

Supplementary Information

Table S1 Primer sets used for quantitative PCR

Target Gene	Accession No.	Sequence (5'→3')
PGC-1 α	NM_008904.3	F: AGAGAGGCAGAAGCAGAAAGCAAT R: ATTCTGTCCGCGTTGTGTCAGG
FAS	NM_007988.3	F: ACCTCTCCCAGGTGTGTGAC R: CCTCCCGTACACTCACTCGT
ACC	NM_133360.3	F: CTCTGCTAGAGCTGCAGGAT R: CTGGGAAACTGACACAGGAC
TRPV1	NM_001001445.2	F: CAACAAGAAGGGGCTTACACC R: TCTGGAGAATGTAGGCCAAGAC
β -actin	NM_007393.5	F: TGTCCACCTTCCAGCAGATGT R: AGCTCAGTAACAGTCCGCCTAGA

Table S2 Alpha diversity of gut microbiota

	LFD	HFF	LCP	HCP	p value
Ace	191.40 \pm 16.81	199.84 \pm 26.16	173.19 \pm 16.16	167.48 \pm 13.73	0.5891
Chao1	191.14 \pm 16.83	199.64 \pm 25.85	172.86 \pm 16.14	167.73 \pm 13.27	0.5883
Shannon	3.38 \pm 0.20	3.26 \pm 0.12	3.11 \pm 0.22	2.99 \pm 0.21	0.5052
Simpson	0.11 \pm 0.02	0.10 \pm 0.01	0.13 \pm 0.02	0.16 \pm 0.03	0.3630
Sobs	190.88 \pm 16.89	196.88 \pm 24.5	171.88 \pm 16.14	166.13 \pm 13.69	0.5876
Coverage	1.00 \pm 0.00	1.00 \pm 0.00	1.00 \pm 0.00	1.00 \pm 0.00	0.3449

LFD, low-fat diet; HFF, high-fat-high-fructose diet; LCP, HFF supplemented with 0.015% capsaicinoids; HCP, HFF supplemented with 0.045% capsaicinoids.