

Supporting Materials

iTRAQ-based proteomics for studying the effects of dioscin against nonalcoholic fatty liver disease in rats

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Table 1 List of the up regulated proteins in rat model of nonalcoholic fatty liver disease identified by proteomics.

Accession No.	Gene symbol and name	Accession No.	Gene symbol and name	Accession No.	Gene symbol and name
IPI:IPI00202580.3	Cyp2d3 Uncharacterized protein	IPI:IPI00957910.1	Mon2 Uncharacterized protein	IPI:IPI00197703.2	Apoa1 Apolipoprotein A-I
IPI:IPI00551774.1	RT1-EC2 Mature alpha chain of major histocompatibility complex class I antigen (Fragment)	IPI:IPI00213611.1	LOC287167 Uncharacterized protein	IPI:IPI00198590.2	Bud31 Protein BUD31 homolog
IPI:IPI00207146.1	Hbb-b1 Zero beta-1 globin	IPI:IPI00464503.1	MGC94335 Uncharacterized protein C2orf47 homolog, mitochondrial	IPI:IPI00231209.5	Arhgef7 Uncharacterized protein
IPI:IPI00367281.2	Acnat2 Acyl-coenzyme A amino acid N-acyltransferase 2	IPI:IPI00778443.1	Cyp2c22 Cytochrome P450 2C70	IPI:IPI00286154.3	Cyb5a Isoform Long of Cytochrome b5
IPI:IPI00326972.6	Ces1d Carboxylesterase 3	IPI:IPI00851130.1	Gda Uncharacterized protein	IPI:IPI00359323.1	Thrap3 Thyroid hormone receptor-associated protein 3
IPI:IPI00231818.7	Sult2a11 Alcohol sulfotransferase A	IPI:IPI00200651.5	Nans N-acetylneuraminic acid synthase	IPI:IPI00209570.2	Me2 NAD-dependent malic enzyme, mitochondrial
IPI:IPI00911371.2	Acad10 RGD1310159 protein	IPI:IPI00327626.1	Ugt2b5 UDP-glucuronosyltransferase 2B17	IPI:IPI00958362.1	LOC100365679 DENN/MADD domain containing 5B-like
IPI:IPI00858393.1	Plcd1 Phospholipase C delta 1 long form	IPI:IPI00206743.3	Tmem111 Transmembrane protein 111	IPI:IPI00359780.3	Nol9 nucleolar protein 9
IPI:IPI00911209.1	RT1-EC2 Mature alpha chain of major histocompatibility complex class I antigen (Fragment)	IPI:IPI00373467.4	Man1b1 mannosidase, alpha, class 1B, member 1	IPI:IPI00196440.1	Wasl; Iqub Neural Wiskott-Aldrich syndrome protein
IPI:IPI00199636.1	Canx Calnexin	IPI:IPI00382181.4	Uncharacterized protein	IPI:IPI00362610.1	Uncharacterized protein
IPI:IPI00557598.3	LOC100363606 Uncharacterized protein (Fragment)	IPI:IPI00779525.2	Pus1 Pseudouridine synthase (Fragm -ent)	IPI:IPI00362395.5	Esd S-formylglutathione hydrolase
IPI:IPI00332042.9	Aldh1a1 Retinal dehydrogenase 1	IPI:IPI00188671.1	Galk1 Uncharacterized protein	IPI:IPI00955619.1	Sh3bgr1 SH3 domain binding glutamic acid-rich protein like
IPI:IPI00370486.4	LOC682411 Ig lambda-2 chain C region	IPI:IPI00470317.5	Eef1g Elongation factor 1-gamma	IPI:IPI00464486.1	Pon2 Serum paraoxonase/arylesterase 2
IPI:IPI00366523.3	Wdr61 WD repeat-containing protein 61	IPI:IPI00360056.1	Galm Aldose 1-epimerase	IPI:IPI00778978.2	Slc4a1 Uncharacterized protein
IPI:IPI00371143.1	Clptm11 Uncharacterized protein	IPI:IPI00205297.1	Ppm1f Protein phosphatase 1F	IPI:IPI00372559.3	Hsd17b8 Estradiol 17-beta-dehydrogen -ase 8
IPI:IPI00326225.3	Dao D-amino-acid oxidase	IPI:IPI00949120.1	Rgp1 Uncharacterized protein	IPI:IPI00454446.1	Putative uncharacterized protein (Fragment)
IPI:IPI00371043.2	Manf Mesencephalic astrocyte- derived neurotrophic factor	IPI:IPI00361346.2	IgG-2a LOC367586 protein	IPI:IPI00367702.4	Nhlrc3 rCG49974-like
IPI:IPI00364738.4	Hm13 Uncharacterized protein	IPI:IPI00325618.1	Tap1 Antigen peptide transporter 1	IPI:IPI00197992.2	MGC125086 Probable gluconokinase
IPI:IPI00361512.4	Abca8a ATP-binding cassette, sub- family A (ABC1), member 8a	IPI:IPI00363960.1	Dnajc17 Uncharacterized protein	IPI:IPI00210368.1	Homer3 Homer protein homolog 3
IPI:IPI00214482.1	Cyp51 Lanosterol 14-alpha demethyl -ase	IPI:IPI00231499.3	Abcc3 canalicular multispecific organic anion transporter 2	IPI:IPI00400681.1	Ppp1r12a Isoform 2 of Protein phosphatase 1 regulatory subunit 12A
IPI:IPI00958096.1	LOC100360950 GF20391-like isoform 1	IPI:IPI00195878.5	Ccdc44 Translational activator of cytochrome c oxidase 1	IPI:IPI00764567.1	Adssl1 adenylosuccinate synthase like 1-like isoform 2
IPI:IPI00214437.4	Ugt1a1 Uncharacterized protein	IPI:IPI00777194.1	Gne 83 kDa protein	IPI:IPI00205417.5	Slc27a2 Very long-chain acyl-CoA synthetase
IPI:IPI00201300.2	Ptrf Polymerase I and transcript release factor	IPI:IPI00202971.1	Dhrs1 Uncharacterized protein	IPI:IPI00554206.3	Ugt2b UDP glycosyltransferase 2 family, polypeptide B
IPI:IPI00231663.7	Lgals5 Galectin-5	IPI:IPI00876581.1	Rbp4 Retinol-binding protein 4	IPI:IPI00214394.1	Csad Cysteine sulfinic acid decarbox -ylase

IPI:IPI00210823.1	Akr1d1 3-oxo-5-beta-steroid 4-dehy - drogenase	IPI:IPI00949873.1	Sult1c2 Uncharacterized protein	IPI:IPI00557984.3	Hsd12 Uncharacterized protein (Fragm -ent)
IPI:IPI00207010.2	Baat Bile acid-CoA: amino acid N- acyltransferase	IPI:IPI00361243.2	Cpsf7 Uncharacterized protein	IPI:IPI00870110.1	Fycy1 Uncharacterized protein
IPI:IPI00213045.4	Cyp2j4 Uncharacterized protein	IPI:IPI00766105.2	Mtx1 Mtx1 protein (Fragment)	IPI:IPI00363818.1	Kdsr Uncharacterized protein
IPI:IPI00188158.1	Hmgcs1 Hydroxymethylglutaryl-CoA synthase, cytoplasmic	IPI:IPI00949293.1	Uncharacterized protein (Fragment)	IPI:IPI00207663.2	Ctsz Cathepsin Z
IPI:IPI00654464.2	Mettl7a Methyltransferase like 7A, isoform CRA_b	IPI:IPI00911258.1	RGD1309350 Uncharacterized protein	IPI:IPI00191737.6	Alb Serum albumin
IPI:IPI00553946.1	Cyp2c13 Cytochrome P450 2c13	IPI:IPI00213659.3	Decr1 2,4-dienoyl-CoA reductase, mitochondrial	IPI:IPI00480679.4	Krt18 Keratin, type I cytoskeletal 18
IPI:IPI00361813.3	Usp46 ubiquitin carboxyl-terminal hydrolase 46	IPI:IPI00190402.1	Ugt2b1 UDP-glucuronosyltransferase 2B1	IPI:IPI00326561.3	Ech1 Delta(3,5)-Delta(2,4)-dienoyl-CoA isomerase, mitochondrial
IPI:IPI00325189.4	Nme2 Nucleoside diphosphate kinase B	IPI:IPI00331983.5	Adh1 Alcohol dehydrogenase 1	IPI:IPI00195803.1	Ugdh UDP-glucose 6-dehydrogenase
IPI:IPI00371079.3	Ccdc51 Coiled-coil domain-containing protein 51	IPI:IPI00831745.1	Anxa6 annexin A6	IPI:IPI00202513.1	Ces2a Uncharacterized protein
IPI:IPI00780578.2	Myo18a Uncharacterized protein	IPI:IPI00190530.3	Mapk14 Isoform 1 of Mitogen-activated protein kinase 14	IPI:IPI00557327.1	Ndufa8 Uncharacterized protein
IPI:IPI00421490.1	Naprt1 Nicotinate phosphoribosyltr- ansferase	IPI:IPI00957953.1	Map4 Microtubule-associated protein	IPI:IPI00421610.3	Iah1 Isoamyl acetate-hydrolyzing esterase 1 homolog
IPI:IPI00396902.1	Soat2 Sterol O-acyltransferase 2	IPI:IPI00213847.3	Grn granulins isoform a	IPI:IPI00191895.4	Nhp21i;LOC100359574;LOC100365340 NHP2-like protein 1
IPI:IPI00362931.1	Ogn Uncharacterized protein	IPI:IPI00870163.1	Agl Uncharacterized protein	IPI:IPI00366110.3	Nap114 Uncharacterized protein
IPI:IPI00470302.1	Mpi Mannose-6-phosphate isomerase	IPI:IPI00949858.1	Ctsc Uncharacterized protein	IPI:IPI00464670.1	Capg Macrophage-capping protein
IPI:IPI00231858.5	Gstt2 Glutathione S-transferase theta -2	IPI:IPI00209690.1	Ephx1 Epoxide hydrolase 1	IPI:IPI00188804.1	Rplp2 60S acidic ribosomal protein P2
IPI:IPI00870888.2	Uncharacterized protein (Fragment)	IPI:IPI00564133.1	Kat3 Kynurenine-oxoglutarate transam- inase 3	IPI:IPI01016513.1	At13 Uncharacterized protein
IPI:IPI00200041.4	Pbld Phenazine biosynthesis-like domain- containing protein	IPI:IPI00359491.4	Ctnnd1 Uncharacterized protein	IPI:IPI00195615.5	Abcb11 Bile salt export pump
IPI:IPI00198519.1	Abcb4 Multidrug resistance protein 2	IPI:IPI00949360.1	Pcd11 Uncharacterized protein	IPI:IPI00475707.2	Ugt1a6; Ugt1a1 UDP-glucuronosyltr- ansferase 1-6
IPI:IPI00364002.2	Ugt2a3 Uncharacterized protein	IPI:IPI00959692.1	Ddx54 ATP-dependent RNA helicase DDX54	IPI:IPI00326948.2	Hsd17b4 Uncharacterized protein
IPI:IPI00193212.1	Clec4f C-type lectin domain family 4 member F	IPI:IPI00368321.3	Tmem56 Uncharacterized protein	IPI:IPI00231194.5	Ddah1 N(G), N (G)-dimethylarginine dimethylaminohydrolase 1
IPI:IPI00204640.1	Uncharacterized protein	IPI:IPI00938552.1	Mocs2 molybdopterin synthase catalytic subunit isoform Mocs2A	IPI:IPI00231365.5	Uox Uricase
IPI:IPI00952435.1	Uncharacterized protein (Fragment)	IPI:IPI00563873.3	Arpc5l;Arpc5l-ps1 Isoform 1 of Actin- related protein 2/3 complex subunit 5-like protein	IPI:IPI00949482.1	Fam21c Uncharacterized protein
IPI:IPI00991212.1	Ero1lb endoplasmic oxidoreductase 1 beta- like	IPI:IPI00363471.1	Snrpd1 Uncharacterized protein	IPI:IPI00765956.1	LOC684755 zinc finger like protein 1-like isoform 3
IPI:IPI00200344.1	Scpep1 Retinoid-inducible serine carboxypeptidase	IPI:IPI00949029.1	Kif13b Uncharacterized protein	IPI:IPI00201561.3	Prdx2 Peroxiredoxin-2
RRRRRIPI:IPI003942	Kcnd2 Potassium voltage-gated channel	IPI:IPI00561622.1	Sult1c2a Sulfotransferase family, cytosolic,	IPI:IPI00371621.1	Mcee Uncharacterized protein

18.1	subfamily D member 2		1C, member 2a		
IPI:IPI00198324.1	Cyp2b3 Cytochrome P450 2B3	IPI:IPI00365209.4	RGD1561672 echinoderm microtubule associated protein like 6-like	IPI:IPI00568450.3	Clybl Isoform 1 of Citrate lyase subunit beta-like protein, mitochondrial
IPI:IPI00212658.4	Gnb2 Guanine nucleotide-binding protein G(I)/G(S)/G(T) subunit beta-2	IPI:IPI00231639.7	Gstm1 Glutathione S-transferase Mu 1	IPI:IPI00190790.1	Fabp1 Fatty acid-binding protein, liver
IPI:IPI00211392.1	Ftcd Formimidoyl transferase-cyclodeaminase	IPI:IPI00393333.3	Atic Bifunctional purine biosynthesis protein PURH	IPI:IPI00464668.1	Irgm Immunity-related GTPase family M protein
IPI:IPI00948363.1	Psmel Uncharacterized protein	IPI:IPI00209916.1	LOC362855 tRNA-splicing ligase RtcB homolog	IPI:IPI00231275.7	Lgals1 Galectin-1
IPI:IPI00471545.5	Keg1 Glycine N-acyltransferase-like protein Keg1	IPI:IPI00958570.1	Fth1 Ferritin (Fragment)	IPI:IPI00777957.2	Acp2 Uncharacterized protein
IPI:IPI00203152.1	Ctbs Di-N-acetylchitobiase	IPI:IPI00369534.1	Alkbh5 Uncharacterized protein	IPI:IPI00213569.1	Ugt1a1 UDP-glucuronosyltransferase 1-1
IPI:IPI00193277.1	Hsd17b11 Estradiol 17-beta-dehydrogenase 11	IPI:IPI00781733.2	LOC683399 Putative uncharacterized protein	IPI:IPI00327662.3	Sptbn2 Spectrin beta chain, brain 2
IPI:IPI00199733.6	Naa35 N-alpha-acetyltransferase 35, NatC auxiliary subunit	IPI:IPI00198717.8	Mdh1 Malate dehydrogenase, cytoplasmic	IPI:IPI00208203.2	Eci2 Enoyl-CoA delta isomerase 2, mitochondrial
IPI:IPI00368397.2	LOC366772 BWK3	IPI:IPI00948721.1	Acaa2 Uncharacterized protein (Fragment)	IPI:IPI00553899.1	Glrx3 Isoform 1 of Glutaredoxin-3
IPI:IPI00207390.9	Anxa3 Annexin A3	IPI:IPI01016469.1	Ugt2b37 UDP-glucuronosyltransferase 2B37 precursor	IPI:IPI00394353.1	Hexa Beta-hexosaminidase subunit alpha
IPI:IPI00326436.3	Oplah 5-oxoprolinase	IPI:IPI00213688.1	Set Isoform 1 of Protein SET	IPI:IPI00561065.2	Crmp1 Uncharacterized protein
IPI:IPI00358343.5	LOC362382 rCG47027-like	IPI:IPI00951385.1	Paics Uncharacterized protein	IPI:IPI00869998.3	Psmb5 Proteasome subunit beta type-5
IPI:IPI00553964.2	Rfk;RGD1563242 Uncharacterized protein	IPI:IPI00193584.7	Rnpep Aminopeptidase B	IPI:IPI00209795.1	Ggcx Vitamin K-dependent gamma-carboxylase
IPI:IPI00324986.1	Gdi1 Rab GDP dissociation inhibitor alpha	IPI:IPI00373505.2	Tmod3 Uncharacterized protein	IPI:IPI00231139.6	Tkt transketolase
IPI:IPI00368888.2	Igh-6 Igh-6 protein	IPI:IPI00763653.2	LOC689443 Uncharacterized protein	IPI:IPI00365985.5	Hsp90b1 Isoform 1 of Endoplasmic
IPI:IPI00231292.7	Hrsp12 Ribonuclease UK114	IPI:IPI00208106.1	Fads2 Fatty acid desaturase 2	IPI:IPI00205566.1	Cnn3 Calponin-3
IPI:IPI00764977.2	Rspry1 Ring finger and SPRY domain containing 1	IPI:IPI00366977.4	Cpne3 Uncharacterized protein	IPI:IPI00214536.1	Nop58 Nucleolar protein 58
IPI:IPI00325912.1	Ctnnb1 Catenin beta-1	IPI:IPI00202520.1	Creld1 Cysteine-rich with EGF-like domain protein 1	IPI:IPI00369462.2	Dohh Deoxyhypusine hydroxylase
IPI:IPI00231825.5	Rbp1 Retinol-binding protein 1	IPI:IPI00358618.3	Hira protein HIRA	IPI:IPI00362626.1	Lsm4 Uncharacterized protein
IPI:IPI00948763.1	Slco2a1 Uncharacterized protein (Fragment)	IPI:IPI00781488.2	Pde4dip Uncharacterized protein	IPI:IPI00206816.1	Ifitm2 Uncharacterized protein
IPI:IPI00369048.2	Gng10 guanine nucleotide-binding protein G(I)/G(S)/G(O) subunit gamma -10	IPI:IPI00201444.1	Dynll1 Dynein light chain 1, cytoplasmic	IPI:IPI00919311.1	Perld1 RCG33619, isoform CRA_a
IPI:IPI00358845.4	Prosc Uncharacterized protein	IPI:IPI00362469.2	Pgls 6-phosphogluconolactonase	IPI:IPI00760130.2	Strn3 Isoform 1 of Striatin-3
IPI:IPI00190125.1	Tm4sf4 Transmembrane 4 L6 family member 4	IPI:IPI00471889.7	Anxa5 Annexin A5	IPI:IPI00390133.1	Apo19a Uncharacterized protein
IPI:IPI00204774.1	Ces1l Liver carboxylesterase B-1	IPI:IPI00765231.1	Pm20d1 probable carboxypeptidase PM20D1	IPI:IPI00213057.3	Acadv1 Very long-chain specific acyl-CoA dehydrogenase, mitochondrial
IPI:IPI00230979.1	Nampt Nicotinamide phosphoribosyl transferase	IPI:IPI00392676.4	Blvrb Uncharacterized protein	IPI:IPI00951116.1	Hbb 16 kDa protein
IPI:IPI00368090.4	Uncharacterized protein (Fragment)	IPI:IPI00212796.3	Ran GTP-binding nuclear protein Ran	IPI:IPI00370658.1	Pnn Uncharacterized protein
IPI:IPI00359690.3	Prmt5 protein arginine N-methyltransferase 5	IPI:IPI00205264.1	Ttc36 Tetratricopeptide repeat protein 36	IPI:IPI00366942.3	Rnf149 Uncharacterized protein

Accession No.	Gene symbol and name	Accession No.	Gene symbol and name	Accession No.	Gene symbol and name
IPI:IPI00190974.1	Sfxn5 Sideroflexin-5	IPI:IPI00208026.1	Selenbp1 Selenium-binding protein 1	IPI:IPI00210542.1	Gsta4 Glutathione S-transferase alpha-4
Table 1-continued List of the down regulated proteins in rat model of nonalcoholic fatty liver disease identified by proteomics.					
IPI:IPI00332027.7	Bhmt Betaine-homocysteine S-meth - yltransferase 1	IPI:IPI00201325.1	Txndc17 Uncharacterized protein	IPI:IPI00765236.2	LOC684274 LOC684274 protein
IPI:IPI00215358.1	Cdh17 Cadherin-17	IPI:IPI00480789.1	LOC100363469 40S ribosomal protein S24	IPI:IPI00911188.2	RGD1565192 hypothetical protein LOC501923
IPI:IPI00193769.3	Sds Isoform 2 of L-serine dehydratase/L- threonine deaminase	IPI:IPI00212694.1	Egfr Epidermal growth factor receptor	IPI:IPI00364813.1	Hdac11;Hdac1 Histone deacetylase 1
IPI:IPI00231102.10	Plp1 Myelin proteolipid protein	IPI:IPI00359917.1	Thumpd1 Uncharacterized protein	IPI:IPI00371251.4	Cd2bp2 Uncharacterized protein
IPI:IPI00193279.1	Oat Ornithine aminotransferase, mitochondrial	IPI:IPI00949840.1	Cth Uncharacterized protein	IPI:IPI00193369.1	Slc9a1 Sodium/hydrogen exchanger 1
IPI:IPI01016596.1	Uncharacterized protein (Fragment)	IPI:IPI00951025.1	Slc2a5 Uncharacterized protein	IPI:IPI00958919.1	LOC100365121;Mut;LOC100361295 Uncharacterized protein
IPI:IPI00213663.1	Slc1a2 Isoform Glt1 of Excitatory amino acid transporter 2	IPI:IPI00372659.3	Dhrs11 Putative uncharacterized protein RGD1307935	IPI:IPI00858395.1	Aass Alpha-aminoadipic semialdehy- de synthase, mitochondrial
IPI:IPI00203165.2	Vps28 Vacuolar protein sorting- associated protein 28 homolog	IPI:IPI00212014.3	Vcp Transitional endoplasmic reticulum ATPase	IPI:IPI00360346.3	Cdc42bp3 Uncharacterized protein
IPI:IPI00208917.4	Aldh7a1 Alpha-aminoadipic semial - dehyde dehydrogenase	IPI:IPI00231683.1	Pklr Isoform L-type of Pyruvate kinase isozymes R/L	IPI:IPI00211405.4	Chpt1 Uncharacterized protein
IPI:IPI00231451.4	Atp1a3Sodium/potassium-transporting ATPase subunit alpha-3	IPI:IPI00896149.1	Lrch4 Lrch4 protein	IPI:IPI00568124.2	Tmlhe Isoform 1 of Trimethyllysine dioxygenase, mitochondrial
IPI:IPI00951134.2	Acly Uncharacterized protein	IPI:IPI00958162.1	LOC100363143 betaine—homocy- steine S-methyltransferase 1-like	IPI:IPI00781839.2	Hnrnpc Uncharacterized protein
IPI:IPI00206170.6	Syt1 Synaptotagmin-1	IPI:IPI00208236.1	MGC94207 UPF0598 protein C8orf82 homolog	IPI:IPI00829437.1	Uncharacterized protein (Fragment)
IPI:IPI00230788.6	Car3 Carbonic anhydrase 3	IPI:IPI00203317.1	Cyp4a2 Cytochrome P450 4A2	IPI:IPI00231574.1	Grb2 Isoform 2 of Growth factor receptor-bound protein 2
IPI:IPI00197986.2	Ndufv3; Ndufv3-ps1 NADH dehydrogenase [ubiquinone] flavoprotein 3, mitochondrial isoform 1	IPI:IPI00781430.2	Sbf1 Uncharacterized protein	IPI:IPI00211864.1	Sncb Beta-synuclein
IPI:IPI00480855.2	RT1-EC2 MHC class I antigen	IPI:IPI00204133.1	Top1 DNA topoisomerase 1	IPI:IPI00365406.3	Mtrf11 Peptide chain release factor 1-like, mitochondrial
IPI:IPI00362160.1	Tubb3 Tubulin beta-3 chain	IPI:IPI00193374.1	Slc10a1 Sodium/bile acid cotransporter	IPI:IPI00231949.5	Cd14 Monocyte differentiation antigen CD14
IPI:IPI00231505.5	Gnao1 Isoform Alpha-1 of Guanine nucleotide-binding protein G(o) subunit alpha	IPI:IPI00370450.3	Plxnb2 Uncharacterized protein	IPI:IPI00192696.1	Mad111 Uncharacterized protein
IPI:IPI00211127.1	Ass1 Argininosuccinate synthase	IPI:IPI00204737.2	Rab43 Ras-related protein Rab-43	IPI:IPI00364708.2	Rab24 RAB24, member RAS oncogene family
IPI:IPI00208111.5	Hsd17b2 Estradiol 17-beta-dehydro- genase 2	IPI:IPI00679256.2	Ces1f Liver carboxylesterase 4	IPI:IPI00390086.4	Atp5j2 ATP synthase, H+ transpor -ting, mitochondrial F0 complex, subunit f, isoform 2
IPI:IPI00231359.3	Acads Uncharacterized protein	IPI:IPI00193522.3	Sec22b Vesicle-trafficking protein	IPI:IPI00393599.3	Mosc1 MOCO sulphurase C-terminal

IPI:IPI00831724.1 IPI:IPI00393189.2	Cyp4v3 Cytochrome P450 4V2 Cyp8b1 Sterol 12-alpha hydroxylase	IPI:IPI00365636.3 IPI:IPI00199035.1	SEC22b Exd2 Uncharacterized protein Pten Uncharacterized protein	IPI:IPI00952462.1 IPI:IPI00204392.1	domain containing-like Rpl14 60S ribosomal protein L14 St6gal1 Isoform RLA of Beta-galactoside alpha-2,6-sialyltransferase 1 St3gal1 Sialyltransferase ST3Gal-I
IPI:IPI00197770.1 IPI:IPI00327781.1	Aldh2 Aldehyde dehydrogenase, mitochondrial Cyp2c11 Cytochrome P450 2C11	IPI:IPI00559327.1 IPI:IPI00360386.4	Ldhd Uncharacterized protein (Fragment) Hnrnpul2 Uncharacterized protein	IPI:IPI00454535.1 IPI:IPI00766920.3	Wwox WW domain-containing oxidoreductase Larp1 La ribonucleoprotein domain family, member 1, partial Fabp7 Fatty acid-binding protein, brain
IPI:IPI00231245.5 IPI:IPI00231638.6	Hao2 Hydroxyacid oxidase 2 Gsta1;Gsta3;Gsta2 Glutathione S-transferase alpha-1	IPI:IPI00781382.3 IPI:IPI00480620.1	Papss2 Uncharacterized protein Bdh1 D-beta-hydroxybutyrate dehydrogenase, mitochondrial	IPI:IPI00765325.2 IPI:IPI00231900.5	Larp1 La ribonucleoprotein domain family, member 1, partial Fabp7 Fatty acid-binding protein, brain
IPI:IPI00914173.1 IPI:IPI00650089.1	RT1-A Rt1.aa protein Gls2 Isoform 1 of Glutaminase liver isoform, mitochondrial	IPI:IPI00199693.3 IPI:IPI00388882.3	Map1a Microtubule-associated protein 1A Skiv2l2 Uncharacterized protein	IPI:IPI00366780.1 IPI:IPI00382202.2	Akr1c1 Uncharacterized protein Hp Isoform 2 of Haptoglobin
IPI:IPI00203054.2 IPI:IPI00464802.1	Acsf2 Acyl-CoA synthetase family member 2, mitochondrial Acsm5 Acyl-coenzyme A synthetase ACSM5, mitochondrial	IPI:IPI00198720.1 IPI:IPI00208224.3	Idh3a Isocitrate dehydrogenase [NAD] subunit alpha, mitochondrial Stat3 Signal transducer and activator of transcription 3	IPI:IPI00209421.1 IPI:IPI00360317.1	Endog Uncharacterized protein Cd180 Uncharacterized protein
IPI:IPI00231637.5 IPI:IPI00202358.2	G6pd Glucose-6-phosphate 1-dehydrogenase Gck Isoform 2 of Glucokinase	IPI:IPI00231662.6 IPI:IPI00214373.1	Cyb5r3 Isoform 1 of NADH-cytochrome b5 reductase 3 Aadat Kynurenine/alpha-aminoadipate aminotransferase, mitochondrial	IPI:IPI00188858.4 IPI:IPI00471540.1	Amacr Alpha-methylacyl-CoA racemase Bhmt2 Betaine--homocysteine S-methyltransferase 2
IPI:IPI00214299.6 IPI:IPI00205372.3	Cbs Isoform I of Cystathionine beta-synthase Stxbp1 Isoform 1 of Syntaxin-binding protein 1	IPI:IPI00210389.1 IPI:IPI00193000.1	Scf1 Sec1 family domain-containing protein 1 Rap2b Ras-related protein Rap-2b	IPI:IPI00471759.1 IPI:IPI00211602.3	Fam82a2 Regulator of microtubule dynamics protein 3 LOC100366273 rCG30986-like isoform 2
IPI:IPI00870112.1 IPI:IPI00949736.1	Dpysl2 Dihydropyrimidinase-related protein 2 Mbp Uncharacterized protein	IPI:IPI01016475.1 IPI:IPI00358005.1	Sel1l Uncharacterized protein Chdh Uncharacterized protein	IPI:IPI00211698.1 IPI:IPI00471530.2	Flii Uncharacterized protein Lap3 Isoform 1 of Cytosol aminopeptidase
IPI:IPI00470288.4 IPI:IPI00208280.3	Ckb Creatine kinase B-type Ptgfn Prostaglandin F2 receptor negative regulator	IPI:IPI00231200.5 IPI:IPI00192445.3	Por NADPH--cytochrome P450 reductase Vps24 Charged multivesicular body protein 3	IPI:IPI00764232.2 IPI:IPI00196353.1	LOC687295 Uncharacterized protein Ccdc124 Uncharacterized protein
IPI:IPI00194222.1 IPI:IPI00566093.4	Cox4i1 Cytochrome c oxidase subunit 4 isoform 1, mitochondrial Lss Lanosterol synthase	IPI:IPI00957827.1 IPI:IPI00870055.2	Usp24 ubiquitin specific protease 24 Me3 NADP-dependent malic enzyme, mitochondrial	IPI:IPI00400734.1 IPI:IPI00373076.1	Dpagt1 Uncharacterized protein Atp6v1a V-type proton ATPase catalytic subunit A
IPI:IPI00231648.5 IPI:IPI00200661.1	Gnmt Glycine N-methyltransferase Fasn Fatty acid synthase	IPI:IPI00373115.2 IPI:IPI00957949.1	Galk2 N-acetylgalactosamine kinase LOC100362324 DEAH (Asp-Glu-Ala-His) box polypeptide 29	IPI:IPI00211756.1 IPI:IPI00882405.1	Phb Prohibitin Eci1 Uncharacterized protein
IPI:IPI00882453.1 IPI:IPI00193425.1	Slc2a2 Solute carrier family 2, facilitated glucose transporter member 2 Bsg Isoform 2 of Basigin	IPI:IPI00211936.2 IPI:IPI00365582.3	Ina Alpha-internexin Cad Uncharacterized protein	IPI:IPI00210090.3 IPI:IPI00562653.2	Hnrnpu SP120 Ctsb cathepsin B preproprotein

IPI:IPI00231651.6	Basp1 Uncharacterized protein	IPI:IPI00366218.3	Cct2 T-complex protein 1 subunit beta	IPI:IPI00364061.5	Hnrnpl heterogeneous nuclear ribonucleoprotein L isoform b
IPI:IPI00400736.1	C2cd2 Uncharacterized protein	IPI:IPI00324020.6	Glul Glutamine synthetase	IPI:IPI00231081.3	Mapk3 Isoform 2 of Mitogen-activated protein kinase 3
IPI:IPI00230832.7	Cox6c Cytochrome c oxidase subunit 6C-2	IPI:IPI00382192.1	Gpt2 Cc-5	IPI:IPI00213058.1	RGD620382 Deoxyribonucleoside 5'-monophosphate N-glycosidase
IPI:IPI00390958.3	Cyp2c6 Cytochrome P450 2C6	IPI:IPI00565398.1	LOC100363732;Rpl21;LOC100361811;LOC100365974;LOC100362550 Uncharacterized protein	IPI:IPI00325260.5	Sgta Uncharacterized protein
IPI:IPI00373108.2	Ndufaf1 complex I intermediate-associated protein 30, mitochondrial	IPI:IPI00231403.4	Slc31a1 High affinity copper uptake protein 1	IPI:IPI00900492.1	Rfc1 VIP-receptor-gene repressor protein
IPI:IPI00195357.6	RGD1564854 Uncharacterized protein	IPI:IPI00231728.7	Il1r1 Uncharacterized protein	IPI:IPI00768955.2	LOC678772 CAS1 domain containing 1-like, partial
IPI:IPI00417749.1	Tomm22 Mitochondrial import receptor subunit TOM22 homolog	IPI:IPI00957706.1	Acaca Uncharacterized protein	IPI:IPI00554247.3	Wbscr27 Uncharacterized protein
IPI:IPI00196748.3	Cyp2c7 Cytochrome P450 2C7	IPI:IPI00768597.1	LOC687071 alanine-glyoxylate aminotransferase 2-like 1-like	IPI:IPI00882480.2	Pcbp1 poly(rC) binding protein 1-like
IPI:IPI00207298.5	Slc26a1 Sulfate anion transporter 1	IPI:IPI00948802.1	LOC100174910 Uncharacterized protein	IPI:IPI00555265.1	Nnt Uncharacterized protein
IPI:IPI00189029.1	Smpd1 Uncharacterized protein	IPI:IPI00213231.5	Acsl5 Long-chain-fatty-acid--CoA ligase 5	IPI:IPI00326412.4	Eno2 Gamma-enolase
IPI:IPI00782096.2	Xpot Uncharacterized protein	IPI:IPI00363571.3	Prodh Uncharacterized protein	IPI:IPI00202512.7	Rpl4 60S ribosomal protein L4
IPI:IPI00192733.4	Eif2a Uncharacterized protein	IPI:IPI00196764.1	Cyp3a2 Cytochrome P450 3A2	IPI:IPI00327079.5	Gstk1 Glutathione S-transferase kappa 1
IPI:IPI00769287.2	LOC682967 rCG20581-like	IPI:IPI00203320.1	Rasa1 Ras GTPase-activating protein 1	IPI:IPI00763872.1	Gstz1 RCG20683, isoform CRA_b
IPI:IPI00192337.1	Camk2a Calcium/calmodulin-dependent protein kinase type II subunit alpha	IPI:IPI00209527.3	Mfap1a Uncharacterized protein	IPI:IPI01016529.1	Vps29 Uncharacterized protein (Fragment)
IPI:IPI00911233.2	Tapbp Uncharacterized protein	IPI:IPI00200898.3	Slc9a3r1 Na(+)/H(+) exchange regulatory cofactor NHE-RF1	IPI:IPI00362949.1	Uqcrcf1 Cytochrome b-c1 complex subunit Rieske, mitochondrial
IPI:IPI00199426.8	Abat 4-aminobutyrate aminotransferase, mitochondrial	IPI:IPI00365055.2	Cstf1 Cleavage stimulation factor subunit 1	IPI:IPI00781330.1	Crk Uncharacterized protein
IPI:IPI00231028.2	RGD1303003 ES1 protein homolog, mitochondrial	IPI:IPI00366455.1	Slc25a17 Uncharacterized protein	IPI:IPI00214269.4	Parg Poly(ADP-ribose) glycohydrolase
IPI:IPI00231816.5	Vsnl1 Visinin-like protein 1	RRRRRIPI:IPI00202170.4	Uncharacterized protein (Fragment)	IPI:IPI00948238.1	Tmem11 transmembrane protein 11 isoform 2
IPI:IPI00776772.1	Uncharacterized protein	IPI:IPI00372789.3	Tnks1bp1 Uncharacterized protein	IPI:IPI00372839.3	Col6a2 collagen, type VI, alpha 2
IPI:IPI00231678.5	Parp1 Poly [ADP-ribose] polymerase 1	IPI:IPI00231411.7	Atp5e ATP synthase subunit epsilon, mitochondrial	IPI:IPI00230838.5	Atp5h ATP synthase subunit d, mitochondrial
IPI:IPI00957503.1	LOC690000 rCG53689-like	IPI:IPI00366955.4	Als2 Alsin	IPI:IPI00950672.1	Aco2 Uncharacterized protein (Fragment)
IPI:IPI00211225.1	Acadl Long-chain specific acyl-CoA dehydrogenase, mitochondrial	IPI:IPI00188263.1	Abhd2 Uncharacterized protein	IPI:IPI00213579.3	Tpp2 Tripeptidyl-peptidase 2
IPI:IPI00365035.2	Plin2 Uncharacterized protein	IPI:IPI00782737.2	Tmub2 Uncharacterized protein (Fragment)	IPI:IPI00191004.5	Parp3 Uncharacterized protein
IPI:IPI00210002.1	Rbm8a RNA-binding protein 8A	IPI:IPI00368202.4	Rpp30 Uncharacterized protein	IPI:IPI00948130.1	Stk4 Uncharacterized protein
IPI:IPI00464947.2	Pde12 2',5'-phosphodiesterase 12	IPI:IPI00193919.5	Suox Sulfite oxidase, mitochondrial	IPI:IPI00194277.3	Golga5 Golgin subfamily A member 5
IPI:IPI00554264.3	Apop apolipoprotein B-100 precursor	IPI:IPI00190557.2	Phb2 Prohibitin-2	IPI:IPI00212689.3	Nop10 Uncharacterized protein
IPI:IPI00199482.2	Gstm4 Uncharacterized protein	IPI:IPI00231694.7	Xdh Xanthine dehydrogenase/ oxidase	IPI:IPI00400738.1	Galnt11 Polypeptide N-acetylgalact-

IPI:IPI00372074.1	Lrrc8a Leucine-rich repeat-contain -ing protein 8A	IPI:IPI00324172.2	Gys2 Glycogen [starch] synthase, liver	IPI:IPI00362271.3	osaminyltransferase 11 Mtmr2 Uncharacterized protein
IPI:IPI00921682.2	Aldh4a1 delta-1-pyrroline-5-carboxylate dehydrogenase, mitochondrial	IPI:IPI00196226.1	RGD1303130 Lysosomal protein NCU-G1		

This table contains 231 proteins that displayed more than 1.5-fold up-regulation in NAFLD rats and 218 proteins that displayed more than 1.5-fold down-regulation in NAFLD rats. The International Protein Index (IPI) accession number, gene symbol, and name of each protein are provided here. The proteins are listed in descending order according to their fold change.

Supporting Table S1-continued List of the down regulated proteins in rat model of nonalcoholic fatty liver disease identified by proteomics.

Accession No.	Gene symbol and name	Accession No.	Gene symbol and name	Accession No.	Gene symbol and name
IPI:IPI00332027.7	Bhmt Betaine-homocysteine S-methyltransferase 1	IPI:IPI00201325.1	Txndc17 Uncharacterized protein	IPI:IPI00765236.2	LOC684274 LOC684274 protein
IPI:IPI00215358.1	Cdh17 Cadherin-17	IPI:IPI00480789.1	LOC100363469 40S ribosomal protein S24	IPI:IPI00911188.2	RGD1565192 hypothetical protein LOC501923
IPI:IPI00193769.3	Sds Isoform 2 of L-serine dehydratase/L-threonine deaminase	IPI:IPI00212694.1	Egfr Epidermal growth factor receptor	IPI:IPI00364813.1	Hdac11;Hdac1 Histone deacetylase 1
IPI:IPI00231102.10	Plp1 Myelin proteolipid protein	IPI:IPI00359917.1	Thumpd1 Uncharacterized protein	IPI:IPI00371251.4	Cd2bp2 Uncharacterized protein
IPI:IPI00193279.1	Oat Ornithine aminotransferase, mitochondrial	IPI:IPI00949840.1	Cth Uncharacterized protein	IPI:IPI00193369.1	Slc9a1 Sodium/hydrogen exchanger 1
IPI:IPI01016596.1	Uncharacterized protein (Fragment)	IPI:IPI00951025.1	Slc2a5 Uncharacterized protein	IPI:IPI00958919.1	LOC100365121;Mut;LOC100361295 Uncharacterized protein
IPI:IPI00213663.1	Slc1a2 Isoform Glt1 of Excitatory amino acid transporter 2	IPI:IPI00372659.3	Dhrs11 Putative uncharacterized protein RGD1307935	IPI:IPI00858395.1	Aass Alpha-aminoadipic semialdehyde synthase, mitochondrial
IPI:IPI00203165.2	Vps28 Vacuolar protein sorting-associated protein 28 homolog	IPI:IPI00212014.3	Vcp Transitional endoplasmic reticulum ATPase	IPI:IPI00360346.3	Cdc42bpg Uncharacterized protein
IPI:IPI00208917.4	Aldh7a1 Alpha-aminoadipic semialdehyde dehydrogenase	IPI:IPI00231683.1	Pklr Isoform L-type of Pyruvate kinase isozymes R/L	IPI:IPI00211405.4	Chpt1 Uncharacterized protein
IPI:IPI00231451.4	Atp1a3Sodium/potassium-transporting ATPase subunit alpha-3	IPI:IPI00896149.1	Lrch4 Lrch4 protein	IPI:IPI00568124.2	Tmlhe Isoform 1 of Trimethyllysine dioxygenase, mitochondrial
IPI:IPI00951134.2	Acly Uncharacterized protein	IPI:IPI00958162.1	LOC100363143 betaine—homocysteine S-methyltransferase 1-like	IPI:IPI00781839.2	HnrnpC Uncharacterized protein
IPI:IPI00206170.6	Syt1 Synaptotagmin-1	IPI:IPI00208236.1	MGC94207 UPF0598 protein C8orf82 homolog	IPI:IPI00829437.1	Uncharacterized protein (Fragment)
IPI:IPI00230788.6	Car3 Carbonic anhydrase 3	IPI:IPI00203317.1	Cyp4a2 Cytochrome P450 4A2	IPI:IPI00231574.1	Grb2 Isoform 2 of Growth factor receptor-bound protein 2
IPI:IPI00197986.2	Ndufv3; Ndufv3-ps1 NADH dehydrogenase [ubiquinone] flavoprotein 3, mitochondrial isoform 1	IPI:IPI00781430.2	Sbfl1 Uncharacterized protein	IPI:IPI00211864.1	Snca Beta-synuclein
IPI:IPI00480855.2	RT1-EC2 MHC class I antigen	IPI:IPI00204133.1	Top1 DNA topoisomerase 1	IPI:IPI00365406.3	Mtrf11 Peptide chain release factor 1-like, mitochondrial
IPI:IPI00362160.1	Tubb3 Tubulin beta-3 chain	IPI:IPI00193374.1	Slc10a1 Sodium/bile acid cotransporter	IPI:IPI00231949.5	Cd14 Monocyte differentiation antigen CD14
IPI:IPI00231505.5	Gnao1 Isoform Alpha-1 of Guanine nucleotide-binding protein G(o) subunit alpha	IPI:IPI00370450.3	Plxnb2 Uncharacterized protein	IPI:IPI00192696.1	Mad111 Uncharacterized protein
IPI:IPI00211127.1	Ass1 Argininosuccinate synthase	IPI:IPI00204737.2	Rab43 Ras-related protein Rab-43	IPI:IPI00364708.2	Rab24 RAB24, member RAS oncogene family
IPI:IPI00208111.5	Hsd17b2 Estradiol 17-beta-dehydrogenase 2	IPI:IPI00679256.2	Ces1f Liver carboxylesterase 4	IPI:IPI00390086.4	Atp5j2 ATP synthase, H ⁺ transporting, mitochondrial F0 complex, subunit f, isoform 2
IPI:IPI00231359.3	Acads Uncharacterized protein	IPI:IPI00193522.3	Sec22b Vesicle-trafficking protein SEC22b	IPI:IPI00393599.3	Mosc1 MOCO sulphurase C-terminal domain containing-like

IPI:IPI00831724.1 IPI:IPI00393189.2	Cyp4v3 Cytochrome P450 4V2 Cyp8b1 Sterol 12-alpha hydroxylase	IPI:IPI00365636.3 IPI:IPI00199035.1	Exd2 Uncharacterized protein Pten Uncharacterized protein	IPI:IPI00952462.1 IPI:IPI00204392.1	Rpl14 60S ribosomal protein L14 St6gal1 Isoform RLA of Beta-galactoside alpha-2,6-sialyltransferase 1 St3gal1 Sialyltransferase ST3Gal-I
IPI:IPI00197770.1	Aldh2 Aldehyde dehydrogenase, mitochondrial	IPI:IPI00559327.1	Ldhd Uncharacterized protein (Fragment)	IPI:IPI00454535.1	
IPI:IPI00327781.1	Cyp2c11 Cytochrome P450 2C11	IPI:IPI00360386.4	Hnrnpul2 Uncharacterized protein	IPI:IPI00766920.3	Wwox WW domain-containing oxidoreductase
IPI:IPI00231245.5	Hao2 Hydroxyacid oxidase 2	IPI:IPI00781382.3	Papss2 Uncharacterized protein	IPI:IPI00765325.2	Larp1 La ribonucleoprotein domain family, member 1, partial
IPI:IPI00231638.6	Gsta1;Gsta3;Gsta2 Glutathione S-transferase alpha-1	IPI:IPI00480620.1	Bdh1 D-beta-hydroxybutyrate dehydrogenase, mitochondrial	IPI:IPI00231900.5	Fabp7 Fatty acid-binding protein, brain
IPI:IPI00914173.1	RT1-A Rt1.aa protein	IPI:IPI00199693.3	Map1a Microtubule-associated protein 1A	IPI:IPI00366780.1	Akr1c1 Uncharacterized protein
IPI:IPI00650089.1	Gls2 Isoform 1 of Glutaminase liver isoform, mitochondrial	IPI:IPI00388882.3	Skiv2l2 Uncharacterized protein	IPI:IPI00382202.2	Hp Isoform 2 of Haptoglobin
IPI:IPI00203054.2	Acsf2 Acyl-CoA synthetase family member 2, mitochondrial	IPI:IPI00198720.1	Idh3a Isocitrate dehydrogenase [NAD] subunit alpha, mitochondrial	IPI:IPI00209421.1	Endog Uncharacterized protein
IPI:IPI00464802.1	Acsm5 Acyl-coenzyme A synthetase ACSM5, mitochondrial	IPI:IPI00208224.3	Stat3 Signal transducer and activator of transcription 3	IPI:IPI00360317.1	Cd180 Uncharacterized protein
IPI:IPI00231637.5	G6pd Glucose-6-phosphate 1-dehydrogenase	IPI:IPI00231662.6	Cyb5r3 Isoform 1 of NADH-cytochrome b5 reductase 3	IPI:IPI00188858.4	Amacr Alpha-methylacyl-CoA racemase
IPI:IPI00202358.2	Gck Isoform 2 of Glucokinase	IPI:IPI00214373.1	Aadat Kynurenine/alpha-aminoacidopate aminotransferase, mitochondrial	IPI:IPI00471540.1	Bhmt2 Betaine--homocysteine S-methyltransferase 2
IPI:IPI00214299.6	Cbs Isoform I of Cystathionine beta-synthase	IPI:IPI00210389.1	Scfd1 Sec1 family domain-containing protein 1	IPI:IPI00471759.1	Fam82a2 Regulator of microtubule dynamics protein 3
IPI:IPI00205372.3	Stxbp1 Isoform 1 of Syntaxin-binding protein 1	IPI:IPI00193000.1	Rap2b Ras-related protein Rap-2b	IPI:IPI00211602.3	LOC100366273 rCG30986-like isoform 2
IPI:IPI00870112.1	Dpysl2 Dihydropyrimidinase-related protein 2	IPI:IPI01016475.1	Sel1l Uncharacterized protein	IPI:IPI00211698.1	Flii Uncharacterized protein
IPI:IPI00949736.1	Mbp Uncharacterized protein	IPI:IPI00358005.1	Chdh Uncharacterized protein	IPI:IPI00471530.2	Lap3 Isoform 1 of Cytosol aminopeptidase
IPI:IPI00470288.4 IPI:IPI00208280.3	Ckb Creatine kinase B-type Ptgfn Prostaglandin F2 receptor negative regulator	IPI:IPI00231200.5 IPI:IPI00192445.3	Por NADPH--cytochrome P450 reductase Vps24 Charged multivesicular body protein 3	IPI:IPI00764232.2 IPI:IPI00196353.1	LOC687295 Uncharacterized protein Ccdc124 Uncharacterized protein
IPI:IPI00194222.1	Cox4i1 Cytochrome c oxidase subunit 4 isoform 1, mitochondrial	IPI:IPI00957827.1	Usp24 ubiquitin specific protease 24	IPI:IPI00400734.1	Dpagt1 Uncharacterized protein
IPI:IPI00566093.4	Lss Lanosterol synthase	IPI:IPI00870055.2	Me3 NADP-dependent malic enzyme, mitochondrial	IPI:IPI00373076.1	Atp6v1a V-type proton ATPase catalytic subunit A
IPI:IPI00231648.5 IPI:IPI00200661.1	Gnmt Glycine N-methyltransferase Fasn Fatty acid synthase	IPI:IPI00373115.2 IPI:IPI00957949.1	Galk2 N-acetylgalactosamine kinase LOC100362324 DEAH (Asp-Glu-Ala-His) box polypeptide 29	IPI:IPI00211756.1 IPI:IPI00882405.1	Phb Prohibitin Eci1 Uncharacterized protein
IPI:IPI00882453.1	Slc2a2 Solute carrier family 2, facilitated glucose transporter member 2	IPI:IPI00211936.2	Ina Alpha-interneixin	IPI:IPI00210090.3	Hnrnpu SP120
IPI:IPI00193425.1 IPI:IPI00231651.6	Bsg Isoform 2 of Basigin Baspl Uncharacterized protein	IPI:IPI00365582.3 IPI:IPI00366218.3	Cad Uncharacterized protein Cct2 T-complex protein 1 subunit beta	IPI:IPI00562653.2 IPI:IPI00364061.5	Ctsb cathepsin B preproprotein Hnrnp1 heterogeneous nuclear

IPI:IPI00400736.1	C2cd2 Uncharacterized protein	IPI:IPI00324020.6	Glul Glutamine synthetase	IPI:IPI00231081.3	ribonucleoprotein L isoform b Mapk3 Isoform 2 of Mitogen-activated protein kinase 3
IPI:IPI00230832.7	Cox6c Cytochrome c oxidase subunit 6C-2	IPI:IPI00382192.1	Gpt2 Cc2-5	IPI:IPI00213058.1	RGD620382 Deoxyribonucleoside 5'- monophosphate N-glycosidase
IPI:IPI00390958.3	Cyp2c6 Cytochrome P450 2C6	IPI:IPI00565398.1	LOC100363732;Rpl21;LOC100361811;L OC100365974;LOC100362550 Uncharacterized protein	IPI:IPI00325260.5	Sgta Uncharacterized protein
IPI:IPI00373108.2	Ndufaf1 complex I intermediate- associated protein 30, mitochon- drial	IPI:IPI00231403.4	Slc31a1 High affinity copper uptake protein 1	IPI:IPI00900492.1	Rfc1 VIP-receptor-gene repressor protein
IPI:IPI00195357.6	RGD1564854 Uncharacterized protein	IPI:IPI00231728.7	Hlr1 Uncharacterized protein	IPI:IPI00768955.2	LOC678772 CAS1 domain containing 1- like, partial
IPI:IPI00417749.1	Tomm22 Mitochondrial import receptor subunit TOM22 homolog	IPI:IPI00957706.1	Acaca Uncharacterized protein	IPI:IPI00554247.3	Wbscr27 Uncharacterized protein
IPI:IPI00196748.3	Cyp2c7 Cytochrome P450 2C7	IPI:IPI00768597.1	LOC687071 alanine-glyoxylate aminotransferase 2-like 1-like	IPI:IPI00882480.2	Pcbp1 poly(rC) binding protein 1-like
IPI:IPI00207298.5	Slc26a1 Sulfate anion transporter 1	IPI:IPI00948802.1	LOC100174910 Uncharacterized protein	IPI:IPI00555265.1	Nnt Uncharacterized protein
IPI:IPI00189029.1	Smpd1 Uncharacterized protein	IPI:IPI00213231.5	Acls5 Long-chain-fatty-acid--CoA ligase 5	IPI:IPI00326412.4	Eno2 Gamma-enolase
IPI:IPI00782096.2	Xpot Uncharacterized protein	IPI:IPI00363571.3	Prodh Uncharacterized protein	IPI:IPI00202512.7	Rpl4 60S ribosomal protein L4
IPI:IPI00192733.4	Eif2a Uncharacterized protein	IPI:IPI00196764.1	Cyp3a2 Cytochrome P450 3A2	IPI:IPI00327079.5	Gstk1 Glutathione S-transferase kappa 1
IPI:IPI00769287.2	LOC682967 rCG20581-like	IPI:IPI00203320.1	Rasa1 Ras GTPase-activating protein 1	IPI:IPI00763872.1	Gstz1 RCG20683, isoform CRA_b
IPI:IPI00192337.1	Camk2a Calcium/calmodulin-dependent protein kinase type II subunit alpha	IPI:IPI00209527.3	Mfap1a Uncharacterized protein	IPI:IPI01016529.1	Vps29 Uncharacterized protein (Fragment)
IPI:IPI00911233.2	Tapbp Uncharacterized protein	IPI:IPI00200898.3	Slc9a3r1 Na(+)/H(+) exchange regulatory cofactor NHE-RF1	IPI:IPI00362949.1	Uqcrrf1 Cytochrome b-c1 complex subunit Rieske, mitochondrial
IPI:IPI00199426.8	Abat 4-aminobutyrate aminotrans- ferase, mitochondrial	IPI:IPI00365055.2	Cstf1 Cleavage stimulation factor subunit 1	IPI:IPI00781330.1	Crk Uncharacterized protein
IPI:IPI00231028.2	RGD1303003 ES1 protein homolog, mitochondrial	IPI:IPI00366455.1	Slc25a17 Uncharacterized protein	IPI:IPI00214269.4	Parg Poly(ADP-ribose) glycohydrolase
IPI:IPI00231816.5	Vsnl1 Visinin-like protein 1	RRRRRIPI:IPI00202170. 4	Uncharacterized protein (Fragment)	IPI:IPI00948238.1	Tmem11 transmembrane protein 11 isoform 2
IPI:IPI00776772.1	Uncharacterized protein	IPI:IPI00372789.3	Tnks1bp1 Uncharacterized protein	IPI:IPI00372839.3	Col6a2 collagen, type VI, alpha 2
IPI:IPI00231678.5	Parp1 Poly [ADP-ribose] polymerase 1	IPI:IPI00231411.7	Atp5e ATP synthase subunit epsilon, mitochondrial	IPI:IPI00230838.5	Atp5h ATP synthase subunit d, mitochondrial
IPI:IPI00957503.1	LOC690000 rCG53689-like	IPI:IPI00366955.4	Als2 Alsln	IPI:IPI00950672.1	Aco2 Uncharacterized protein (Fragment)
IPI:IPI00211225.1	Acadl Long-chain specific acyl-CoA dehydrogenase, mitochondrial	IPI:IPI00188263.1	Abhd2 Uncharacterized protein	IPI:IPI00213579.3	Tpp2 Tripeptidyl-peptidase 2
IPI:IPI00365035.2	Plin2 Uncharacterized protein	IPI:IPI00782737.2	Tmub2 Uncharacterized protein (Fragment)	IPI:IPI00191004.5	Parp3 Uncharacterized protein
IPI:IPI00210002.1	Rbm8a RNA-binding protein 8A	IPI:IPI00368202.4	Rpp30 Uncharacterized protein	IPI:IPI00948130.1	Stk4 Uncharacterized protein
IPI:IPI00464947.2	Pde12 2',5'-phosphodiesterase 12	IPI:IPI00193919.5	Suox Sulfite oxidase, mitochondrial	IPI:IPI00194277.3	Golga5 Golgin subfamily A member 5
IPI:IPI00554264.3	Apob apolipoprotein B-100 precur -sor	IPI:IPI00190557.2	Phb2 Prohibitin-2	IPI:IPI00212689.3	Nop10 Uncharacterized protein
IPI:IPI00199482.2	Gstm4 Uncharacterized protein	IPI:IPI00231694.7	Xdh Xanthine dehydrogenase/ oxidase	IPI:IPI00400738.1	Galnt11 Polypeptide N-acetylgalact- osaminyltransferase 11

IPI:IPI00372074.1	Lrrc8a Leucine-rich repeat-contain -ing protein 8A	IPI:IPI00324172.2	Gys2 Glycogen [starch] synthase, liver	IPI:IPI00362271.3	Mtmt2 Uncharacterized protein
IPI:IPI00921682.2	Aldh4a1 delta-1-pyrroline-5-carboxylate dehydrogenase, mitochondrial	IPI:IPI00196226.1	RGD1303130 Lysosomal protein NCU-G1		

This table contains 231 proteins that displayed more than 1.5-fold up-regulation in NAFLD rats and 218 proteins that displayed more than 1.5-fold down-regulation in NAFLD rats. The International Protein Index (IPI) accession number, gene symbol, and name of each protein are provided here. The proteins are listed in descending order according to their fold change.

Supporting Table S2 Proteins involved in the representative KEGG pathways.

Pathways	Proteins
Fatty acid metabolism	Eci1; Acads; Acsl5; Adh1; Acadl; Acadvl; Eci2; Aldh7a1; Aldh2; Cyp4a2
Bile secretion	Baat; Abcc3; Atp1a3; Slc10a1; Slc9a1; Abcb4; Ephx1; Abcb11
Primary bile acid biosynthesis	Amacr; Baat; Hsd17b4; Cyp8b1; Akr1d1
Peroxisome	Baat; Amacr; Acsl5; Eci2; Gstk1; Slc25a17; Xdh; Ech1; Slc27a2; Hsd17b4; Hao2; Dao
PPAR signaling pathway	Acsl5; Fabp1; Apoa1; Acadl; Slc27a2; Fabp7; Cyp8b1; Fads2; Cyp4a2
PI3K-Akt signaling pathway	Gng10; Egfr; Gys2; Col6a2; Hsp90b1; Pten; Mapk3; Grb2; Gnb2
Oxidative phosphorylation	Atp5e; Uqcrrf1; Cox4i1; Cox6c; Atp5h; Ndufv3; Atp6v1a; Atp5j2
MAPK signaling pathway	Egfr; Il1r1; Rasa1; Stk4; Mapk3; Cd14; Grb2
Glycolysis/gluconeogenesis	Adh1; Eno2; Gck; Pklr; Aldh7a1; Aldh2; Galm
Insulin signaling pathway	Fasn; Gck; Pklr; Gys2; Mapk3; Grb2

Supporting Table S3 The top functions table for direct interaction networks.

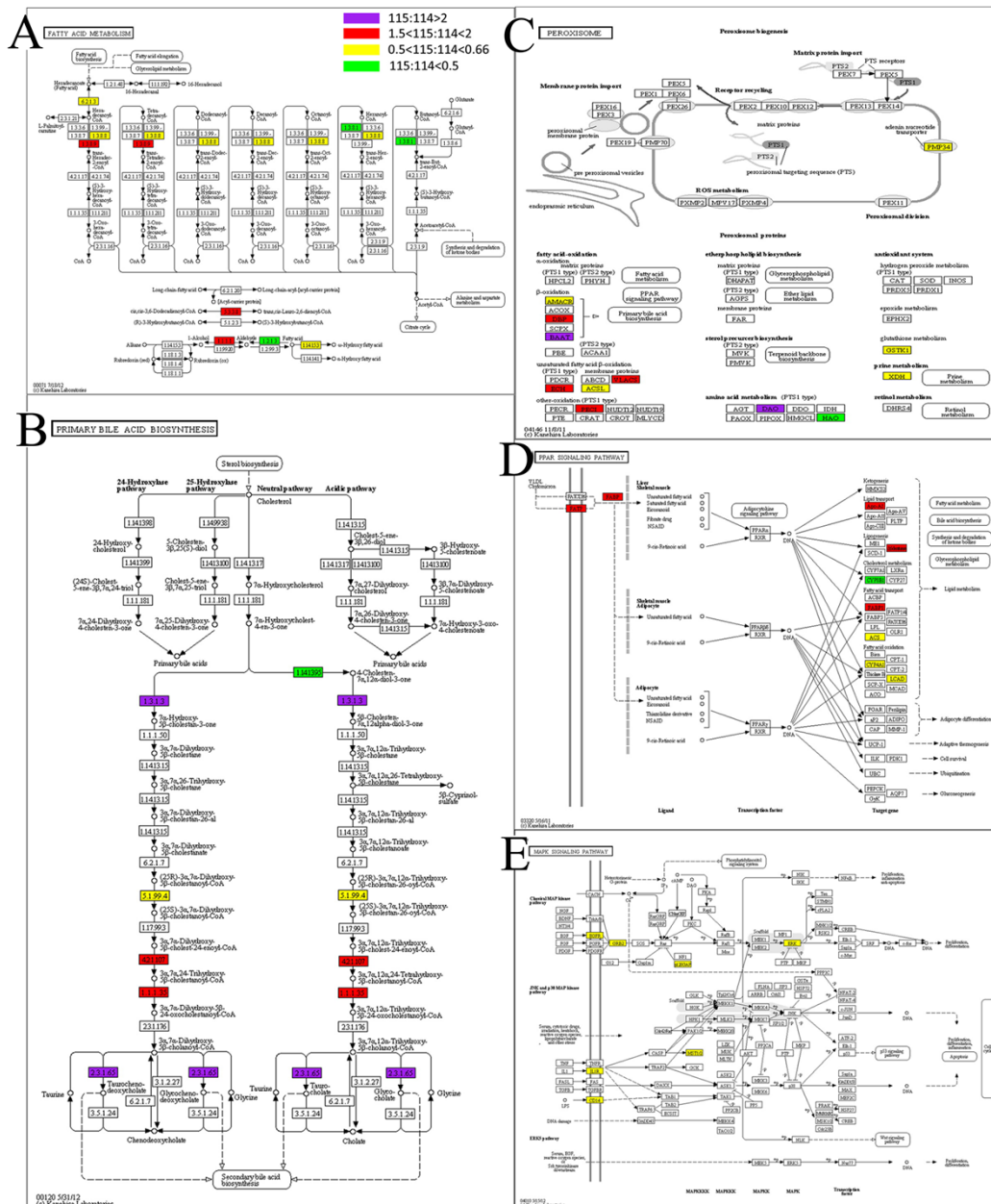
ID	Molecules in Network	Score	Focus Molecules	Top Functions
1	60S ribosomal subunit, ATIC, ATP5E, Atp5h, ATP5J2, ATP6V1A, CHMP3, CNN3, CRELD1, CRMP1, Cyclin D, DAO, ECH1, EEF1G, EGFR, ERBB, FABP7, GNE, H ⁺ - transpor -ting two-sector ATPase, HRSP12, JAK, MDH1, ME2, MTMR2, NADH Dehydrogenase, NDUFA8, NDUFAF1, NDUFV3, NME2, PAICS, RPL4, RPL14, RPLP2, SBF1, SH3BGRL	51	29	Nucleic Acid Metabolism, Small Molecule Biochemistry, Cellular Movement
2	acad, ACADL, ACADVL, BDH1 (includes EG:100037356), CYB5A, CYB5R3, CYP3A, CYP8B1, ECI1, FADS2, FLII, GCK, Glycogen synthase, GYS2, HMG CoA synthase, HMGCS1, HNF4 α dimer, HSD17B11, HSDL2, linoleoyl-CoA desaturase, NCOR-LXR- Oxysterol-RXR-9 cis RA, NFkB (complex), PDCD11, peptidase, PKLR, POR, PP1-C, Pp2c, SCFD1, SDS, SEC22B, SLC2A2, SLC2A5, ST3GAL1, VSNL1	39	24	Carbohydrate Metabolism, Molecular Transport, Small Molecule Biochemistry
3	ACO2 (includes EG:11429), ACP2, C22orf28, CD2BP2, Cg, DECR1, FSH, FTCD, GNRH, HBB, Histone h3, Histone h4, HNRNPC, HNRNPU, Lh, LSM4 (includes EG:25804), MAD1L1, MAPK3, MAPK14, mediator, PHB2, Pka, PRMT5, RBM8A, RNA polymerase II, SELENBP1, SET, SKIV2L2, SLC27A2, snRNP, SNRPD1, Sod, TKT, USP46, WDR61	39	24	Hematological Disease, Immunological Disease, Inflammatory Disease
4	ABCC3, aldehyde dehydrogenase (NAD), ALDH2, ALDH, ALDH1A1, ALDH4A1, ALDH7A1, ATP1A3, BHMT, CAR ligand-CAR-Retinoic acid-RXR α , Collagen Alpha1, CTH, Cyp2b13/Cyp2b9, Cyp2c6, CYP2C8, CYP2C9, Cyp2c70, Cyp2c, Cyp2c40 (includes others), CYP2D6, CYP51A1, Eotaxin, ERK1/2, Ferritin, GNMT, GST, KCND2, LGALS1, Ncoa-Nr1i2-Rxra, Ncoa-Nr1i3-Rxra, PAPSS2, PXR ligand-PXR-Retinoic acid-RXR α , ST6GAL1, UGT, unspecific monooxygenase	32	21	Drug Metabolism, Lipid Metabolism, Small Molecule Biochemistry
5	ABCB4, ABCB11, ACACA, ACLY, AKR1C4, BAAT, CYP3A4, Cyp4a14, FASN, FTH1 (includes EG:14319), FXR ligand-FXR-Retinoic acid-RXR α , glucuronosyltransferase, HSD17B2, HSD17B4, HSD17B8, HSD17B, JINK1/2, Jnk, N-cor, Nr1h, Pak, PEPCK, phosphatase, PPM1F, Rxr, SULT2A1, T3-TR-RXR, thymidine kinase, UGDH, UGT1A1, UGT2A3, UGT2B17, UGT2B28, Ugt2b, VitaminD3-VDR-RXR	31	21	Lipid Metabolism, Small Molecule Biochemistry, Endocrine System Development and Function
6	ACADS, Akt, APOA1, APOB, CBS, COL6A2, Collagen Type VI, COX4I1, COX6C, creatine kinase, CYP2J2, cytochrome-c oxidase, FABP1, Growth hormone, HDL, HDL-cholesterol, HP, LDL-cholesterol, Mbp, NAMPT, Nos, PLIN2, PRKAA, PRODH, Rar, RBP1, RBP4, Rbp, SAA, SLC10A1, SMPD1, SNCB, SOAT2, VLDL, VLDL-cholesterol	30	20	Lipid Metabolism, Small Molecule Biochemistry, Molecular Transport
7	ABAT, Alp, AMACR, AMPK, CA3, CD3, Ces, CLYBL, Collagen type I, CRK, ECI2, ESD, estrogen receptor, FAM82A2, Focal adhesion kinase, GDI1, GRB2, HEXA, HOMER3, Integrin, IRGM, MYO18A, OGN, P110, P38 MAPK, p85 (pik3r), Pdgfr, PLXNB2, PTEN, Ras homolog, RPP30, SEL1L, SLCO2A1, SRC (family), TCR	29	20	Lipid Metabolism, Small Molecule Biochemistry, Neurological Disease
8	Actin, Alpha catenin, Alpha tubulin, ANXA5, Arhgef7, atypical protein kinase C, Beta Tubulin, Cadherin, CAPG, CCT2, CDH17, CKB, Cofilin, CTNND1, DPAGT1, ENO2, Erm, F Actin, Fgf, Gm-csf, Ldh, MAP4, PI3K (complex), PI3K p85, PRDX2, PTGFRN, Rock, Rsk, SLC9A1, SLC9A3R1, STRN3, TMOD3, TPP2, TUBB3, TXNDC17	28	19	Cancer, Infectious Disease, Cell Death and Survival
9	AASS, ASGR1, BHMT, BUD31, C21orf33, C2orf47, CLEC4F, CLEC7A, CSAD, DNAJC17, ECI2, FAM21A/FAM21C, FKBP15, FRA10AC1, GABPA, GALM, HNF4A, INHBE, KIAA0196, KIAA1033, LAD1, LAP3, MAPK1, MCEE, OGFR, PPAR, SSTR4, SULT1C2, SULT2A1, SUOX, TACO1, TM4SF4, VPS29, WASH1/WASH5P, ZNF576	28	19	Amino Acid Metabolism, Small Molecule Biochemistry, Lipid Metabolism
10	ACSL5, AGL, AKR1D1, ANXA6, BCR (complex), calpain, CD180, CPSF7, DPYSL2, Egfr dimer, EIF2A, Ephb, ERK, Fc gamma receptor, Fcer1, FYCO1, Gap, Ige, INA, JUN/JUNB/JUND, LRCH4, MAP1A, NCK, PLC gamma, Ptk, RAP2B, RASA1, RFC1, Sos, Spectrin, SPTBN2, STK4, SYK/ZAP, VAV, WWOX	25	18	Cellular Function and Maintenance, Hereditary Disorder, Nervous System Development and Function
11	2-aminoadipic acid, 20-alpha-hydroxyprogesterone, AADAT, Abca8a, ANXA3, AVPR1B, BCAS1, beta-	25	18	Cell Death and Survival, Cell Morphology, Developmental

	estradiol, CA3, CCDC92, CIZ1, CYB5A, DDX54, DYNLL1, EMG1, FMO5, GLS2, HSD17B2, Kat3, kynurenine-oxoglutarate transaminase, L-glutamic acid, LEP, LRRC8A, OPLAH, PDAPI, PEMT, RAN, SFXN5, testosterone, TOMM22, TSPO, UGT8, UGT2B28, XPOT			Disorder
12	ACAA1,ACAA2,ALS2,ATG14 (includes EG:100504663), CHCHD6, CLPTM1L, CNOT6, CSTF1, CSTF3, DNAJC11, ERO1LB, GALK1, GALK2, LARP1, LSS, MAN1B1, MAN2C1, MANF, MTX1, MTX2, NNT, OTUD4, PDE12, PIK3R4, RAB5B, SAMM50, TMEM173, TMLHE, TNKS1BP1, UBC, UBL4A, UQCR10, UQCRB, UQCRFS1, UVRAG	24	17	RNA Post-Transcriptional Modification, Carbohydrate Metabolism, Hereditary Disorder
13	1190003J15Rik, ALT, betaine, BHMT, CD163, Ces, Ces1d, Ces1f/Ces1l, Ces2a, Ces2a (includes others), Ces2b/Ces2c, CTBS, CYP2D6, CYP4V2, EPHX1, ESD, ethanol, FMO5, GPT2 (includes EG:108682), Gsta4, Hamp/Hamp2, HAO2, hemoglobin, HIST2H2BF, HMGB3, IL6, Keg1, Ncoa-Nr1i2-Rxra, NR1I2, Phb, PNPLA7, S-adenosylmethionine, TLR9, UOX	24	17	Amino Acid Metabolism, Molecular Transport, Nucleic Acid Metabolism
14	ABHD2, ACSF2, ARL6IP1 (includes EG:23204), ATL3, CEBPB (includes EG:1051), CREB3, DFFB, DHRS1, DHX29, DNMT3B, DOHH, EIF5A, GALK1, GALK2, LSMD1, MDFI, MGEA5, NAA30, NAA35, NAPRT1, NOL9, PEX19, PISD, PLSCR1, PROSC, PUSL1, RNF149, RNPEP, RSPRY1, SLC25A17, SMARCA4, TBC1D17, UBC, UBE2D2, UBE2D3	23	17	Cellular Development, Cellular Growth and Proliferation, Protein Degradation
15	20s proteasome, 26s Proteasome, ADH1C, ASS1, BSG, C/ebp, caspase, CCDC92, Cyclin A, Cyclin E, Cytochrome c, ENDOG, Hsp27, Hsp70, Hsp90, Ifn gamma, Ikb, KRT18, PARG, PARP1, PARP3, PARP, PDE4DIP, PNN, Pro-inflammatory Cytokine, PSMB5, PSME1, Raf, THRAP3, Tnf, Ubiquitin, VCP, Vegf, VPS28, XDH	23	17	Cell Morphology, Cellular Function and Maintenance, DNA Replication, Recombination, and Repair
16	ABCC4 (includes EG:10257), ACLY, Acnat1/Acnat2, ACOT2, AK1, ALKBH5, BRE, C2CD2, CCDC51, CCDC124, CD63, CYP7B1, ELOVL6, EMC3, EXD2, IAH1, MTHFD1L, MTRF1L, NHLRC3, NVL, PFKFB3, PI4K2B, PSAT1, RAB43, RGP1 (includes EG:242406), SERPINB1, SLC25A3, SLC25A10, SLC25A13, THUMPD1, TMUB2, TUFM, UBC, UQCRC2, WBSCR27	22	16	Energy Production, Lipid Metabolism, Molecular Transport
17	ABCF3, ABHD16A, C6orf108, CALU, CDC42BPG, CPNE3, DDA1, DKC1, GAR1, GGA3, GGA1 (includes EG:106039), GGCX, HM13, MARC1, METTL7A, MOCS2, MOCS3, MON2, MPI, NANS, NOP10 (includes EG:36135), P4HB, PBLD, PGLS, QARS, RHOQ, RPL9, SCPEP1, STRAP, TMEM11, TMEM173, TRIP13, UBC, UNC93B1, USP42	22	16	Vitamin and Mineral Metabolism, Cell Morphology, Dermatological Diseases and Conditions
18	Calcineurin protein(s), CAMK2A, CaMKII, chymotrypsin, CK1, Creb, G6PD, glutathione transferase, Gsk3, Gsta4, GSTK1, GSTM4, GSTM5, GSTT2/GSTT2B, Gstz1, HIRA, Histone H1, HNRNPL, MAP2K1/2, NFAT (complex), Nfat (family), NMDA Receptor,Pkc(s), Pkg, PLCD1, PP1 protein complex group, PP2A, PPP1R12A, Ppp2c, SLC1A2, SLC31A1, SLC4A1, SYT1 (includes EG:20979), TOP1, trypsin	20	17	Drug Metabolism, Protein Synthesis, Glutathione Depletion In Liver
19	ACSM5, BCL6, Bcl9-Cbp/p300-Cttnb1-Lef/Tcf, BHMT2, CBS, CENPB, CHPT1, CSNK2A1, CSRP1, EP300, G0S2, GCKR, HNF1A, HNRNPUL2, KDSR, KIF13B, KLF1, LOC687295, ME3, MYL3, NAPIL4, NFYB, SLC26A1, Slco1a4, spermine, SRF, SUMO3, TAL1, TBC1D22A, TBXAS1, TMEM184C, TMPRSS2, TNFAIP1, TRHR, USP24	16	13	Amino Acid Metabolism, Small Molecule Biochemistry, Cell Morphology
20	ALB, Ap1, BLVRB, CTSB, CYP, E2f, Fibrinogen, GDA, GOT, Hdac, HSP90B1, IFITM2, Ifn, IFN Beta, IgG, Igm, IL1, IL12 (complex), IL1R1, Immunoglobulin, Interferon alpha, LDL, Mek, MFAP1, MHC Class II (complex), NOP58, p70 S6k, PDGF BB, PLP1 (includes EG:18823), PON2, Ras, STAT3, STAT5a/b, Tgf beta, Tlr	14	12	Neurological Disease, Cellular Development, Cellular Growth and Proliferation
21	C19orf12, CAD, CCND1, CDCA8, CDH13, CELF2, CEP55, CHDH, CUX1, DNAJC8, EML6, EPPK1, GALNT11, GOLGA5, GPC3, HNRPLL, IDH3A, IKBKG, IPO7, MAFF, MAML1, NOVA1, PCBP1, PRIM2, RBM8A, RPLP2, RPRD1A, SEC61A1, SENP2, SERINC3, SPG20, SUMO2, UGP2, ZBTB10, ZFP106	11	10	Post-Translational Modification, Hereditary Disorder, Neurological Disease
22	ADCY, CANX, CD14, Collagen type IV,Collagen(s), CTSC, DDAH1, G protein,G protein alphas, G protein beta gamma, G-protein beta, G-protein gamma, GLRX3, GNAO1, GNB2, GNG10, Gper, GRN, Laminin, Mapk, MHC Class I (complex), NADPH oxidase, Pdgf (complex), peptide-Tap1-Tap2, PLA2, PLC, Pld, Rac,	11	11	Immunological Disease, Antigen Presentation, Protein Synthesis

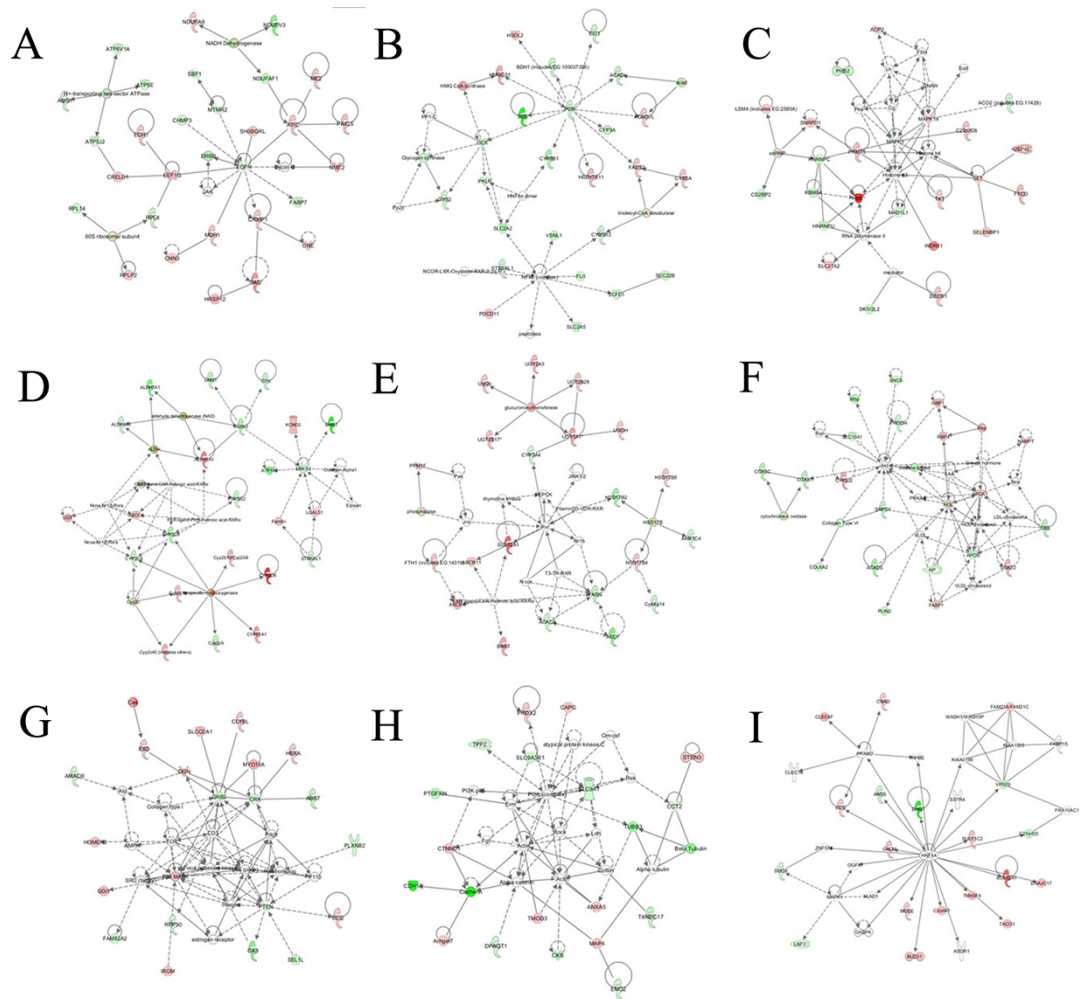
23	Rap1, Sapk, TAP1, Tap, TAPBP, Tnf receptor, TSH BASP1, CA3, Calmodulin, CD4, CD8, CDH17, Ck2, CTNNB1, DOC2B, H2-Q8, IgG1, IKK (complex), IL12 (family), Insulin, MHC, Mhc class ii, OAT, PDAP1, PDE1C, Proinsulin, PTRF, RGN, RT1-EC2, Rt1.aa, Scf Trcp beta, SERP1, SGTA, Shc, SLC6A1, STX1A, STXBP1, STXBP5, SYT2, SYTL4, Tubulin	11	10	Cellular Function and Maintenance, Molecular Transport, Cellular Assembly and Organization
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Supporting Table S4 List of primary antibodies used in western blot assay

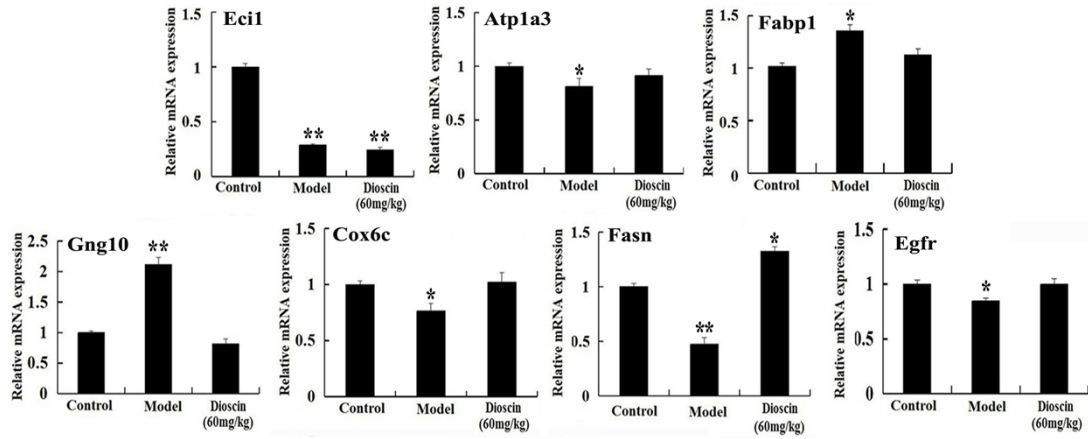
Whole name of proteins	Abbreviations	Dilution ratio
Acyl-CoA dehydrogenase, C-2 to C-3 short chain	ACADS	1: 500
Acyl-CoA synthetase long-chain family member 5	ACSL5	1: 1000
Acyl-CoA dehydrogenase, very long chain	ACADVL	1: 500
Aldehyde dehydrogenase 2 family	ALDH2	1: 200
Aldehyde dehydrogenase 7 family, member A1	ALDH7A1	1: 200
Bile acid CoA: amino acid N-acyltransferase(glycine N-choloyltransferase)	BAAT	1: 200
Ubiquinol-cytochrome c reductase, Rieske iron-sulfur poly-peptide 1	UQCRFS1	1: 1000
Solute carrier family 27 (fatty acid transporter), member 2	SLC27A2	1: 1000
Mitogen activated protein kinase 3	MAPK3	1: 1000
Heat shock protein 90, beta, member 1	HSP90B1	1: 500
Serine/threonine kinase 4	STK4	1: 1000
Alpha-methylacyl-CoA racemase	AMACR	1: 500
Growth factor receptor bound protein 2	GRB2	1: 500
Cytochrome P450, family 4, subfamily a, polypeptide 2	CYP4A2	1: 500
Alcohol dehydrogenase 1	ADH1	1: 500
Glyceraldehyde-3-phosphate dehydrogenase	GAPDH	1:2000



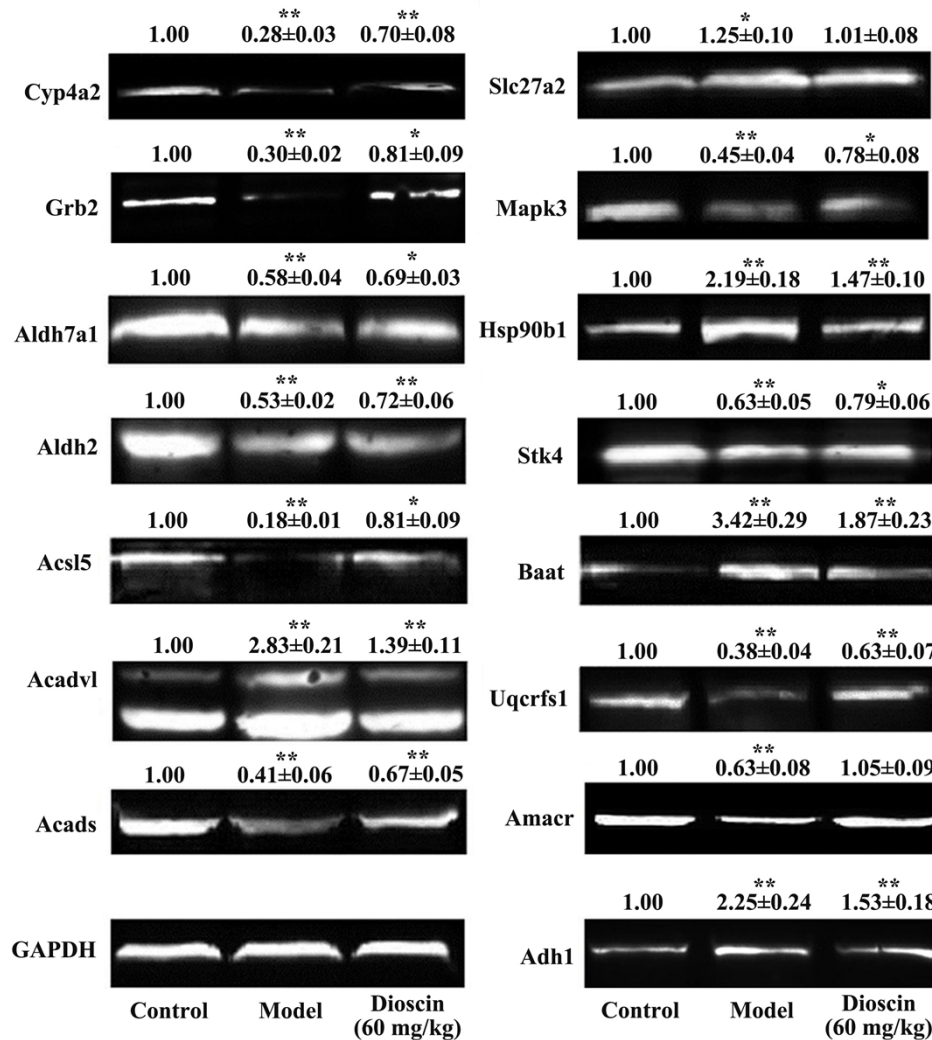
Supporting Figure S1 Representative KEGG pathway analysis of the differentially expressed proteins. (A) Fatty acid metabolism: EC:6.2.1.3, Acsl5; EC:1.3.8.1: Acads; EC:1.3.8. 9: Acadvl; EC:1.3.8.8: Acadl; EC:1.1.1.1: Adhl; EC:1.2.1.3: Aldh2 and Aldh7a1; EC:1.14.15.3: Cyp4a2; EC:5.3.3.8: Eci1 and Eci2. (B) Primary bile acid biosynthesis: EC:1.14.13.95: Cyp8b1; EC:1.3.1.3: Akr1d1; EC:5.1.99.4: Amacr; EC:4.2.1.107 and EC:1.1.1.35: Hsd17b4; EC:2.3.1.65: Baat. (C) Peroxisome. (D) PPAR signaling pathway. (E) MAPK signaling pathway.



Supporting Figure S2 The direct interaction functional networks map of differentially expressed proteins in the database. The direct interaction network scores were 29 (**A**, network 1), 24 (**B**, network 2), 24 (**C**, network 3), 21 (**D**, network 4), 21 (**E**, network 5), 20 (**F**, network 6), 20 (**G**, network 7), 19 (**H**, network 8) and 19 (**I**, network 9), respectively. For the functional analysis of networks, see Supporting Table S3.



Supporting **Figure S3**. Effects of dioscin on the gene expressions of *Eci1*, *Atp1a3*, *Fabp1*, *Gng10*, *Cox6c*, *Fasn* and *Egfr* in liver tissues of rats in control, model and dioscin (60 mg/kg) groups by quantitative real-time PCR assays. Values are expressed as mean \pm SD in each group. * $p < 0.05$ and ** $p < 0.01$ compared with control group.



Supporting **Figure S4**. Effects of dioscin on the protein expressions of ACLS5, ACADS, ACADVL, ALDH2, ALDH7A1, BAAT, UQCRFS1, MAPK3, SLC27A2, HSP90B1, AMACR, GRB2, CYP4A2, ADH1 and STK4 in liver tissues of rats in control, model and dioscin (60 mg/kg) groups by western blot analysis. Values are expressed as mean \pm SD in each group. * $p < 0.05$ and ** $p < 0.01$ compared with control group.