

Table S1 Ingredient composition of the experimental diets.

	NCD	HFD
Carbohydrate (% of energy)	64.00	20.00
Protein (% of energy)	20.00	20.00
Fat (% of energy)	7.00	60.00
Energy (kcal/kg)	4000.00	5240.00
Ingredient, g/kg		
Casein (form milk)	200.00	200.00
Corn starch	397.49	0.00
Maltodextrin 10	0.00	125.00
Sucrose	100.00	68.8
Dextrose	132.00	0.00
Cellulose	50.00	50.00
Soybean oil	70.00	25.00
Mineral mixture	35.00	10.00
Vitamin mixture	10.00	10.00
TBHQ	0.01	0.00
DL -Methionine	0.00	0.00
L -Cystine	3.00	3.00
Calcium carbonate	0.00	5.50
Cholesterol	0.00	0.00
Choline bitartrate	2.50	2.00
Chokeberry powder	0.00	0.00
DiCalcium Phosphate	0.00	13.00
Calcium Carbonate	0.00	5.50
Potassium Citrate, 1H ₂ O	0.00	16.50
Lord	0.00	245.00

Table S2. The primers sequences used for PCR reaction.

Gene name	Primer's sequence
<i>GAPDH</i>	F:GGTTGTCTCCTGCGACTTCA R:TGGTCCAGGGTTTCTTACTCC
<i>IL-10</i>	F:GGTTGTCGTCTCATTCTGAAAGA R:GGTAGAGGACCCAAGTTCGTTAAGA
<i>IL-6</i>	F:CTTCTTGGGACTGATGCTGGTGAC R:AGGTCTGTTGGGAGTGGTATCCTC
<i>TNFα</i>	F:ATGTCTCAGCCTCTTCTCATTC R:GCTTGTCACTCGAATTTTGAGA
<i>IL-1β</i>	F:TCGCAGCAGCACATCAACAAGAG R:AGGTCCACGGGAAAGACACAGG
<i>ZO-1</i>	F:CTGGTGAAGTCTCGGAAAAATG R:CATCTCTTGCTGCCAAACTATC
<i>Claudin-1</i>	F:AGATACAGTGCAAAGTCTTCGA R:CAGGATGCCAATTACCATCAAG
<i>Occludin</i>	F:TGCTTCATCGCTTCCTTAGTAA R:GGGTTCACTCCCATTATGTACA
<i>C/EBPα</i>	R:GGTTTCGGGTCGCTGGAT F:CGGCCTGACTCCCTCATCT
<i>STAT5</i>	R:GCCACTGTTCTCTGGGACAATG F:ACACGAGGTTCTCCTTGGTCAG
<i>PPAR-γ</i>	R:CTGTGGGCTCACTGTTCT F:AGGGCTCATCCTGTCTTT
<i>Adiponnetin</i>	R:ATGCCTATAACACCAATACC F:TCACTTCTAAGACAGCCAAT
<i>ACBP</i>	R:AGGAGCACTACACTGACCTGA F:GGTTGGTCTCTCCAAGCATCA

F: Forward; R: Reverse