Additional File 2: Table S2. List of protein coding genes in the QTL on Chr 17. The QTL region between 46 and 50 Mb is associated with relative content lipid to protein ratio in the liver.

Symbol	Description	Location (Chr, Mb)
Vegfa	vascular endothelial growth factor A; mid-distal 3' UTR	Chr17: 46.154213
AU040583	AU040583 EST; well expressed sequence (putative non-coding)	Chr17: 46.233479
Mrps18a	mitochondrial ribosomal protein S18A	Chr17: 46.248708
1700027N10Rik	RIKEN cDNA 1700027N10 gene	Chr17: 46.271921
Mad2l1bp	mitotic arrest deficient 2, homolog-like 1 (MAD2L1) binding protein; last exon and 3' UTR	Chr17: 46.284624
Gtpbp2	GTP binding protein 2	Chr17: 46.298683
Polh	polymerase (DNA directed), eta (RAD 30 related)	Chr17: 46.308369
Xpo5	exportin 5 (pre-miRNA and dicer transport); last four exons	Chr17: 46.377762
Rpo1-1	RNA polymerase 1-1	Chr17: 46.380921
D17Wsu94e	DNA segment, Chr 17, Wayne State University 94, expressed	Chr17: 46.388408
Gm88	Gene model 88, (NCBI); putative exon (from EST AK134769)	Chr17: 46.393989
Tjp4	tight junction protein 4 (peripheral)	Chr17: 46.394957
Egfl9	EGF-like-domain, multiple 9	Chr17: 46.439745
Dlk2	delta-like 2 homolog; last exon and proximal to mid 3' UTR	Chr17: 46.439886
Abcc10	ATP-binding cassette, sub-family C (CFTR/MRP), member 10; last four exons	Chr17: 46.440563
Zfp318	zinc finger protein 318; exons 3, 4, and 5 (transQTL on chr 4 in BXD Eye Data)	Chr17: 46.536814
G1p2	interferon, alpha-inducible protein	Chr17: 46.543907
Zfp318	zinc finger protein 318	Chr17: 46.557374
Crip3	cysteine-rich protein 3	Chr17: 46.567949
Slc22a7	solute carrier family 22 (organic anion transporter), member 7; second and third to last exons and proximal to mid 3' UTR	Chr17: 46.569307
C330008L01Rik	RIKEN cDNA C330008L01 gene	Chr17: 46.578785
Ttbk1	tau tubulin kinase 1; 3' UTR	Chr17: 46.579442
4931408A02Rik	RIKEN cDNA 4931408A02 gene	Chr17: 46.591116
BC048355	cDNA sequence BC048355	Chr17: 46.636033
Parc	p53-associated parkin-like cytoplasmic protein	Chr17: 46.637715
Srf	serum response factor serum response factor (smooth muscle differentiation); proximal 3' UTR	Chr17: 46.685391
Ptk7	PTK7 protein tyrosine kinase 7	Chr17: 46.701696
Klc4	kinesin light chain 4; last three exons and 3' UTR	Chr17: 46.767691
1200014P03Rik	RIKEN cDNA 1200014P03 gene	Chr17: 46.776840
Mrpl2	mitochondrial ribosomal protein L2; exons 3, 4, 5, and 6	Chr17: 46.785306
Cul7	cullin 7	Chr17: 46.800560
BC011248	cDNA sequence BC011248; last exon and 3' UTR (strong transQTL on chr 4 in BXD eye data)	Chr17: 46.804614
Klhdc3	kelch domain containing 3; 3' UTR	Chr17: 46.811502
Mea1	male enhanced antigen 1; first exon	Chr17: 46.818623
Ppp2r5d	protein phosphatase 2, regulatory subunit B (B56), delta isoform	Chr17: 46.820101
Pex6	peroxisomal biogenesis factor 6; first exon	Chr17: 46.849248
Gnmt	glycine N-methyltransferase	Chr17: 46.862736
Cnpy3	canopy 3 (trinucleotide repeat containing 5); proximal half of 3' UTR	Chr17: 46.873069
Ptcra	pre T-cell antigen receptor alpha	Chr17: 46.892915

2310039H08Rik	RIKEN cDNA 2310039H08 gene	Chr17: 46.909780
Rpl7l1	ribosomal protein L7-like 1	Chr17: 46.911040
BC032203	cDNA sequence BC032203; far 3' UTR	Chr17: 46.935290
KIAA0240	hypothetical protein KIAA0240	Chr17: 46.937913
2600002F22Rik	ESTs, Weakly similar to RIKEN cDNA 5730493B19 [] [M.musculus]	Chr17: 46.990842
A230078I05Rik	A230078I05Rik CNS midbrain EST	Chr17: 46.993195
BE995645	ESTs, Weakly similar to Ser/Arg-related nuclear matrix protein; plenty-of-prolines-101; serine/arginine repetitive matrix protein 1 [] [M.musculus]	Chr17: 46.993782
5630400M01Rik	ESTs	Chr17: 47.008879
Tbcc	tubulin-specific chaperone c	Chr17: 47.028243
Prhp2	peripherin 2 (retinal degeneration slow, retinitis pigmentosa 7 tetraspanin protein); mid distal 3' UTR	Chr17: 47.061287
Ubr2	ubiquitin protein ligase E3 component n-recognin 2	Chr17: 47.064959
E130209G04Rik	RIKEN cDNA E130209G04 gene	Chr17: 47.147601
Trerf1	transcriptional regulating factor 1	Chr17: 47.490012
Mrps10	mitochondrial ribosomal protein S10	Chr17: 47.507089
Guca1b	guanylate cyclase activator 1B (photoreceptor-restricted calcium-binding guanylin 2, retinitis pigmentosa); intron 1 (possible short form 3' UTR)	Chr17: 47.523753
Guca1a	guanylate cyclase activator 1a (cone dystrophy 3); exons 1, 2, and 3	Chr17: 47.532503
1700001C19Rik	RIKEN cDNA 1700001C19 gene	Chr17: 47.550387
LOC224833	similar to bM573K1.5 (novel Ulp1 protease family member)	Chr17: 47.599806
Tbn	taube nuss	Chr17: 47.625518
Wdr5b	WD repeat domain 5B	Chr17: 47.656287
5830436I19Rik	RIKEN cDNA 5830436I19 gene	Chr17: 47.667403
4732474A20Rik	ESTs	Chr17: 47.681807
A030011A13Rik	BB167641 EST (Foxp4 or Ccnd3 associated); intron of Foxp4	Chr17: 47.686932
4933417N07Rik	ESTs	Chr17: 47.692368
9230106B05Rik	RIKEN cDNA 9230106B05 gene	Chr17: 47.715727
Ccnd3	cyclin D3	Chr17: 47.732286
Bysl	bystin-like; mid 3' UTR	Chr17: 47.737363
Usp49	ubiquitin specific protease 49	Chr17: 47.760610
Mia2	adult male urinary bladder cDNA, RIKEN full-length enriched library, clone:9530064D18 product:unknown EST, full insert sequence.	Chr17: 47.765185
C330046L10Rik	ES cells cDNA, RIKEN full-length enriched library, clone:C330046L10 product:hypothetical Ubiquitin carboxyl-terminal hydrolase family 2 containing protein, full insert sequence.	Chr17: 47.809188
Tomm6	translocase of outer mitochondrial membrane 6; distal 3' UTR	Chr17: 47.823697
4930417B13Rik	expressed sequence AI449674	Chr17: 47.836938
Frs3	fibroblast growth factor receptor substrate 3	Chr17: 47.840738
Pgc	progastricsin (pepsinogen C); last 4 exons (transQTL on chr 4 in BXD Hippocampus Data)	Chr17: 47.870703
Tcfeb	transcription factor EB; proximal to distal 3 UTR	Chr17: 47.928844
Mdfi	MyoD family inhibitor	Chr17: 47.952399
Foxp4	forkhead box P4	Chr17: 48.004101
1700122O11Rik	RIKEN cDNA 1700122O11 gene	Chr17: 48.173800
Trem1	triggering receptor expressed on myeloid cells 1	Chr17: 48.380650

Trem3	triggering receptor expressed on myeloid cells 3	Chr17: 48.389007
Treml4	triggering receptor expressed on myeloid cells-like 4	Chr17: 48.414134
AW049306	AV140744	Chr17: 48.439724
C030013G03Rik	RIKEN cDNA C030013G03 gene	Chr17: 48.449968
AW049306	ESTs	Chr17: 48.451290
B430306N03Rik	RIKEN cDNA B430306N03 gene	Chr17: 48.464296
Trem2	triggering receptor expressed on myeloid cells 2 (Alzheimer's disease associated)	Chr17: 48.487839
Treml1	triggering receptor expressed on myeloid cells-like 1	Chr17: 48.505340
Nfya	nuclear transcription factor-Y alpha	Chr17: 48.526326
AI314976	expressed sequence AI314976	Chr17: 48.556089
Apobec2	apolipoprotein B editing complex 2	Chr17: 48.558660
Apobec2	apolipoprotein B editing complex 2; antisense in 3' UTR or last intron	Chr17: 48.559639
Bzrpl1	benzodiazapine receptor, peripheral-like 1	Chr17: 48.588068
Unc5cl	unc-5 homolog C (C. elegans)-like	Chr17: 48.607516
Lrfn2	leucine rich repeat and fibronectin type III domain containing 2	Chr17: 49.236323
1700008K24Rik	RIKEN cDNA 1700008K24 gene	Chr17: 49.251668
Mocs1	molybdenum cofactor synthesis 1	Chr17: 49.567865
Abhd3	polymorphic long terminal repeat; LTR maps to chr 17	Chr17: 49.586532
Daam2	dishevelled associated activator of morphogenesis 2; distal 3' UTR	Chr17: 49.595409
Kif6	kinesin family member 6	Chr17: 49.894431
4930556A20Rik	RIKEN cDNA 4930556A20 gene	Chr17: 49.959482