

Supplementary Materials

Table S1. Ingredients and nutrients levels of basal diets (as-fed basis, %).

Item	Content
Ingredients	
Corn	20.02
Soybean meal	8.00
Expanded soy bran	10.00
Expanded corn	35.00
Fermented soybean meal	7.00
Soybean oil	1.00
Sucrose	3.00
50% Intestinal membrane protein powder	3.00
Low protein whey powder	6.00
Fish meal	3.00
L-Lysine HCl	0.45
DL-Methionine	0.15
L-Threonine	0.15
L-Tryptophan	0.03
Choline chloride	0.10
Limestone	0.90
Dicalcium phosphate	0.90
NaCl	0.30
Vitamin and mineral premix ¹	1.00
Nutrient levels	
DM	88.57
DE, MJ/kg	14.35
CP	19.01
Ca	0.81
CF	2.73
Total P	0.58
Available P	0.42
Lysine	1.41
Methionine	0.46
Methionine + Cystine	0.73
Threonine	0.87
Tryptophan	0.25

¹Provided per kilogram of complete diet; vitamin A: 1,5500 IU; vitamin D₃: 3,000 IU; vitamin E: 40.0 mg; vitamin K: 1 mg; vitamin B₁: 4.5 mg; vitamin B₂:10.5 mg; vitamin B₆: 7 mg; vitamin B₁₂: 0.04 mg; folic acid: 2.0 mg; nicotinamide: 45 mg; D-biotin: 0.3 mg; D-pantothenic acid: 25 mg; Fe (as FeSO₄•H₂O), 100 mg; Cu (as CuSO₄•5H₂O), 6 mg; Mn (as MnSO₄•5H₂O), 20 mg; Zn (as ZnSO₄•7H₂O), 90 mg; I (as KI), 0.14 mg; Se (as Na₂SeO₃•5H₂O), 0.30 mg.

Table S2. Primers sequences of target genes selected for analysis by real-time.

Gene	Primer sequences (5'-3')	Size, bp	Temperature, °C
<i>TNF-α</i>	F: ACCTCCTCTCTGCCATCAAG R: CTGCCCAGATTCAGCAAAGT	173	60
<i>IL-1β</i>	F: ATTCAGGGACCCTACCCTCTC R: ATCACTTCCTTGGCGGGTTC	92	60
<i>IL-1α</i>	F: GCATGTGCTGAGCCTTTGTA R: CCTGGTCCTCCCAAGATTGT	181	60
<i>IL-6</i>	F: GATGCTTCCAATCTGGGTTC R: CACAAGACCGGTGGTGATTC	62	58
<i>IL-10</i>	F: CGGCCCAGTGAAGAGTTTCT R: GGCAACCCAGGTAACCCTTA	98	60
<i>SOD</i>	F: GAGACCTGGGCAATGTGACT R: CTGCCCCAAGTCATCTGGTTT	118	60
<i>GCLC</i>	F: CAAACCATCCTACCCTTTGG R: ATTGTGCAGAGAGCCTGGTT	172	58
<i>GCLM</i>	F: GATGCCGCCCGATTAACTG R: ACAATGACCGAGTACCGCAG	159	58
<i>HO-1</i>	F: CGCTCCCGAATGAACACTCT R: GCGAGGGTCTCTGGTCCTTA	148	60
<i>NQO-1</i>	F: ATCACAGGTAAACTGAAGGACCC R: TGGCAGCGTATGTGTAAGCA	229	60
<i>β-Actin</i>	F: TCTGGCACCACACCTTCT R: TGATCTGGGTCATCTTCTCAC	114	57

TNF- α , tumor necrosis factor- α ; *IL-1 β* , Interleukin-1 β ; *IL-1 α* ; Interleukin-1 α ; *IL-6*, Interleukin-6; *IL-10*, Interleukin-10; *SOD*, superoxide dismutase; *GCLC*, glutamate cysteine ligase catalytic subunit; *GCLM*, glutamate-cysteine ligase regulatory subunit; *HO-1*, heme oxygenase-1; *NQO-1*, phosphate adenine dinucleotide quinone oxidoreductase-1; *NQO-1*, NAD(P)H quinone oxidoreductase 1.