

Table S2.

Up regulated genes, K314/315R (45'TNF $\alpha$ ) versus wild type (45'TNF $\alpha$ ),  $fc > 1.5$ ,  $p \leq 0.01$ 

Gene symbol	Genbank	Fc	P value	Gene name
Lmol1	NM_057173	10.33	0.00233	LIM domain only 1
Col4a6	BC057646	8.913	0.008209	procollagen, type IV, alpha 6
Ppy	NM_008918	5.091	0.005147	Pancreatic polypeptide
Smpdl3b	NM_133888	4.904	0.005875	Sphingomyelin phosphodiesterase, acid-like 3B
NAP105502-1	AK081879	4.57	0.0007991	Mus musculus 16 days embryo head cDNA, RIKEN full-length enriched library, clone:C130084F15 product:unknown EST, full insert sequence.
AK021193	XM_128979	4.457	0.003661	PREDICTED: Mus musculus RIKEN cDNA C330008K14 gene (C330008K14Rik), mRNA
Peg12	NM_013788	4.414	0.001011	Paternally expressed 12
Cdkn1c	NM_009876	4.29	0.005527	Cyclin-dependent kinase inhibitor 1C (P57)
Y13832	Y13832	4.227	0.003713	mRNA for GT12 protein.
Afp	NM_007423	3.812	0.0001381	Alpha fetoprotein
lpd	NM_053178	3.491	0.008395	Lipidosin
Frat1	NM_008043	3.34	0.001169	Frequently rearranged in advanced T-cell lymphomas
A330060M13	NM_177173	3.304	0.005584	Mus musculus RIKEN cDNA A830018L16 gene (A830018L16Rik), mRNA
Cbr3	NM_173047	3.269	0.007212	Carbonyl reductase 3
2900084M21	AK041604	3.205	0.007542	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.
Frat1	NM_008043	3.176	0.00187	Frequently rearranged in advanced T-cell lymphomas
Gtl2	NM_144513	3.082	0.006416	GTL2, imprinted maternally expressed untranslated mRNA
Plf2	NM_011118	2.975	0.0001415	Proliferin 2
Dlk1	NM_010052	2.937	0.008054	Delta-like 1 homolog (Drosophila)
Plf2	NM_011118	2.72	0.005762	Proliferin 2
Mmp9	NM_013599	2.548	0.004398	Matrix metalloproteinase 9
Itgb7	NM_013566	2.487	0.009466	Integrin beta 7
Rgs17	NM_019958	2.379	0.002381	Regulator of G-protein signaling 17
Galnt12	NM_172693	2.223	0.004972	UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltransferase 12
B430212B02	AK046628	2.215	0.008586	Mus musculus 4 days neonate male adipose cDNA, RIKEN full-length enriched library, clone:B430212B02 product:METASTASIS SUPPRESSOR PROTEIN homolog [Homo sapiens], full insert sequence.
Idb4	NM_031166	2.125	0.0008178	Inhibitor of DNA binding 4
AK083036	NM_177632	2.109	0.00344	Mus musculus cDNA sequence BC022623 (BC022623), mRNA
Gm440	NM_198620	2.101	0.007315	Gene model 440, (NCBI)
AK018172	AK018172	2.045	0.001678	Mus musculus adult male medulla oblongata cDNA, RIKEN full-length enriched library, clone:6330414G02 product:unknown EST, full insert sequence.
Tmem117	NM_178789	2.042	0.005464	Transmembrane protein 117
Nfia	NM_010905	2.029	0.007411	Nuclear factor I/A
Sox13	NM_011439	1.977	0.00322	SRY-box containing gene 13
Dst	NM_134448	1.968	0.007575	Dystonin
Mtss1	NM_144800	1.966	0.0003395	Metastasis suppressor 1
AK014046	AK014046	1.962	0.006917	Mus musculus 13 days embryo head cDNA, RIKEN full-length enriched library, clone:3110013H01 product:hypothetical protein, full insert sequence.
Tspan7	NM_019634	1.953	0.0006288	Tetraspanin 7
1110006O17	XM_358515	1.914	0.00447	PREDICTED: Mus musculus RIKEN cDNA 1110006O17 gene (1110006O17Rik), mRNA
Slc22a4	NM_019687	1.91	0.005801	Solute carrier family 22 (organic cation transporter), member 4
Chd7	BC034239	1.885	0.0009656	chromodomain helicase DNA binding protein 7
Prkez	NM_008860	1.878	0.003849	Protein kinase C, zeta
Rcor1	NM_198023	1.868	0.004824	REST corepressor 1

Gene symbol	Genbank	Fc	P value	Gene name
Rnase4	NM_021472	1.843	0.00341	Ribonuclease, RNase A family 4,transcript variant 1
Col5a3	NM_016919	1.806	0.004074	Procollagen, type V, alpha 3
4930571N02	AK076954	1.789	0.001312	Mus musculus adult male testis cDNA, RIKEN full-length enriched library, clone:4930571N02 product:unknown EST, full insert sequence.
Pbx1	BC058390	1.775	0.008481	Pre B-cell leukemia transcription factor 1, transcript variant a
Serinc2	NM_172702	1.774	0.009237	Serine incorporator 2
Artn	NM_009711	1.772	0.0005232	Artemin
Apbb1	NM_009685	1.768	0.004511	Amyloid beta (A4) precursor protein-binding, family B, member 1
Bckdhh	NM_199195	1.755	0.005258	Branched chain ketoacid dehydrogenase E1, beta polypeptide
Cyp2j6	NM_010008	1.746	0.001128	Cytochrome P450, family 2, subfamily j, polypeptide 6
Bckdhh	NM_199195	1.738	0.001037	Branched chain ketoacid dehydrogenase E1, beta polypeptide
AK046403	NM_172772	1.716	0.003822	Mus musculus RIKEN cDNA B230380D07 gene (B230380D07Rik), mRNA
Chmp6	XM_126613	1.708	0.0008554	PREDICTED: Mus musculus chromatin modifying protein 6, transcript variant 1 , mRNAgi 94391054 ref XM_126613.6 [94391054]
Idb4	NM_031166	1.703	0.004498	Inhibitor of DNA binding 4
AK043559	NM_146115	1.677	0.00415	Mus musculus RIKEN cDNA A830007P12 gene (A830007P12Rik), mRNA
Cenpb	NM_007682	1.667	0.009602	Centromere autoantigen B
Hgf	NM_010427	1.661	0.007777	Hepatocyte growth factor
Arf2	NM_007477	1.659	0.0006219	ADP-ribosylation factor 2
Bptf	BC060715	1.655	0.001699	Bromodomain PHD finger transcription factor
AK011976	AK011976	1.644	0.006899	Mus musculus 10 days embryo whole body cDNA, RIKEN full-length enriched library, clone:2610304B20 product:ANGIOPOIETIN-RELATED PROTEIN 2 PRECURSOR, full insert sequence.
Fgfr1	NM_010206	1.64	0.009768	Fibroblast growth factor receptor 1
Odam	NM_027128	1.634	0.005028	Odontogenic, ameloblast associated
Ssbp4	NM_133772	1.633	0.003184	Single stranded DNA binding protein 4
Zfp336	NM_028986	1.63	0.004652	Zinc finger protein 336
Ube2g2	NM_019803	1.63	0.0007305	Ubiquitin-conjugating enzyme E2G 2
AK013562	AK013562	1.627	0.0005184	Mus musculus adult male hippocampus cDNA, RIKEN full-length enriched library, clone:2900019M05 product:unknown EST, full insert sequence.
NAP026755-1	U40751	1.626	3.39E-05	Mus musculus formin binding protein 17 mRNA, partial cds.
Lrrc5	NM_178701	1.622	0.001008	Leucine rich repeat containing 5
Gent1	NM_010265	1.617	0.00537	Glucosaminyl (N-acetyl) transferase 1, core 2
Clcf1	NM_019952	1.615	0.009329	Cardiotrophin-like cytokine factor 1
Pgam2	NM_018870	1.613	0.00117	Phosphoglycerate mutase 2
Sigirr	NM_023059	1.604	0.003115	Single immunoglobulin and toll-interleukin 1 receptor (TIR) domain
Epb4.1l2	NM_013511	1.602	0.007072	Erythrocyte protein band 4.1-like 2
A530021L18	AK034149	1.6	0.006534	Mus musculus adult male diencephalon cDNA, RIKEN full-length enriched library, clone:9330159M07 product: unknown EST, full insert sequence.
Scmh1	NM_013883	1.598	0.009705	Sex comb on midleg homolog 1
Pcnt2	NM_008787	1.593	0.002313	pericentrin 2
Kail	NM_007656	1.57	0.001681	Kangai 1 (suppression of tumorigenicity 6, prostate) 56]
Tmem138	NM_028411	1.569	0.0006819	Transmembrane protein 138
Rdh10	NM_133832	1.566	0.003229	Retinol dehydrogenase 10 (all-trans)
Arhgef19	NM_172520	1.557	0.006896	Rho guanine nucleotide exchange factor (GEF) 19
Pea15	NM_011063	1.55	0.005386	Phosphoprotein enriched in astrocytes 15
Gent1	NM_010265	1.549	0.008038	Glucosaminyl (N-acetyl) transferase 1, core 2
AK053734	NM_175538	1.542	0.002333	Mus musculus RIKEN cDNA E130304F04 gene (E130304F04Rik), mRNA
Kif11	NM_010615	1.539	0.00542	Kinesin family member 11
Srp68	NM_146032	1.535	0.00251	Signal recognition particle 68
Uap1l1	NM_001033293	1.535	0.00476	UDP-N-actylglucosamine pyrophosphorylase 1-like 1
Igfbp2	NM_008342	1.534	0.008347	Insulin-like growth factor binding protein 2

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Mier2	NM_027422	1.527	0.008379	Mesoderm induction early response 1, family member 2
Becl1	NM_019584	1.516	0.002009	Beclin 1 (coiled-coil, myosin-like BCL2-interacting protein)
Spink2	NM_183284	1.512	0.006357	Serine protease inhibitor, Kazal type 2
Zfp444	NM_028316	1.511	0.0005841	Zinc finger protein 444
Cdc23	NM_178347	1.51	0.005276	CDC23 (cell division cycle 23, yeast, homolog)
Egr3	AK078299	1.509	0.004892	Mus musculus adult male olfactory brain cDNA, RIKEN full-length enriched library, clone:6430581J15 product:early growth response 3, full insert sequence.
Vangl1	NM_177545	1.507	0.0006447	Vang, van gogh-like 1 (Drosophila)
AK040924	NM_172725	1.504	0.005549	Mus musculus RIKEN cDNA C330006K01 gene (C330006K01Rik), mRNA
Calr3	NM_028500	1.501	0.004136	Calreticulin 3
Mapk8ip	NM_011162	1.501	0.008576	Mitogen activated protein kinase 8 interacting protein 1

Down regulated genes, K314/315R (45' TNF $\alpha$ ) versus wild type (45' TNF $\alpha$ ),  $f_c < 0.667$ ,  $p \leq 0.01$

Gene symbol	Genbank	Fc	P value	Gene name
Cnn1	NM_009922	0.07261	0.0008612	Calponin 1
NAP000805-003	XM_620550	0.1136	1.68E-05	PREDICTED: Mus musculus hypothetical protein A630026L20 (A630026L20), mRNA
AK007972	XM_283793	0.1351	0.000661	PREDICTED: Mus musculus similar to Myl9 protein (LOC433496), mRNA
Tagln	NM_011526	0.2581	0.008987	Transgelin
Ifi44	NM_133871	0.2585	0.009487	Interferon-induced protein 44
Acta2	NM_007392	0.2899	0.008467	Actin, alpha 2, smooth muscle, aorta
Tagln	NM_011526	0.3174	0.0054	Transgelin (Tagln)
Plac8	NM_139198	0.3239	0.004206	Placenta-specific 8
Oas1f	NM_145153	0.3408	0.003982	2'-5' oligoadenylate synthetase 1F
Gvin1	NM_029000	0.3722	0.001799	GTPase, very large interferon inducible 1
Sorbs1	NM_009166	0.4026	0.0003775	Sorbin and SH3 domain containing 1
Fbln5	NM_011812	0.4028	0.003834	Fibulin 5
Thy1	NM_009382	0.4036	0.00211	Thymus cell antigen 1, theta
Cdc42ep3	NM_026514	0.4164	0.006761	CDC42 effector protein (Rho GTPase binding) 3
Ifit1	NM_008331	0.4207	0.009178	Interferon-induced protein with tetratricopeptide repeats 1
H2-DMb1	NM_010387	0.4246	0.009563	Histocompatibility 2, class II, locus Mb1
Itgbl1	NM_145467	0.4335	0.0003652	Integrin, beta-like 1
Elav12	NM_207685	0.4475	0.004011	ELAV (embryonic lethal, abnormal vision, Drosophila)-like 2 (Hu antigen B), transcript variant 1
NAP016003-001	AK173296	0.4687	0.005727	Mus musculus mRNA for mKIAA1910 protein
Ifi27	NM_029803	0.471	0.00435	Interferon, alpha-inducible protein 27
Kcnab1	NM_010597	0.4785	0.002923	Potassium voltage-gated channel, shaker-related subfamily, beta member 1
A130082H20	AK038152	0.4796	0.009408	Mus musculus 16 days neonate thymus cDNA, RIKEN full-length enriched library, clone:A130082H20 product:unknown EST, full insert sequence.
NAP123686-1		0.4856	2.86E-05	Q8BU53 (Q8BU53) Mus musculus 2 days pregnant adult female oviduct cDNA, RIKEN full-length enriched library, clone:E230038K10 product:procollagen-proline, 2-oxoglutarate 4-dioxygenase (proline 4-hydroxylase), alpha II polypeptide, full insert sequence, partial (9%) [TC1534656]
C1q1	NM_153155	0.4914	0.001004	C1q-like 3 (C1q13)
Iigp2	NM_019440	0.5225	0.003736	Interferon inducible GTPase 2
Hcn3	NM_008227	0.5257	0.00182	Hyperpolarization-activated, cyclic nucleotide-gated K+ 3
AK011178	NM_175181	0.5265	0.005301	Mus musculus RIKEN cDNA 2600010E01 gene (2600010E01Rik), mRNA
C130073O12	AK081751	0.532	0.0003424	Mus musculus 16 days embryo head cDNA, RIKEN full-length enriched library, clone:C130073O12 product:hypothetical protein, full insert sequence.
AK009386	NM_173743	0.5533	0.009058	Mus musculus RIKEN cDNA 2310016F22 gene (2310016F22Rik), mRNA
AK003718	AK003718	0.5536	0.008797	Mus musculus 18-day embryo whole body cDNA, RIKEN full-length enriched library, clone:1110014O20 product:unknown EST, full insert sequence.
Dusp2	NM_010090	0.5694	0.005141	Dual specificity phosphatase 2
AK002271	AK077713	0.5699	0.009951	Mus musculus 8 days embryo whole body cDNA, RIKEN full-length enriched library, clone:5730544G20 product:tropomyosin 2, beta, full insert sequence.
AF027504	AF027504	0.5756	0.0005015	Mus musculus putative membrane-associated guanylate kinase 1 (Magi-1) mRNA, alternatively spliced a form, partial cds.
Ifit3	NM_010501	0.5841	0.002205	Interferon-induced protein with tetratricopeptide repeats 3
Ghr	NM_010284	0.5924	0.006823	Growth hormone receptor
AK077046	AK077045	0.6013	0.004613	Mus musculus adult male testis cDNA, RIKEN full-length enriched library, clone:4932437H03 product:similar to CENTROSOMAL P4.1-ASSOCIATED PROTEIN [Homo sapiens], full insert sequence
Acyp2	NM_029344	0.6042	0.0004314	Acylphosphatase 2, muscle type
Rgmb	NM_178615	0.6101	0.008222	Mus musculus RGM domain family, member B
Rhbd16	NM_172572	0.6113	0.008553	Mus musculus rhomboid, veinlet-like 6 (Drosophila)
Hoxc5	NM_175730	0.6135	0.0055	Homeo box C5
6330400M01	AK122576	0.6135	0.007873	Mus musculus mRNA for mKIAA3001 protein

Gene symbol	Genbank	Fc	P value	Gene name
Nudcd2	NM_026023	0.62	0.001695	NudC domain containing 2
Trim25	NM_009546	0.6238	0.00092	Tripartite motif protein 25
5330408M09	AK008077	0.6255	0.007705	Mus musculus adult male small intestine cDNA, RIKEN full-length enriched library, clone:2010003O02 product:unknown EST, full insert sequence.
Antxr1	NM_054041	0.6285	0.007571	Anthrax toxin receptor 1
Npr3	AK040677	0.6295	0.001028	Mus musculus adult male aorta and vein cDNA, RIKEN full-length enriched library, clone:A530014A01 product:natriuretic peptide receptor 3, full insert sequence
9530083M20	AK035669	0.6391	0.0007249	Mus musculus adult male urinary bladder cDNA, RIKEN full-length enriched library, clone:9530083L01 product:hypothetical C2 domain containing protein, full insert sequence
Tmem144	NM_027495	0.6424	0.009034	Transmembrane protein 144
Cng1	NM_009831	0.6465	0.007879	Cyclin G1
Stc2	NM_011491	0.6546	0.005278	Stanniocalcin 2
AK089315	AK089315	0.6553	0.002837	Mus musculus B6-derived CD11 +ve dendritic cells cDNA, RIKEN full-length enriched library, clone:F730004F21 product:thrombospondin 1, full insert sequence.
AK019847	AK019845	0.6573	0.003344	Mus musculus adult male testis cDNA, RIKEN full-length enriched library, clone:4930599F06 product:DEAD
4831405L17	AK029175	0.6586	0.003707	Mus musculus 0 day neonate head cDNA, RIKEN full-length enriched library, clone:4831405L17 product:unclassifiable, full insert sequence
Stag2	AK077318	0.6613	0.009141	Mus musculus adult male pituitary gland cDNA, RIKEN full-length enriched library, clone:5330413G05 product:stromal antigen 2, full insert sequence.