

Table S1. Ingredient composition of the experimental diets (As-fed basis)

Items	0 ~ 21d	21 ~ 42d	21 ~ 42d
	Basal diet	Basal diet	BA diet
Ingredients (%)			
Corn	58.38	64.06	64.06
Soybean meal	27.50	22.00	22.00
Corn gluten meal	5.00	5.00	5.00
Soybean oil	4.00	4.00	4.00
CaHPO ₄	1.80	1.80	1.80
NaCl	0.40	0.30	0.30
Limestone	1.30	1.30	1.30
Choline chloride	0.10	0.10	0.10
L-Lysine-HCl	0.22	0.18	0.18
DL- Methionine	0.20	0.16	0.16
L- Threonine	0.10	0.10	0.10
Premix ¹	1.00	1.00	1.00
Bile Acid Compound	-	-	0.02

¹ The nutrients provided per kilogram of premix as follows. Vitamin A, 5000 IU; Vitamin D, 3000 IU; Vitamin E, 75 mg; Vitamin K₃, 18.8 mg; Vitamin B₁, 9.8 mg; Vitamin B₂, 28.8 mg; Vitamin B₆, 19.6 mg; Vitamin B₁₂, 0.1 mg; Calcium pantothenate, 58.8 mg; Niacin, 196.0 mg; Folic acid, 4.9 mg; Biotin, 2.5 mg; Cu (as copper sulfate), 4.0 mg; Fe (as ferrous sulfate), 40.0 mg; Zn (as zinc sulfate), 37.6 mg; Mn (as manganese sulfate), 50.0 mg; Se (as sodium selenite), 0.2 mg; I (as potassium iodide), 0.2 mg.

Table S2. Primers of the lipid metabolism and bile acid synthesis related genes in liver

Gene ¹	GenBank ID	Primer sequence
FXR	NM_204113.2	F:5'-CAGAAAGAATGCAGCGGCTC-3'
		R:5'-CAAACCTGCCCCATTTTGCGA-3'
FAS	NM_205155.3	F:5'-GCTAAGATGGCATTGCACGG-3'
		R:5'-TGCCAGAGCCTCCACTATCT-3'
SREBP-1c	XM_015294109.2	F:5'-AGGCGGAGGTGATGGAGAT-3'
		R:5'-TCGGAGTCACTGCTGCTGTT-3'
ApoB	NM_001044633.1	F: 5'-GGTTACTCCCACGATGGCAA-3'
		R:5'-TCGCAGAAATGCCCTTCCTT-3'
HMGCR	NM_204485.2	F: 5'-CTCGGCCGGGCGATTTG-3'
		R:5'-AAGTTGTCGCACTCCTGACAT-3'
CYP7A1	NM_001001753.1	F: 5'-TGCTCCGCATGTTCTGAAT-3'
		R:5'-AGAAGGTAAACAAGCTCCAAAAAGT-3'
CYP8B1	XM_025147312.1	F: 5'-CCTTTCGGAGACGAAGACCC-3'
		R:5'-AAGTCCAGTGCCTAACCAG-3'
CYP27A1	XM_422056.6	F: 5'-ACTTTCGTCTGGCTCTTCCTG-3'
		R:5'-GTGGCCAAAGGTTGACTTCC-3'
GAPDH	NM_204305.1	F: 5'-GGCACTGTCAAGGCTGAGAA-3'
		R:5'-CACCTGCATCTGCCCATTG-3'

¹SREBF1, sterol regulatory element binding transcription factor 1; FAS, fatty acid synthase; SREBP-1c, sterol regulatory element binding protein-1c; ApoB, apolipoprotein B; HMGCR, 3-hydroxy-3-methylglutaryl-coenzyme A reductase; CYP7A1, cholesterol 7 α -hydroxylase; CYP8B1, sterol 12 α -hydroxylase; CYP27A1, sterol 27-hydroxylase; GAPDH was used as an internal control for normalizing the mRNA levels of tested gene.

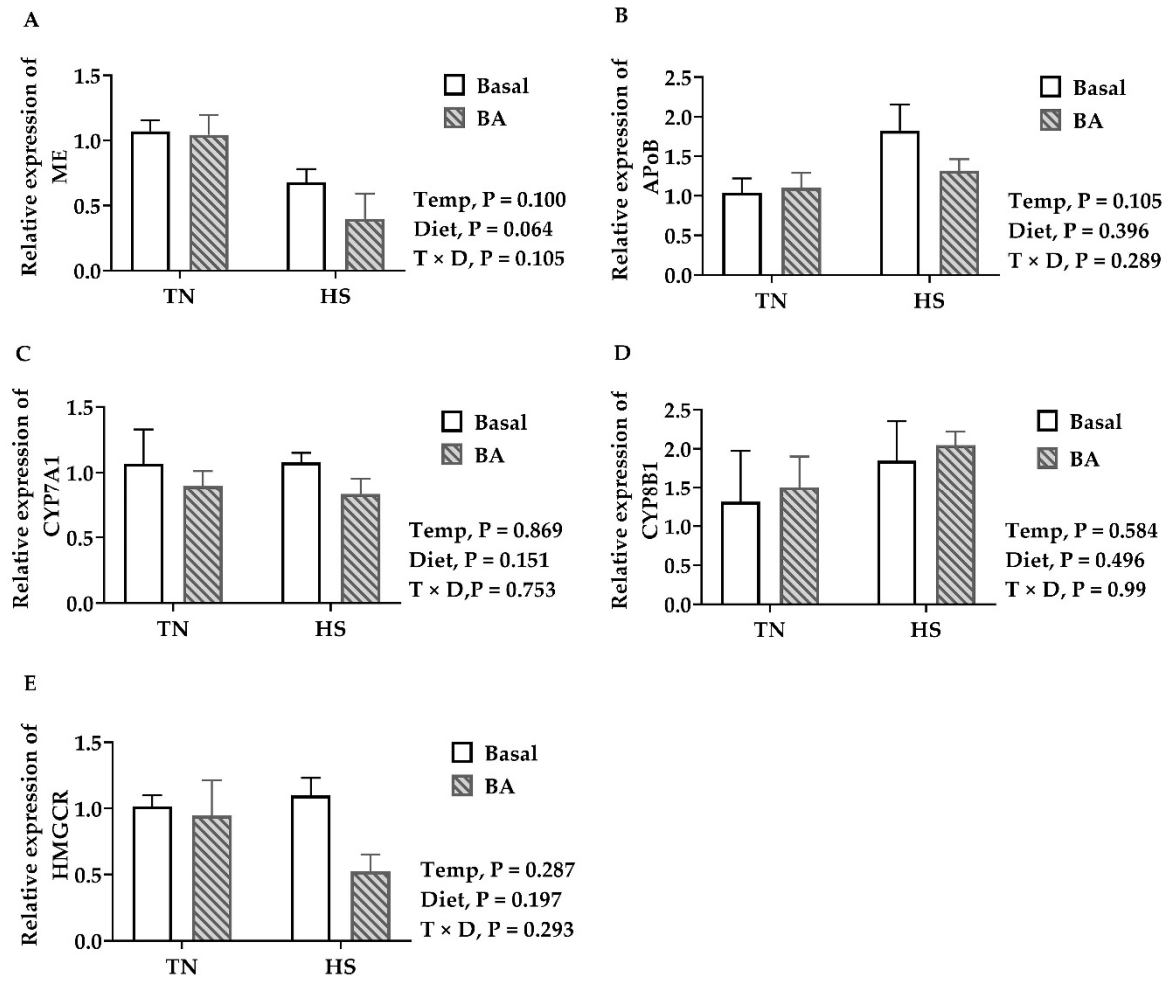


Figure 1. Gene expressions in the liver of broilers fed with 0 or 200 mg/kg bile acids under thermoneutral (TN) and heat-stressed (HS) conditions. (A) ME, melic enzyme; (B) ApoB, apolipoprotein B; (C) CYP7A1, cholesterol 7 α -hydroxylase; (D) CYP8B1, sterol 12 α -hydroxylase ;(E) HMGCR, 3-hydroxy-3-methyl glutaryl coenzyme A reductase. Data were the means $\pm$ SEM ($n = 6$ for each group). * $P < 0.05$.