

Table S1.

Up regulated genes, K310R(45' TNF α) versus wild type (45' TNF α), fold change>1.5, p \leq 0.01

Gene symbol	Genbank	Fc	P value	Gene name
Gt12	Y13832	3.647	0.006186	mRNA for GT12 protein
Dlk1	NM_010052	2.757	0.006641	Delta-like 1 homolog (Drosophila)
Dlk1	NM_010052	2.72	0.005557	Delta-like 1 homolog (Drosophila)
Erff1	BC057646	2.697	0.0002829	Mus musculus ERBB receptor feedback inhibitor 1, mRNA
Msrb2	NM_029619	2.645	0.0001878	Methionine sulfoxide reductase B2
2900084M21	AK041604	2.325	0.008482	Mus musculus 3 days neonate thymus cDNA, RIKEN full-length enriched library, clone:A630024E20 product:weakly similar to HYPOTHETICAL 39.6 KDA PROTEIN [Homo sapiens], full insert sequence
Tro	NM_207679	2.236	0.006008	Trophinin, transcript variant 2
5730469M10Rik	NM_027464	2.192	0.001747	Mus musculus RIKEN cDNA 5730469M10 gene (5730469M10Rik), mRNA
Galnt12	NM_172693	2.154	0.001765	UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltransferase 12
AK013991	AK013991	2.122	0.001992	Mus musculus 13 days embryo head cDNA, RIKEN full-length enriched library, clone:3110004L20 product:unknown EST, full insert sequence.
Prss12	NM_008939	2.099	0.008835	Protease, serine, 12 neurotrypsin (motopsin)
NAP105475-1	BB794657	2.098	0.001401	BB794657 RIKEN full-length enriched, RCB-0545 OHTA cDNA Mus musculus cDNA clone G431001F07 3', mRNA sequence
Klf2	NM_008452	2.033	0.009625	Kruppel-like factor 2 (lung)
Afap1l2	NM_146102	2.015	0.001942	Actin filament associated protein 1-like 2
D330027G24	AK052318	1.993	0.003918	Mus musculus 13 days embryo heart cDNA, RIKEN full-length enriched library, clone:D330027G24 product:unclassifiable, full insert sequence.
Sox13	NM_011439	1.979	0.008644	SRY-box containing gene 13
Slc22a4	NM_019687	1.937	0.007295	Solute carrier family 22 (organic cation transporter), member 4
Gcnt1	NM_173442	1.928	0.002026	Glucosaminyl (N-acetyl) transferase 1, core 2
Sept5	NM_213614	1.924	0.004824	Septin 5
Arl6ip1	NM_019419	1.896	0.00114	ADP-ribosylation factor-like 6 interacting protein 1
4930506M07	NM_175172	1.886	0.003976	Mus musculus RIKEN cDNA 4930506M07 gene (4930506M07Rik), mRNA
Stxbp2	NM_011503	1.879	0.003016	Syntaxin binding protein 2
Timp3	NM_011595	1.865	0.002573	Tissue inhibitor of metalloproteinase 3
Prkg2	NM_008926	1.838	0.002898	Protein kinase, cGMP-dependent, type II
Arf2	NM_007477	1.836	0.001513	Mus musculus ADP-ribosylation factor 2
Cpt1a	NM_013495	1.787	0.009517	Carnitine palmitoyltransferase 1a, liver
4933426M11Rik	NM_178682	1.775	0.003504	Mus musculus RIKEN cDNA 4933426M11 gene (4933426M11Rik), mRNA
Sirpa	BC062197	1.758	0.004272	Signal-regulatory protein alpha
Rdh10	NM_133832	1.753	0.004895	Retinol dehydrogenase 10 (all-trans)
4832416J02	AK029299	1.746	0.002467	Mus musculus 0 day neonate head cDNA, RIKEN full-length enriched library, clone:4832416J02 product:hypothetical protein, full insert sequence.
Casp3	NM_009810	1.744	0.004639	caspase 3, apoptosis related cysteine protease
Klf8	NM_173780	1.741	0.001656	Kruppel-like factor 8
Abcb1b	NM_011075	1.732	0.002105	ATP-binding cassette, sub-family B (MDR/TAP), member 1B
Bckdhb	NM_199195	1.728	0.006631	Branched chain ketoacid dehydrogenase E1, beta polypeptide
ORF19	NM_026833	1.696	0.007873	Open reading frame 19, transcript variant 1
Wwtr1	NM_133784	1.691	0.007864	WW domain containing transcription regulator 1
2310046K01Rik	NM_027172	1.68	0.005302	Mus musculus RIKEN cDNA 2310046K01 gene (2310046K01Rik), mRNA
Casc4	NM_177054	1.679	0.0005404	Cancer susceptibility candidate 4, transcript variant 1
Epb4.1l2	NM_013511	1.676	0.008634	Erythrocyte protein band 4.1-like 2
Mllt3	NM_027326	1.672	0.005561	Myeloid/lymphoid or mixed lineage-leukemia translocation to 3 homolog (Drosophila)
Rdh10	NM_133832	1.666	0.003641	Retinol dehydrogenase 10 (all-trans)
Pcolce2	NM_029620	1.646	0.003052	Procollagen C-endopeptidase enhancer 2
Tspan12	NM_173007	1.643	0.004675	Tetraspanin 12
AK014046	AK014046	1.637	0.004499	Mus musculus 13 days embryo head cDNA, RIKEN full-length enriched library, clone:3110013H01 product:hypothetical protein, full insert sequence

Gene symbol	Genbank	Fc	P value	Gene name
Lrrc5	NM_178701	1.629	0.004573	Leucine rich repeat containing 5
Cd34	NM_133654	1.626	0.00506	CD34 antigen
Abhd1	BC013505	1.58	0.006029	Abhydrolase domain containing 1
Cgref1	BC023116	1.578	0.004083	Cell growth regulator with EF hand domain 1
NAP035112-1		1.575	0.004504	Q80U21 (Q80U21) MKIAA0377 protein (Fragment), partial (7%) [TC1521712]
Txnip	NM_023719	1.572	0.001293	Thioredoxin interacting protein, transcript variant 2
AK043559	NM_146115	1.572	0.009035	Mus musculus RIKEN cDNA A830007P12 gene (A830007P12Rik)
Eif5a	NM_181582	1.568	0.006411	Eukaryotic translation initiation factor 5A
BC028819	NM_027434	1.564	0.009722	Mus musculus RIKEN cDNA 2610304G08 gene (2610304G08Rik), mRNA
AK014229	AK014229	1.562	0.005841	Mus musculus 13 days embryo head cDNA, RIKEN full-length enriched library, clone:3110057M17 product:hypothetical protein, full insert sequence.
Gnb4	NM_013531	1.558	0.003828	Guanine nucleotide binding protein, beta 4
Tcf4	NM_013685	1.557	0.004954	Transcription factor 4
NAP092822-001	XM_133399	1.556	0.001576	record removed
NAP102091-1		1.551	0.004549	n/a
Ramp2	NM_019444	1.547	0.002055	Receptor (calcitonin) activity modifying protein 2
Edem2	NM_145537	1.546	0.005162	ER degradation enhancer, mannosidase alpha-like 2
Tspan13	NM_025359	1.541	0.007244	Mus musculus tetraspanin 13
Ormd13	NM_025661	1.536	0.001808	ORM1-like 3 (<i>S. cerevisiae</i>)
Ccdc85b	NM_198616	1.534	0.002771	Coiled-coil domain containing 85B
Pgam2	NM_018870	1.529	0.005666	Phosphoglycerate mutase 2
H2afy2	NM_026230	1.524	0.006053	H2A histone family, member Y2
Stk4	NM_021420	1.524	0.009552	Serine/threonine kinase 4
BC023045	NM_134087	1.523	0.005559	Mus musculus expressed sequence AA409316 (AA409316), mRNA
Nat9	NM_025400	1.523	0.004023	NAT9 (Nat9)
ENSMUST00000054243		1.519	0.003157	
Nt5c3l	NM_026561	1.518	0.005396	5'-nucleotidase, cytosolic III-like
Tmed2	NM_019770	1.517	0.003126	Mus musculus transmembrane emp24 domain trafficking protein 2
Homer 1	NM_011982	1.516	0.0001625	Homer homolog 1 (<i>Drosophila</i>), transcript variant S
Kazald1	NM_178929	1.512	0.0001053	Kazal-type serine protease inhibitor domain 1
Ssbp4	NM_133772	1.512	0.005302	Single stranded DNA binding protein 4
Ralgps2	NM_023884	1.509	0.007823	Ral GEF with PH domain and SH3 binding motif 2
Rnf170	BC031383	1.509	0.009045	Ring finger protein 170
Clnd1	NM_171826	1.505	0.002794	Claudin domain containing 1
Cdc7	NM_009863	1.503	0.001982	Cell division cycle 7 (<i>S. cerevisiae</i>)
Itga3	NM_013565	1.5	0.008686	Integrin alpha 3

Down regulated genes, K310R (45' TNF α) versus wild type (45' TNF α), fold change<0.667, p \le 0.01

Gene symbol	Genbank	Fc	P value	Gene name
AI592138	AI592138	0.1237	0.001344	mr25f11.y1 Soares mouse 3NbMS Mus musculus cDNA clone IMAGE:598509 5' similar to gb:D16333 Mouse mRNA for coproporphyrinogen oxidase, complete cds (MOUSE)
NAP000805-003	XM_620550	0.1485	0.006373	PREDICTED: Mus musculus hypothetical protein A630026L20 (A630026L20), mRNA
Gvin1	NM_029000	0.1588	0.006435	GTPase, very large interferon inducible 1
Cnn1	NM_009922	0.1598	0.006889	Calponin 1
Gvin1	NM_029000	0.1712	0.00577	GTPase, very large interferon inducible 1
Usp18	NM_011909	0.1869	0.000465	Ubiquitin specific protease 18
Ifi44	NM_133871	0.2379	0.008188	Interferon-induced protein 44
C730018G06	AK050122	0.2701	0.00017	Mus musculus adult male liver tumor cDNA, RIKEN full-length enriched library, clone:C730018G06 product:unknown EST, full insert sequence.
B830045N13Rik	NM_153539	0.2841	0.001028	Mus musculus RIKEN cDNA B830045N13 gene (B830045N13Rik), mRNA
Rtp4	NM_023386	0.287	0.001117	Receptor transporter protein 4
Ccl20	NM_016960	0.2924	0.008038	Chemokine (C-C motif) ligand 20
Oas1f	NM_145153	0.3364	0.000296	2'-5' oligoadenylate synthetase 1F
Gbp3	NM_018734	0.3381	0.00657	Guanylate nucleotide binding protein 3
Trim25	NM_009546	0.3536	0.003339	Tripartite motif protein 25
Plac8	NM_139198	0.358	0.000262	placenta-specific 8
AK035818	AK028848	0.4074	0.00917	Mus musculus 10 days neonate skin cDNA, RIKEN full-length enriched library, clone:4732462B05 product:hypothetical Histidine-rich region containing protein, full insert sequence.
Oas1a	NM_145211	0.4183	0.003299	2'-5' oligoadenylate synthetase 1A
NAP040287-1		0.4227	0.000904	
Gbp2	NM_010260	0.4422	0.005688	Guanylate nucleotide binding protein 2
PARP14	BC021340	0.4494	0.006259	Poly (ADP-ribose) polymerase family, member 14
Bst2	NM_198095	0.4501	0.006823	Bone marrow stromal cell antigen 2
Thy1	NM_009382	0.4537	0.000369	Thymus cell antigen 1, theta
Elavl2	NM_207685	0.4597	0.004283	Mus musculus ELAV (embryonic lethal, abnormal vision, Drosophila)-like 2 (Hu antigen B),transcript variant 1
Ccl7	NM_013654	0.4714	0.004106	Chemokine (C-C motif) ligand 7
BC030392	BC030392	0.4768	0.008308	Mus musculus cDNA clone MGC:40659 IMAGE:4923983, complete cds.
H2-DMb1	NM_010387	0.4903	0.000164	Histocompatibility 2, class II, locus Mb1
BE985144		0.4924	0.001203	
Colec12	NM_130449	0.4941	0.005928	Collectin sub-family member 12
Sulf1	NM_172294	0.4958	0.009678	Sulfatase 1
AK075797	AK075797	0.5047	0.009933	Mus musculus 10 day old male pancreas cDNA, RIKEN full-length enriched library, clone:1810049E24 product:DNA segment, Chr 12, ERATO Doi 647, expressed, full insert sequence.
Ifit3	NM_010501	0.5116	0.00232	Interferon-induced protein with tetratricopeptide repeats 3
Ifi1	NM_008326	0.513	0.002881	Interferon inducible protein 1
Ifi1	NM_008326	0.5237	0.000994	Interferon inducible protein 1
NAP104453-1		0.5239	0.00013	Q7TP79 (Q7TP79) Aa2-245, partial (5%) [TC1434027]
Hoxa5	NM_010453	0.5254	0.001711	Homeo box A5
Ifih1	NM_027835	0.5334	0.009112	Interferon induced with helicase C domain 1
Asb4	NM_023048	0.541	0.00951	Ankyrin repeat and SOCS box-containing protein 4
AK003718	AK003718	0.5457	0.000221	Mus musculus 18-day embryo whole body cDNA, RIKEN full-length enriched library, clone:1110014O20 product:unknown EST, full insert sequence.
AK049305	AK049305	0.5543	0.003268	Mus musculus ES cells cDNA, RIKEN full-length enriched library, clone:C330021E21 product:hypothetical DEAD/DEAH box helicase containing protein, full insert sequence.
6330400M01	AK122576	0.5589	0.009789	Mus musculus mRNA for mKIAA3001 protein. [AK122576]
Col18a1	NM_009929	0.5592	0.000505	Procollagen, type XVIII, alpha 1
Trim12	AK009769	0.5638	0.00781	Mus musculus adult male tongue cDNA, RIKEN full-length enriched library, clone:2310043C01 product:tripartite motif protein 12, full insert sequence.
Epha7	NM_010141	0.5666	0.003436	Eph receptor A7
Cxcl16	AK028875	0.5671	0.005471	Mus musculus 10 days neonate skin cDNA, RIKEN full-length enriched library, clone:4732465K06 product:CXC chemokine ligand 16, full insert sequence.

Gene symbol	Genbank	Fc	P value	Gene name
C130005N09	AK081324	0.5677	0.007802	Mus musculus 16 days embryo head cDNA, RIKEN full-length enriched library, clone:C130005N09 product:hypothetical protein, full insert sequence.
Hoxa4	NM_008265	0.5701	0.007359	Homeo box A4
Mgat3	NM_010795	0.5751	0.000722	Mannoside acetylglucosaminyltransferase 3
Dmxl2	BC023075	0.5775	0.004321	Dmx-like 2
Dcamk1l	NM_019978	0.5777	0.005223	Double cortin and calcium/calmodulin-dependent protein kinase-like 1
NAP020702-001	AK220526	0.5812	0.004138	Mus musculus mRNA for mKIAA4178 protein
Nr2f1	NM_010151	0.5854	0.009391	Nuclear receptor subfamily 2, group F, member 1
AK036111	AK036109	0.5866	0.008066	Mus musculus 16 days neonate cerebellum cDNA, RIKEN full-length enriched library, clone:9630036I19 product:hypothetical protein, full insert sequence
Tpm2	AK077713	0.5886	0.002474	Mus musculus 8 days embryo whole body cDNA, RIKEN full-length enriched library, clone:5730544G20 product:tropomyosin 2, beta, full insert sequence.
Tnfrsf6	AK086933	0.5928	0.007082	Mus musculus 0 day neonate lung cDNA, RIKEN full-length enriched library, clone:E030012O08 product:tumor necrosis factor receptor superfamily, member 6, full insert sequence.
5330408M09	AK008077	0.5976	0.004452	Mus musculus adult male small intestine cDNA, RIKEN full-length enriched library, clone:2010003O02 product:unknown EST, full insert sequence.
Oas1c	NM_033541	0.5991	0.002389	2'-5' oligoadenylate synthetase 1C
Chac2	NM_026527	0.5994	0.00571	ChaC, cation transport regulator homolog 2 (E. coli)
C130051K14	AK081614	0.6048	0.009404	Mus musculus 16 days embryo head cDNA, RIKEN full-length enriched library, clone:C130051K14 product:unknown EST, full insert sequence.
AK015293	NM_029045	0.6069	9.60E-05	Mus musculus RIKEN cDNA 4930432K21 gene (4930432K21Rik), mRNA
Nfkbiz	NM_030612	0.6097	0.009174	Nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor, zeta
4632422O06	AK122518	0.6123	0.004732	Mus musculus mRNA for mKIAA1500 protein
Antxr1	NM_054041	0.6138	0.001923	Anthrax toxin receptor 1
Igfl1	NM_010512	0.6172	0.007021	Insulin-like growth factor 1
Itgp	NM_018738	0.618	0.009669	Interferon gamma induced GTPase
Rgmb	NM_178615	0.6195	0.009934	RGM domain family, member B
Bzrap1	NM_172449	0.6199	0.001636	Benzodiazapine receptor associated protein 1
Nudcd2	NM_026023	0.62	0.009005	NudC domain containing 2
Cacna1c	NM_009781	0.6207	0.002012	Calcium channel, voltage-dependent, L type, alpha 1C subunit
Penk1	NM_001002927	0.6218	0.006754	Preproenkephalin 1
Peg3	NM_001010988	0.6304	0.008035	Paternally expressed 3,transcript variant 2
D330012D16	BC030633	0.6317	0.003972	Mus musculus, clone IMAGE:1282582, mRNA
2310001H17	AK009064	0.6332	0.003062	Mus musculus adult male tongue cDNA, RIKEN full-length enriched library, clone:2310001H17 product:unknown EST, full insert sequence.
Pcdhb17	NM_053142	0.6405	0.003546	Protocadherin beta 17
Rhoe	NM_028810	0.6432	0.008051	Ras homolog gene family, member E
Hoxa1	NM_010449	0.6449	0.009473	Homeo box A1
AK017901	AK017901	0.6463	0.00481	Mus musculus adult male thymus cDNA, RIKEN full-length enriched library, clone:5830406C15 product:unknown EST, full insert sequence.
Uox	NM_009474	0.6568	0.003612	Urate oxidase
Tbc1d24	NM_173186	0.6591	0.007282	TBC1 domain family, member 24
Card15	NM_145857	0.6599	0.009643	Caspase recruitment domain family, member 15
5830464M07	AK030937	0.6657	0.005091	Mus musculus adult male thymus cDNA, RIKEN full-length enriched library, clone:5830464M07 product:unknown EST, full insert sequence.
AK077009	BC067195	0.6663	0.002397	Mus musculus cDNA clone IMAGE:5716597, containing frame-shift errors
NAP041503-1	XM_131700	0.6664	0.006918	PREDICTED: Mus musculus cDNA sequence BC039093 (BC039093), mRNA