Supporting Information for

Original article

Ablation of gut microbiota alleviates obesity-induced hepatic steatosis and glucose intolerance by modulating bile acid metabolism in hamsters

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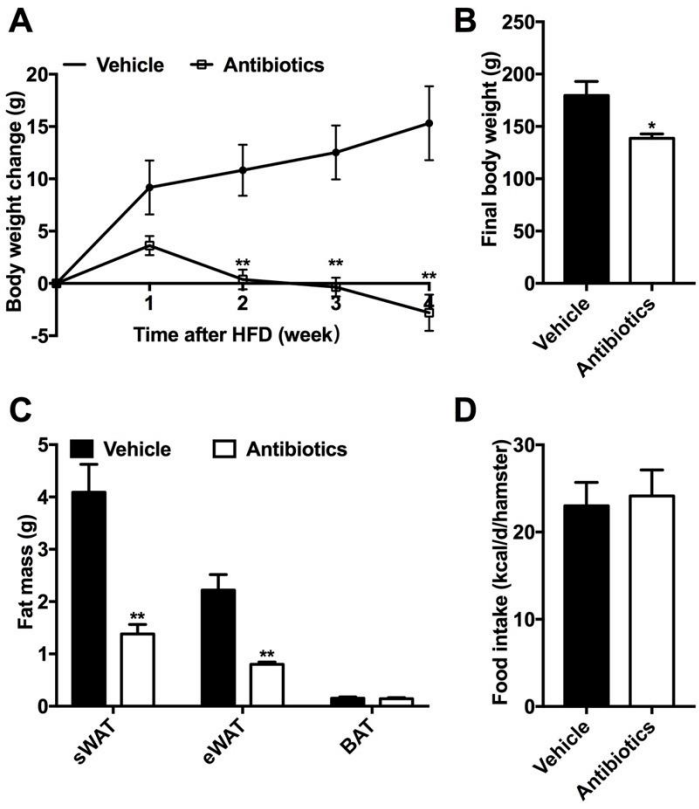

Figure S1 Ablation of gut microbiota ameliorates HFD-induced metabolic disorders in hamsters. The hamsters were fed a 60% high-fat diet and given vehicle or antibiotics for 4 weeks. (A) Body weight change; (B) Final body weight; (C) Fat mass of subcutaneous white adipose tissue (sWAT), epididymal white adipose tissue (eWAT) and brown white adipose tissue (BAT); (D) Daily food intake. Data are presented as the mean±SEM, n=5 hamsters/group. $^{*}P<0.05$, $^{**}P<0.01$ *versus* vehicle by two-tailed Student's *t*-test.

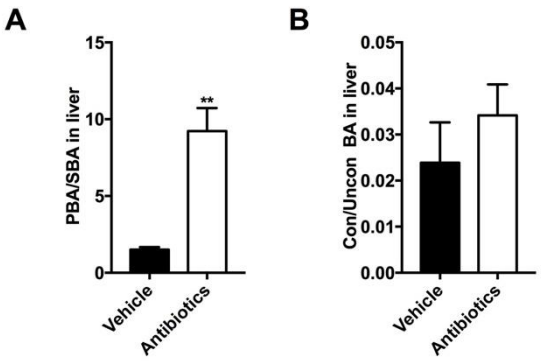

Figure S2 Bile acid levels in the liver after antibiotic treatment. The hamsters were fed a 60% high-fat diet and given vehicle or antibiotics for 4 weeks. (A) The ratio of primary bile acids to secondary bile acids in the liver [PBA/SBA=(GCDCA+TCDCA+CDCA+CA+TCA+GCA+*β*MCA+T*β*MCA)/(LCA+HDCA+UDCA+DCA+GDCA+GUDCA+TLCA+TUDCA+TDCA+THDCA)]. (B) The ratio of conjugated bile acids to unconjugated bile acids in the liver [ConBA/UnconBA=(GCDCA+GDCA+GUDCA+GCA+TLCA +TUDCA+TDCA+THDCA+TCA+TβMCA)/(LCA+HDCA+CDCA+UDCA+DCA+CA+*β*MCA). Data are presented as the mean±SEM, *n*=5 hamsters/group. $^{*}P<0.05$, $^{**}P<0.01$ *versus* vehicle by two-tailed Student's *t*-test.

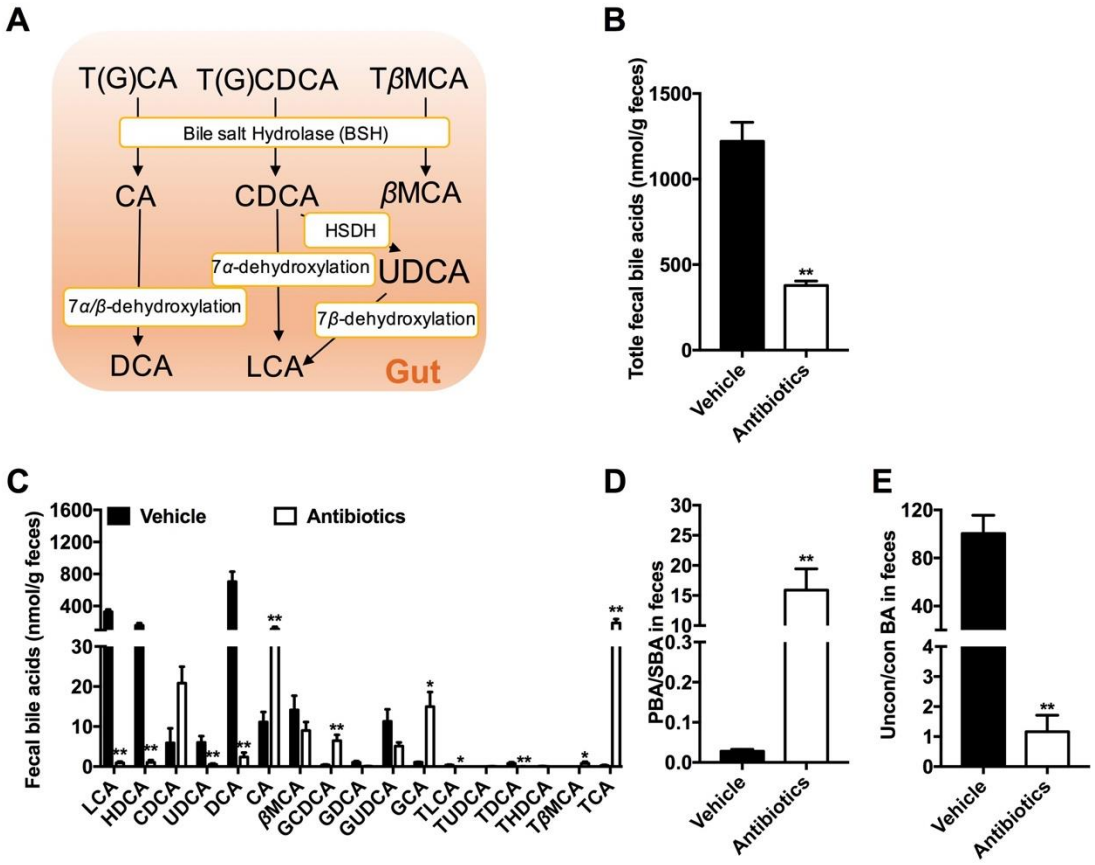

Figure S3 Bile acid levels in the feces after antibiotic treatment. The hamsters were fed a 60% high-fat diet and given vehicle or antibiotics for 4 weeks. (A) Gut microbiota-mediated bile acid metabolism in the gut; (B) Total content of fecal bile acids; (C) Fecal bile acid levels; (D) The ratio of primary bile acids to secondary bile acids in the feces; (E) The ratio of unconjugated bile acids to conjugated bile acids in the feces. Data are presented as the mean±SEM, n=5 hamsters/group. $^{*}P<0.05$, $^{**}P<0.01$ *versus* vehicle by two-tailed Student's *t*-test.

Table S1 Sequences of the real-time PCR primers used in this study.

Primers	Forward	Reverse
Fxr	TGCGACAGATTGGTTCTAGGT	TTTCGGAGGGGTTAGACAGC
Shp	AGGGAGGCCTTGGATGTC	AGAAGGACGGCAGGTTCC
Fgf19	ATTACTCGGCGGAAGACTGC	TGGAGCCGTTGCCTGTATTT
Ntcp	CTTACTCAGTGTGGCGGTCA	GAGAGCAGAGAGAGCGTAGC
Bsep	ATGCACTACGGCTGGATCTG	CAGGTGATACAAGGGCAGGG
Abcc2	GAGGCAGTACACCATCGGAG	CAGAGCACTTGACCACACCA
Abcc3	ACAGGCACCAGTGTCATCAG	TTGGAGGCGATGTAGGGGTA
Srebp1c	CTTTTCGGTAAGGCGGGC	TGGAGCATGTCTTGGATGTCG
Fasn	GATTCGGTGCGTCCTGGTAT	CCCATCACGGTACACGTTCA
Scd1	GGAGAAGCAGAAGACCGTTCC	CCCCTCCTCATCCTGGTAGC
Acaca	TGATCTGCTGTCACCTTTCGC	ATCCAGGAGTGGCTTGCCTT
Elovl6	TCCTCGTTTGACTTCACGCA	TACCCCAAATCAGGCAGAGC
Cd36	GTCTCCTTCAACGGTCATCCT	GAACTACCCACCAGTTGCTCC
Cpt1	TTGAGTAGTTGCCCAAGGTGC	ACACACCCCTAAGGATGCCA
Acox1	CGTCCGTCCCAAGAACTCC	GGGTCGTATGTGGCTGTAGT
Ucp1	GCCACCTACACGGGATCAAA	GGTTAGGGGTCGTCCCTTTC
Elovl3	TTCTTCCAGCAAGCCTACCTC	TCTTGGTGGTCATAGCTCCCT
Cox8b	CTACGGTTTCTGGGCTGTGT	ACAGGGTGCATGAGAAGCTC
Tmem26	AACTGGTATGCCCCTCCTCT	ATCAGGACAAGGCGCACAAT
Prdm16	TGCATCAAAAAGATCTCTGAAGAC	TCCAGGCTCAACGTCCTTAAT
Pgc1a	CACCTACTACACCGATGGGC	ACTCCTGGTTGGGGACCTTA
Cidea	CGATTCGTGTCCTATGCTGC	GGGAGACTGTTCTTCCGCAT
Cyp7a1	ACTGCTAAGGAGGATTTCACTCT	CTCATCCAGGATTTCACTCT
Cyp8b1	GATGGCACCCGGAAAGTGGA	TAGTGGTGGATCTTCTTGCC
Cyp27a1	AGGAAGTGACCCAGTTTGTGTT	GGTGTTGGACCCTGGAGTTT
Cyp7b1	ATGGAAGGAGCCAAGACACC	CCAGGATTAGTAGGGTGGCG
Il-6	GGAGTGGCCAAGAACCAAGA	ATGCTAAGGCACAGCACACT
Tnfα	AGAATCCGGGCAGGTCTACT	TATCCCGGCAGCTTGTGTTT
Il-1β	GCAGTTCCCCAACTGGTACA	TAAATCCTGGCCGCTGTTGT
18S rRNA	TAAGTCCCTGCCCTTTGTACACA	GATCCGAGGGCCTCACTAAAC