Supporting information

Supplemental Tables

Table S1 The compositions of the experimental diets (g/100g)

Ingredient	CON	CMR40	CMR80	HF	HMR40	HMR80
Soy protein	7.59	7.59	7.59	7.59	7.59	7.59
L-Arginine	0.66	0.66	0.66	0.66	0.66	0.66
L-Histidine	0.18	0.18	0.18	0.18	0.18	0.18
L-Isoleucine	0.51	0.51	0.51	0.51	0.51	0.51
L-Leucine	0.64	0.64	0.64	0.64	0.64	0.64
L-Lysine	0.11	0.11	0.11	0.11	0.11	0.11
L-Methionine	0.69	0.346	0.00	0.69	0.346	0.00
L-Phenylalanine	0.85	0.85	0.85	0.85	0.85	0.85
L-Threonine	0.65	0.65	0.65	0.65	0.65	0.65
L-Tryptophan	0.1	0.1	0.1	0.1	0.1	0.1
L-Valine	0.57	0.57	0.57	0.57	0.57	0.57
L-Glutamic acid	1.37	1.72	2.06	1.37	1.72	2.06
L-Glycine	2.08	2.08	2.08	2.08	2.08	2.08
Corn starch	64.09	64.09	64.09	44.29	44.29	44.29
maltodextrin	5.00	5.00	5.00	5.00	5.00	5.00
Sucrose	0.10	0.10	0.10	0.10	0.10	0.10
Soybean oil	2.00	2.00	2.00	2.00	2.00	2.00
Pork Lard	2.20	2.20	2.20	22.00	22.00	22.00
Cellulose	5.00	5.00	5.00	5.00	5.00	5.00
Mineral mixture-AIN-76A	3.50	3.50	3.50	3.50	3.50	3.50
Mineral vitamin-AIN-76A	1.00	1.00	1.00	1.00	1.00	1.00
Choline chloride	0.11	0.11	0.11	0.11	0.11	0.11
CMC	1.00	1.00	1.00	1.00	1.00	1.00
Total	100.00	100.00	100.00	100.00	100.00	100.00

CON,CMR40 and CMR80 diet, was mainly based upon the AIN-76A formulation; 73%, 17% and 10% of calories from carbohydrate, protein, and fat, respectively; energy density 3.8kcal/g. HF, HMR40,HMR80 41%, 14% and 45% of calories from carbohydrate, protein, and fat, respectively; energy density 4.7 kcal/g.

Amino acid composition of soy protein were as follows: 6.19% leucine, 4.11% isoleucine, 5.49% valine, 1.18% methionine, 1.66% cysteine, 4.09% phenylalanine, 2.57% tyrosine, 4.83% lysine,

2.21% threonine, 1.07% tryptophan, 1.99% histidine, 6.11% arginine, 3.30% serine, 3.25% alanine, 5.56% proline, 3.27% glycine, 17.49% glutamic acid 9.44% aspartic acid. 1 g cysteine is equal to 0.64 g methionine.

Table S2 Sequence of primers in quantitative real-time reverse transcription polymerase chain reaction

Genes	Forward(5′–3′)	Reverse (5′–3′)
ANP	GCTTCCAGGCCATATTGGAG	GGGGGCATGACCTCATCTT
BNP	GAGGTCACTCCTATCCTCTGG	GCCATTTCCTCCGACTTTTCTC
PGC-1-α	TATGGAGTGACATAGAGTGTGCT	CCACTTCAATCCACCCAGAAAG
AMPK	GTCAAAGCCGACCCAATGATA	CGTACACGCAAATAATAGGGGTT
SIRT1	GCTGACGACTTCGACGACG	TCGGTCAACAGGAGGTTGTCT
CBS	CCAGGCACCTGTGGTCAAC	GGTCTCGTGATTGGATCTGCT
CSE	TTCCTGCCTAGTTTCCAGCAT	GGAAGTCCTGCTTAAATGTGGTG
MTHFR	CTGGGCACTGTTATCCATCCC	TCCTGCTGATAGAGGGTGGC
Mtr	ATGATCCAGCGGTACAAACTAAG	CATCCGGTAGGCCAAGTGTTC
Nrf2	TTCCTCTGCTGCCATTAGTCAGTC	GCTCTTCCATTTCCGAGTCACTG
HO-1	CAGAAGGGTCAGGTGTCCAG	GAAGGCCATGTCCTGCTCTA
NQO-1	ACATCACAGGGGAGCCGAAGGACT	GGCACCCCAAACCAATACAATG
Bax	CATGAAGACAGGGGCCTTTTTG	TCAGCTTCTTGGTGGATGCGTC
Bcl-2	ACTTCTCTCGTCGCTACCGTCG	CCTGAAGAGTTCCTCCACCACC