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atgtctgctagtttgatactggagatthttcaagaatttcttaagcatggacttacagct
M S A S L D T G D F Q E F L K H G L T A
attgctctgcaccaggtcagagactcgccactccccaaacgtgaggaacaactccgg
I A S A P G S E T R H S P K R E E Q L R
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E K R A G L P D R H R R P I P A R S R L
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V M L P K V E T E A P G L V R S H G E Q
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G Q M P E N M Q V S Q F K M V N Y S Y D
gaagatctggaagagctatgtcctgtgtgtggcgataaagtgtctgggtaccattacggt
E D L E E L C P V C G D K V S G Y H Y G
ctcctcacgtgcgaaagctgcaagccgtaagagccgaccgcatgcgagggggcagaaata
L L T C E S C K P *

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Supplementary Table 1: Summary of LC/MS parameters used to measure bile acids

Compound	Retention Time (min)	Ion Monitored [M-H] ⁻ (m/z)
Taurine-Conjugates		
tLCA	10.8	482
tUDCA	4.1	498
tHDCA	4.4	498
tCDCA	7.3	498
tDCA	8.0	498
tα-MCA	3.5	514
tβ-MCA	3.5	514
tω-MCA	3.5	514
tHCA	4.1	514
tCA	5.2	514
tLCA-3-SO ₄	4.0	562
Unconjugated		
LCA	22.4	375
Murocholic acid	7.8	391
UDCA	9.1	391
HDCA	10.7	391
CDCA	17.3	391
DCA	18.0	391
CDCA-D ₄	17.3	395
β-MCA	7.4	407
ω-MCA	7.0	407
α-MCA	7.0	407
CA	11.8	407
LCA-3-SO ₄	10.8	455

LCA, lithocholic acid; UDCA, ursodeoxycholic acid; HDCA, hyodeoxycholic acid; CDCA, chenodeoxycholic acid; DCA, deoxycholic acid; MCA, muricholic acid; HCA, hyocholic acid; CA, cholic acid.

Supplementary Table 2. RT-qPCR primer sequences

Genes	Accession number	Forward Primer	Reverse Primer
ABCG5	AF312713	TCAATGAGTTTTACGGCCTGAA	GCACATCGGGTGATTTAGCA
ABCG8	AF324495	TGCCCACCTTCCACATGTC	ATGAAGCCGGCAGTAAGGTAGA
APOA1	NM_009692	TCCTCCTTGGGCCAACA	GAACCCAGAGTGTCACAGTTT
ASBT	NM_011388	TGACTCGGGAACGATTGTG	GGAATAACAAGAGCAACCAGAGAA
BSEP	NM_021022	AAGCTACATCTGCCTTAGACACAGAA	CAATACAGGTCCGACCCTCTCT
MYC	NM_010849	CACCACCAGCAGCGACTCT	CCACAGACACCACATCAATTTCTT
CCND1	BC044841	GCCGAGAAGTTGTGCATCTACA	TGTTCCACCAGAAGCAGTTCCATT
CCNE1	X75888	CCAAGATTGACAAGACTGTGAAAA	GGTCCACGCATGCTGAATTA
CYP27A1	NM_024264	GCCTCACCTATGGGATCTTCA	TCAAAGCCTGACGCAGATG
CYP7A1	L23754	AGCAACTAAACAACCTGCCAGTACTA	GTCCGGATATTCAAGGATGCA
CYP7B1	NM_007825	TAGCCCTCTTTCCTCCACTCATA	GAACCGATCGAACCTAAATTCCT
CYP8B1	AF090317	GCCTTCAAGTATGATCGGTTCTT	GATCTTCTGCCCAGCTTGTAGA
FGF15	NM_008003	ACGGGCTGATTTCGCTACTC	TGTAGCCTAAACAGTCCATTTCTT
FXR	NM_009108	TCCGGACATTCAACCATCAC	TACTGCACATCCCAGATCTC
HMGCR	XM_127496	CTTGTGGAATGCCTTGTGATTG	AGCCGAAGCAGCACATGAT
HMGCS1	NM_145942	GCCGTGAACTGGGTCGAA	GCATATATAGCAATGTCTCCTGCAA
HNF4 α	NM_008261	ACCAAGAGGTCCATGGTGTTT	GTGCCGAGGGACGATGTAG
IBABP	NM_008375	TTGAGAGTGAGAAGAATTACGATGAGT	TTTCAATCACGTCTCCTGGAA
LRH-1	NM_030676	GAAGTGTCCAAAACCAAAAAAGG	CGTTTTCTCTGCGTTTTGTCA
MDR2	NM_008830	CTTGAGGCAGCGAGAAATG	GGTTGCTGATGCTGCCTAGT
MRP2	AF282773	GCTGGGAGAAATGGAGAATGT	ACTGCTGAGGGACGTAGGCTAT
MRP3	NM_029600	AGCTGGGCTCCAAGTTCTG	GTGTGAGGTCCGGAGTGTTG
NTCP	U95131	GAAGTCCAAAAGGCCACACTATGT	ACAGCCACAGAGAGGGAGAAAG
OST α	NM_145932	AACAGAACATGGGATCCAAGTTT	CAGGGCGGTCAGGATGA
OST β	NM_178933	GACAAGCATGTTCTCCTGAGA	TGTCTTGTGGCTGCTTCTTTC
SHP	NM_011850	CGATCCTCTTCAACCCAGATG	AGGGCTCCAAGACTTCACACA
SCARB1	BC004656	TCCCCATGAACTGTTCTGTGAA	TGCCCGATGCCCTTGA
18S	M10098	ACCGCAGCTAGGAATAATGGA	GCCTCAGTTCCGAAAACCA
Cyclophilin	NM_011149	GGAGATGGCACAGGAGGAA	GCCCAGTAGTCTTCAGCTT