exonuclease 3'-5' domain containing 2	0006139 // nucleobase-containing compound metabolic process // inferred from electronic annotation//0009305 // nucleic acid phosphodiester bond hydrolysis // inferred from electronic annotation			
85.17093	67.2437 NM_025325//NM_0061	0.008064	1.26 <i>Haoa</i>	3-hydroxyanthranilate 3,4-dioxygenase	0006569 // tryptophan catabolic process // inferred from electronic annotation//0009435 // NAD biosynthetic process // inferred from electronic annotation//0010043 // NAD biosynthetic process			
123.345055	99.73619 NM_015770//XM_011	0.005563	1.26 <i>a</i>	nonagouti	0006091 // generation of precursor metabolites and energy // inferred from genetic interaction//0008343 // adult feeding behavior // inferred from genetic interaction//0008343 // adult feeding behavior			
60.889413	47.65428 XR_383232//XR_39564	0.004583	1.26 <i>Gm30054</i>	predicted gene, 30054				
57.10913	44.56657 NM_011872	0.005885	1.26 <i>Klk7</i>	kalikrein related-peptidase 7 (chymotryptic, stratum corr 002803 // positive regulation of antibacterial peptide production // not recorded//0006508 // proteolysis // inferred from electronic annotation				
615.42615	494.25702 NM_001148793//NM_00	0.009217	1.26 <i>Fam208a</i>	family with sequence similarity 208, member A	0006351 // transcription, DNA-templated // inferred from electronic annotation//0006355 // regulation of transcription, DNA-templated // inferred from electronic annotation			
401.51953	324.6203 NM_008434//XM_0061	0.00538	1.26 <i>Kcnq1</i>	potassium voltage-gated channel, subfamily Q, member 1	0002230 // positive regulation of defense response to virus by host // not recorded//0006349 // regulation of gene expression by genetic imprinting // inferred from mutant phenotype//0006349 // regulation of gene expression by genetic imprinting			
67.810394	52.850407 NM_009426	0.002306	1.27 <i>Trh</i>	tryptophan releasing hormone	0001666 // response to hypoxia // inferred from electronic annotation//0001692 // histamine metabolic process // not recorded//0007628 // adult walking behavior // inferred from electronic annotation			
483.31919	387.40793 NM_013867//XM_0061	0.005245	1.27 <i>Bcar3</i>	breast cancer anti-estrogen resistance 3	0002089 // lens morphogenesis in camera-type eye // inferred from mutant phenotype//0007165 // signal transduction // inferred from electronic annotation//000764 /			
71.785225	56.02301 NM_153094//NR_0242	0.00609	1.27 <i>Kirb1f</i>	killer cell lectin-like receptor subfamily B member 1F				
119.07633	94.66935	0.00728	1.27 <i>Gm9873</i>	predicted gene 9873				
144.57019	116.13271 NM_001081401//NM_00	0.005607	1.28 <i>Adams3</i>	a disintegrin-like and metallopeptidase (reprolyns type) v 0006508 // proteolysis // inferred from electronic annotation//0007229 // integrin-mediated signaling pathway // inferred from electronic annotation//0010573 // vascular				
715.28064	563.24245 NM_001039478//NM_00	0.008692	1.28 <i>Lrif1</i>	ligand dependent nuclear receptor interacting factor 1	0006351 // transcription, DNA-templated // inferred from electronic annotation//0006355 // regulation of transcription, DNA-templated // inferred from electronic annotation			
82.927315	64.24449 NM_009292//NM_0061	0.001825	1.28 <i>Strab</i>	stimulated by retinoic acid gene 8	0001541 // ovarian follicle development // inferred from mutant phenotype//0006260 // DNA replication // inferred from electronic annotation//0007066 // female meiosis			
71.66972	55.024673 NM_001032977//NM_00	0.007917	1.29 <i>Gm4951</i>	predicted gene 4951	0035458 // cellular response to interferon-beta // inferred from direct assay			
1816.6785	1406.02882 NM_001029837//NM_00	0.002026	1.30 <i>Ptk3cd</i>	phosphatidylinositol 3-kinase catalytic delta polypeptide	0001782 // B cell homeostasis // inferred from mutant phenotype//0002250 // adaptive immune response // not recorded//0002376 // immune system process // inferred from electronic annotation			
3925.6865	3032.61 NM_001243199//NM_00	0.008911	1.31 <i>Gimap4</i>	GTase, IMAP family member 4				
2518.0828	1936.987 NM_001012766//NM_00	0.00343	1.31 <i>Ear-ps2/Ear1</i> // <i>E</i>	eosinophil-associated, ribonuclease A family, pseudogene 0006935 // chemotaxis // inferred from direct assay//0008152 // metabolic process // inferred from electronic annotation//0009305 // nucleic acid phosphodiester bond				
150.9284	117.380554 NM_007992 NM_00107911//NM_00	0.005681	1.31 <i>Efnb3</i>	ephrin B3	0007275 // multicellular organismal development // inferred from electronic annotation//0007399 // nervous system development // inferred from electronic annotation			
299.8662	232.67787 NM_008137	0.006987	1.31 <i>Gna14</i>	guanine nucleotide binding protein, alpha 14	0007165 // signal transduction // inferred from electronic annotation//0007188 // G-protein coupled receptor signaling pathway // not recorded//0007188 // adenylate cyclase activation			
190.23973	147.77205 NM_0010900	0.003391	1.31 <i>Dusp2</i>	dual specificity phosphatase 2	0000188 // inactivation of MAPK activity // inferred from electronic annotation//0001706 // endoderm formation // not recorded//0006470 // protein dephosphorylation			
1756.8998	1347.1793 NM_001012766//NM_00	0.003844	1.31 <i>Ear-ps2/Ear1</i> // <i>E</i>	eosinophil-associated, ribonuclease A family, pseudogene 0006935 // chemotaxis // inferred from direct assay//0008152 // metabolic process // inferred from electronic annotation//0009305 // nucleic acid phosphodiester bond				
114.519196	88.06061 XR_390511//XR_40673	0.006241	1.31 <i>Gm1783</i>	predicted gene 11783				
38.69044	28.418175 NM_0010571//XM_011	0.004932	1.32 <i>Irs3</i>	insulin receptor substrate 3	0008286 // insulin receptor signaling pathway // not recorded//0019216 // regulation of lipid metabolic process // not recorded			
3257.865	2477.2139 NM_001042634//NM_00	0.006463	1.32 <i>Clik1</i>	CDC-like kinase 1	0006468 // peptidyl-prolyl isomerase // inferred from electronic annotation//0016310 // phosphorylation // inferred from electronic annotation//0018105 // peptidyl-serine			
56.430965	42.027992 NM_00161837//NM_00	0.007985	1.32 <i>Ptptr</i>	protein tyrosine phosphatase, receptor type, R	0001701 // in utero embryonic development // inferred from sequence or structural similarity//0001701 // in utero embryonic development // inferred from electronic annotation			
41.266838	30.277248 NR_001584//NR_00151	0.002251	1.32 <i>Gm21847/Gm386</i>	predicted gene, 21847//predicted gene, 38698 // spermatogenesis associated glutamate (E)-rich protein 4C, opposite strand transcript// spermatogenesis associated glutamate (E)-rich protein 8, pseudogene 1				
710.45256	542.82806 NM_026880	0.008586	1.32 <i>Pink1</i>	PTEN induced putative kinase 1	0000422 // mitophagy // not recorded//001934 // positive regulation of protein phosphorylation // not recorded//0002082 // regulation of oxidative phosphorylation //			
92.26953	69.8176	0.001244	1.32 <i>D3ert162e</i>	DNA segment, Chr 3, ERATO Doi 162, expressed				
57.682236	42.927 NM_001081084	0.005935	1.32 <i>Cubl</i>	cubulin (intrinsic factor-cobalamin receptor)	0001701 // in utero embryonic development // not recorded//0006629 // lipid metabolic process // inferred from electronic annotation//0006810 // transport // inferred from electronic annotation			
40.258194	29.375347 NR_004532//NR_00450	0.007012	1.33 <i>Gm10804</i>	predicted gene 10804				
709.9079	540.81165 NM_001205132//NM_00	0.003338	1.33 <i>Yes1</i>	Yamaguchi sarcoma viral (v-yes) oncogene homolog 1	0006468 // protein phosphorylation // inferred from electronic annotation//0007169 // transmembrane receptor protein tyrosine kinase signaling pathway // not recorded			
73.3554	54.509937 NM_177781//XM_0061	0.008405	1.33 <i>Trop1</i>	transient receptor potential cation channel, subfamily A, I	0006810 // transport // inferred from electronic annotation//0006811 // ion transport // inferred from electronic annotation//0006816 // calcium ion transport // inferred from electronic annotation			
3317.02	248.42436 NM_021475	0.006564	1.34 <i>Adamdec1</i>	ADAM-like, decyin 1	0006508 // proteolysis // inferred from electronic annotation			

[Gsr-KO, Air](raw)	[Gsr-KO, O2](raw)	RefSeq Transcript ID	P	FC (Air: O2 at PND5)	Gene Symbol	Gene Title	Gene Ontology Biological Process
1114.1965	838.9059	NM_007894//NM_001	0.005128	-1.34	<i>Ear1//Ear-ps2//E</i>	eosinophil-associated, ribonuclease A family, member 1//	metabolic process // inferred from electronic annotation//0090305 // nucleic acid phosphodiester bond hydrolysis // --//0090305 // nucleic acid phosphodies
677.8456	511.4963	NM_009811	0.009966	-1.34	<i>Casp6</i>	caspase 6	0002525 // acute inflammatory response to non-antigenic stimulus // not recorded//0006508 // proteolysis / not recorded//0006508 // proteolysis // inferred from revie
1353.5447	1016.87146	NM_010423//XM_006	0.003032	-1.34	<i>Hey1</i>	hairy/enhancer-of-split related with YRPW motif 1	0000122 // negative regulation of transcription from RNA polymerase II promoter // inferred from direct assay//0000122 // negative regulation of transcription from RNA p
196.79095	149.0175	XR_406477//XR_87829	0.004869	-1.35	<i>Gm38561</i>	predicted gene_38561	
55.505066	40.343925	NR_040646	9.58E-04	-1.35	<i>A330049N07Rik</i>	RIKEN cDNA A330049N07 gene	
101.593994	75.07389	NM_001025564//NR_	9.19E-04	-1.36	<i>Gm15698</i>	transcription elongation factor B (SII), polypeptide 2 pseu 0006368 // transcription elongation from RNA polymerase II promoter // not recorded	
208.89912	156.01512	NM_148935//XM_006	0.003946	-1.36	<i>Foxn4</i>	forkhead box N4	0001947 // heart looping // inferred from sequence or structural similarity//0006351 // transcription, DNA-templated // inferred from electronic annotation//0006355 // r
112.4806	83.24882	NR_045298	0.005816	-1.36	<i>2900009J06Rik</i>	RIKEN cDNA 2900009J06 gene	
289.98132	215.11813	NM_001164563//NM_	0.007088	-1.37	<i>Amigo2</i>	adhesion molecule with Ig like domain 2	0007155 // cell adhesion // not recorded//0007156 // homophilic cell adhesion via plasma membrane adhesion molecules // not recorded//0007156 // homophilic cell ad
30.81708	21.533033			-1.37	<i>C79240</i>	expressed sequence C79240	
2047.1757	1500.6091	NM_001012766//NM_	0.007611	-1.38	<i>Ear-ps2//Ear1//E</i>	eosinophil-associated, ribonuclease A family, pseudogene	0006935 // chemotaxis // inferred from direct assay//0008152 // metabolic process // inferred from electronic annotation//0090305 // nucleic acid phosphodiester bond
98.24313	70.459274	NM_001301353//NM_	0.00669	-1.39	<i>Apod</i>	apolipoprotein D	0000302 // response to reactive oxygen species // inferred from mutant phenotype//0000302 // response to reactive oxygen species // not recorded//0006006 // glucose
244.69336	175.83081	NM_001146328//NM_	0.003411	-1.41	<i>Rbm46</i>	RNA binding motif protein 46	
60.79609	42.06468	NM_001080809//NM_	0.002325	-1.42	<i>Cps1</i>	carbamoyl-phosphate synthetase 1	0000050 // urea cycle // not recorded//0000050 // urea cycle // inferred by curator//001889 // liver development // inferred from electronic annotation//0005980 // gh
864.3497	613.0662	NM_153170//XM_006	0.002885	-1.43	<i>Slc36a2</i>	solute carrier family 36 (proton/amino acid symporter), n	0010155 // regulation of proton transport // not recorded//0015808 // L-alanine transport // inferred from direct assay//0015816 // glycine transport // inferred from dire
207.42911	146.9297	NM_001045516//XM_	0.007125	-1.43	<i>Proca1</i>	protein interacting with cyclin A1	
92.5706	63.493557	XR_882338//XR_88233	0.004557	-1.45	<i>Gm28840//Orly</i>	predicted gene 28840//oppositely-transcribed, rearranged locus on the Y	
120.14404	83.24557	NM_177814//XM_006	0.009396	-1.46	<i>Erc2</i>	ELKS/RAB6-interacting/CAST family member 2	
1060.3413	713.14526	NM_002896//NR_0044	0.008032	-1.50	<i>Snhg1///Snord22</i>	small nucleolar RNA host gene 1//small nucleolar RNA, C/D box 22	
120.54032	78.887665	NM_010643//XM_006	0.006882	-1.53	<i>Klk1b24</i>	kallikrein 1-related peptidase b24	0002526 // acute inflammatory response // --//0003073 // regulation of systemic arterial blood pressure // --//0006508 // proteolysis // non-traceable author statement
70.1823	44.966255	NM_001130419//NM_	0.001959	-1.53	<i>Hpcn</i>	hippocalcin	0007420 // brain development // inferred from electronic annotation//0010518 // positive regulation of phospholipase activity // not recorded//0014070 // response to o
125.827644	76.53345	NM_001305549//NM_	0.009845	-1.64	<i>Apoa2</i>	apolipoprotein A-II	0002526 // acute inflammatory response // inferred from electronic annotation//0002740 // negative regulation of cytokine secretion involved in immune response // not
529.0853	291.58115	NM_001316729//NM_	0.008948	-1.83	<i>Qpct</i>	glutaminyl-peptide cyclotransferase (glutaminyl cyclase)	0017186 // peptidyl-pyroglutamic acid biosynthetic process, using glutaminyl-peptide cyclotransferase // not recorded
147.48673	80.17735	NM_054063	4.28E-04	-1.86	<i>Psg28</i>	pregnancy-specific glycoprotein 28	0007565 // female pregnancy // inferred from electronic annotation
68.43109	27.991377	XR_391854//XR_39192	3.56E-04	-2.37	<i>Astx6//Gm</i>	amplified spermatogenic transcripts X encoded//amplified spermatogenic transcripts X encoded 6//predicted gene 28133//predicted gene 28220//predicted gene 28260//predicted gene 28365//predi	
374.6742	144.01358	NM_001164047//NM_	0.008354	-2.61	<i>Mb</i>	myoglobin	0001666 // response to hypoxia // inferred from mutant phenotype//0006810 // transport // inferred from electronic annotation//0007507 // heart development // infer
621.2285	220.95337	NM_010859	0.00206	-2.82	<i>Myl3</i>	myosin, light polypeptide 3	0002026 // regulation of the force of heart contraction // not recorded//0006942 // regulation of striated muscle contraction // not recorded//0007519 // skeletal muscle
1358.016	126.57135	NM_010861//XM_006	0.004603	-10.65	<i>Myl2</i>	myosin, light polypeptide 2, regulatory, cardiac, slow	0002026 // regulation of the force of heart contraction // not recorded//0003007 // heart morphogenesis // inferred from genetic interaction//0007507 // heart developn
2265.6091	118.197014	NM_008725	0.002362	-19.06	<i>Nppa</i>	natriuretic peptide type A	0001666 // response to hypoxia // inferred from electronic annotation//0003085 // negative regulation of systemic arterial blood pressure // not recorded//0006182 // cc