***Supplementary table 1. Genes upregulated in livers from Control rats with H/R as compared with livers from Control rats that underwent the sham procedure. (FDR < 15%. Fold change > 1.5)***

| Probeset | Gene Symbol | genename | Fold Change | fdr |
| --- | --- | --- | --- | --- |
| 24471\_at | Hspb1 | heat shock protein 1 | 17.07901 | 5.97E-07 |
| 171045\_at | Mmp3 | matrix metallopeptidase 3 | 6.132028 | 0.0031 |
| 294254\_at | Hspa1b | heat shock 70kD protein 1B (mapped) | 6.072284 | 0.001884 |
| 266998\_at | Slc13a5 | solute carrier family 13 (sodium-dependent citrate transporter), member 5 | 4.08909 | 0.038583 |
| 56780\_at | Acpp | acid phosphatase, prostate | 3.763871 | 0.038555 |
| 307415\_at | RGD1309362 | similar to interferon-inducible GTPase | 3.661443 | 0.110918 |
| 114507\_at | Slc5a3 | solute carrier family 5 (sodium/myo-inositol cotransporter), member 3 | 3.624159 | 0.009591 |
| 300721\_at | Dnaja4 | DnaJ (Hsp40) homolog, subfamily A, member 4 | 3.547605 | 0.000698 |
| 361384\_at | Dnajb1 | DnaJ (Hsp40) homolog, subfamily B, member 1 | 3.493013 | 0.000366 |
| 171052\_at | Mmp13 | matrix metallopeptidase 13 | 3.479357 | 0.034274 |
| 293524\_at | Bag3 | Bcl2-associated athanogene 3 | 3.085971 | 0.0031 |
| 360772\_at | Zfand2a | zinc finger, AN1-type domain 2A | 2.97255 | 0.042044 |
| 79451\_at | Fabp4 | fatty acid binding protein 4, adipocyte | 2.800918 | 0.035475 |
| 286888\_at | Wfdc2 | WAP four-disulfide core domain 2 | 2.721778 | 0.018723 |
| 288378\_at | Cd209b | CD209b antigen | 2.708171 | 0.000183 |
| 312688\_at | Usp18 | ubiquitin specific peptidase 18 | 2.642364 | 0.085088 |
| 360953\_at | Stx18 | syntaxin 18 | 2.420863 | 0.047768 |
| 65190\_at | Rsad2 | radical S-adenosyl methionine domain containing 2 | 2.388349 | 0.110918 |
| 300901\_at | Plod2 | procollagen lysine, 2-oxoglutarate 5-dioxygenase 2 | 2.317534 | 0.038555 |
| 25472\_at | Kcnj8 | potassium inwardly-rectifying channel, subfamily J, member 8 | 2.252729 | 0.11668 |
| 288444\_at | Hsph1 | heat shock 105/110 protein 1 | 2.2362 | 0.035475 |
| 296787\_at | Sema3c | sema domain, immunoglobulin domain (Ig), short basic domain, secreted, (semaphorin) 3C | 2.214259 | 0.054204 |
| 63879\_at | Xiap | X-linked inhibitor of apoptosis | 2.186122 | 0.035475 |
| 24514\_at | Jak2 | Janus kinase 2 | 2.18487 | 0.072554 |
| 140666\_at | Rcan2 | regulator of calcineurin 2 | 2.143829 | 0.009577 |
| 360918\_at | Pf4 | platelet factor 4 | 2.110344 | 0.14684 |
| 25405\_at | Ccng1 | cyclin G1 | 2.077699 | 0.000231 |
| 362895\_at | Stac3 | SH3 and cysteine rich domain 3 | 2.063773 | 0.072554 |
| 25445\_at | Fosl1 | fos-like antigen 1 | 2.006535 | 0.035475 |
| 25216\_at | Sdc1 | syndecan 1 | 1.930662 | 0.064908 |
| 84424\_at | Tle3 | transducin-like enhancer of split 3 (E(sp1) homolog, Drosophila) | 1.917366 | 0.007954 |
| 308937\_at | Wee1 | wee 1 homolog (S. pombe) | 1.910292 | 0.047768 |
| 294993\_at | Hspa4l | heat shock protein 4-like | 1.840624 | 0.009591 |
| 316516\_at | Tmbim1 | transmembrane BAX inhibitor motif containing 1 | 1.838902 | 0.035475 |
| 360916\_at | Tmem150c | transmembrane protein 150C | 1.837417 | 0.068846 |
| 304127\_at | Bach1 | BTB and CNC homology 1, basic leucine zipper transcription factor 1 | 1.805246 | 0.105026 |
| 299691\_at | Cry1 | cryptochrome 1 (photolyase-like) | 1.802416 | 0.105184 |
| 296619\_at | Pkn3 | protein kinase N3 | 1.788416 | 0.124196 |
| 24811\_at | Tap1 | transporter 1, ATP-binding cassette, sub-family B (MDR/TAP) | 1.723536 | 0.070567 |
| 56611\_at | Anxa2 | annexin A2 | 1.676984 | 0.084623 |
| 361598\_at | Iqgap1 | IQ motif containing GTPase activating protein 1 | 1.662612 | 0.10931 |
| 360833\_at | Kdsr | 3-ketodihydrosphingosine reductase | 1.661146 | 0.126744 |
| 29665\_at | P2rx7 | purinergic receptor P2X, ligand-gated ion channel, 7 | 1.655359 | 0.038555 |
| 84427\_at | Grb7 | growth factor receptor bound protein 7 | 1.650401 | 0.097205 |
| 117061\_at | Mmp10 | matrix metallopeptidase 10 | 1.646981 | 0.124196 |
| 54230\_at | Btg3 | BTG family, member 3 | 1.644693 | 0.086663 |
| 60325\_at | Serpinb2 | serpin peptidase inhibitor, clade B (ovalbumin), member 2 | 1.62349 | 0.069776 |
| 25705\_at | Zeb1 | zinc finger E-box binding homeobox 1 | 1.612344 | 0.047768 |
| 170911\_at | Pik3ca | phosphoinositide-3-kinase, catalytic, alpha polypeptide | 1.607742 | 0.038555 |
| 314619\_at | Sbno2 | strawberry notch homolog 2 (Drosophila) | 1.604407 | 0.14594 |
| 360921\_at | Rufy3 | RUN and FYVE domain containing 3 | 1.596807 | 0.045405 |
| 313861\_at | Eml4 | echinoderm microtubule associated protein like 4 | 1.592945 | 0.077109 |
| 298065\_at | Tex10 | testis expressed 10 | 1.584384 | 0.046942 |
| 54705\_at | Pdp1 | pyruvate dehyrogenase phosphatase catalytic subunit 1 | 1.567261 | 0.106433 |
| 288589\_at | Rasa4 | RAS p21 protein activator 4 | 1.566198 | 0.079848 |
| 64188\_at | Mafg | v-maf musculoaponeurotic fibrosarcoma oncogene homolog G (avian) | 1.558055 | 0.1352 |
| 83617\_at | Hipk3 | homeodomain interacting protein kinase 3 | 1.557513 | 0.079848 |
| 83425\_at | Akap12 | A kinase (PRKA) anchor protein 12 | 1.555668 | 0.1352 |
| 304645\_at | Tbc1d9 | TBC1 domain family, member 9 (with GRAM domain) | 1.554284 | 0.097887 |
| 314453\_at | Wdr20a | WD repeat domain 20a | 1.554253 | 0.039376 |
| 292264\_at | Myct1 | myc target 1 | 1.546444 | 0.064908 |
| 361719\_at | RGD1308106 | LOC361719 | 1.529582 | 0.031644 |
| 314856\_at | Mdm2 | Mdm2 p53 binding protein homolog (mouse) | 1.526537 | 0.038555 |
| 289144\_at | Cacybp | calcyclin binding protein | 1.525311 | 0.135756 |

***Supplementary table 2. Genes down-regulated in livers from Control rats with H/R as compared with livers from Control rats that underwent the sham procedure. (FDR < 15%. Fold change > 1.5)***

| Probeset | Gene Symbol | genename | Fold Change | fdr |
| --- | --- | --- | --- | --- |
| 84007\_at | C3ar1 | complement component 3a receptor 1 | -1.50242 | 0.070567 |
| 25648\_at | Slc7a1 | solute carrier family 7 (cationic amino acid transporter, y+ system), member 1 | -1.50525 | 0.101558 |
| 310743\_at | Olfml3 | olfactomedin-like 3 | -1.5085 | 0.1352 |
| 305795\_at | Abhd6 | abhydrolase domain containing 6 | -1.51004 | 0.117849 |
| 287451\_at | Slc16a13 | solute carrier family 16, member 13 (monocarboxylic acid transporter 13) | -1.51034 | 0.106433 |
| 100360985\_at | LOC100360985 | solute carrier family 25, member 12 | -1.51215 | 0.035475 |
| 29637\_at | Hmgcs1 | 3-hydroxy-3-methylglutaryl-CoA synthase 1 (soluble) | -1.51284 | 0.1352 |
| 315084\_at | Gsdmd | gasdermin D | -1.51952 | 0.030067 |
| 282844\_at | Rffl | ring finger and FYVE-like domain containing 1 | -1.52371 | 0.10931 |
| 311218\_at | Accs | 1-aminocyclopropane-1-carboxylate synthase homolog (Arabidopsis)(non-functional) | -1.52978 | 0.018097 |
| 289758\_at | Pold2 | polymerase (DNA directed), delta 2, regulatory subunit | -1.53308 | 0.109376 |
| 500707\_at | Tc2n | tandem C2 domains, nuclear | -1.54845 | 0.144503 |
| 293638\_at | Cars | cysteinyl-tRNA synthetase | -1.55421 | 0.065606 |
| 363016\_at | RGD1309534 | similar to RIKEN cDNA 4931406C07 | -1.56844 | 0.082577 |
| 300516\_at | Tmem218 | transmembrane protein 218 | -1.57521 | 0.055115 |
| 300035\_at | Pycrl | pyrroline-5-carboxylate reductase-like | -1.58111 | 0.008417 |
| 360664\_at | RGD1311078 | LOC360664 | -1.60003 | 0.097205 |
| 313689\_at | Dhrs3 | dehydrogenase/reductase (SDR family) member 3 | -1.6025 | 0.109435 |
| 171070\_at | Ptpn21 | protein tyrosine phosphatase, non-receptor type 21 | -1.6054 | 0.053303 |
| 298543\_at | Aim1l | absent in melanoma 1-like | -1.60799 | 0.126744 |
| 303678\_at | Caskin2 | cask-interacting protein 2 | -1.6082 | 0.077109 |
| 305552\_at | Wdpcp | WD repeat containing planar cell polarity effector | -1.60964 | 0.069776 |
| 24185\_at | Akt1 | v-akt murine thymoma viral oncogene homolog 1 | -1.61012 | 0.099708 |
| 313610\_at | Extl1 | exostoses (multiple)-like 1 | -1.61763 | 0.089896 |
| 362490\_at | Tmem55a | transmembrane protein 55A | -1.6208 | 0.047444 |
| 100362346\_at | Mta3 | metastasis associated 1 family, member 3 | -1.62101 | 0.047768 |
| 363595\_at | Tcf7 | transcription factor 7 (T-cell specific, HMG-box) | -1.62262 | 0.069035 |
| 303754\_at | Rab40b | Rab40b, member RAS oncogene family | -1.62692 | 0.020076 |
| 314214\_at | RGD1305721 | similar to RIKEN cDNA 2810055F11 | -1.63416 | 0.017533 |
| 685055\_at | Atr | ataxia telangiectasia and Rad3 related | -1.64261 | 0.009591 |
| 299949\_at | Wdr67 | WD repeat domain 67 | -1.65003 | 0.017533 |
| 363144\_at | Cdhr4 | cadherin-related family member 4 | -1.65129 | 0.069035 |
| 29603\_at | Bckdk | branched chain ketoacid dehydrogenase kinase | -1.65976 | 0.085088 |
| 315036\_at | Vps13b | vacuolar protein sorting 13 homolog B (yeast) | -1.6859 | 0.008417 |
| 361764\_at | Sema4g | sema domain, immunoglobulin domain (Ig), transmembrane domain (TM) and short cytoplasmic domain, (semaphorin) 4G | -1.69175 | 0.107058 |
| 619561\_at | Acsf2 | acyl-CoA synthetase family member 2 | -1.69754 | 0.0469 |
| 25492\_at | Nfia | nuclear factor I/A | -1.70312 | 0.038351 |
| 171410\_at | Acsbg1 | acyl-CoA synthetase bubblegum family member 1 | -1.71284 | 0.053303 |
| 114004\_at | Ppp1r14a | protein phosphatase 1, regulatory (inhibitor) subunit 14A | -1.71397 | 0.092841 |
| 24552\_at | Me1 | malic enzyme 1, NADP(+)-dependent, cytosolic | -1.71508 | 0.054204 |
| 373545\_at | Prkag2 | protein kinase, AMP-activated, gamma 2 non-catalytic subunit | -1.71548 | 0.031644 |
| 58919\_at | Ccnd1 | cyclin D1 | -1.73826 | 0.064908 |
| 362696\_at | Ttc7 | tetratricopeptide repeat domain 7 | -1.74423 | 0.009591 |
| 81919\_at | Fut1 | fucosyltransferase 1 | -1.74829 | 0.007605 |
| 500420\_at | LOC500420 | similar to CG12279-PA | -1.75938 | 0.035475 |
| 29464\_at | Slc6a6 | solute carrier family 6 (neurotransmitter transporter, taurine), member 6 | -1.77931 | 0.105026 |
| 404280\_at | Mid1ip1 | MID1 interacting protein 1 (gastrulation specific G12 homolog (zebrafish)) | -1.78923 | 0.095883 |
| 114628\_at | Abcg5 | ATP-binding cassette, subfamily G (WHITE), member 5 | -1.84386 | 0.064908 |
| 313152\_at | Ifnk | interferon kappa | -1.8456 | 0.085088 |
| 309145\_at | RGD1311946 | similar to RIKEN cDNA 1810055G02 | -1.8482 | 0.035475 |
| 24159\_at | Acly | ATP citrate lyase | -1.85801 | 0.072554 |
| 25612\_at | Asns | asparagine synthetase | -1.86656 | 0.038555 |
| 305464\_at | Depdc5 | DEP domain containing 5 | -1.87719 | 0.038351 |
| 364529\_at | Calr3 | calreticulin 3 | -1.88094 | 0.009577 |
| 361256\_at | Svil | supervillin | -1.88874 | 0.038555 |
| 304802\_at | Optc | opticin | -1.91038 | 0.018514 |
| 305751\_at | Nkiras1 | NFKB inhibitor interacting Ras-like 1 | -1.9264 | 0.009034 |
| 311730\_at | Gpr155 | G protein-coupled receptor 155 | -1.94327 | 0.040213 |
| 498368\_at | LOC498368 | similar to RIKEN cDNA 0610040J01 | -1.98375 | 0.007954 |
| 361755\_at | Aldh18a1 | aldehyde dehydrogenase 18 family, member A1 | -2.00106 | 0.016325 |
| 65197\_at | Slc2a5 | solute carrier family 2 (facilitated glucose/fructose transporter), member 5 | -2.06543 | 0.084623 |
| 293561\_at | Rnf152 | ring finger protein 152 | -2.10425 | 0.035475 |
| 300862\_at | Irak1bp1 | interleukin-1 receptor-associated kinase 1 binding protein 1 | -2.11351 | 0.001329 |
| 81024\_at | Ica1 | islet cell autoantigen 1 | -2.15656 | 0.001244 |
| 24188\_at | Aldh1a1 | aldehyde dehydrogenase 1 family, member A1 | -2.18828 | 0.079848 |
| 293820\_at | Psat1 | phosphoserine aminotransferase 1 | -2.19854 | 0.005677 |
| 305135\_at | Lrrc8b | leucine rich repeat containing 8 family, member B | -2.20124 | 0.031323 |
| 58868\_at | Fzd1 | frizzled family receptor 1 | -2.28476 | 0.001244 |
| 304578\_at | Alkbh2 | alkB, alkylation repair homolog 2 (E. coli) | -2.28782 | 0.007954 |
| 363062\_at | Dixdc1 | DIX domain containing 1 | -2.29821 | 0.028926 |
| 314405\_at | Otub2 | OTU domain, ubiquitin aldehyde binding 2 | -2.5186 | 0.000231 |
| 100363441\_at | LOC100363441 | hypothetical protein LOC100363441 | -2.54624 | 0.047768 |
| 54193\_at | Pbsn | probasin | -3.25387 | 0.007954 |
| 303534\_at | Ttc25 | tetratricopeptide repeat domain 25 | -3.27634 | 0.000375 |
| 58835\_at | Phgdh | phosphoglycerate dehydrogenase | -4.61327 | 0.000105 |

***Supplementary table 3. Genes upregulated in livers from cirrhotic (CBDL) rats with H/R as compared with livers from cirrhotic(CBDL) rats that underwent the sham procedure. (FDR < 15%. Fold change > 1.5)***

| Probeset | Gene Symbol | genename | Fold Change | fdr |
| --- | --- | --- | --- | --- |
| 24471\_at | Hspb1 | heat shock protein 1 | 5.771781 | 0.006142 |
| 24498\_at | Il6 | interleukin 6 | 5.385159 | 0.091461 |
| 24494\_at | Il1b | interleukin 1 beta | 5.034003 | 0.015915 |
| 24493\_at | Il1a | interleukin 1 alpha | 5.010593 | 0.0741 |
| 287561\_at | Ccl7 | chemokine (C-C motif) ligand 7 | 4.858528 | 0.038509 |
| 24770\_at | Ccl2 | chemokine (C-C motif) ligand 2 | 4.422068 | 0.0741 |
| 114105\_at | Cxcl2 | chemokine (C-X-C motif) ligand 2 | 4.232564 | 0.063284 |
| 84386\_at | Slpi | secretory leukocyte peptidase inhibitor | 4.0309 | 0.0741 |
| 29237\_at | Penk | proenkephalin | 4.015375 | 0.006142 |
| 294254\_at | Hspa1b | heat shock 70kD protein 1B (mapped) | 4.009774 | 0.050673 |
| 25542\_at | Ccl3 | chemokine (C-C motif) ligand 3 | 3.9823 | 0.0741 |
| 81503\_at | Cxcl1 | chemokine (C-X-C motif) ligand 1 (melanoma growth stimulating activity. alpha) | 3.648179 | 0.051422 |
| 57301\_at | Ccr1 | chemokine (C-C motif) receptor 1 | 3.572809 | 0.091461 |
| 117022\_at | Il1r2 | interleukin 1 receptor. type II | 3.503526 | 0.0741 |
| 116630\_at | Csf2 | colony stimulating factor 2 (granulocyte-macrophage) | 3.140887 | 0.0741 |
| 29480\_at | Rgs4 | regulator of G-protein signaling 4 | 3.094753 | 0.0741 |
| 79451\_at | Fabp4 | fatty acid binding protein 4. adipocyte | 3.028726 | 0.038509 |
| 288444\_at | Hsph1 | heat shock 105/110 protein 1 | 2.973643 | 0.006142 |
| 89824\_at | Chi3l1 | chitinase 3-like 1 (cartilage glycoprotein-39) | 2.898078 | 0.0741 |
| 306748\_at | Cxcl14 | chemokine (C-X-C motif) ligand 14 | 2.87023 | 0.031823 |
| 497990\_at | Arl5c | ADP-ribosylation factor-like 5C | 2.865066 | 0.063284 |
| 360772\_at | Zfand2a | zinc finger. AN1-type domain 2A | 2.848456 | 0.087599 |
| 289388\_at | G0s2 | G0/G1switch 2 | 2.819248 | 0.14099 |
| 364206\_at | Plek | pleckstrin | 2.690787 | 0.031403 |
| 80878\_at | Slc16a3 | solute carrier family 16. member 3 (monocarboxylic acid transporter 4) | 2.671868 | 0.07707 |
| 170929\_at | Bcl2a1d | BCL2-related protein A1d | 2.58578 | 0.011931 |
| 685808\_at | LOC685808 | similar to transmembrane NK cell receptor 2B4 | 2.50424 | 0.11459 |
| 499991\_at | Steap4 | STEAP family member 4 | 2.392789 | 0.08877 |
| 304005\_at | Nfkbiz | nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor. zeta | 2.388917 | 0.14099 |
| 362248\_at | Procr | protein C receptor. endothelial | 2.384019 | 0.025109 |
| 289211\_at | Fcgr2b | Fc fragment of IgG. low affinity IIb. receptor (CD32) | 2.37652 | 0.13859 |
| 311406\_at | Dusp2 | dual specificity phosphatase 2 | 2.373755 | 0.138641 |
| 60350\_at | Cd14 | CD14 molecule | 2.369773 | 0.0741 |
| 24835\_at | Tnf | tumor necrosis factor | 2.357361 | 0.123824 |
| 310553\_at | Tlr2 | toll-like receptor 2 | 2.342917 | 0.121532 |
| 24153\_at | A2m | alpha-2-macroglobulin | 2.235805 | 0.025109 |
| 297738\_at | Steap1 | six transmembrane epithelial antigen of the prostate 1 | 2.220207 | 0.028044 |
| 83585\_at | Gda | guanine deaminase | 2.204499 | 0.006396 |
| 303836\_at | Bcl6 | B-cell CLL/lymphoma 6 | 2.194402 | 0.078348 |
| 100362572\_at | LOC100362572 | Mpv17 transgene. kidney disease mutant-like (predicted)-like | 2.180877 | 0.082504 |
| 84348\_at | Cxcr7 | chemokine (C-X-C motif) receptor 7 | 2.175928 | 0.10649 |
| 24787\_at | Sod2 | superoxide dismutase 2. mitochondrial | 2.174094 | 0.087476 |
| 24451\_at | Hmox1 | heme oxygenase (decycling) 1 | 2.169067 | 0.126822 |
| 362391\_at | Mxd1 | max dimerization protein 1 | 2.16866 | 0.0741 |
| 316736\_at | Emilin2 | elastin microfibril interfacer 2 | 2.160574 | 0.106811 |
| 304988\_at | Ifi204 | interferon activated gene 204 | 2.104743 | 0.063284 |
| 56782\_at | Srgn | serglycin | 2.095651 | 0.07908 |
| 114511\_at | Emb | embigin | 2.084934 | 0.0741 |
| 500246\_at | Arhgap25 | Rho GTPase activating protein 25 | 2.011607 | 0.070313 |
| 361384\_at | Dnajb1 | DnaJ (Hsp40) homolog. subfamily B. member 1 | 1.969144 | 0.144529 |
| 171064\_at | Igsf6 | immunoglobulin superfamily. member 6 | 1.955554 | 0.10649 |
| 24908\_at | Dnajb9 | DnaJ (Hsp40) homolog. subfamily B. member 9 | 1.85365 | 0.022211 |
| 65044\_at | C1galt1 | core 1 synthase. glycoprotein-N-acetylgalactosamine 3-beta-galactosyltransferase. 1 | 1.832386 | 0.14099 |
| 360914\_at | Plac8 | placenta-specific 8 | 1.781547 | 0.087476 |
| 314462\_at | Trmt61a | tRNA methyltransferase 61 homolog A (S. cerevisiae) | 1.779094 | 0.02361 |
| 291773\_at | RGD1562997 | similar to Transcription initiation factor TFIID 105 kDa subunit (TAFII-105) | 1.777356 | 0.070313 |
| 498272\_at | Uap1 | UDP-N-acteylglucosamine pyrophosphorylase 1 | 1.732625 | 0.09138 |
| 297412\_at | Dusp11 | dual specificity phosphatase 11 (RNA/RNP complex 1-interacting) | 1.716642 | 0.012779 |
| 83472\_at | Ugdh | UDP-glucose 6-dehydrogenase | 1.642809 | 0.070313 |
| 362175\_at | RGD1563222 | similar to RIKEN cDNA A930018P22 | 1.626204 | 0.031403 |
| 361232\_at | Pak1ip1 | PAK1 interacting protein 1 | 1.591366 | 0.14099 |
| 84551\_at | Slc7a8 | solute carrier family 7 (amino acid transporter light chain. L system). member 8 | 1.58282 | 0.14099 |
| 363017\_at | Taf1d | TATA box binding protein (Tbp)-associated factor. RNA polymerase I. D | 1.572805 | 0.10649 |
| 307133\_at | Hspa14 | heat shock protein 14 | 1.534509 | 0.041936 |

***Supplementary table 4. Genes down-regulated in livers from cirrhotic (CBDL) rats with H/R as compared with livers from cirrhotic (CBDL) rats that underwent the sham procedure. (FDR < 15%. Fold change > 1.5)***

| Probeset | Gene Symbol | genename | Fold Change | fdr |
| --- | --- | --- | --- | --- |
| 360612\_at | Scrn2 | secernin 2 | -1.50197 | 0.02432 |
| 501925\_at | Slc2a9 | solute carrier family 2 (facilitated glucose transporter). member 9 | -1.52085 | 0.144529 |
| 266733\_at | Slc12a8 | solute carrier family 12 (potassium/chloride transporters). member 8 | -1.53397 | 0.14099 |
| 246262\_at | Sema3d | sema domain. immunoglobulin domain (Ig). short basic domain. secreted. (semaphorin) 3D | -1.53407 | 0.14099 |
| 29579\_at | Esyt1 | extended synaptotagmin-like protein 1 | -1.56794 | 0.14099 |
| 29637\_at | Hmgcs1 | 3-hydroxy-3-methylglutaryl-CoA synthase 1 (soluble) | -1.61624 | 0.10649 |
| 362061\_at | Cryz | crystallin. zeta (quinone reductase) | -1.6525 | 0.097161 |
| 25261\_at | Id1 | inhibitor of DNA binding 1 | -1.74422 | 0.134722 |
| 84385\_at | Nr1i2 | nuclear receptor subfamily 1. group I. member 2 | -1.78932 | 0.14099 |
| 89821\_at | Trpc1 | transient receptor potential cation channel. subfamily C. member 1 | -1.794 | 0.10649 |
| 314647\_at | Celf5 | CUGBP. Elav-like family member 5 | -2.39215 | 0.006142 |
| 84488\_at | Fgf13 | fibroblast growth factor 13 | -3.01295 | 0.0741 |

***Supplementary table 5. Genes upregulated in livers from cirrhotic (CBDL) rats treated with Simvastatin with H/R as compared with livers from cirrhotic(CBDL) rats treated with Simvastatin that underwent the sham procedure (FDR < 15%. Fold change > 1.5)***

| PROBESET | GENE SYMBOL | GENENAME | FOLD CHANGE | FDR |
| --- | --- | --- | --- | --- |
| 171352\_at | Cyp3a9 | cytochrome P450. family 3. subfamily a. polypeptide 9 | 3.238000 | 0.000000 |
| 24472\_at | Hspa1a | heat shock 70kD protein 1A | 2.596000 | 0.000000 |
| 25353\_at | Spp1 | secreted phosphoprotein 1 | 2.435000 | 0.000000 |
| 24471\_at | Hspb1 | heat shock protein 1 | 2.275000 | 0.000000 |
| 294254\_at | Hspa1b | heat shock 70kD protein 1B (mapped) | 2.210000 | 0.000000 |
| 116637\_at | Ccl4 | chemokine (C-C motif) ligand 4 | 2.027000 | 0.000000 |
| 29455\_at | Gdf15 | growth differentiation factor 15 | 1.954000 | 0.000000 |
| 54349\_at | Aox1 | aldehyde oxidase 1 | 1.898000 | 0.003000 |
| 89816\_at | Picalm | phosphatidylinositol binding clathrin assembly protein | 1.878000 | 0.123000 |
| 25080\_at | Apoa4 | apolipoprotein A-IV | 1.870000 | 0.002000 |
| 54702\_at | Egln3 | EGL nine homolog 3 (C. elegans) | 1.858000 | 0.002000 |
| 60335\_at | Tgm1 | transglutaminase 1 (K polypeptide epidermal type I. protein-glutamine-gamma-glutamyltransferase) | 1.832000 | 0.001000 |
| 25434\_at | Sparcl1 | SPARC-like 1 (hevin) | 1.830000 | 0.002000 |
| 24297\_at | Cyp1a2 | cytochrome P450. family 1. subfamily a. polypeptide 2 | 1.825000 | 0.004000 |
| 24813\_at | Tat | tyrosine aminotransferase | 1.817000 | 0.027000 |
| 246074\_at | Scd1 | stearoyl-Coenzyme A desaturase 1 | 1.805000 | 0.011000 |
| 25686\_at | Gnai1 | guanine nucleotide binding protein (G protein). alpha inhibiting activity polypeptide 1 | 1.793000 | 0.013000 |
| 29184\_at | Cd36 | CD36 molecule (thrombospondin receptor) | 1.791000 | 0.071000 |
| 24617\_at | Serpine1 | serpin peptidase inhibitor. clade E (nexin. plasminogen activator inhibitor type 1). member 1 | 1.789000 | 0.001000 |
| 56780\_at | Acpp | acid phosphatase. prostate | 1.782000 | 0.016000 |
| 78961\_at | Golph3 | golgi phosphoprotein 3 (coat-protein) | 1.780000 | 0.147000 |
| 25026\_at | Adm | adrenomedullin | 1.768000 | 0.004000 |
| 299276\_at | Serpina3m | serine (or cysteine) proteinase inhibitor. clade A. member 3M | 1.761000 | 0.026000 |
| 309527\_at | Ch25h | cholesterol 25-hydroxylase | 1.757000 | 0.017000 |
| 171396\_at | Sulf1 | sulfatase 1 | 1.743000 | 0.011000 |
| 171142\_at | Ehhadh | enoyl-CoA. hydratase/3-hydroxyacyl CoA dehydrogenase | 1.718000 | 0.004000 |
| 89813\_at | Pdk4 | pyruvate dehydrogenase kinase. isozyme 4 | 1.718000 | 0.022000 |
| 25513\_at | Pik3r1 | phosphoinositide-3-kinase. regulatory subunit 1 (alpha) | 1.712000 | 0.047000 |
| 24296\_at | Cyp1a1 | cytochrome P450. family 1. subfamily a. polypeptide 1 | 1.671000 | 0.032000 |
| 24852\_at | Tpm4 | tropomyosin 4 | 1.664000 | 0.097000 |
| 25695\_at | Cebpd | CCAAT/enhancer binding protein (C/EBP). delta | 1.643000 | 0.056000 |
| 24323\_at | Edn1 | endothelin 1 | 1.642000 | 0.001000 |
| 307492\_at | Hars | histidyl-tRNA synthetase | 1.640000 | 0.071000 |
| 414788\_at | RT1-T24-3 | RT1 class I. locus T24. gene 3 | 1.624000 | 0.001000 |
| 309312\_at | Gldc | glycine dehydrogenase (decarboxylating) | 1.611000 | 0.032000 |
| 84583\_at | Rgs2 | regulator of G-protein signaling 2 | 1.606000 | 0.071000 |
| 85424\_at | Elf1 | E74-like factor 1 | 1.605000 | 0.071000 |
| 316256\_at | Tnfrsf21 | tumor necrosis factor receptor superfamily. member 21 | 1.600000 | 0.042000 |
| 140593\_at | Siah2 | seven in absentia 2 | 1.598000 | 0.118000 |
| 25544\_at | Sele | selectin E | 1.596000 | 0.011000 |
| 24763\_at | Acsm3 | acyl-CoA synthetase medium-chain family member 3 | 1.596000 | 0.023000 |
| 266774\_at | Zfp597 | zinc finger protein 597 | 1.596000 | 0.098000 |
| 29322\_at | Plcb3 | phospholipase C. beta 3 (phosphatidylinositol-specific) | 1.585000 | 0.042000 |
| 25619\_at | Plau | plasminogen activator. urokinase | 1.585000 | 0.046000 |
| 29692\_at | Pla2g2a | phospholipase A2. group IIA (platelets. synovial fluid) | 1.577000 | 0.008000 |
| 117033\_at | Mmp12 | matrix metallopeptidase 12 | 1.574000 | 0.041000 |
| 297508\_at | Nampt | nicotinamide phosphoribosyltransferase | 1.573000 | 0.100000 |
| 362993\_at | Rnd1 | Rho family GTPase 1 | 1.561000 | 0.024000 |
| 84406\_at | Hs3st1 | heparan sulfate (glucosamine) 3-O-sulfotransferase 1 | 1.559000 | 0.037000 |
| 360772\_at | Zfand2a | zinc finger. AN1-type domain 2A | 1.558000 | 0.026000 |
| 296271\_at | Srxn1 | sulfiredoxin 1 | 1.549000 | 0.025000 |
| 50672\_at | Ednrb | endothelin receptor type B | 1.542000 | 0.084000 |
| 24553\_at | Met | met proto-oncogene | 1.541000 | 0.044000 |
| 29237\_at | Penk | proenkephalin | 1.540000 | 0.026000 |
| 81526\_at | Nov | nephroblastoma overexpressed | 1.532000 | 0.042000 |
| 84607\_at | Socs2 | suppressor of cytokine signaling 2 | 1.532000 | 0.072000 |
| 140914\_at | Olr1 | oxidized low density lipoprotein (lectin-like) receptor 1 | 1.528000 | 0.020000 |
| 60665\_at | Cxcl5 | chemokine (C-X-C motif) ligand 5 | 1.524000 | 0.019000 |
| 24424\_at | Gstm2 | glutathione S-transferase mu 2 | 1.523000 | 0.061000 |
| 192360\_at | Eml2 | echinoderm microtubule associated protein like 2 | 1.522000 | 0.030000 |
| 266998\_at | Slc13a5 | solute carrier family 13 (sodium-dependent citrate transporter). member 5 | 1.520000 | 0.120000 |
| 24205\_at | Apc | adenomatous polyposis coli | 1.519000 | 0.070000 |
| 29480\_at | Rgs4 | regulator of G-protein signaling 4 | 1.518000 | 0.041000 |
| 114856\_at | Dusp1 | dual specificity phosphatase 1 | 1.518000 | 0.148000 |
| 25507\_at | Pcsk6 | proprotein convertase subtilisin/kexin type 6 | 1.514000 | 0.061000 |
| 79431\_at | Bhlhe40 | basic helix-loop-helix family. member e40 | 1.511000 | 0.089000 |
| 300455\_at | Bmper | BMP-binding endothelial regulator | 1.510000 | 0.060000 |
| 303764\_at | RGD1310429 | similar to Protein Njmu-R1 | 1.505000 | 0.114000 |
| 29215\_at | Arg2 | arginase type II | 1.502000 | 0.062000 |
| 353218\_at | Tnfsf9 | tumor necrosis factor (ligand) superfamily. member 9 | 1.501000 | 0.056000 |

***Supplementary table 6. Genes down-regulated in livers from cirrhotic (CBDL) rats treated with Simvastatin with H/R as compared with livers from cirrhotic (CBDL) rats treated with Simvastatin that underwent the sham procedure (FDR < 15%. Fold change > 1.5)***

| PROBESET | GENE SYMBOL | GENENAME | FOLD CHANGE | FDR |
| --- | --- | --- | --- | --- |
| 83575\_at | Cpz | carboxypeptidase Z | -1.505000 | 0.101000 |
| 29266\_at | Mcpt2 | mast cell protease 2 | -1.514000 | 0.085000 |
| 64041\_at | Birc5 | baculoviral IAP repeat-containing 5 | -1.515000 | 0.128000 |
| 83577\_at | Itgae | integrin. alpha E | -1.521000 | 0.066000 |
| 310694\_at | Fcrls | Fc receptor-like S. scavenger receptor | -1.528000 | 0.048000 |
| 499806\_at | Erich2 | glutamate-rich 2 | -1.534000 | 0.082000 |
| 294270\_at | RT1-Db1 | RT1 class II. locus Db1 | -1.540000 | 0.082000 |
| 171060\_at | Il13ra2 | interleukin 13 receptor. alpha 2 | -1.548000 | 0.060000 |
| 296371\_at | Pltp | phospholipid transfer protein | -1.556000 | 0.078000 |
| 116684\_at | Oplah | 5-oxoprolinase (ATP-hydrolysing) | -1.557000 | 0.116000 |
| 81780\_at | Ccl5 | chemokine (C-C motif) ligand 5 | -1.561000 | 0.069000 |
| 307212\_at | Cndp1 | carnosine dipeptidase 1 (metallopeptidase M20 family) | -1.572000 | 0.076000 |
| 81682\_at | Lum | lumican | -1.580000 | 0.110000 |
| 83517\_at | Fcn1 | ficolin (collagen/fibrinogen domain containing) 1 | -1.581000 | 0.049000 |
| 306198\_at | Clybl | citrate lyase beta like | -1.581000 | 0.103000 |
| 246759\_at | Cxcl9 | chemokine (C-X-C motif) ligand 9 | -1.586000 | 0.086000 |
| 360847\_at | Ube2t | ubiquitin-conjugating enzyme E2T (putative) | -1.586000 | 0.102000 |
| 498659\_at | RatNP-3b | defensin RatNP-3 precursor | -1.587000 | 0.062000 |
| 360268\_at | ste2 | estrogen sulfotransferase | -1.594000 | 0.037000 |
| 499749\_at | Tprn | taperin | -1.599000 | 0.120000 |
| 361503\_at | Eps8l1 | EPS8-like 1 | -1.603000 | 0.123000 |
| 116777\_at | Cdh3 | cadherin 3 | -1.606000 | 0.131000 |
| 57395\_at | Tmem27 | transmembrane protein 27 | -1.607000 | 0.045000 |
| 29576\_at | Wisp2 | WNT1 inducible signaling pathway protein 2 | -1.609000 | 0.035000 |
| 289993\_at | Cdkn3 | cyclin-dependent kinase inhibitor 3 | -1.616000 | 0.063000 |
| 294712\_at | Cenpk | centromere protein K | -1.621000 | 0.063000 |
| 315215\_at | Mlc1 | megalencephalic leukoencephalopathy with subcortical cysts 1 | -1.629000 | 0.050000 |
| 364648\_at | Shcbp1 | Shc SH2-domain binding protein 1 | -1.629000 | 0.105000 |
| 360646\_at | Limd2 | LIM domain containing 2 | -1.630000 | 0.109000 |
| 24693\_at | Ptgs1 | prostaglandin-endoperoxide synthase 1 | -1.632000 | 0.070000 |
| 305354\_at | Tlr1 | toll-like receptor 1 | -1.641000 | 0.064000 |
| 360243\_at | Top2a | topoisomerase (DNA) II alpha | -1.674000 | 0.061000 |
| 59265\_at | Phlpp1 | PH domain and leucine rich repeat protein phosphatase 1 | -1.685000 | 0.048000 |
| 246323\_at | Aard | alanine and arginine rich domain containing protein | -1.691000 | 0.036000 |
| 295538\_at | Depdc1 | DEP domain containing 1 | -1.701000 | 0.041000 |
| 171398\_at | Ust5r | integral membrane transport protein UST5r | -1.702000 | 0.034000 |
| 94195\_at | S100a9 | S100 calcium binding protein A9 | -1.703000 | 0.014000 |
| 293502\_at | Kif22 | kinesin family member 22 | -1.706000 | 0.063000 |
| 257649\_at | Cenpf | centromere protein F | -1.711000 | 0.050000 |
| 685451\_at | Gng13 | guanine nucleotide binding protein (G protein). gamma 13 | -1.726000 | 0.122000 |
| 312701\_at | Cd163 | CD163 molecule | -1.729000 | 0.022000 |
| 100534597\_at | Apitd1 | apoptosis-inducing. TAF9-like domain 1 | -1.729000 | 0.060000 |
| 680089\_at | Ncaph | non-SMC condensin I complex. subunit H | -1.742000 | 0.032000 |
| 361308\_at | Kif20a | kinesin family member 20A | -1.744000 | 0.045000 |
| 54237\_at | Cdk1 | cyclin-dependent kinase 1 | -1.752000 | 0.031000 |
| 363028\_at | Spc24-ps1 | SPC24. NDC80 kinetochore complex component. homolog (S. cerevisiae). pseudogene 1 | -1.759000 | 0.035000 |
| 100361706\_at | LOC100361706 | lambda-chain C1-region-like | -1.769000 | 0.129000 |
| 292843\_at | Siglec5 | sialic acid binding Ig-like lectin 5 | -1.775000 | 0.013000 |
| 307092\_at | Akr1c1 | aldo-keto reductase family 1. member C1 | -1.790000 | 0.015000 |
| 361266\_at | Akr1c12 | aldo-keto reductase family 1. member C12 | -1.798000 | 0.008000 |
| 361921\_at | Ect2 | epithelial cell transforming sequence 2 oncogene | -1.811000 | 0.046000 |
| 29393\_at | Col1a1 | collagen. type I. alpha 1 | -1.823000 | 0.045000 |
| 54242\_at | Cpa3 | carboxypeptidase A3. mast cell | -1.848000 | 0.013000 |
| 296137\_at | Bub1 | BUB1 mitotic checkpoint serine/threonine kinase | -1.892000 | 0.013000 |
| 114592\_at | Aurkb | aurora kinase B | -1.907000 | 0.013000 |
| 308761\_at | Prc1 | protein regulator of cytokinesis 1 | -1.911000 | 0.015000 |
| 306439\_at | Gpm6a | glycoprotein m6a | -1.919000 | 0.011000 |
| 116547\_at | S100a8 | S100 calcium binding protein A8 | -1.931000 | 0.007000 |
| 360559\_at | Fam64a | family with sequence similarity 64. member A | -1.962000 | 0.006000 |
| 296368\_at | Ube2c | ubiquitin-conjugating enzyme E2C | -1.974000 | 0.013000 |
| 84386\_at | Slpi | secretory leukocyte peptidase inhibitor | -1.976000 | 0.007000 |
| 362256\_at | Snhg11 | small nucleolar RNA host gene 11 (non-protein coding) | -1.976000 | 0.007000 |
| 64193\_at | Pttg1 | pituitary tumor-transforming 1 | -1.981000 | 0.011000 |
| 498335\_at | Cxcl13 | chemokine (C-X-C motif) ligand 13 | -2.030000 | 0.013000 |
| 311336\_at | Nusap1 | nucleolar and spindle associated protein 1 | -2.035000 | 0.008000 |
| 680329\_at | LOC680329 | immunoglobulin lambda-like polypeptide 5-like | -2.097000 | 0.008000 |
| 296060\_at | Arhgap11a | Rho GTPase activating protein 11A | -2.135000 | 0.004000 |
| 306283\_at | Anxa8 | annexin A8 | -2.171000 | 0.006000 |
| 361945\_at | Postn | periostin. osteoblast specific factor | -2.271000 | 0.005000 |
| 25203\_at | Ccnb1 | cyclin B1 | -2.299000 | 0.000000 |
| 64347\_at | Sncg | synuclein. gamma (breast cancer-specific protein 1) | -2.648000 | 0.007000 |
| 310693\_at | Cd5l | Cd5 molecule-like | -2.679000 | 0.000000 |
| 25241\_at | Aqp5 | aquaporin 5 | -2.703000 | 0.000000 |
| 114598\_at | Clec4f | C-type lectin domain family 4. member F | -4.300000 | 0.000000 |