

SUPPLEMENTARY FIGURES

FIG.S1

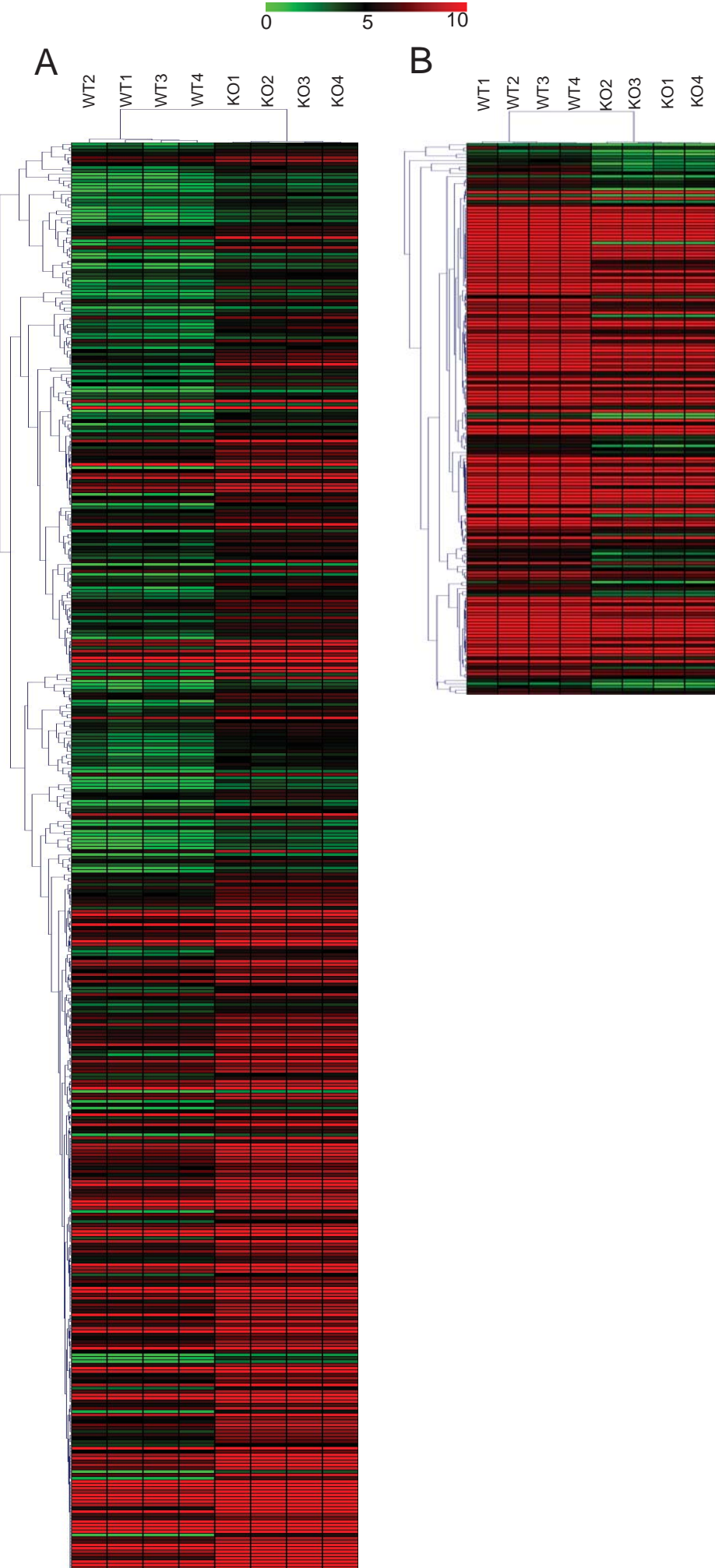
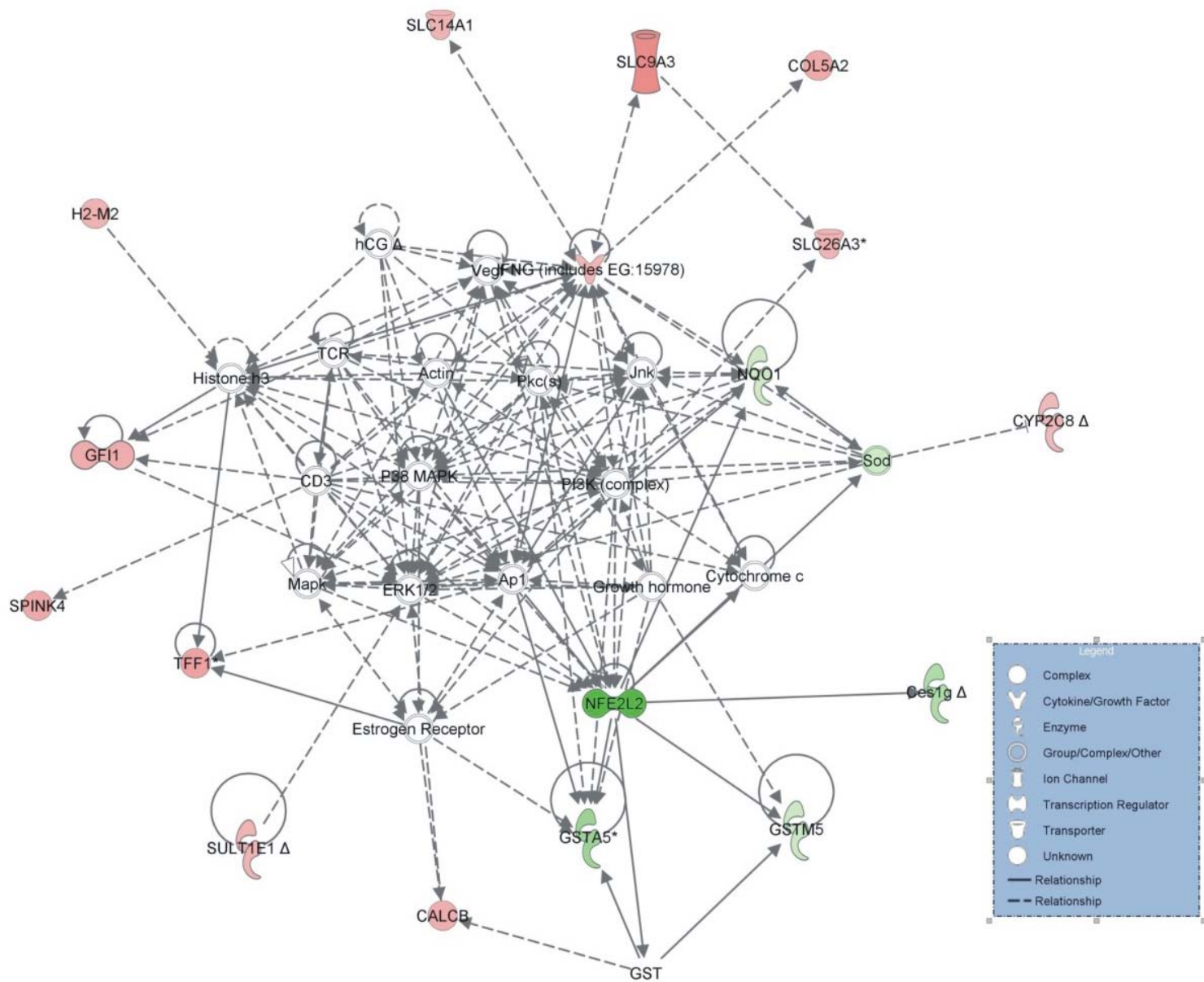


FIG.S2



SUPPLEMENTARY TABLES

Table S1. Primer sequences used in quantitative RT-PCR.

Gene	Forward Primer	Reverse Primer	PrimerBank ID
<i>Cyp7a1</i>	GCTGTGGTAGTGAGCTGTTG	AGGAGGTTTCACCTACTTTCCTT	31542444b1
<i>Fabp5</i>	AAAGAGCTAGGAGTAGGACTGG	TGTTGCCATCACACGTAATGA	118130073b1
<i>Me1</i>	ACAAAGGGCACATTGCTTCAG	TTACCACAATAGCCTTGACGAC	162139826b3
<i>Lipocalin 13</i>	TCATAAAGCGCATGAATCTCCG	ATCTCCGATCTCTGGCACAAA	23956341b2
<i>Aquaporin 8</i>	CATCGGATGTCTATCGGTCATTG	AGGAGCCCAGTATTCGGACTA	157824035b2
<i>Cyp2b10</i>	TTGTTACTCTTAGCCAGGGGAC	GGAAGTTGCCACGGGACTTT	118129803b1
<i>Car</i>	CCCTGACAGACCCGGAGTTA	GCCGAGACTGTTGTTCCATAAT	6754888a1
<i>Cbr3</i>	CGGGCATCGCCTTTAGAATG	GCTTGAATGTCTGAAGGGTGTT	226823287b2
<i>Nqo1</i>	GGCATCCTGCGTTTCTGTG	GGTTTCCAGACGTTTCTTCCAT	6679080A3

Cyp7a1 (cytochrome P450, family 7, subfamily A, polypeptide 1), *Fabp5* (fatty acid binding protein 5), *Me1* (malic enzyme 1), *Cyp2b10* (cytochrome P450, family 2, subfamily B, polypeptide 10), *Car* (constitutive androstane receptor), *Cbr3* (carbonyl reductase 3), *Nqo1* (NAD(P)H dehydrogenase, quinone 1).

Table S2. 428 genes that were over-expressed in the liver of the Nrf2 knock-out mice compared to the wild-type mice after 180 days on high-fat diet.

Probe ID	Primary Accession	Gene Symbol	Gene Name	fold change
A_55_P2144686	NM_007769	Dmbt1	deleted in malignant brain tumors 1	138.3
A_55_P1982499	NM_177350	Gldn	gliomedin	124.6
A_51_P493987	NM_021509	Moxd1	"monooxygenase, DBH-like 1"	86.3
A_51_P329811	NM_009042	Reg1	regenerating islet-derived 1	74.95
A_51_P456208	NM_011575	Tff3	"trefoil factor 3, intestinal"	84.32
A_51_P450406	AK132919	Muc3	"mucin 3, intestinal"	29.47
A_52_P250400	NM_178685	Pcdh20	protocadherin 20	19.82
A_51_P434758	NM_001033170	Fam83e	"family with sequence similarity 83, member E"	19.48
A_55_P2362635	AK033564	Slc9a3	"solute carrier family 9 (sodium/hydrogen exchanger), member 3"	15.85
A_55_P2075253	XM_001475531	Gm3054	predicted gene 3054	17.15
A_55_P2047163	NM_001105252	Tmc5	transmembrane channel-like gene family 5	12.34
A_52_P566840	NM_133776	Gpr110	G protein-coupled receptor 110	13.8
A_55_P2025687	NM_080457	Muc4	mucin 4	9.471
A_52_P429450	NM_008694	Ngp	neutrophilic granule protein	9.493
A_55_P2048855	NM_001164787	Sprr2a2	small proline-rich protein 2A2	13.15
A_51_P285736	NM_008798	Pdcd1	programmed cell death 1	9.304
A_55_P2089076	NM_001099314	Msmg	"microseminoprotein, prostate associated"	10.25
A_55_P2078281	AY324401	NA	NA	9.404
A_55_P2042331	ENSMUST00000122399	NA	NA	8.83
A_55_P2112005	NM_009362	Tff1	trefoil factor 1	6.234
A_55_P2137049	NM_001004174	AA467197	expressed sequence AA467197	9.65
A_52_P154101	NM_001033954	Calca	"calcitonin/calcitonin-related polypeptide, alpha"	6.316
A_51_P464703	NM_021443	Ccl8	chemokine (C-C motif) ligand 8	7.859
A_55_P2083014	U63547	NA	NA	8.295
A_55_P1956147	NM_008081	B4galnt2	"beta-1,4-N-acetyl-galactosaminyl transferase 2"	7.044
A_55_P2162695	X03802	NA	NA	5.262
A_52_P650453	NM_011463	Spink4	"serine peptidase inhibitor, Kazal type 4"	7.415
A_55_P2083963	NM_001145644	Phgr1	proline/histidine/glycine-rich 1	7.38
A_51_P419226	NM_025393	S100a14	S100 calcium binding protein A14	8.124
A_55_P2186942	ENSMUST00000103330	NA	NA	7.192
A_55_P2145389	NM_001172160	Flrt3	fibronectin leucine rich transmembrane protein 3	7.404
A_55_P1977008	NM_010278	Gfi1	growth factor independent 1	6.642
A_55_P2025586	ENSMUST00000103483	NA	NA	6.491
A_55_P2220748	NM_008586	Mep1b	mep1b	5.911
A_52_P31381	NM_021353	Slc26a3	"solute carrier family 26, member 3"	5.525

Table S2. (continued)

A_55_P2157384	NM_001111293	Xlr5b	X-linked lymphocyte-regulated 5B	6.206
A_55_P2104894	NM_007737	Col5a2	"collagen, type V, alpha 2"	6.913
A_52_P307904	NM_172825	Gpr128	G protein-coupled receptor 128	5.256
A_55_P2103948	ENSMUST00000103361	NA	NA	7.246
A_55_P2161794	NM_028191	Cyp2c65	"cytochrome P450, family 2, subfamily c, polypeptide 65"	4.89
A_52_P279425	NM_032465	Cd96	CD96 antigen	5.815
A_55_P2135064	NM_008204	H2-M2	"histocompatibility 2, M region locus 2"	5.596
A_52_P447284	NM_172469	Clic6	chloride intracellular channel 6	7.266
A_51_P312336	NM_028122	Slc14a1	"solute carrier family 14 (urea transporter), member 1"	5.615
A_55_P1959421	ENSMUST00000103379	NA	NA	6.033
A_51_P493649	NM_023135	Sult1e1	"sulfotransferase family 1E, member 1"	5.486
A_55_P1969087	ENSMUST00000053475	NA	NA	3.869
A_55_P2110925	NM_001172160	Flrt3	fibronectin leucine rich transmembrane protein 3	5.459
A_52_P15388	NM_008522	Ltf	lactotransferrin	5.331
A_55_P2073024	NM_001034859	Gm4841	predicted gene 4841	5.58
A_55_P1995537	NM_010824	Mpo	myeloperoxidase	5.502
A_55_P1958146	NM_011364	Sh2d1a	SH2 domain protein 1A	5.991
A_55_P2092219	NM_027997	Serpina9	"serine (or cysteine) peptidase inhibitor, clade A (alpha-1 antiproteinase, antil	5.38
A_55_P1954231	NM_172492	Lrtm2	leucine-rich repeats and transmembrane domains 2	5.684
A_55_P2115981	NM_031493	Xlr5c	X-linked lymphocyte-regulated 5C	5.546
A_55_P2058028	ENSMUST00000103351	NA	NA	5.472
A_55_P2034655	AK007918	NA	NA	5.243
A_52_P312102	ENSMUST00000090180	Sema3g	"sema domain, immunoglobulin domain (Ig), short basic domain, secreted, (s	5.709
A_66_P114826	ENSMUST00000103336	NA	NA	4.996
A_51_P509679	BC004786	Igh-VJ558	immunoglobulin heavy chain (J558 family)	5.132
A_52_P480044	XM_001471580	BC023105	cDNA sequence BC023105	4.9
A_51_P426096	NM_010810	Mmp7	matrix metalloproteinase 7	4.844
A_51_P356642	NM_008471	Krt19	keratin 19	4.925
A_52_P200125	M34969	NA	NA	4.41
A_55_P2153762	XM_916728	LOC640020	similar to Probable G-protein coupled receptor 110 precursor (G-protein coup	4.891
A_55_P1971872	XM_001477072	LOC100046877	similar to developmentally regulated RNA-binding protein 1	5.259
A_55_P2111322	ENSMUST00000103741	NA	NA	4.878
A_55_P1956598	BC019489	NA	NA	4.816
A_55_P2144556	NM_001172160	Flrt3	fibronectin leucine rich transmembrane protein 3	4.795
A_55_P1984362	M11860	NA	NA	4.344
A_55_P2111980	NM_008295	Hsd3b5	"hydroxy-delta-5-steroid dehydrogenase, 3 beta- and steroid delta-isomerase	4.697

Table S2. (continued)

A_51_P115601	ENSMUST00000103364	NA	NA	5.418
A_55_P1960148	AK007826	NA	NA	4.613
A_55_P2063283	AK135975	Ighg	Immunoglobulin heavy chain (gamma polypeptide)	4.657
A_55_P2066173	AK041235	NA	NA	4.823
A_55_P2158102	NM_009921	Camp	cathelicidin antimicrobial peptide	4.816
A_55_P2164977	XM_001473158	Gm2330	predicted gene 2330	5.007
A_55_P2062246	NM_001145164	Tgtp2	T-cell specific GTPase 2	4.492
A_55_P2016114	NM_010177	Fasl	"Fas ligand (TNF superfamily, member 6)"	4.924
A_55_P2047589	ENSMUST00000103328	NA	NA	4.407
A_55_P2020148	NM_001001792	Zfp239	zinc finger protein 239	4.601
A_55_P2133907	ENSMUST00000103520	NA	NA	4.939
A_52_P638459	NM_013653	Ccl5	chemokine (C-C motif) ligand 5	4.395
A_52_P1190151	ENSMUST00000103328	NA	NA	5.177
A_55_P2177243	NM_145920	Evc2	Ellis van Creveld syndrome 2 homolog (human)	4.075
A_55_P2005984	NM_138685	Wfdc15b	WAP four-disulfide core domain 15B	4.446
A_51_P492047	NM_020622	Fam3b	"family with sequence similarity 3, member B"	3.911
A_55_P1987406	ENSMUST00000103746	NA	NA	4.538
A_51_P406253	NM_008100	Gcg	glucagon	3.934
A_51_P212068	NM_029638	Abp1	"amiloride binding protein 1 (amine oxidase, copper-containing)"	4.229
A_51_P270904	NM_172641	9930023K05Rik	RIKEN cDNA 9930023K05 gene	4.611
A_51_P499195	NM_024253	Nkg7	natural killer cell group 7 sequence	4.221
A_51_P259029	NM_025869	Dusp26	dual specificity phosphatase 26 (putative)	4.483
A_55_P1961127	NR_001592	H19	H19 fetal liver mRNA	4.133
A_66_P113466	ENSMUST00000103334	NA	NA	4.083
A_55_P2316041	BC050972	BC050972	cDNA sequence BC050972	3.799
A_55_P2072771	NM_009850	Cd3g	"CD3 antigen, gamma polypeptide"	4.107
A_55_P2150717	NM_010136	Eomes	eomesodermin homolog (<i>Xenopus laevis</i>)	4.297
A_55_P2214124	BC019425	Igh-VJ558	immunoglobulin heavy chain (J558 family)	3.963
A_55_P2026238	NA	NA	NA	4.616
A_55_P2165199	NM_030712	Cxcr6	chemokine (C-X-C motif) receptor 6	4.087
A_55_P2011341	XM_001474162	LOC100045268	similar to precursor (AA -28 to 232)	3.957
A_55_P1987151	NM_011860	Nlrp5	"NLR family, pyrin domain containing 5"	4.093
A_55_P2039699	NM_009921	Camp	cathelicidin antimicrobial peptide	4.248
A_52_P112591	U07662	NA	NA	4.779
A_55_P1962209	NM_030712	Cxcr6	chemokine (C-X-C motif) receptor 6	3.938
A_66_P140474	ENSMUST00000103348	LOC100047316	similar to anti-MOG Z12 variable light chain	3.931

Table S2. (continued)

A_52_P484956	NM_010923	Nnat	neuronatin	3.895
A_52_P374897	NM_009705	Arg2	arginase type II	4.273
A_52_P52849	NM_018867	Cpxm2	carboxypeptidase X 2 (M14 family)	3.827
A_51_P367866	NM_007913	Egr1	early growth response 1	4.048
A_55_P2045136	AK153212	I830127L07Rik	RIKEN cDNA I830127L07 gene	3.533
A_55_P2020428	NM_146232	BC014805	cDNA sequence BC014805	3.745
A_55_P2161347	NM_001033041	Acmsd	amino carboxymuconate semialdehyde decarboxylase	3.861
A_51_P507290	NM_009769	Klf5	Kruppel-like factor 5	3.937
A_55_P2249556	AK042310	A630081D01Rik	RIKEN cDNA A630081D01 gene	3.757
A_51_P150710	NM_152839	Igj	immunoglobulin joining chain	3.793
A_55_P2058023	ENSMUST00000103356	NA	NA	3.999
A_52_P374653	ENSMUST00000103397	NA	NA	3.851
A_55_P2206605	AK030886	5830444B04Rik	RIKEN cDNA 5830444B04 gene	3.97
A_51_P448147	NM_146167	Gimap7	"GTPase, IMAP family member 7"	3.831
A_51_P458451	NM_009605	Adipoq	"adiponectin, C1Q and collagen domain containing"	3.589
A_55_P2094060	NM_010370	Gzma	granzyme A	3.698
A_55_P2004761	NM_001033978	H2-Eb2	"histocompatibility 2, class II antigen E beta2"	3.524
A_52_P112190	ENSMUST00000103377	LOC100047053	similar to monoclonal antibody kappa light chain	3.732
A_55_P2186978	ENSMUST00000103352	NA	NA	3.86
A_55_P2092750	NM_139305	Car9	carbonic anhydrase 9	3.666
A_66_P102346	ENSMUST00000103321	NA	NA	3.472
A_55_P2121701	AK140370	E530001K10Rik	RIKEN cDNA E530001K10 gene	3.634
A_51_P485756	NM_024435	Nts	neurotensin	3.598
A_55_P2046653	ENSMUST00000103460	LOC641221	similar to Ig heavy chain V region PJ14 precursor	3.544
A_51_P269404	NM_008030	Fmo3	flavin containing monooxygenase 3	3.614
A_55_P2013840	NM_212483	Krt42	keratin 42	3.986
A_52_P502849	ENSMUST00000103401	NA	NA	3.661
A_66_P139675	M11858	NA	NA	3.506
A_51_P137419	NM_009977	Cst7	cystatin F (leukocystatin)	3.568
A_55_P2002744	ENSMUST00000103528	NA	NA	3.626
A_55_P2058040	ENSMUST00000103345	NA	NA	3.828
A_51_P478172	AY324401	NA	NA	3.598
A_51_P136781	NM_018874	Pnliprp1	pancreatic lipase related protein 1	3.558
A_51_P122649	NM_027299	Degs2	"degenerative spermatocyte homolog 2 (Drosophila), lipid desaturase"	3.521
A_52_P443334	NM_001081110	Cd8a	"CD8 antigen, alpha chain"	3.652
A_55_P1977038	NM_008599	Cxcl9	chemokine (C-X-C motif) ligand 9	3.704

Table S2. (continued)

A_66_P105596	ENSMUST00000103396	LOC676193	similar to Ig kappa chain V-III region PC 6684	3.743
A_55_P2094104	ENSMUST00000103380	LOC100047070	"similar to [Human Ig rearranged gamma chain mRNA, V-J-C region and corr	3.785
A_66_P109692	ENSMUST00000103332	NA	NA	3.501
A_55_P2183369	ENSMUST00000103401	NA	NA	3.862
A_66_P106760	NM_153397	Adam32	a disintegrin and metallopeptidase domain 32	3.513
A_51_P174696	NM_009814	Casq2	calsequestrin 2	3.227
A_65_P07626	ENSMUST00000103403	NA	NA	3.602
A_51_P167292	NM_009892	Chi3l3	chitinase 3-like 3	3.435
A_51_P363400	NM_008920	Prg2	"proteoglycan 2, bone marrow"	3.643
A_55_P2003911	ENSMUST00000103391	NA	NA	3.639
A_55_P2065506	ENSMUST00000103513	LOC639930	similar to Ig heavy chain V-I region HG3 precursor	3.829
A_51_P136294	NM_021718	Ms4a4b	"membrane-spanning 4-domains, subfamily A, member 4B"	3.566
A_52_P614207	ENSMUST00000103399	LOC100047222	similar to anti-glycoprotein-B of human Cytomegalovirus immunoglobulin VI c	3.4
A_55_P2153517	NM_027147	Enho	energy homeostasis associated	3.429
A_55_P2015753	NM_027147	Enho	energy homeostasis associated	3.519
A_55_P2156653	NM_001177781	Gpr174	G protein-coupled receptor 174	4.176
A_51_P285206	NM_013487	Cd3d	"CD3 antigen, delta polypeptide"	3.419
A_51_P461665	NM_008599	Cxcl9	chemokine (C-X-C motif) ligand 9	3.383
A_55_P2390776	NR_027981	1810064F22Rik	RIKEN cDNA 1810064F22 gene	3.377
A_55_P1978033	ENSMUST00000103397	NA	NA	3.535
A_51_P268697	NM_148938	Slc1a3	"solute carrier family 1 (glial high affinity glutamate transporter), member 3"	3.285
A_55_P1996702	NM_008174	Grm8	"glutamate receptor, metabotropic 8"	3.382
A_55_P2065510	ENSMUST00000103506	NA	NA	3.451
A_55_P2416494	AK020235	8430426J06Rik	RIKEN cDNA 8430426J06 gene	3.479
A_55_P1998471	NM_009114	S100a9	S100 calcium binding protein A9 (calgranulin B)	3.359
A_51_P395899	ENSMUST00000103404	LOC100047628	"similar to Chain L, Structural Basis Of Antigen Mimicry In A Clinically Releva	3.34
A_55_P2140348	BC103785	Igh-VJ558	immunoglobulin heavy chain (J558 family)	3.206
A_51_P256827	NM_013650	S100a8	S100 calcium binding protein A8 (calgranulin A)	3.404
A_55_P1956083	NM_175493	Gpr68	G protein-coupled receptor 68	3.48
A_55_P2026903	NM_001146325	Tigit	T cell immunoreceptor with Ig and ITIM domains	3.075
A_55_P2154982	NM_009858	Cd8b1	"CD8 antigen, beta chain 1"	3.199
A_55_P1966608	XM_917762	LOC640701	similar to Ig heavy chain V-I region V35 precursor	3.623
A_51_P478722	NM_011579	Tgtp1	T-cell specific GTPase 1	3.146
A_55_P1970464	ENSMUST00000103507	NA	NA	3.306
A_55_P2060897	ENSMUST00000103410	NA	NA	3.238
A_51_P497741	NM_029440	4930434E21Rik	RIKEN cDNA 4930434E21 gene	3.236

Table S2. (continued)

A_52_P563375	NM_025622	Lgals2	"lectin, galactose-binding, soluble 2"	3.182
A_52_P195135	NM_133353	Oosp1	oocyte secreted protein 1	3.063
A_55_P2007601	NM_009160	Sftpd	surfactant associated protein D	3.31
A_51_P493016	NM_023821	Cmya5	cardiomyopathy associated 5	2.749
A_55_P2001262	ENSMUST00000109711	NA	NA	3.385
A_51_P405638	ENSMUST00000103473	LOC100045791	similar to monoclonal antibody heavy chain	3.049
A_55_P2012592	NM_134109	Ildr1	immunoglobulin-like domain containing receptor 1	2.786
A_55_P1977451	ENSMUST00000103341	NA	NA	3.43
A_55_P2138627	ENSMUST00000103486	LOC675759	similar to Ig heavy chain V-III region J606	3.525
A_66_P127563	ENSMUST00000103360	NA	NA	3.223
A_66_P106497	ENSMUST00000103378	NA	NA	3.174
A_52_P618728	ENSMUST00000103362	NA	NA	3.117
A_55_P1984556	NM_011331	Ccl12	chemokine (C-C motif) ligand 12	3.116
A_52_P578436	ENSMUST00000103347	NA	NA	3.222
A_55_P1969901	ENSMUST00000103547	NA	NA	3.404
A_51_P171772	NM_021399	Bcl11b	B-cell leukemia/lymphoma 11B	3.234
A_55_P2005838	NM_029835	5730590G19Rik	RIKEN cDNA 5730590G19 gene	3.079
A_55_P1964886	NM_019915	Art2b	ADP-ribosyltransferase 2b	3.033
A_51_P513776	ENSMUST00000103535	LOC640979	similar to Ig heavy chain V region 23 precursor	3.138
A_51_P419656	NM_020268	Klk1b27	kallikrein 1-related peptidase b27	2.882
A_51_P288295	ENSMUST00000103496	LOC677484	similar to Ig heavy chain V region B1-8/186-2 precursor	3.13
A_55_P2059010	NM_011254	Rbp1	"retinol binding protein 1, cellular"	3.122
A_55_P2135986	NM_029499	Ms4a4c	"membrane-spanning 4-domains, subfamily A, member 4C"	3.105
A_66_P109519	NM_007914	Ehf	ets homologous factor	3.039
A_55_P1983921	NM_021352	Crybb3	"crystallin, beta B3"	3.122
A_52_P320193	NM_053165	Clec2h	"C-type lectin domain family 2, member h"	3.005
A_55_P2107374	NM_025777	Duoxa2	dual oxidase maturation factor 2	3.051
A_55_P2001281	ENSMUST00000103523	NA	NA	3.377
A_55_P2096797	NM_001040696	Nlrp1b	"NLR family, pyrin domain containing 1B"	3.416
A_55_P1988975	BC028433	Ms4a4b	"membrane-spanning 4-domains, subfamily A, member 4B"	3.002
A_66_P108380	NM_172447	A330021E22Rik	RIKEN cDNA A330021E22 gene	3.04
A_55_P1989225	NM_001145164	Tgtp2	T-cell specific GTPase 2	2.907
A_55_P2063880	ENSMUST00000110689	NA	NA	2.947
A_55_P2019989	XM_001479535	Gm4249	predicted gene 4249	2.863
A_55_P2011950	ENSMUST00000103552	LOC435333	similar to monoclonal antibody heavy chain	2.977
A_51_P221510	NM_029784	Fam81a	"family with sequence similarity 81, member A"	2.845

Table S2. (continued)

A_51_P203955	NM_010260	Gbp2	guanylate binding protein 2	2.904
A_55_P2001269	ENSMUST00000103522	NA	NA	2.896
A_52_P184629	M25913	NA	NA	2.523
A_55_P1996973	NM_029000	Gvin1	"GTPase, very large interferon inducible 1"	2.895
A_55_P2105454	ENSMUST00000103458	NA	NA	3.155
A_55_P2021275	NM_029122	lqca	IQ motif containing with AAA domain	2.739
A_51_P487073	NM_138684	Wfdc12	WAP four-disulfide core domain 12	2.8
A_55_P2030299	ENSMUST00000103469	LOC544904	similar to Ig heavy chain V region 186-1 precursor	2.869
A_55_P2100194	BC100303	A530040E14Rik	RIKEN cDNA A530040E14 gene	2.912
A_51_P140237	NM_010212	Fhl2	four and a half LIM domains 2	2.996
A_52_P142191	NM_177583	Aph1b	anterior pharynx defective 1b homolog (C. elegans)	2.89
A_55_P2124586	NM_001081642	Xlr4a	X-linked lymphocyte-regulated 4A	2.981
A_51_P485421	ENSMUST00000103426	NA	NA	2.969
A_55_P2039230	XM_001477580	LOC100047175	hypothetical protein LOC100047175	2.702
A_52_P213483	AK007918	NA	NA	3.154
A_52_P501875	NM_001077684	4930578N16Rik	RIKEN cDNA 4930578N16 gene	3.264
A_51_P455997	NR_027652	Meg3	maternally expressed 3	2.581
A_52_P150547	NM_009857	Cd8a	"CD8 antigen, alpha chain"	2.852
A_51_P509573	NM_013652	Ccl4	chemokine (C-C motif) ligand 4	2.801
A_55_P2087429	ENSMUST00000103393	LOC100047162	similar to immunoglobulin kappa-chain	2.789
A_55_P1988844	NM_016970	Klrg1	"killer cell lectin-like receptor subfamily G, member 1"	2.678
A_55_P2068673	NM_025285	Stmn2	stathmin-like 2	2.896
A_55_P2186972	ENSMUST00000103342	NA	NA	3.163
A_55_P2117081	M54990	NA	NA	2.656
A_51_P389636	NM_008433	Kcnn4	"potassium intermediate/small conductance calcium-activated channel, subfa	2.654
A_55_P1976450	XM_001004859	NA	NA	2.963
A_55_P2103837	NM_008620	Gbp4	guanylate binding protein 4	2.596
A_51_P116601	NM_172447	A330021E22Rik	RIKEN cDNA A330021E22 gene	2.725
A_55_P2042076	NM_145592	Dkk4	dickkopf homolog 4 (Xenopus laevis)	2.672
A_51_P503896	BC006727	Pycr1	pyrroline-5-carboxylate reductase 1	2.539
A_55_P2145711	NM_172913	Tox3	TOX high mobility group box family member 3	2.74
A_52_P343627	NM_022020	Rbp7	"retinol binding protein 7, cellular"	2.596
A_55_P2108077	M13677	NA	NA	2.484
A_55_P2001267	XM_001472404	NA	NA	4.073
A_55_P1999902	AK167816	Pip5k1a	"phosphatidylinositol-4-phosphate 5-kinase, type 1 alpha"	2.742
A_55_P2169356	AK156879	Gm1966	predicted gene 1966	2.696

Table S2. (continued)

A_55_P2179599	NM_029509	Gbp8	guanylate-binding protein 8	2.639
A_51_P426270	NM_008597	Mgp	matrix Gla protein	2.68
A_55_P2115906	NM_181680	Dsg1c	desmoglein 1 gamma	2.549
A_55_P1999715	M97158	NA	NA	2.635
A_51_P473498	NM_173398	Gpr171	G protein-coupled receptor 171	2.569
A_55_P2171196	XM_001476596	Gm3411	predicted gene 3411	2.565
A_52_P295104	NM_183259	2210020M01Rik	RIKEN cDNA 2210020M01 gene	2.638
A_51_P435922	NM_029338	Rsph9	radial spoke head 9 homolog (Chlamydomonas)	2.62
A_51_P350817	NM_009922	Cnn1	calponin 1	2.601
A_55_P2176753	XM_917662	LOC640614	similar to Ig heavy chain V region 93G7 precursor	2.555
A_51_P517001	NM_172491	D130040H23Rik	RIKEN cDNA D130040H23 gene	1.91
A_55_P1960202	NM_001081249	Vcan	versican	2.371
A_51_P398766	NM_010259	Gbp1	guanylate binding protein 1	2.474
A_55_P2130497	ENSMUST00000103538	NA	NA	2.604
A_55_P2121294	NA	NA	NA	2.267
A_52_P488437	NM_013738	Plek2	pleckstrin 2	2.537
A_55_P2146214	NM_001035510	Zcchc18	"zinc finger, CCHC domain containing 18"	2.536
A_51_P167263	NM_007650	Cd5	CD5 antigen	2.573
A_51_P322972	NM_145419	Hkdc1	hexokinase domain containing 1	2.513
A_51_P104768	ENSMUST00000103498	Gm16697	"predicted gene, 16697"	2.695
A_66_P124179	NM_175406	Atp6v0d2	"ATPase, H ⁺ transporting, lysosomal V0 subunit D2"	2.472
A_55_P2059931	NM_001163577	Prom1	prominin 1	2.535
A_55_P1953387	NM_010634	Fabp5	"fatty acid binding protein 5, epidermal"	2.506
A_52_P431615	XM_001000891	Gm1966	predicted gene 1966	2.47
A_55_P1961715	NM_080637	Nme5	"non-metastatic cells 5, protein expressed in (nucleoside-diphosphate kinase	2.485
A_52_P535484	NM_029000	Gvin1	"GTPase, very large interferon inducible 1"	2.496
A_66_P106388	NM_029499	Ms4a4c	"membrane-spanning 4-domains, subfamily A, member 4C"	2.485
A_55_P2187067	ENSMUST00000103317	NA	NA	2.476
A_52_P30641	ENSMUST00000103337	NA	NA	2.796
A_55_P1952768	XM_001481046	LOC100048720	similar to guanylate nucleotide binding protein 1	2.477
A_52_P266132	NM_008013	Fgl2	fibrinogen-like protein 2	2.517
A_55_P1958464	NAP112102-1	NA	NA	2.458
A_51_P301930	NM_028977	Lrrc17	leucine rich repeat containing 17	2.527
A_52_P259817	NM_029692	Upp2	uridine phosphorylase 2	2.515
A_55_P2050439	NM_144553	Dlgap5	"discs, large (Drosophila) homolog-associated protein 5"	2.638
A_55_P1979364	ENSMUST00000103550	NA	NA	2.591

Table S2. (continued)

A_55_P2011794	XM_911832	LOC636441	similar to Ig heavy chain V region VH558 A1/A4 precursor	2.62
A_55_P2026547	NM_199366	Gal3st2	galactose-3-O-sulfotransferase 2	2.501
A_55_P2003915	ENSMUST00000103386	NA	NA	2.395
A_55_P2168823	NAP111644-1	NA	NA	2.407
A_51_P150120	NM_174995	Mgst2	microsomal glutathione S-transferase 2	2.376
A_55_P2097219	NM_010259	Gbp1	guanylate binding protein 1	2.512
A_51_P461067	AK041235	NA	NA	2.43
A_52_P149577	NM_016899	Rab25	"RAB25, member RAS oncogene family"	2.291
A_55_P2046101	NM_021365	Xlr4b	X-linked lymphocyte-regulated 4B	2.453
A_55_P2115900	NM_181682	Dsg1b	desmoglein 1 beta	2.473
A_51_P365516	NM_009258	Spink3	"serine peptidase inhibitor, Kazal type 3"	2.439
A_55_P2187030	ENSMUST00000103537	NA	NA	2.486
A_55_P1969665	NM_001111336	Hsd3b4	"hydroxy-delta-5-steroid dehydrogenase, 3 beta- and steroid delta-isomerase	2.062
A_66_P133148	NM_012054	Aoah	acyloxyacyl hydrolase	2.398
A_52_P615247	AK087744	A530040E14Rik	RIKEN cDNA A530040E14 gene	2.415
A_51_P231320	NM_008611	Mmp8	matrix metalloproteinase 8	2.371
A_55_P2042813	NM_001039647	Gbp11	guanylate binding protein 11	2.439
A_51_P286496	NM_008368	Il2rb	"interleukin 2 receptor, beta chain"	2.399
A_55_P1998943	NM_145211	Oas1a	2'-5' oligoadenylate synthetase 1A	2.435
A_55_P2101696	NM_008141	Gnat2	"guanine nucleotide binding protein, alpha transducing 2"	2.35
A_55_P2180176	NM_027209	Ms4a6b	"membrane-spanning 4-domains, subfamily A, member 6B"	2.418
A_55_P2124582	NM_001081642	Xlr4a	X-linked lymphocyte-regulated 4A	2.433
A_55_P2019690	NM_001081349	Slc43a1	"solute carrier family 43, member 1"	2.379
A_55_P2122841	NAP114472-1	NA	NA	2.385
A_52_P456750	NM_177583	Aph1b	anterior pharynx defective 1b homolog (C. elegans)	2.43
A_55_P2052385	NM_194336	Mpa2l	macrophage activation 2 like	2.369
A_55_P1968723	NM_009834	Ccrn4l	CCR4 carbon catabolite repression 4-like (S. cerevisiae)	2.365
A_52_P441974	NM_145920	Evc2	Ellis van Creveld syndrome 2 homolog (human)	2.36
A_51_P177092	NM_011487	Stat4	signal transducer and activator of transcription 4	2.387
A_55_P1983448	NM_011311	S100a4	S100 calcium binding protein A4	2.351
A_55_P2155504	NM_010693	Lck	lymphocyte protein tyrosine kinase	2.353
A_66_P119518	NM_017379	Tuba8	"tubulin, alpha 8"	2.431
A_51_P438967	NM_053110	Gpnmb	glycoprotein (transmembrane) nmb	2.447
A_55_P2150976	ENSMUST00000072582	Fabp5l2	fatty acid binding protein 5-like 2	2.344
A_66_P121053	NM_009160	Sftpd	surfactant associated protein D	2.304
A_55_P2051159	NM_029692	Upp2	uridine phosphorylase 2	2.385

Table S2. (continued)

A_51_P495242	NM_010689	Lat	linker for activation of T cells	2.569
A_51_P283344	NM_025956	1700011H14Rik	RIKEN cDNA 1700011H14 gene	2.359
A_55_P2077901	NM_013486	Cd2	CD2 antigen	2.338
A_51_P390937	ENSMUST00000103320	LOC675735	similar to Ig kappa chain V-V region L6 precursor	2.335
A_55_P2081432	XR_002130	Gm8953	"2-cell-stage, variable group, member 3-like pseudogene"	2.285
A_55_P2207255	NM_016911	Srpx	sushi-repeat-containing protein	2.328
A_55_P2046877	NM_008239	Foxq1	forkhead box Q1	2.305
A_51_P112355	NM_018738	Igtp	interferon gamma induced GTPase	2.301
A_51_P116651	NM_019759	Dpt	dermatopontin	2.301
A_55_P2113498	NM_010654	Klrd1	"killer cell lectin-like receptor, subfamily D, member 1"	2.291
A_55_P2052016	NM_030209	Crispld2	cysteine-rich secretory protein LCCL domain containing 2	2.358
A_55_P2083879	NM_020518	Vsig2	V-set and immunoglobulin domain containing 2	2.322
A_55_P1979491	NM_007642	Cd28	CD28 antigen	2.259
A_55_P2004016	NM_030209	Crispld2	cysteine-rich secretory protein LCCL domain containing 2	2.289
A_55_P2051039	NM_001099346	Gm11937	predicted gene 11937	2.371
A_51_P510891	NM_007423	Afp	alpha fetoprotein	2.279
A_55_P2122618	AK002412	Asb11	ankyrin repeat and SOCS box-containing 11	2.32
A_51_P126067	NM_013486	Cd2	CD2 antigen	2.307
A_55_P2060243	NM_145467	Itgbl1	"integrin, beta-like 1"	2.266
A_55_P1977782	NM_001081209	Prdm14	PR domain containing 14	1.958
A_55_P2057936	NM_001135115	Gm12250	predicted gene 12250	2.223
A_51_P437240	NM_007929	Emp2	epithelial membrane protein 2	2.277
A_55_P2072035	NM_009382	Thy1	"thymus cell antigen 1, theta"	2.233
A_55_P1978681	NM_146010	Tspan8	tetraspanin 8	2.253
A_55_P1992849	NM_013462	Adrb3	"adrenergic receptor, beta 3"	2.267
A_55_P1989658	NM_013797	Slco1a1	"solute carrier organic anion transporter family, member 1a1"	2.235
A_55_P2017710	NM_033608	Igsf9	"immunoglobulin superfamily, member 9"	2.384
A_51_P246317	NM_008630	Mt2	metallothionein 2	2.219
A_55_P2472435	NM_018734	Gbp3	guanylate binding protein 3	2.229
A_55_P2035946	NM_001002927	Penk	preproenkephalin	2.115
A_55_P1961499	NM_010741	Ly6c1	"lymphocyte antigen 6 complex, locus C1"	2.209
A_55_P2124498	NM_019583	Il17rb	interleukin 17 receptor B	2.241
A_55_P1982404	NM_001177956	Gpm6b	glycoprotein m6b	2.196
A_51_P255456	NM_009994	Cyp1b1	"cytochrome P450, family 1, subfamily b, polypeptide 1"	2.209
A_52_P327664	NM_153564	Gbp5	guanylate binding protein 5	2.195
A_55_P1953788	NM_010583	Itk	IL2-inducible T-cell kinase	2.198

Table S2. (continued)

A_51_P193146	NM_028595	Ms4a6c	"membrane-spanning 4-domains, subfamily A, member 6C"	2.189
A_52_P84027	NM_007824	Cyp7a1	"cytochrome P450, family 7, subfamily a, polypeptide 1"	2.181
A_52_P71686	NM_175406	Atp6v0d2	"ATPase, H ⁺ transporting, lysosomal V0 subunit D2"	2.138
A_55_P1955308	NM_001002898	Sirpb1a	signal-regulatory protein beta 1A	2.175
A_51_P137336	NM_009864	Cdh1	cadherin 1	2.224
A_51_P380309	NM_001113204	Ncam1	neural cell adhesion molecule 1	2.123
A_55_P2184013	NM_175219	C130026I21Rik	RIKEN cDNA C130026I21 gene	2.189
A_66_P103232	ENSMUST00000103366	LOC100046973	"similar to [Human Ig rearranged gamma chain mRNA, V-J-C region and corr	2.176
A_51_P480602	NM_009363	Tff2	trefoil factor 2 (spasmolytic protein 1)	2.169
A_55_P2092310	AK195427	NA	NA	2.205
A_51_P338262	NM_011619	Tnnt2	"troponin T2, cardiac"	2.228
A_51_P233160	NM_027309	Lysmd2	"LysM, putative peptidoglycan-binding, domain containing 2"	2.157
A_66_P139666	NM_177013	Tmem229a	transmembrane protein 229A	2.151
A_55_P1991214	NM_001113474	Lair1	leukocyte-associated Ig-like receptor 1	2.134
A_52_P343306	NM_010378	H2-Aa	"histocompatibility 2, class II antigen A, alpha"	2.144
A_51_P123625	NM_008392	Irg1	immunoresponsive gene 1	2.192
A_52_P546162	ENSMUST00000103355	NA	NA	2.098
A_52_P366047	NM_145938	Rpp40	ribonuclease P 40 subunit (human)	2.142
A_55_P1974367	NM_010174	Fabp3	"fatty acid binding protein 3, muscle and heart"	2.114
A_55_P1978994	ENSMUST00000103472	NA	NA	2.147
A_52_P476431	NM_021292	Evc	Ellis van Creveld gene homolog (human)	2.092
A_55_P1958480	BC089308	LOC545005	hypothetical protein LOC545005	2.129
A_55_P1994042	NM_001139519	Zbp1	Z-DNA binding protein 1	2.108
A_55_P2023912	NA	NA	NA	2.241
A_55_P1980601	NM_172701	Oscp1	organic solute carrier partner 1	2.104
A_55_P1954116	NM_133882	C8b	"complement component 8, beta polypeptide"	2.107
A_51_P326191	NM_009251	Serpina3g	"serine (or cysteine) peptidase inhibitor, clade A, member 3G"	2.103
A_52_P299771	NM_007535	Bcl2a1c	B-cell leukemia/lymphoma 2 related protein A1c	2.111
A_55_P1986341	NR_002858	Gm4956	predicted gene 4956	2.093
A_55_P2143041	NM_016966	Phgdh	3-phosphoglycerate dehydrogenase	2.048
A_55_P2154933	NM_207244	Cd200r4	CD200 receptor 4	2.05
A_55_P1997003	BC031891	Serpina4-ps1	"serine (or cysteine) peptidase inhibitor, clade A, member 4, pseudogene 1"	2.097
A_55_P1973995	ENSMUST00000077710	NA	NA	2.137
A_51_P323180	NM_172777	Gbp9	guanylate-binding protein 9	2.129
A_55_P2000595	NA	NA	NA	2.101
A_51_P492830	NM_021886	Cenph	centromere protein H	2.073

Table S2. (continued)

A_52_P244193	NM_009846	Cd24a	CD24a antigen	2.045
A_55_P2124976	NM_145890	Grhl1	grainyhead-like 1 (Drosophila)	2.051
A_55_P1955305	NM_001002898	Sirpb1a	signal-regulatory protein beta 1A	2.068
A_51_P204740	NM_133654	Cd34	CD34 antigen	2.081
A_55_P2040485	XM_889011	Ms4a4a	"membrane-spanning 4-domains, subfamily A, member 4A"	2.007
A_51_P414879	ENSMUST00000103304	NA	NA	2.192
A_55_P2041444	NM_001110784	Xlr3a	X-linked lymphocyte-regulated 3A	2.11
A_55_P2178578	NM_145403	Tmprss4	"transmembrane protease, serine 4"	2.043
A_55_P1978424	NM_007536	Bcl2a1d	B-cell leukemia/lymphoma 2 related protein A1d	2.05
A_51_P302358	NM_008518	Ltb	lymphotoxin B	2.079
A_55_P2033041	NM_001173460	Sirpb1b	signal-regulatory protein beta 1B	2.037
A_55_P2266178	BC028446	AI790276	expressed sequence AI790276	2.024
A_51_P360492	NM_008567	Mcm6	"minichromosome maintenance deficient 6 (MIS5 homolog, S. pombe) (S. ce	2.032
A_55_P1965101	NM_001081643	Xlr3b	X-linked lymphocyte-regulated 3B	2.136
A_52_P590154	NM_013786	Hsd17b6	hydroxysteroid (17-beta) dehydrogenase 6	2.052
A_52_P250644	XM_001479095	LOC100047902	similar to RIKEN cDNA 1700022C21 gene	2.212
A_55_P1964648	NM_001037719	Btla	B and T lymphocyte associated	1.968
A_55_P1962918	NM_001033450	Mnda	myeloid cell nuclear differentiation antigen	2.019
A_51_P299149	NM_145451	Gpx6	glutathione peroxidase 6	2.016
A_51_P394814	NM_022814	Svep1	"sushi, von Willebrand factor type A, EGF and pentraxin domain containing 1	2.003
A_55_P1985544	NM_029911	Kcnk10	"potassium channel, subfamily K, member 10"	2.088
A_52_P410685	NM_033073	Krt7	keratin 7	2.111
A_55_P2022211	NM_026162	Plxdc2	plexin domain containing 2	2.064
A_51_P161021	NM_008332	Ifit2	interferon-induced protein with tetratricopeptide repeats 2	2.076
A_52_P257625	NM_023612	Esm1	endothelial cell-specific molecule 1	2.016
A_51_P108459	NM_008152	Gpr65	G-protein coupled receptor 65	2.032
A_55_P2039541	NM_153820	Arhgap15	Rho GTPase activating protein 15	2.007
A_55_P2033780	NM_010174	Fabp3	"fatty acid binding protein 3, muscle and heart"	1.983
A_51_P519251	NM_019738	Nupr1	nuclear protein 1	1.983
A_52_P390127	AK138801	Klrc1	"killer cell lectin-like receptor subfamily C, member 1"	1.948
A_51_P209818	NM_011178	Prtn3	proteinase 3	1.954
A_55_P2114953	NM_011909	Usp18	ubiquitin specific peptidase 18	1.982
A_55_P1970105	NM_013589	Ltbp2	latent transforming growth factor beta binding protein 2	1.998

Table S3. 173 genes that were under-expressed in the liver of the Nrf2 knock-out mice compared to the wild-type mice after 180 days on high-fat diet.

Probe ID	Primary Accession	Gene Symbol	Gene Name	fold change
A_51_P411271	NM_010902	Nfe2l2	"nuclear factor, erythroid derived 2, like 2"	-1098
A_52_P562267	NM_001033819	9130409I23Rik	RIKEN cDNA 9130409I23 gene	-30.27
A_55_P2032946	NM_008181	Gsta1	"glutathione S-transferase, alpha 1 (Ya)"	-21.27
A_55_P2114342	ENSMUST00000100	NA	NA	-13.35
A_55_P2017116	XM_001480391	LOC625953	similar to Glutathione S-transferase Ya chain (GST class-alpha) (Ya1)	-12.64
A_51_P253481	NM_021456	Ces1	carboxylesterase 1	-11.38
A_52_P669922	NM_032541	Hamp	hepcidin antimicrobial peptide	-10.74
A_55_P2130885	NM_008552	Mas1	MAS1 oncogene	-9.942
A_55_P2102065	NM_001122660	Gm10639	predicted gene 10639	-9.891
A_52_P289091	NM_007813	Cyp2b13	"cytochrome P450, family 2, subfamily b, polypeptide 13"	-9.87
A_66_P104980	NM_177919	Tceal5	transcription elongation factor A (SII)-like 5	-9.749
A_55_P2126850	NM_021431	Nudt11	nudix (nucleoside diphosphate linked moiety X)-type motif 11	-9.572
A_55_P2164075	XM_001479672	LOC100048172	hypothetical protein LOC100048172	-9.388
A_51_P346893	NM_019578	Extl1	exostoses (multiple)-like 1	-8.162
A_51_P206235	NM_028051	Slc39a5	"solute carrier family 39 (metal ion transporter), member 5"	-7.851
A_55_P2034517	ENSMUST00000156	NA	NA	-7.58
A_51_P326685	NM_176920	Lrtm1	leucine-rich repeats and transmembrane domains 1	-7.062
A_55_P2387915	AK143789	Gm10804	predicted gene 10804	-6.867
A_55_P2154377	XM_911133	Gm7169	predicted gene 7169	-5.979
A_51_P446512	ENSMUST00000094	2310016G11Rik	RIKEN cDNA 2310016G11 gene	-5.608
A_55_P2047809	NM_175692	Snhg11	small nucleolar RNA host gene 11 (non-protein coding)	-5.605
A_51_P267933	NM_175692	Snhg11	small nucleolar RNA host gene 11 (non-protein coding)	-5.479
A_55_P1975989	NM_172864	Wdr63	WD repeat domain 63	-5.224
A_55_P1966432	NM_010358	Gstm1	"glutathione S-transferase, mu 1"	-5.138
A_55_P2198983	AI606402	4930415C11Rik	RIKEN cDNA 4930415C11 gene	-5.036
A_51_P424338	NM_008706	Nqo1	"NAD(P)H dehydrogenase, quinone 1"	-4.925
A_51_P386648	NM_027227	Glod5	glyoxalase domain containing 5	-4.812
A_55_P2093704	NM_008579	Meig1	meiosis expressed gene 1	-4.718
A_55_P2062190	NM_010358	Gstm1	"glutathione S-transferase, mu 1"	-4.709
A_55_P2160128	NM_001033210	Pls1	plastin 1 (I-isoform)	-4.574
A_51_P514319	NM_172892	Slc13a4	"solute carrier family 13 (sodium/sulfate symporters), member 4"	-4.408
A_51_P199168	NM_007702	Cidea	"cell death-inducing DNA fragmentation factor, alpha subunit-like effector A"	-4.372
A_55_P1985623	NM_029600	Abcc3	"ATP-binding cassette, sub-family C (CFTR/MRP), member 3"	-4.36
A_55_P2171413	NM_008615	Me1	"malic enzyme 1, NADP(+)-dependent, cytosolic"	-4.322
A_55_P2029111	XM_001479090	LOC100048011	hypothetical protein LOC100048011	-4.313

Table S3. (continued)

A_55_P2172396	NM_178796	A530064D06Rik	RIKEN cDNA A530064D06 gene	-4.294
A_66_P124420	NAP001637-001	NA	NA	-4.262
A_51_P471458	NM_020564	Sult5a1	"sulfotransferase family 5A, member 1"	-4.209
A_55_P2016842	NM_008615	Me1	"malic enzyme 1, NADP(+)-dependent, cytosolic"	-4.141
A_51_P343350	NM_033603	Amn	amnionless	-4.039
A_55_P2268221	NM_030113	Arhgap10	Rho GTPase activating protein 10	-4.018
A_55_P2065231	NM_010359	Gstm3	"glutathione S-transferase, mu 3"	-4.016
A_55_P1985346	XM_001475143	Gm13017	predicted gene 13017	-3.998
A_55_P2124712	NM_145603	Ces2	carboxylesterase 2	-3.868
A_65_P02177	NM_026764	Gstm4	"glutathione S-transferase, mu 4"	-3.86
A_55_P1992986	XM_979688	LOC675135	"similar to amyotrophic lateral sclerosis 2 (juvenile) chromosome region, candida	-3.822
A_51_P333111	NM_009676	Aox1	aldehyde oxidase 1	-3.785
A_52_P318361	NM_145603	Ces2	carboxylesterase 2	-3.742
A_55_P2170454	NM_008182	Gsta2	"glutathione S-transferase, alpha 2 (Yc2)"	-3.666
A_55_P2150876	NM_175370	Als2cr12	"amyotrophic lateral sclerosis 2 (juvenile) chromosome region, candidate 12 (hun	-3.614
A_52_P627269	NM_198171	BC015286	cDNA sequence BC015286	-3.568
A_55_P2408588	NM_007489	Arntl	aryl hydrocarbon receptor nuclear translocator-like	-3.552
A_55_P2148171	NM_001168500	A330049M08Rik	RIKEN cDNA A330049M08 gene	-3.512
A_51_P397934	NM_130455	Grin3b	"glutamate receptor, ionotropic, NMDA3B"	-3.503
A_55_P2135153	NM_153558	Lcn13	lipocalin 13	-3.492
A_55_P2093705	NM_008579	Meig1	meiosis expressed gene 1	-3.482
A_55_P2095039	NM_001168500	A330049M08Rik	RIKEN cDNA A330049M08 gene	-3.476
A_55_P2129449	NM_020565	Sult3a1	"sulfotransferase family 3A, member 1"	-3.465
A_52_P578634	NM_033612	Cela1	"chymotrypsin-like elastase family, member 1"	-3.44
A_51_P311958	NM_013623	Orm3	orosomuroid 3	-3.388
A_52_P920158	NM_001081425	Rbm24	RNA binding motif protein 24	-3.359
A_55_P2004452	NM_025703	Tceal8	transcription elongation factor A (SII)-like 8	-3.337
A_52_P602847	NM_008134	Glycam1	glycosylation dependent cell adhesion molecule 1	-3.296
A_55_P2204491	AI131754	AI131754	expressed sequence AI131754	-3.263
A_55_P2124233	NM_177723	Vsig8	V-set and immunoglobulin domain containing 8	-3.263
A_55_P2102060	NM_010359	Gstm3	"glutathione S-transferase, mu 3"	-3.167
A_55_P2069969	NM_001122660	Gm10639	predicted gene 10639	-3.166
A_55_P1972448	XM_001472595	Gm7300	predicted gene 7300	-3.117
A_55_P2100155	NM_001038609	Mapt	microtubule-associated protein tau	-3.114
A_55_P1967350	NM_172881	Ugt2b35	"UDP glucuronosyltransferase 2 family, polypeptide B35"	-3.074
A_55_P1994112	NM_013661	Sema5b	"sema domain, seven thrombospondin repeats (type 1 and type 1-like), transmen	-3.016

Table S3. (continued)

A_52_P9703	NM_009997	Cyp2a4	"cytochrome P450, family 2, subfamily a, polypeptide 4"	-3
A_55_P2007381	ENSMUST000000321	NA	NA	-2.932
A_55_P1973844	NM_013661	Sema5b	"sema domain, seven thrombospondin repeats (type 1 and type 1-like), transmembrane protein 5b"	-2.916
A_55_P1997585	XM_286199	Cyp2a21-ps	"cytochrome P450, family 2, subfamily a, polypeptide 21, pseudogene"	-2.904
A_55_P2052824	NM_001033042	Lrrc14b	leucine rich repeat containing 14B	-2.89
A_51_P327585	NM_026764	Gstm4	"glutathione S-transferase, mu 4"	-2.885
A_55_P2100149	NM_001038609	Mapt	microtubule-associated protein tau	-2.873
A_66_P136778	NM_177922	Mapk15	mitogen-activated protein kinase 15	-2.873
A_55_P1953341	NM_026323	Wfdc2	WAP four-disulfide core domain 2	-2.852
A_55_P1976744	XM_001478262	Gm4324	predicted gene 4324	-2.851
A_55_P2051596	XM_001479558	Gm4499	predicted gene 4499	-2.846
A_51_P163578	NM_172881	Ugt2b35	"UDP glucuronosyltransferase 2 family, polypeptide B35"	-2.843
A_55_P1960828	NM_172371	Slc16a13	"solute carrier family 16 (monocarboxylic acid transporters), member 13"	-2.84
A_55_P2003053	NM_010024	Dct	dopachrome tautomerase	-2.805
A_55_P2007326	NM_009997	Cyp2a4	"cytochrome P450, family 2, subfamily a, polypeptide 4"	-2.783
A_55_P1961466	NM_010024	Dct	dopachrome tautomerase	-2.773
A_55_P1954486	NM_001038609	Mapt	microtubule-associated protein tau	-2.764
A_55_P2126940	XM_001474703	Gm7262	predicted gene 7262	-2.759
A_55_P2051796	NM_001024841	Gm128	predicted gene 128	-2.755
A_55_P2049771	XM_001480935	Gm4621	predicted gene 4621	-2.742
A_55_P2185178	ENSMUST000000096	Tmem28	transmembrane protein 28	-2.736
A_55_P1957918	NM_001135192	Asap2	"ArfGAP with SH3 domain, ankyrin repeat and PH domain 2"	-2.725
A_55_P2071906	ENSMUST00000108	NA	NA	-2.699
A_51_P276943	NM_016696	Gpc1	glypican 1	-2.69
A_51_P392967	NM_053253	Zmynd10	"zinc finger, MYND domain containing 10"	-2.69
A_55_P1995135	NM_027195	Casz1	"castor homolog 1, zinc finger (Drosophila)"	-2.686
A_51_P481159	NM_173047	Cbr3	carbonyl reductase 3	-2.684
A_51_P156955	NM_013459	Cfd	complement factor D (adipsin)	-2.663
A_52_P278581	BC029005	Zbtb1	zinc finger and BTB domain containing 1	-2.655
A_51_P387400	NM_026535	Serpina12	"serine (or cysteine) peptidase inhibitor, clade A (alpha-1 antiproteinase, antitrypsin inhibitor, alpha-1)"	-2.642
A_51_P362066	NM_007695	Chi3l1	chitinase 3-like 1	-2.636
A_55_P1954842	XM_001477923	LOC100047186	hypothetical protein LOC100047186	-2.629
A_55_P2016166	NM_026323	Wfdc2	WAP four-disulfide core domain 2	-2.614
A_55_P2044653	NM_009999	Cyp2b10	"cytochrome P450, family 2, subfamily b, polypeptide 10"	-2.565
A_55_P1998811	XM_001476688	Gm3430	predicted gene 3430	-2.557
A_55_P2022128	NM_016782	Cntnap1	contactin associated protein-like 1	-2.551

Table S3. (continued)

A_51_P104718	NM_001010941	Gpr12	G-protein coupled receptor 12	-2.539
A_55_P1972436	NM_178666	Themis	thymocyte selection associated	-2.523
A_55_P1997651	NM_207687	Espn	espin	-2.514
A_55_P1998656	NM_001026214	Entpd5	ectonucleoside triphosphate diphosphohydrolase 5	-2.482
A_55_P2058189	NM_029875	Slc35e3	"solute carrier family 35, member E3"	-2.482
A_55_P2090060	NM_172295	BC037703	cDNA sequence BC037703	-2.474
A_51_P358256	NM_009803	Nr1i3	"nuclear receptor subfamily 1, group I, member 3"	-2.465
A_51_P178772	NM_144930	AU018778	expressed sequence AU018778	-2.453
A_51_P324633	NM_007703	Elov3	"elongation of very long chain fatty acids (FEN1/Elo2, SUR4/Elo3, yeast)-like 3"	-2.427
A_55_P2006008	NM_025429	Serpinb1a	"serine (or cysteine) peptidase inhibitor, clade B, member 1a"	-2.422
A_55_P2101776	NM_001008533	Adora1	adenosine A1 receptor	-2.42
A_55_P2391534	AK015487	4930459C07Rik	RIKEN cDNA 4930459C07 gene	-2.407
A_51_P164630	NM_026808	Fitm1	fat storage-inducing transmembrane protein 1	-2.406
A_55_P2002578	NM_010145	Ephx1	"epoxide hydrolase 1, microsomal"	-2.394
A_55_P1998651	NM_001026214	Entpd5	ectonucleoside triphosphate diphosphohydrolase 5	-2.39
A_55_P1962766	NM_001085513	Fam131c	"family with sequence similarity 131, member C"	-2.374
A_55_P1985351	NM_028060	Slc35f2	"solute carrier family 35, member F2"	-2.374
A_51_P501844	NM_175475	Cyp26b1	"cytochrome P450, family 26, subfamily b, polypeptide 1"	-2.37
A_51_P324351	NM_013900	Mfi2	antigen p97 (melanoma associated) identified by monoclonal antibodies 133.2 ar	-2.365
A_52_P327156	NR_027970	0610008F07Rik	RIKEN cDNA 0610008F07 gene	-2.336
A_55_P2035824	NM_009803	Nr1i3	"nuclear receptor subfamily 1, group I, member 3"	-2.306
A_55_P2006236	NM_009466	Ugdh	UDP-glucose dehydrogenase	-2.296
A_55_P1975080	NM_009467	Ugt2b5	"UDP glucuronosyltransferase 2 family, polypeptide B5"	-2.283
A_51_P377856	NM_133994	Gstt3	"glutathione S-transferase, theta 3"	-2.24
A_51_P401184	NM_001164763	Rarres1	retinoic acid receptor responder (tazarotene induced) 1	-2.232
A_55_P2061338	NM_153081	Slc16a11	"solute carrier family 16 (monocarboxylic acid transporters), member 11"	-2.223
A_55_P2002577	NM_010145	Ephx1	"epoxide hydrolase 1, microsomal"	-2.22
A_55_P2318584	NM_007474	Aqp8	aquaporin 8	-2.217
A_52_P256914	NM_010000	Cyp2b9	"cytochrome P450, family 2, subfamily b, polypeptide 9"	-2.215
A_51_P495269	NM_008508	Lor	loricrin	-2.21
A_51_P302856	NM_053215	Ugt2b37	"UDP glucuronosyltransferase 2 family, polypeptide B37"	-2.197
A_55_P2157620	ENSMUST00000099	NA	NA	-2.194
A_66_P106611	NM_008137	Gna14	"guanine nucleotide binding protein, alpha 14"	-2.184
A_52_P883557	NM_001033286	Slc30a10	"solute carrier family 30, member 10"	-2.176
A_52_P469502	NM_028176	Cda	cytidine deaminase	-2.172
A_55_P1991416	XM_001473368	NA	NA	-2.171

Table S3. (continued)

A_51_P246677	NM_020002	Rec8	REC8 homolog (yeast)	-2.168
A_51_P365019	NM_010295	Gclc	"glutamate-cysteine ligase, catalytic subunit"	-2.165
A_55_P2078955	NM_007474	Aqp8	aquaporin 8	-2.156
A_52_P661587	NM_001025576	Ccdc141	coiled-coil domain containing 141	-2.151
A_52_P315976	NM_009416	Tpm2	"tropomyosin 2, beta"	-2.15
A_55_P2143219	NM_011242	Rasgrp2	"RAS, guanyl releasing protein 2"	-2.144
A_51_P372550	NM_026770	Cgref1	cell growth regulator with EF hand domain 1	-2.138
A_52_P536494	NM_008709	Mycn	"v-myc myelocytomatosis viral related oncogene, neuroblastoma derived (avian)"	-2.134
A_55_P2042156	NM_007377	Aatk	apoptosis-associated tyrosine kinase	-2.102
A_55_P2021572	NM_001164284	C87414	expressed sequence C87414	-2.09
A_55_P2010906	NM_153405	Rbm45	RNA binding motif protein 45	-2.087
A_55_P2029203	NM_026700	Dopey2	dopey family member 2	-2.084
A_51_P315682	NM_183029	Igf2bp2	insulin-like growth factor 2 mRNA binding protein 2	-2.08
A_51_P200083	NM_023168	Grina	"glutamate receptor, ionotropic, N-methyl D-aspartate-associated protein 1 (gluta	-2.078
A_52_P21486	NM_183257	Hamp2	hepcidin antimicrobial peptide 2	-2.077
A_55_P2096043	NM_025590	Acot11	acyl-CoA thioesterase 11	-2.076
A_51_P498882	NM_010001	Cyp2c37	"cytochrome P450, family 2. subfamily c, polypeptide 37"	-2.071
A_51_P404193	NM_022435	Sp5	trans-acting transcription factor 5	-2.065
A_51_P369784	NM_133660	Es22	esterase 22	-2.064
A_55_P2105858	NM_030693	Atf5	activating transcription factor 5	-2.053
A_55_P2143233	NM_011242	Rasgrp2	"RAS, guanyl releasing protein 2"	-2.051
A_51_P372141	NM_001039509	Pnkd	paroxysmal nonkinesiogenic dyskinesia	-2.05
A_55_P1994132	AK148454	Tmem184a	transmembrane protein 184a	-2.032
A_52_P413947	NM_010840	Mthfr	"5,10-methylenetetrahydrofolate reductase"	-2.02
A_55_P2180744	NM_153508	Clstn3	calsyntenin 3	-2.008
A_55_P2173817	NM_008552	Mas1	MAS1 oncogene	-2.008
A_55_P1960291	NM_013769	Tjp3	tight junction protein 3	-2.006
A_55_P2033272	NM_021481	Treh	trehalase (brush-border membrane glycoprotein)	-2.005
A_52_P142520	NM_198292	Tex2	testis expressed gene 2	-1.989
A_52_P456561	NM_007435	Abcd1	"ATP-binding cassette, sub-family D (ALD), member 1"	-1.958