Table 56. Lung genes (n=567) significantly changed by hyperoxia (O2) in glutathione reductase-deficient (Gsr-KO) mouse neonates at PND5 (moderated t-test, p < 0.01). Blue(-): fold decreased by O2. Red: fold increased by O2.

	O2. Red : fold increased by O2.				
	O, O2](raw) RefSeq Transcript ID		PND5) Gene Symbol	Gene Title	Gene Ontology Biological Process
76.9784	4483.964 NM_009394	4.85E-06	57.44 Tnnc2	troponin C2, fast	0003009 // skeletal muscle contraction // not recorded
58.468548 24.953693	2832.6384 NM_177369 863.6152 NM_001313949///NM_	3.90E-08	47.75 Myh8 34.24 Krt13	myosin, heavy polypeptide 8, skeletal muscle, perinatal keratin 13	0003009 // skeletal muscle contraction // not recorded///0006936 // muscle contraction ////0008152 // metabolic process // inferred from electronic annotation///001 0007010 // cytoskeleton organization // not recorded///0009314 // response to radiation // inferred from electronic annotation///0043587 // tongue morphogenesis // infe
95.823166	3093.5344 NM_016754//XM_006!		32.25 Mylpf		000/1031 / (vtosketetori organization) / not recorded//10009314 / response to adatatori / numero from recorded interest organization annotation from electronic annotation from electronic annotation from electronic annotation/(0007519) / skeletal muser to state development interest from mutant phenotype
50.705944	1179.135 NM_001163664//NM_		22.80 Tnnt3	troponin T3. skeletal. fast	000309// shaletal muscle contaction // not recorded///0006937 // regulation of muscle contact usage description in ferred from electronic annotation // 1006942 // regulation of strii
338.56406	7321.125 NM 001272041//NM		21.43 Acta1	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_		20.41 Myl1	myosin, light polypeptide 1	0006936 // muscle contraction // not recorded///0060048 // cardiac muscle contraction // not recorded
92.97833	1910.9205 NM_008475	1.66E-06	20.20 Krt4	keratin 4	0007010 // cytoskeleton organization // not recorded///0009790 // embryo development // traceable author statement///0030855 // epithelial cell differentiation // inferre
66.04276	1225.579 NM_001099635///XM_(	0.003312	18.38 Myh3	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		16.71 Neb	nebulin	0030832 // regulation of actin filament length // traceable author statement///045214 // sarcomere organization // traceable author statement
17.903265	310.30438 NM_001290389///NM_		16.26 Atp1b4	ATPase, (Na+)/K+ transporting, beta 4 polypeptide	0006351//transcription, DNA-templated // inferred from electronic annotation ///0006355 // regulation of transcription, DNA-templated // not recorded ///0006810 // transcription, DNA-templated // not recorded
26.560461	388.2157 NM_030679///NM_010		14.45 Myh1///Myh4		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_0		10.39 Myot	myotilin	CORRECT Management of the Correct Corr
111.290146 30.85324	1123.4584 NM_009405///XM_006! 274.40927 NM_001127169///XM_0		9.88 Tnni2 8.76 Tceal7	troponin I, skeletal, fast 2 transcription elongation factor A (SII)-like 7	0003009 // skeletal muscle contraction // not recorded///0006937 // regulation of muscle contraction // not recorded///045893 // positive regulation of transcription, DNJ 0006351 // transcription, DNA-templated // inferred from electronic annotation///0006355 // regulation of transcription, DNA-templated // inferred from electronic annotation // 0006351 // transcription, DNA-templated // inferred from electronic annotation // 0006351 // transcription, DNA-templated // inferred from electronic annotation // 0006351 // transcription, DNA-templated // inferred from electronic annotation // 0006351 // transcription, DNA-templated // inferred from electronic annotation // 0006351 // transcription, DNA-templated // inferred from electronic annotation // 0006351 // transcription, DNA-templated // inferred from electronic annotation // 0006351 // transcription, DNA-templated // inferred from electronic annotation // 0006351 // transcription, DNA-templated // inferred from electronic annotation // 0006351 // transcription, DNA-templated // inferred from electronic annotation // 0006351 // transcription, DNA-templated // inferred from electronic annotation // 0006351 // transcription // 0006351 //
17.78789	143.10919 NM_001081123///XM_0		7.66 Arhgap36	Rho GTPase activating protein 36	0007165 // distribution // internal from electronic annotation // 0043647 // distribution // internal from electronic annotation
66.22598	523.25354 NM 027416	1.13E-04	7.66 Calml3	calmodulin-like 3	300 20 // Span databased // microsci con circulos distribution // postate regulation of the catalogy microsci non-circulos distribution
115.31618	804.8055 NM 007606///XM 011:		6.87 Car3	carbonic anhydrase 3	0006470 // protein dephosphorylation // inferred from electronic annotation///0006730 // one-carbon metabolic process // inferred from electronic annotation///0006979
49.759773	345.17355 NM_013456	1.54E-05	6.78 Actn3	actinin alpha 3	0001649 // 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	6.20 Mybpc1	myosin binding protein C, slow-type	0006936 // muscle contraction // inferred from direct assay///1903955 // positive regulation of protein targeting to mitochondrion // not recorded
59.477646		0.003989	5.70 Myog	myogenin	0001503 // ossification // inferred from mutant phenotype///0006351 // transcription, DNA-templated // inferred from electronic annotation///0006355 // regulation of tra
12.981329		7.87E-05	5.49 Csta1	cystatin A1	$0010466 // \ negative \ regulation \ of \ peptidase \ activity // \ inferred \ from \ electronic \ annotation ///0010951 // \ negative \ regulation \ of \ endopeptidase \ activity // \///0010951 // \ negative \ regulation \ of \ endopeptidase \ activity // \///0010951 // \ negative \ regulation \ of \ endopeptidase \ activity // \///0010951 // \ negative \ regulation \ of \ endopeptidase \ activity // \///0010951 // \ negative \ regulation \ of \ endopeptidase \ activity // \///0010951 // \ negative \ regulation \ of \ endopeptidase \ activity // \///0010951 // \ negative \ regulation \ of \ endopeptidase \ activity // \///0010951 // \ negative \ regulation \ of \ endopeptidase \ activity // \///0010951 // \ negative \ regulation \ of \ endopeptidase \ activity // \///0010951 // \ negative \ regulation \ of \ endopeptidase \ activity // \///0010951 // \ negative \ regulation \ of \ endopeptidase \ activity // \///0010951 // \ negative \ regulation \ of \ endopeptidase \ activity // \///0010951 // \ negative \ regulation \ of \ endopeptidase \ activity // \///0010951 // \ negative \ regulation \ of \ endopeptidase \ activity // \///0010951 // \ negative \ regulation \ of \ endopeptidase \ activity // \///0010951 // \ negative \ regulation \ of \ endopeptidase \ activity // \///0010951 // \ negative \ regulation \ of \ endopeptidase \ activity // \///0010951 // \ negative \ regulation \ of \ endopeptidase \ activity // \///0010951 // \ negative \ regulation \ regulation \ of \ endopeptidase \ activity // \///0010951 // \ negative \ regulation \ negative \ regulation \ negative \ regulation \ regulation \ negative \ regulation \ re$
306.33035		0.004839	5.46 Krt15	keratin 15	0098779 // mitophagy in response to mitochondrial depolarization // not recorded
32.838654	160.28629 NM_029569///XM_006!		4.89 Asb5	ankyrin repeat and SOCs box-containing 5	0016567 // protein ubiquitination // inferred from electronic annotation///0035556 // intracellular signal transduction // inferred from electronic annotation
137.86937 62.09625	696.1657 NM_007504///XM_006! 308.34082 NM 001081087	1.25E-06 0.004885	4.87 Atp2a1 4.81 Klhl41	ATPase, Ca++ transporting, cardiac muscle, fast twitch 1 kelch-like 41	0006810 // transport // inferred from electronic annotation///0006816 // calcium ion transport // not recc 0016567 // protein ubiquitination // not recorded//0030239 // myofibril assembly // inferred from mutant phenotype///0031275 // regulation of lateral pseudopodium ass
56.34639		0.004885	4.54 Cxcl5	chemokine (C-X-C motif) ligand 5	001756 // leukocyte homeostasis // inferred from mutant phenotype//0001816 // cytokine production // not recorded//0002569 // positive regulation on lateral pseudopoluma ss:
71.152824	321.5579 NM 028216	5.67E-04	4.41 Psca	prostate stem cell antigen	00017/0// leukocyte initiostasis // initerieu initiri initiant piteriotype///0001810// cytokine production// not recorded///0002050// positive regulation of leukocyte citeri
32.55182	141.47806 NM_007582	1.32E-04	4.36 Cacng1		0006810 // transport // inferred from electronic annotation///0006811 // in transport // inferred from electronic annotation///0006816 // calcium ion transport // inferred
258.07495	1131.0095 NM_001164787///NM_				.0008360 // regulation of cell shape // traceable author statement///008544 // epidermis development // non-traceable author statement///0018149 // peptide cross-linkii
118.66843	514.4454 NM_001101605///NM_		4.17 Ifit1bl1		10051607 // defense response to virus // not recorded///0060337 // type I interferon signaling pathway // not recorded
44.905346	188.82568 NM_028798	1.54E-04	4.14 Crct1	cysteine-rich C-terminal 1	0018149 // peptide cross-linking // not recorded///0030216 // keratinocyte differentiation // not recorded
52.8892	217.84296 NM_001199556///NM_		4.03 AW551984	expressed sequence AW551984	0055007 // cardiac muscle cell differentiation // inferred from mutant phenotype///0060923 // cardiac muscle cell fate commitment // inferred from genetic interaction
30.585264	118.26599 NM_008657///XM_006!		3.89 Myf6	myogenic factor 6	0001756 // somitogenesis // inferred from mutant phenotype///0006355 // regulation of transcription, DNA-templated // inferred from electronic annotation///0006357 //
28.39306	108.52695 NM_009109///XM_006		3.86 Ryr1	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	3.67 Krt6a	keratin 6A	0002009 // morphogenesis of an epithelium // inferred from genetic interaction///002009 // morphogenesis of an epithelium // inferred from mutant phenotype///00160!
57.28121 43.795063	213.16151 NM_021508 158.04631 NM 173385	8.82E-06 0.006373	3.63 Myoz1 3.59 Cilp	myozenin 1	0043569 // negative regulation of insulin-like growth factor receptor signaling pathway // not recorded
107.61155	400.9013 NM 026841	6.13E-05	3.58 Prr32	proline rich 32	. 0045369 // negative regulation of illisulin-like growth factor receptor signaling pathway // not recorded
38.48617	136.62178 NM_013505///XM_006!		3.53 Dsc2	desmocollin 2	0007155 // cell adhesion // inferred from electronic annotation//0007156 // homophilic cell adhesion via plasma membrane adhesion molecules // inferred from electronic
60.9142	196.92682 NM_016749///XM_006!		3.17 Mybph	myosin binding protein H	0007155 // cell adhesion // inferred from electronic annotation
45.98375	143.36182 NM_007812///NM_009				0006805 // xenobiotic metabolic process // not recorded///0009804 // coumarin metabolic process // not recorded///0019373 // epoxygenase P450 pathway // not recorded
131.00752	412.9011 NM_013712///XM_011:	7.68E-04	3.06 Itgb1bp2	integrin beta 1 binding protein 2	
97.62915	308.56287 NM_139134///XM_006!		3.05 Chodl	chondrolectin	0010975 // regulation of neuron projection development // inferred from genetic interaction
199.118	612.06366 NM_008522	5.29E-04	2.97 Ltf	lactotransferrin	$0001503 \ //\ ossification\ //\ inferred\ from\ electronic\ annotation\ //\ 0001817\ //\ regulation\ of\ cytokine\ production\ //\ not\ recorded\ //\ 0001895\ //\ retina\ homeostasis\ //\ inferred\ from\ electronic\ annotation\ //\ ossification\ //\ not\ recorded\ //\ 0001895\ //\ retina\ homeostasis\ //\ inferred\ from\ electronic\ annotation\ //\ ossification\ //\ not\ recorded\ //\ 0001895\ //\ retina\ homeostasis\ //\ inferred\ from\ electronic\ annotation\ //\ not\ recorded\ /$
62.484314	188.89784 NM_001081375///NM_		2.97 Cnfn	cornifelin	0031424 // keratinization // inferred from electronic annotation
26.90576		2.15E-05	2.96 Krtdap	keratinocyte differentiation associated protein	0008544 // epidermis development // not recorded///0030154 // cell differentiation // inferred from electronic annotation
25.22052	73.11003 NM_001174170///NM_		2.96 Serpinb2		0010466 // negative regulation of peptidase activity // inferred from electronic annotation///0010951 // negative regulation of endopeptidase activity // not recorded//002
29.133148	82.44814 NM_001081157///XM_0 47.89749 NM 011472	0.001746	2.87 Lmod3	leiomodin 3 (fetal)	0006936 // muscle contraction // not recorded///0007015 // actin filament organization // not recorded///030239 // myofibril assembly // not recorded///00051694 // point organization // not recorded///030239 // myofibril assembly // not recorded///00161694 // point organization // not recorded///030239 // myofibril assembly // not recorded///030139 // point organization // not recorded///030239 // myofibril assembly // not recorded///030139 // point organization // not recorded///030239 // myofibril assembly // not recorded///030139 // point organization // not recorded///030239 // myofibril assembly // not recorded///030139 // point organization // not recorded///030239 // myofibril assembly // not recorded/// not recorded// not rec
16.71076 51.451138	47.89749 NM_011472 141.78748 NM_028202///XM_006!		2.80 Sprr2f 2.73 Klhl40	small proline-rich protein 2F kelch-like 40	0008544 // epidermis development // non-traceable author statement//018149 // peptide cross-linking // not recorded///0030216 // keratinocyte differentiation // not ro 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	2.71 Asprv1	aspartic peptidase, retroviral-like 1	0005508 // 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	2.68 Casa1	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///XM_(		2.67 Fndc3c1	fibronectin type III domain containing 3C1	
62.840107	167.70041 NM_146189///XM_006!	2.34E-04	2.62 Mybpc2	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	2.55 Serpinb11	serine (or cysteine) peptidase inhibitor, clade B (ovalbum	i 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	2.53 Sprr1a	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///XM_(		2.40 Tmprss11a	transmembrane protease, serine 11a	0006508 // proteolysis // inferred from electronic annotation///0007049 // cell cycle // inferred from electronic annotation
246.73846		0.009031	2.39 Apobec2		0006397 // mRNA processing // inferred from electronic annotation///0016556 // mRNA modification // inferred from mutant phenotype///0080111 // DNA demethylation
528.7196	1264.5781 NM_009922///XM_006!		2.39 Cnn1	calponin 1	0031032 // actomyosin structure organization // inferred from electronic annotation
48.584885 24.725973	115.7181 NM_001313701///NM_ 57.088352 NM_001081023///NM_		2.38 Pkp1 2.37 Cacna1s	plakophilin 1 calcium channel voltage-dependent I type alpha 15 suh	0007155 // cell adhesion // inferred from electronic annotation///0016337 // single organismal cell-cell adhesion // inferred from electronic annotation///0045110 // interre 0001501 // skeletal system development // inferred from mutant phenotype///0002074 // extraocular skeletal muscle development // inferred from mutant phenotype///0
48.330772	113.52331 NM 001033303//XM (		2.35 Ampd1	adenosine monophosphate deaminase 1	10003017/ Setted by System developments // inferred from electronic annotation///0002047/ electronic resolution in the control of the control
112.7098	271.40237 NM 027011	1.87E-05	2.31 Krt5	keratin 5	,, , , , , , , , , , , , , , , , , , ,
65.316025	152.30411 NM_027126///XM_006!		2.30 Hfe2		0000122 // 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_		2.29 Sprr3	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	2.26 Chrna1		.0003009 // skeletal muscle contraction // not recorded///0006810 // transport // inferred from electronic annotation///0006811 // ion transport // inferred from electronic
78.13614	179.08975 NM_001122683///NM_		2.25 Bdh1	3-hydroxybutyrate dehydrogenase, type 1	0008152 // metabolic process // inferred from electronic annotation///0055114 // oxidation-reduction process // not recorded
2106.3872		0.002094	2.18 Gsto1	glutathione S-transferase omega 1	$0006749 \ // \ glutathione\ metabolic\ process \ //\ not\ recorded \ //\ 0008152 \ //\ metabolic\ process \ //\ inferred\ from\ electronic\ annotation \ //\ 0010880 \ //\ regulation\ of\ release\ of\ sequence \ from\ electronic\ annotation \ //\ 0010880 \ //\ regulation\ of\ release\ of\ sequence \ from\ electronic\ annotation \ //\ 0010880 \ //\ regulation\ of\ release\ of\ sequence \ from\ electronic\ annotation \ //\ 0010880 \ //\ regulation\ of\ release\ of\ sequence \ from\ electronic\ annotation \ //\ 0010880 \ //\ regulation\ of\ release\ of\ sequence\ of\ sequence\ of\ sequence\ of\ oold \ oold\ oold\$
24.626236	53.256237 NM_153179///XM_006		2.16 Pkhd1	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 proliferations of ce
50.64267	108.13938 XR_861642///XR_86895		2.14 Gm38785	predicted gene, 38785	000000 //
75.6316		0.001552	2.11 Aqp3	aquaporin 3	0002584 // positive regulation of immune system process // not recorded///0006810 // transport // inferred from electronic annotation///0006833 // water transport // inferred from electronic annotation///0006833 // water transport // inferred from electronic annotation // water // wat
17.868435 29.245455	38.00067 NM_009257///XM_006! 59.957985 NM_133743	4.79E-04 4.09E-06	2.11 Serpinb5 2.10 Lypd3	Ly6/Plaur domain containing 3	0002009 // morphogenesis of an epithelium // inferred from mutant phenotype///0010951 // negative regulation of endopeptidase activity // not recorded///0030198 // e> 0006928 // movement of cell or subcellular component // not recorded///0007160 // cell-matrix adhesion // not recorded
29.245455	59.95/985 NM_133/43 50.04128 NM_175440///XM_011.		2.10 Lypa3 2.08 Prss27	protease, serine 27	UUU62.87 // movement or ceil or suoceilular component // not recorded///UU07.50 // ceil-matrix adnesion // not recorded 0006508 // proteolysis // inferred from electronic annotation
151.80606	326.8504 NM 001005423//XM (		2.06 Prss27 2.06 Mreg	melanoregulin	00030318 // melanocyte differentiation // inferred from mutant phenotype///0032402 // melanosome transport // inferred from direct assay///0042640 // anagen // inferred from direct assay/// inferred from direct assay// inferred from direct assay/ inferred
53.20544	108.66783 NM 001080995///NM		2.04 Ddias	DNA damage-induced apoptosis suppressor	0006915 // apoptotic process // inferred from electronic annotation///0006974 // cellular response to DNA damage stimulus // inferred from mutant phenotype///0007049
				· O · · · · · · · · · · · · · · · · · ·	

[Gsr-KO. Air](raw) [G	sr-KO, O2](raw) RefSeq Transcript ID	p FC (Air: O2 at P	PND5) Gene Symbol	Gene Title	Gene Ontology Biological Process
24.93892	48.667316 NM_001127259///NM_		2.01 Trp63	transformation related protein 63	0000122 // negative regulation of transcription from RNA polymerase II promoter // inferred from direct assay///0000122 // negative regulation of transcription from RNA polymerase II promoter // inferred from direct assay
48.250393		0.004335	1.98 Krt6b	keratin 6B	0002009 // morphogenesis of an epithelium // inferred from genetic interaction///0031424 // keratinization // inferred from genetic interaction///0045109 // intermediate
91.971664	187.01898 NM_001166030///XM_0	0.001563	1.98 Mylk4	myosin light chain kinase family, member 4	0006468 // protein phosphorylation // inferred from electronic annotation///0016310 // phosphorylation // inferred from electronic annotation
704.48926	1400.4655 NM_001136062///NM_		1.98 Eno3	enolase 3, beta muscle	$0006096 // \ gly colytic process // \ inferred from \ electronic \ annotation ///0007568 // \ aging // \ inferred from \ electronic \ annotation ///0042493 // \ response to \ drug // \ inferred from \ electronic \ annotation ///0042493 // \ response to \ drug // \ inferred from \ electronic \ annotation ///0042493 // \ response to \ drug // \ inferred from \ electronic \ annotation ///0042493 // \ response to \ drug // \ inferred from \ electronic \ annotation /// \ inferred from \ electronic \ annotation // \ inferred from \ electronic \ inferred fro$
28.188145	53.53097 XR_388766///XR_38876		1.96 Gm12300	predicted gene 12300	
193.8662		2.26E-04	1.94 Gatm		a 0006601 // creatine biosynthetic process // not recorded///0006979 // response to oxidative stress // inferred from electronic annotation///0007584 // response to nutrien
100.15029	196.65428 NM_001029978///NM_				0 0006351 // transcription, DNA-templated // inferred from electronic annotation///0006355 // regulation of transcription, DNA-templated // inferred from electronic annotation
49.297714	93.150215 NM_011097///XM_006!		1.90 Pitx1	paired-like homeodomain transcription factor 1 follistatin	0001501 // skeletal system development // inferred from mutant phenotype///0006351 // transcription, DNA-templated // inferred from electronic annotation///0006355 /
88.458275 57.15084	169.02406 NM_001301373///NM_ 106.38834 NM_001313969///NM_		1.87 Fst 1.85 Vin	vasoactive intestinal polypeptide	0000122 // negative regulation of transcription from RNA polymerase II promoter // not recorded///0001501 // skeletal system development // inferred from genetic intera 0001878 // response to yeast // not recorded///0001938 // positive regulation of endothelial cell proliferation // not recorded///0007611 // learning or memory // not recorded///0001501 // skeletal system development // inferred from genetic intera 0001878 // response to yeast // not recorded///0001938 // positive regulation of endothelial cell proliferation // not recorded///0007611 // learning or memory // not recorded///0007611 // skeletal system development // inferred from genetic intera 0001878 // response to yeast // not recorded///0001938 // positive regulation of endothelial cell proliferation // not recorded///0007611 // learning or memory // not recorded///
99.45178		0.003118	1.85 Crym	crystallin, mu	0000122 // regative regulation of transcription from RNA polymerase ii promoter // not recorded//0006839 // mit the characteristic recorded//0007605 // senso
52.231308		0.004407	1.83 Myod1	myogenic differentiation 1	0000381 // regulation of alternative mRNA splicing, via spliceosome // inferred from direct assay///0000381 // regulation of alternative mRNA splicing, via spliceosome // inferred from direct assay///000381 // regulation of alternative mRNA splicing, via spliceosome // inferred from direct assay///000381 // regulation of alternative mRNA splicing, via spliceosome // inferred from direct assay/// inferred from direct assay/// inferred from direct assay/// inferred from direct assay/// inferred from direct assay// inferred from direct
50.67783	91.75521 NM 009660//XM 006!		1.81 Alox15	arachidonate 15-lipoxygenase	0001503 // ossification // inferred from mutant phenotype///0002820 // negative regulation of adaptive immune response // inferred from mutant phenotype///0006629 /
37.86136	67.16363 NM_145530///XM_011:		1.81 Rhov	ras homolog gene family, member V	0007165 // signal transduction // not recorded///0007264 // small GTPase mediated signal transduction // inferred from electronic annotation
44.463757	79.22919 NM_024291///XM_006!		1.80 Ky	kyphoscoliosis peptidase	0006508 // proteolysis // inferred from electronic annotation///0007517 // muscle organ development // inferred from mutant phenotype///0007528 // neuromuscular jun
85.72841	157.8547 NM_007739	1.48E-04	1.80 Col8a1	collagen, type VIII, alpha 1	0001525 // angiogenesis // inferred from electronic annotation///0007155 // cell adhesion // inferred from electronic annotation///0010811 // positive regulation of cell-su
125.14959		1.41E-04	1.76 Fbp2	fructose bisphosphatase 2	0005975 // carbohydrate metabolic process // inferred from electronic annotation///0006094 // gluconeogenesis // not recorded///0006470 // protein dephosphorylation /
1123.3997	1986.5848 NM_001252653///NM_		1.75 Ecm1	extracellular matrix protein 1	0001503 // ossification // inferred from electronic annotation///0001525 // angiogenesis // inferred from electronic annotation///0001938 // positive regulation of endothe
238.4087	414.78268 NM_019417///XM_006!		1.69 Pdlim4	PDZ and LIM domain 4	0030036 // actin cytoskeleton organization // not recorded
170.09763	299.67953 NM_001111051///NM_		1.68 Dclk1	doublecortin-like kinase 1	0001764 // neuron migration // inferred from genetic interaction///0006468 // protein phosphorylation // inferred from electronic annotation///0007275 // multicellular or
75.92306 31.150349	129.18004 NM_010555///XM_006- 50.65859 NM_001013756///XM_0		1.68 Il1r2 1.68 Grhl3	interleukin 1 receptor, type II grainyhead-like 3 (Drosophila)	0019221 // cytokine-mediated signaling pathway // inferred from electronic annotation 0001736 // establishment of planar polarity // inferred from genetic interaction///0001843 // neural tube closure // inferred from mutant phenotype///0006351 // transcrip
95.75738		0.004235	1.67 Rrp12	ribosomal RNA processing 12 homolog (S. cerevisiae)	0017307/ establishment of planar polanty// mierred nom genetic interaction///0018457/ neural tube closure// mierred nom mutant phenotype///0000517/ transcrip
51.61385		0.004233	1.66 Sostdc1	sclerostin domain containing 1	0007389 // pattern specification process // inferred from mutant phenotype///0010454 // negative regulation of cell fate commitment // inferred from mutant phenotype/,
66.95816		8.57E-04	1.66 Dapl1	death associated protein-like 1	0006915 // apoptotic process // inferred from electronic annotation///0010507 // negative regulation of autophagy /////0030154 // cell differentiation // inferred from electronic annotation///0010507 // negative regulation of autophagy /////0030154 // cell differentiation // inferred from electronic annotation///0010507 // negative regulation of autophagy /////0030154 // cell differentiation // inferred from electronic annotation // outophagy ///// outophagy //// outophagy //
131.08653	226.35217 NM_001077202///NM_		1.66 Hs6st2	heparan sulfate 6-O-sulfotransferase 2	0015015 // heparan sulfate proteoglycan biosynthetic process, enzymatic modification // inferred from direct assay
268.71426	453.8332 NM_010478	4.67E-04	1.65 Hspa1b	heat shock protein 1B	0007339 // binding of sperm to zona pellucida // inferred from direct assay///0009408 // response to heat // inferred from direct assay///0043066 // negative regulation of
66.46184	109.29928 NM_001313956///NM_	0.003144	1.64 Krt14///Krt17	keratin 14///keratin 17	0007568 // aging // not recorded///0010043 // response to zinc ion // inferred from electronic annotation///0010212 // response to ionizing radiation // inferred from elect
28.901054	45.66193 NM_001177615///NM_	0.005052	1.63 Arpp21	cyclic AMP-regulated phosphoprotein, 21	0034605 // cellular response to heat // inferred from direct assay
34.349365	54.142868 NM_001290010///NM_		1.62 Ache	acetylcholinesterase	0001919 // regulation of receptor recycling // inferred from mutant phenotype///0002076 // osteoblast development // inferred from electronic annotation///0006581 // a
34.192394	53.54504 NM_011377///XM_006!		1.61 Sim2	single-minded homolog 2 (Drosophila)	0000122 // negative regulation of transcription from RNA polymerase II promoter // inferred from genetic interaction///0006351 // transcription, DNA-templated // inferred
137.48303	228.40367 NM_080457///NM_183		1.60 Muc4	mucin 4	0001953 // negative regulation of cell-matrix adhesion // not recorded///0002244 // hematopoietic progenitor cell differentiation // inferred from mutant phenotype///000
213.22421 114.83265	350.23697 NM_001310604///NM_ 181.92389 NM 023655///XM 006!		1.58 Lgi2 1.53 Trim29	leucine-rich repeat LGI family, member 2 tripartite motif-containing 29	0000122 // negative regulation of transcription from RNA polymerase II promoter // inferred from genetic interaction///1900181 // negative regulation of protein localizatic
253.65729	398.43768 NM_025429///XM_006!		1.53 Trim29 1.52 Serpinb1a		0000122 // negative regulation of transcription from KNA polymerase ii promoter // interred from genetic interaction///1900181 // negative regulation of protein localizatic  010466 // negative regulation of peptidase activity // inferred from electronic annotation///0010951 // negative regulation of endopeptidase activity // not recorded///004
39.058052		7.07F-04	1.52 Serpinolu 1.52 Padi1	peptidyl arginine deiminase, type I	0018101 // protein citrullination // not recorded
179.4649	280.4809 NM_080451///XM_006!		1.52 Synpo2	synaptopodin 2	Colored Process and Market State Colored Color
17.514702		0.001542	1.51 Gm94	predicted gene 94	
52.471596		0.004804	1.51 Barx2	BarH-like homeobox 2	0000122 // negative regulation of transcription from RNA polymerase II promoter // inferred from direct assay///0001502 // cartilage condensation // inferred from direct a
63.87838	96.486305 NM_027158///XM_006!	0.005178	1.51 Upk3bl	uroplakin 3B-like	0006979 // response to oxidative stress // inferred from electronic annotation///0055114 // oxidation-reduction process // inferred from electronic annotation
75.87885	114.62909 NM_016966///NR_0335		1.49 Gm8096///Phgdh		o 0006541 // glutamine metabolic process // inferred from mutant phenotype///0006544 // glycine metabolic process // inferred from mutant phenotype///0006563 // L-seri
149.99294		0.003941	1.49 Mall	mal, T cell differentiation protein-like	
97.899475	148.47435 NM_001085509///XM_0		1.49 Myom3	myomesin family, member 3	
808.37354		0.009669	1.49 Des	desmin	0007517 // muscle organ development // traceable author statement
109.64348 17.672358	167.64255 NM_009710///XM_011: 26.26844 NM_001042725///NM_		1.48 Art1 1.47 Calcr	ADP-ribosyltransferase 1 calcitonin receptor	0006471 // protein ADP-ribosylation // inferred from direct assay 0007165 // signal transduction // inferred from electronic annotation///0007166 // cell surface receptor signaling pathway // inferred from electronic annotation///0007186
336.5329		0.008426	1.47 Calm4	cell adhesion molecule 4	000/153 // signal ansocioum/ interior interior interior annotation///0007155 // cen surface receptor signaling parties y/ interior interio
122.008644		0.006176	1.46 Dnph1	2'-deoxynucleoside 5'-phosphate N-hydrolase 1	0008152 // metabolic process // inferred from electronic annotation///0009117 // nucleoside metabolic process // inferred from electronic annotation///0009117 // nucleo
24.569138	34.87275 NM 172296///XM 006!		1.45 Dmrta2		n 0002052 // positive regulation of neuroblast proliferation // inferred from mutant phenotype///0006355 // regulation of transcription, DNA-templated // inferred from elec
124.97631	186.33215 NM_001301094///NM_		1.44 Olr1	oxidized low density lipoprotein (lectin-like) receptor 1	0002376 // immune system process // inferred from electronic annotation///0006898 // receptor-mediated endocytosis // inferred from direct assay///0006954 // inflamm
40.751575	57.54205 NM_001039677///XM_0	0.008203	1.44 Slc30a2	solute carrier family 30 (zinc transporter), member 2	0006810 // transport // inferred from electronic annotation///0006812 // cation transport // inferred from electronic annotation///0006812 // cation transport // inferred from
112.30704	167.20506 NM_009374///XM_006		1.44 Tgm3	transglutaminase 3, E polypeptide	0008544 // epidermis development // traceable author statement///0018149 // peptide cross-linking // not recorded///0018149 // peptide cross-linking // traceable author
62.935493		0.002277	1.44 Trim54	tripartite motif-containing 54	0007026 // negative regulation of microtubule depolymerization // inferred from direct assay///0007275 // multicellular organismal development // inferred from electronii
26.512022	36.55561 NM_001302203///NM_		1.43 Gpr87	G protein-coupled receptor 87	0007165 // signal transduction // inferred from electronic annotation///0007186 // G-protein coupled receptor signaling pathway // not recorded///0007194 // negative reş
320.41614	466.9535 NM_001083903///NM_		1.43 Sbsn	suprabasin	0000457 //MADV annuals // anturnals // 1/0000457 //MADV annuals // information and annuals // information annuals // information annuals // information annuals // information and annuals // information a
23.763445 262.06815	32.78288 NM_001310680///NM_ 383.13293 NM 011859	0.006575	1.43 Scg2 1.42 Osr1	secretogranin II odd-skipped related 1 (Drosophila)	0000165 // MAPK cascade // not recorded///0000165 // MAPK cascade // inferred from sequence or structural similarity///0001525 // angiogenesis // inferred from direct a 0000122 // negative regulation of transcription from RNA polymerase II promoter // inferred from genetic interaction///0001655 // urogenital system development // inferr
19.649849		0.003823	1.42 OSF1 1.42 Six1	sine oculis-related homeobox 1	0000122 // negative regulation of transcription from RNA polymerase il promoter // inferred from direct assay/(0001657 // ureteric bud development // inferred from gene
174.10493		0.002704	1.41 Entpd2	ectonucleoside triphosphate diphosphohydrolase 2	0007126 // G-protein coupled receptor signaling pathway // inferred from direct assay///0009181 // purine ribonucleside diphocusphate catabophate cata
63.14047	89.07153 NM_153776///XM_006!		1.41 Tmem121	transmembrane protein 121	
42.61226		0.008584	1.41 Gm41224	predicted gene, 41224	
671.158	942.4298 NM_133764///XM_006!		1.40 Atp6v0e2	ATPase, H+ transporting, lysosomal V0 subunit E2	$0006810 // transport // inferred from electronic annotation///0006811 \textit{// ion transport // inferred from electronic annotation///0008152 \textit{// metabolic process // inferred from electronic annotation/// inferred from electronic annotation/// inferred from electronic annotation/// inferred from electronic annotation/// inferred from electronic annotation// inferred from electronic annotation// inferred from electronic annotation// inferred from electronic annotation and electronic annotation $
139.93015	202.34758 NM_153744///NM_153	0.001168	1.40 Prkag3	protein kinase, AMP-activated, gamma 3 non-catatlytic s	u 0005978 // glycogen biosynthetic process // inferred from mutant phenotype///0006468 // protein phosphorylation // not recorded///0006629 // lipid metabolic process //
245.13454	351.577 NM_001083334///NM_		1.40 Bin1	bridging integrator 1	0006897 // endocytosis // inferred from electronic annotation///0007275 // multicellular organismal development // inferred from electronic annotation///0030100 // regu
172.62494	249.54987 NM_001290315///NM_		1.39 Igdcc4	immunoglobulin superfamily, DCC subclass, member 4	
4253.832	5882.182 NM_001146120///NM_		1.38 Psap	prosaposin	0006629 // lipid metabolic process // inferred from electronic annotation///0006665 // sphingolipid metabolic process // inferred from electronic annotation///0006667 // sphingolipid metabolic process // inferred from electronic annotation ///0006667 // sphingolipid metabolic process // inferred from electronic annotation ///0006667 // sphingolipid metabolic process // inferred from electronic annotation ///0006667 // sphingolipid metabolic process // inferred from electronic annotation ///0006667 // sphingolipid metabolic process // inferred from electronic annotation ///0006667 // sphingolipid metabolic process // inferred from electronic annotation ///0006667 // sphingolipid metabolic process // inferred from electronic annotation ///0006667 // sphingolipid metabolic process // inferred from electronic annotation ///0006667 // sphingolipid metabolic process // inferred from electronic annotation // sphingolipid metabolic process // inferred from electronic annotation // sphingolipid metabolic process // inferred from electronic annotation // sphingolipid metabolic process // inferred from electronic annotation // sphingolipid metabolic process // inferred from electronic annotation // sphingolipid metabolic process // inferred from electronic annotation // sphingolipid metabolic process // inferred from electronic annotation // sphingolipid metabolic process // inferred from electronic annotation // sphingolipid metabolic process // inferred from electronic annotation // sphingolipid metabolic process // inferred from electronic annotation // sphingolipid metabolic process // inferred from electronic annotation // sphingolipid metabolic process // inferred from electronic annotation // sphingolipid metabolic process // inferred from electronic annotation // sphingolipid metabolic process // inferred from electronic annotation // sphingolipid metabolic process // inferred from electronic annotation // sphingolipid metabolic process // sphingolipid metabolic process // sphingolipid metabolic process // sphingo
427.30783 349.0836	594.25494 NM_001081185///NM_ 483.40305 NM_007682	9.39E-04 5.67E-04	1.37 Flnc	filamin C, gamma	0030029 // actin filament-based process // traceable author statement//0048747 // muscle fiber development // inferred from direct assay 0006355 // regulation of transcription, DNA-templated // inferred from electronic annotation
349.0836 25.423569		5.6/E-04 0.008412	1.36 Cenpb 1.35 D16Ertd6e	centromere protein B DNA segment, Chr 16, ERATO Doi 6, expressed	OUDD 20 / Tegulation of transcription, DIVA-templated // Interfed from electronic annotation
126.96529	176.9962 NM_007788///XM_006				g 0006351 // transcription, DNA-templated // inferred from electronic annotation///0006355 // regulation of transcription, DNA-templated // inferred from electronic annotation
256.18976	353.68494 NM 001040426///NM		1.35 CSRk2a1///GM100 1.35 Thsd4	thrombospondin, type I, domain containing 4	g 000553 / / datiscription, ivinA-reimplated // milened norm electronic annotation///oo8152 // negration to datiscription, ivinA-reimplated // milened norm electronic annotation///oo8152 // metabolic process // regulation to datiscription, ivinA-reimplated // milened normalization///oo8152 // metabolic process // inferred from electronic annotation///oo8152 // metabolic process // inferred from electronic annotation///oo88551 // elastic fiber assembly // ii
92.56843		0.002783	1.34 Gjb2	gap junction protein, beta 2	0000156 // Justice in interest
79.02864		0.007654	1.34 Tub	tubby candidate gene	0006909 // phagocytosis // inferred from electronic annotation//0006910 // phagocytosis, recognition // inferred from direct assay///0006910 // phagocytosis, recognition
1170.1991	1581.815 NM_026122///NM_175	0.00854	1.34 Hmgn3	high mobility group nucleosomal binding domain 3	0006357 // regulation of transcription from RNA polymerase II promoter // inferred from mutant phenotype///0016568 // chromatin modification // inferred from electroni
300.97632	414.14322 NM_001077694///NM_	0.004852	1.34 Dysf	dysferlin	0001778 // plasma membrane repair // inferred from direct assay///0001778 // plasma membrane repair // inferred from mutant phenotype///0006906 // vesicle fusion //
77.912476		0.004202	1.34 Cd5l	CD5 antigen-like	0006898 // receptor-mediated endocytosis // inferred from electronic annotation///0006915 // apoptotic process // inferred from electronic annotation
51.26613	67.56051 NM_001204914///NM_		1.33 Reep2	receptor accessory protein 2	0002230 // positive regulation of defense response to virus by host // not recorded///0032386 // regulation of intracellular transport // inferred from direct assay///003259
90.110435		0.002441	1.33 Ftsj3	FtsJ homolog 3 (E. coli)	0000453 // enzyme-directed rRNA 2"-O-methylation // inferred from electronic annotation///0000463 // maturation of LSU-rRNA from tricistronic rRNA transcript (SSU-rRNA)
45.490337	58.985092 NM_145066///XM_006!	U.UU59U2	1.32 Gpr85	G protein-coupled receptor 85	0007165 // signal transduction // inferred from electronic annotation///0007186 // G-protein coupled receptor signaling pathway // inferred from electronic annotation///0

	sr-KO, O2](raw) RefSeq Transcript ID		FC (Air: O2 at PND5) Gene Symbol	Gene Title	Gene Ontology Biological Process
166.12988	226.24178 NM_008256	0.007169		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
64.93632	85.38805 NM_008596///XM_0069			synaptophysin-like 2	0006810 // transport // inferred from electronic annotation///0006874 // cellular calcium ion homeostasis // inferred from mutant phenotype///0021762 // substantia nigra
47.35126	61.050552 NM_001039545///NM_			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
126.1869 398.0678	170.37598 NM_028001///XM_0069 527.39734 NM_153416	0.006368		junctional sarcoplasmic reticulum protein 1	0003009 // skeletal muscle contraction // not recorded///0006941 // striated muscle contraction // inferred from sequence or structural similarity///0060314 // regulation c 0006810 // transport // inferred from electronic annotation///0006913 // nucleocytoplasmic transport // not recorded///0007612 // learning // inferred from mutant phenomenance of the contraction of the contraction in the contraction of the
161.25446	215.94284 NM_013555	0.000368		achalasia, adrenocortical insufficiency, alacrimia homeobox D9	000012/ / daisport // interred from electronic aminotation/j/0000512/ j unucleocycopiosismic daisport // not recorded/j/0007512/ j earning // interred from relaction of the properties of the p
26.060797	32.60967 NM_010809	0.002171		matrix metallopeptidase 3	0006508 // proteolysis // inferred from mutant phenotype///0006508 // proteolysis // not recorded///0010727 // negative regulation of hydrogen peroxide metabolic proce
260.44272	344.72775 NM 009523	0.005829		wingless-type MMTV integration site family, member 4	0001656 // metanephros development // inferred from mutant phenotype///0001656 // metanephros development // traceable author statement///0001658 // branching
59.45699	75.61617 NM_009626///XM_006	0.006184	1.28 Adh7	alcohol dehydrogenase 7 (class IV), mu or sigma polypep	at 0001523 // retinoid metabolic process // not recorded///0006067 // ethanol metabolic process // not recorded///0006068 // ethanol catabolic process // inferred from mut
83.03524	107.12775 NM_001079883///NM_			B cell leukemia/lymphoma 11B	0003334 //  keratinocyte  development //  inferred  from  mutant  phenotype ///0003382  //  epithelial  cell  morphogenes is //  inferred  from  mutant  phenotype ///0006351 //  translation for the contraction of the contrac
507.5207	652.13275 NM_175403	0.009485		malectin	0002250 // adaptive immune response // inferred from electronic annotation///0002376 // immune system process // inferred from electronic annotation///0005975 // car
59.6125	74.83579	0.004324		expressed sequence AU014973	
55.144344 528.922	68.23435 NM_017465///XM_006			sulfotransferase family, cytosolic, 2B, member 1	0000103 // sulfate assimilation // inferred from direct assay//0006629 // lipid metabolic process // inferred from electronic annotation///0008202 // steroid metabolic pro
22.486776	665.83356 NM_016696///XM_0069 27.05908 NM 001004182///XM (			glypican 1 7 RIKEN cDNA A930009E05 gene///transmembrane protei	0014037 // Schwann cell differentiation // not recorded///0030200 // heparan sulfate proteoglycan catabolic process // not recorded///0032288 // myelin assembly // not recorded///0032288 // myelin assembly // not recorded/// not recorded// not rec
28.759645	34.053375 NM_001310716///NM_			cysteine-rich perinuclear theca 3	11 1/05
60.934032	73.76229 NM_001301840///NM_				4 0003333 // amino acid transmembrane transport // inferred from electronic annotation///0006810 // transport // inferred from electronic annotation///0006865 // amino acid transmembrane transport // inferred from electronic annotation///0006805 // amino acid transmembrane transport // inferred from electronic annotation///0006805 // amino acid transmembrane transport // inferred from electronic annotation///0006805 // amino acid transport // inferred from electronic annotation///0006805 // amino acid transport // inferred from electronic annotation///0006805 // amino acid transport // inferred from electronic annotation///0006805 // amino acid transport // inferred from electronic annotation///0006805 // amino acid transport // inferred from electronic annotation///0006805 // amino acid transport // inferred from electronic annotation///0006805 // amino acid transport // inferred from electronic annotation///0006805 // amino acid transport // inferred from electronic annotation/// acid transport // inferred from electronic annotation // acid transport // acid transp
305.7263	375.90765 NM_001289677///NM_	0.009666	1.20 Pacsin3		3 0006897 // endocytosis // inferred from electronic annotation///0007010 // cytoskeleton organization // not recorded///0016310 // phosphorylation // inferred from electr
306.07108	262.83237 NM_177255///XR_8655	0.009734	-1.19 A630052C17Rik	RIKEN cDNA A630052C17 gene	
85.33072	71.73895 NM_001013774///XM_0			karyopherin alpha 7 (importin alpha 8)	0006606 // protein import into nucleus // inferred from electronic annotation///0006607 // NLS-bearing protein import into nucleus // not recorded///0006810 // transport
34.163067	27.503218 NM_001033638///NM_			cone-rod homeobox, opposite strand	
53.344196	43.660404 NM_010341	0.007335		neuromedin U receptor 1	0006816 // calcium ion transport // not recorded///0006821 // chloride transport // not recorded///0006939 // smooth muscle contraction // inferred from electronic anno
158.50389 115.51504	134.01523 NM_029011///XM_0113 96.61909 NM_199011///XM_006			pyridine nucleotide-disulphide oxidoreductase domain 2 diacylglycerol kinase, theta	. 0055114 // oxidation-reduction process // inferred from electronic annotation . 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_0			tripartite motif-containing 43A	0000557 // regulation of transcription from kiva polymerase ii promoter // not recorded//0007105 // signal transduction // interred from electronic annotation///0007106
28.461613	22.596811 NM_028526///NM_028			phosphatidylethanolamine binding protein 4	
77.86557	63.900677 NM_001205227///NM_			cytochrome b5 reductase 2	0006629 // lipid metabolic process // inferred from electronic annotation///0006694 // steroid biosynthetic process // inferred from electronic annotation///0008202 // steroid biosynthetic process // inferred from electronic annotation///0008202 // steroid biosynthetic process // inferred from electronic annotation///0008202 // steroid biosynthetic process // inferred from electronic annotation///0008202 // steroid biosynthetic process // inferred from electronic annotation///0008202 // steroid biosynthetic process // inferred from electronic annotation///0008202 // steroid biosynthetic process // inferred from electronic annotation///0008202 // steroid biosynthetic process // inferred from electronic annotation///0008202 // steroid biosynthetic process // inferred from electronic annotation///0008202 // steroid biosynthetic process // inferred from electronic annotation///0008202 // steroid biosynthetic process // inferred from electronic annotation/// inferred from electronic annotation // inferred from electronic
265.61856	223.18745 NM_001289915///NM_			CD83 antigen	0006952 // defense response // not recorded///0006959 // humoral immune response // not recorded///0007165 // signal transduction // not recorded///0014070 // response // not recorded///0007165 // signal transduction // not recorded///0014070 // response // not recorded///0007165 // signal transduction // not recorded///0014070 // response // not recorded///0007165 // signal transduction // not recorded///0014070 // response // not recorded///0006959 // humoral immune response // not recorded///0007165 // signal transduction // not recorded///0014070 // response // not recorded/// no
99.9646	82.510735 NM_026094///XM_0069			ATPase, class I, type 8B, member 3	$0006810 \ // \ transport \ // \ inferred from \ electronic \ annotation \ // \ 0006869 \ // \ lipid \ transport \ // \ inferred from \ electronic \ annotation \ // \ 0007030 \ // \ Golgi \ organization \ // \ not \ record \ form \ electronic \ annotation \ // \ organization \ // \ not \ record \ electronic \ annotation \ // \ organization \ // \ not \ record \ electronic \ annotation \ // \ organization \ // \ not \ record \ electronic \ annotation \ // \ organization \ // \ not \ record \ electronic \ annotation \ // \ organization \ // \ not \ record \ electronic \ annotation \ // \ organization \ // \ not \ record \ electronic \ annotation \ // \ organization \ // \ not \ record \ electronic \ annotation \ // \ organization \ // \ not \ record \ electronic \ annotation \ // \ organization \ // \ not \ record \ electronic \ annotation \ // \ organization \ // \ not \ record \ electronic \ annotation \ // \ organization \ // \ not \ record \ electronic \ organization \ // \ not \ record \ electronic \ organization \ // \ not \ record \ electronic \ organization \ // \ not \ record \ electronic \ organization \ // \ not \ record \ electronic \ organization \ // \ not \ record \ electronic \ organization \ // \ not \ record \ electronic \ organization \ // \ not \ record \ electronic \ organization \ // \ not \ record \ electronic \ organization \ // \ not \ record \ electronic \ organization \ // \ not \ electronic \ organization \ // \ not \ record \ electronic \ organization \ // \ not \ electronic \ organization \ // \ non \ electronic \ organization \ // \ not \ electronic \ organizat$
2130.624	1767.0013 NM_001025582///NM_			DNA-damage regulated autophagy modulator 2	0006915 // apoptotic process // inferred from electronic annotation///0007601 // visual perception // inferred from sequence or structural similarity///0010506 // regulatic
357.122	298.5671 NM_001304965///NM_			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_029			centrosomal protein 112	0097120 // receptor localization to synapse // not recorded
166.32745 129.40135	139.01201 NM_001037923///NM_ 107.634636 NR_045504	0.00457		leucine, glutamate and lysine rich 1 RIKEN cDNA 4933402C06 gene	
98.06283	79.84235 NM_007831///XM_006			deleted in colorectal carcinoma	0001764 // neuron migration // inferred from mutant phenotype///0006915 // apoptotic process // inferred from electronic annotation///0007275 // multicellular organism
147.86815	122.7708 NM_001033978///XM_0			histocompatibility 2, class II antigen E beta2	0002376 // immune system process // inferred from electronic annotation///0002504 // antigen processing and presentation of peetide or polysaccharide antigen via MHC
39.195534	30.670826 NM_145963	0.006784		potassium inwardly-rectifying channel, subfamily J, mem	at 0006810 // transport // inferred from electronic annotation///0006811 // ion transport // inferred from electronic annotation///0006813 // potassium ion transport // inferred from electronic annotation///0006813 // potassium ion transport // inferred from electronic annotation///0006813 // potassium ion transport // inferred from electronic annotation///0006813 // potassium ion transport // inferred from electronic annotation///0006813 // potassium ion transport // inferred from electronic annotation///0006813 // potassium ion transport // inferred from electronic annotation///0006813 // potassium ion transport // inferred from electronic annotation///0006813 // potassium ion transport // inferred from electronic annotation///0006813 // potassium ion transport // inferred from electronic annotation///0006813 // potassium ion transport // inferred from electronic annotation///0006813 // potassium ion transport // inferred from electronic annotation///0006813 // potassium ion transport // inferred from electronic annotation/// inferred from electronic annotation // inferred from electronic an
37.747017	29.404402 NM_022016///XM_006	0.008492	-1.24 Impg1	interphotoreceptor matrix proteoglycan 1	
765.1579	621.0499 NM_001252105///NM_			Ca2+-dependent activator protein for secretion 2	0006810 // transport // inferred from electronic annotation ///0006887 // exocytosis // inferred from electronic annotation ///0009267 // cellular response to starvation // irresponse to starvatio
471.33734	386.38416 NM_133840	0.0084	-1.24 Clp1	CLP1, cleavage and polyadenylation factor I subunit	0006378 // mRNA polyadenylation // not recorded///0006379 // mRNA cleavage // not recorded///0006388 // tRNA splicing, via endonucleolytic cleavage and ligation // no
60.116016	47.68778 NM_145603///NR_0337				0001101 // response to acid chemical // inferred from direct assay///0008152 // metabolic process // inferred from electronic annotation
134.35194	110.34192 XM_486441	0.005601		zinc finger protein 125	200427 //
1058.2266 164.55176	858.0948 NM_025587///XM_0069 134.23343 NM_001083925///NR_0			2'-5' oligoadenylate synthetase 1B	to 2000447 // endonucleolytic cleavage in ITS1 to separate SSU-rRNA from 5.85 rRNA and LSU-rRNA from tricistronic rRNA transcript (SSU-rRNA, 5.85 rRNA, LSU-rRNA) // not ru 0002376 // immune system process // inferred from electronic annotation///0006955 // immune response // inferred from electronic annotation///0008152 // metabolic pu
37.54027	29.06929 NM_172946///XM_006			keratin 222	00023707/ miniture system process // mierred nom electronic annotation///00002337/ miniture response // mierred nom electronic annotation///0000132/ metabolic pr
352.0987	286.61618 NM 133798///XM 0069			exonuclease 3'-5' domain containing 2	0006139 // nucleobase-containing compound metabolic process // inferred from electronic annotation///0090305 // nucleic acid phosphodiester bond hydrolysis // inferred
85.17093	67.2437 NM_025325///XM_0069			3-hydroxyanthranilate 3,4-dioxygenase	0006569 // tryptophan catabolic process // inferred from electronic annotation///0009435 // NAD biosynthetic process // inferred from electronic annotation///0010043 //
123.345055	99.73619 NM_015770///XM_011			nonagouti	0006091 // generation of precursor metabolites and energy // inferred from genetic interaction///0008343 // adult feeding behavior // inferred from genetic interaction///
60.894913	47.65428 XR_383232///XR_39564			predicted gene, 30054	
57.10913	44.56657 NM_011872	0.005885	-1.26 Klk7		rn 0002803 // positive regulation of antibacterial peptide production // not recorded///0006508 // proteolysis // inferred from electronic annotation
615.42615	494.25702 NM_001114879///NM_			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///0006355 // regulation of transcription, DNA-templated // inferred from electronic annotation///0006355 // regulation of transcription, DNA-templated // inferred from electronic annotation///0006355 // regulation of transcription, DNA-templated // inferred from electronic annotation///0006355 // regulation of transcription, DNA-templated // inferred from electronic annotation///0006355 // regulation of transcription, DNA-templated // inferred from electronic annotation///0006355 // regulation of transcription, DNA-templated // inferred from electronic annotation/// inferred from electronic annotation of transcription of tr
401.51953	324.6203 NM_008434///XM_0069				1 0002230 // positive regulation of defense response to virus by host // not recorded///0006349 // regulation of gene expression by genetic imprinting // inferred from muta
67.810394 483.1919	52.850407 NM_009426 387.40793 NM_013867///XM_006	0.002306		thyrotropin releasing hormone breast cancer anti-estrogen resistance 3	0001666 // response to hypoxia // inferred from electronic annotation///0001692 // histamine metabolic process // not recorded///0007628 // adult walking behavior // inf 0002089 // lens morphogenesis in camera-type eye // inferred from mutant phenotype///0007165 // signal transduction // inferred from electronic annotation///0007264 /
71.785225	56.02301 NM_153094///NR_0242			killer cell lectin-like receptor subfamily B member 1F	7 And the programme and the eye eye // and red not introduce premotype/// 2007/201/ again transduction // interfed from electronic annotation/// 2007/201/
119.07633	94.66935	0.00728		predicted gene 9873	
144.57019	116.13271 NM_001081401///NM_	0.005607	-1.28 Adamts3		v 0006508 // proteolysis // inferred from electronic annotation///0007229 // integrin-mediated signaling pathway // inferred from electronic annotation///010573 // vascula
715.28064	563.2425 NM_001039478///NM	0.008692	-1.28 Lrif1	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///XM_0069			stimulated by retinoic acid gene 8	0001541 // ovarian follicle development // inferred from mutant phenotype///0006260 // DNA replication // inferred from electronic annotation///0007066 // female meio:
71.66972	55.024673 NM_001033767///XM_0			predicted gene 4951	0035458 // cellular response to interferon-beta // inferred from direct assay
1816.6785	1406.0282 NM_001029837///NM_				0001782 // B cell homeostasis // inferred from mutant phenotype///0002250 // adaptive immune response // not recorded///0002376 // immune system process // inferre
3925.6865 2518.0828	3032.61 NM_001243199///NM_			GTPase, IMAP family member 4	to 0006935 // chemotaxis // inferred from direct assay///0008152 // metabolic process // inferred from electronic annotation///0090305 // nucleic acid phosphodiester bond
2518.0828 150.9284	1936.987 NM_001012766///NM_ 117.380554 NM 007911///XM 006			e eosinophii-associated, ribonuciease A family, pseudogen ephrin B3	te UUU0935 // enemotaxis // interred from direct assayii//UU09152 // metaboiic process // interred from electronic annotation//UU09395 // nucleic acia pnosphoolester bonol 0007275 // multicellular organismal development // inferred from electronic annotation//0007399 // nervous system development // inferred from electronic annotation//
299.8662	232.67787 NM 008137	0.005081		guanine nucleotide binding protein, alpha 14	0007165 // signal transduction // inferred from electronic annotation///0007186 // G-protein coupled receptor signaling pathway // not recorded//0007188 // adenylate cy
190.23973	147.77205 NM_010090	0.003391	-1.31 Dusp2	dual specificity phosphatase 2	000188 // inactivation of MAPK activity // inferred from electronic annotation///001706 // endoderm formation // not recorded///006470 // protein dephosphorylation
1756.8998	1347.1793 NM_001012766///NM_				te 0006935 // chemotaxis // inferred from direct assay///0008152 // metabolic process // inferred from electronic annotation///0090305 // nucleic acid phosphodiester bond
114.519196	88.06061 XR_390351///XR_40673	0.006241		predicted gene 11783	
38.69044	28.418175 NM_010571///XM_0113			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_			CDC-like kinase 1	0006468 // protein phosphorylation // inferred from electronic annotation///0016310 // phosphorylation // inferred from electronic annotation///0018105 // peptidyl-serin
56.430965	42.027992 NM_001161837///NM_			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 an
41.266838 710.45526	30.277248 NR_001584///NR_00158 542.82806 NM_026880	0.002251		6 predicted gene, 21847///predicted gene, 38698///sperm PTEN induced putative kinase 1	natogenesis associated glutamate (E)-rich protein 4C, opposite strand transcript//spermatogenesis associated glutamate (E)-rich protein 8, pseudogene 1 000413 // withouthaw // part personal 4//0004103 // positive consultation of protein phosphopathism // part personal 4//0004103 // protein consultation of protein phosphopathism // part personal 4//0004103 // protein consultation of protein phosphopathism // part personal 4//0004103 // protein phosphopathism // part personal 4//0004103 // protein consultation of protein phosphopathism // part personal 4//0004103 // protein consultation of protein phosphopathism // part personal 4//0004103 // protein consultation of protein phosphopathism // part personal 4//0004103 // protein consultation of protein phosphopathism // part personal 4//0004103 // protein consultation of protein phosphopathism // part personal 4//0004103 // protein consultation of protein phosphopathism // part personal 4//0004103 // protein consultation of protein phosphopathism // part personal 4//0004103 // protein consultation of protein phosphopathism // part personal 4//0004103 // protein consultation of protein phosphopathism // part personal 4//0004103 // protein consultation // protein consultation // protein consultation // protein protein phosphopathism // protein phosphopa
/10.45526 92.26953	542.82806 NM_026880 69.8176	0.008586		DNA segment, Chr 3, ERATO Doi 162, expressed	0000422 // mitophagy // not recorded///0001934 // positive regulation of protein phosphorylation // not recorded///0002082 // regulation of oxidative phosphorylation //
57.682236	42.927 NM_001081084	0.001244		cubilin (intrinsic factor-cobalamin receptor)	0001701 // in utero embryonic development // not recorded///0006629 // lipid metabolic process // inferred from electronic annotation///0006810 // transport // inferred
40.258194	29.375347 NR_040532///NR_0405			predicted gene 10804	
709.9079	540.81165 NM_001205132///NM_			Yamaguchi sarcoma viral (v-yes) oncogene homolog 1	0006468 // protein phosphorylation // inferred from electronic annotation///0007169 // transmembrane receptor protein tyrosine kinase signaling pathway // not recordec
73.3554	54.509937 NM_177781///XM_0064	0.008405	-1.33 Trpa1	transient receptor potential cation channel, subfamily A,	1 0006810 // transport // inferred from electronic annotation///0006811 // ion transport // inferred from electronic annotation///0006816 // calcium ion transport // inferred
3317.02	2487.4236 NM_021475	0.006564	-1.34 Adamdec1	ADAM-like, decysin 1	0006508 // proteolysis // inferred from electronic annotation
3317.02	2-07.4250 NW_021475	0.000304	-1.54 Addinact1	norm me, occysni i	oooooo // processing // micros non-electronic amountain

[Gsr-KO, Air](raw) [	Gsr-KO, O2](raw) RefSeq Transcript ID	р	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 Ear1///Ear-ps2///	E eosinophil-associated, ribonuclease A family, member 1/	// 0008152 // 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 Casp6	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 Hey1	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 Gm38561	predicted gene, 38561	
55.505066	40.343925 NR_040646	9.58E-04	-1.35 A330049N07Rik	RIKEN cDNA A330049N07 gene	
101.593994	75.07389 NM_001025564///NR_0	9.19E-04	-1.36 Gm15698	transcription elongation factor B (SIII), polypeptide 2 pse	ou 0006368 // transcription elongation from RNA polymerase II promoter // not recorded
208.89912	156.01512 NM_148935///XM_006!	0.003946	-1.36 Foxn4	forkhead box N4	0001947 // heart looping // inferred from sequence or structural similarity///0006351 // transcription, DNA-templated // inferred from electronic annotation///0006355 // I
112.4806	83.24882 NR_045298	0.005816	-1.36 2900009J06Rik	RIKEN cDNA 2900009J06 gene	
289.98132	215.11813 NM_001164563///NM_	0.007088	-1.37 Amigo2	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	0.004368	-1.37 <b>C79240</b>	expressed sequence C79240	
2047.1757	1500.6091 NM_001012766///NM_	0.007611	-1.38 Ear-ps2///Ear1///	<b>E</b> eosinophil-associated, ribonuclease A family, pseudogen	to 8006935 // 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 Apod	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 Rbm46	RNA binding motif protein 46	
60.79609	42.06468 NM_001080809///XM_0	0.002325	-1.42 Cps1	carbamoyl-phosphate synthetase 1	0000050 // urea cycle // not recorded///0000050 // urea cycle // inferred by curator///0001889 // liver development // inferred from electronic annotation///0005980 // gly
864.3497	613.0662 NM_153170///XM_0069	0.002885	-1.43 Slc36a2	solute carrier family 36 (proton/amino acid symporter), r	m 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	0.007125	-1.43 Proca1	protein interacting with cyclin A1	
92.5706	63.493557 XR_882338///XR_88233	0.004557	-1.45 Gm28840///Orly	predicted gene 28840///oppositely-transcribed, rearrang	ged locus on the Y
120.14404	83.24557 NM_177814///XM_006	0.009396	-1.46 Erc2	ELKS/RAB6-interacting/CAST family member 2	
1060.3413	713.14526 NR_002896///NR_0044-	0.008032	-1.50 Snhg1///Snord22	small nucleolar RNA host gene 1///small nucleolar RNA,	
120.54032	78.887665 NM_010643///XM_006	0.006882	-1.53 Klk1b24	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 Hpca	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 Apoa2	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 <b>Qpct</b>	glutaminyl-peptide cyclotransferase (glutaminyl cyclase)	0017186 // peptidyl-pyroglutamic acid biosynthetic process, using glutaminyl-peptide cyclotransferase // not recorded
147.48763	80.17735 NM_054063	4.28E-04	-1.86 Psg28	pregnancy-specific glycoprotein 28	0007565 // female pregnancy // inferred from electronic annotation
68.43109	27.991377 XR_391854///XR_39192	3.56E-04	-2.37 Astx///Astx6///Gr	m amplified spermatogenic transcripts X encoded///amplif	ied spermatogenic transcripts X encoded 6///predicted gene 28133///predicted gene 28220///predicted gene 28260///predicted gene 28365///predicted gene 28606///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 // inferr
621.2285	220.95337 NM_010859	0.00206	-2.82 Myl3	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		-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 // cG