

Supplementary Materials:

Table S1. Ingredients and nutrient composition of basal diet (on an air-dried basis)

Items (%)	
Ingredient	
Corn (7.9)	61.70
Soybean meal (45)	26.09
Corn protein flour (55)	7.90
Dicalcium phosphate	1.40
Limestone	1.08
Sodium chloride	0.38
DL-Methionine	0.15
L-Lysine	0.20
Choline chloride (50%)	0.10
Premix	1.001
Total	100
Nutritional level	
Calculated nutrient	
Net energy (MJ/kg)	12.14
CP (%)	20.67
Calcium (%)	0.90
Total phosphorus (%)	0.68
Non-phytate phosphorus (%)	0.44
Items(%)	
Methionine (%)	0.48
Methionine +cystine (%)	0.81
Threonine (%)	0.75
Tryptophane (%)	0.21

Note: Premix provided per kg of diet: Cu, 8 mg; Fe, 65 mg; Zn, 80 mg; Mn, 105 mg; I, 1 mg; Se, 0.3 mg; vitamin A, 9800 IU; vitamin D3, 3100IU; vitamin E, 26 IU; vitamin B1, 2.5 mg; vitamin B2, 7 mg; vitamin B12, 0.018 mg; vitamin K, 2.2 mg; biotin, 0.09 mg; folic acid, 1 mg; pantothenic acid, 11 mg; nicotinic acid, 38 mg.

Table S2. Primer sequences and product lengths of target gene fragments.

Transcripts	Accession number		Primer sequence (5'-3')	Product (bp)	Length
<i>Keap1</i>	MF774811.1	Forward	TCACCCTCCATAAACCCACCCAAG	102	
		Reverse	AGTAGCCCAAGGACTGCCGATAG	102	
<i>Nrf2</i>	NM_001310777.1	Forward	GTTGAATCATCTGCCTGTGG	171	
		Reverse	TAAGCTAGGTGGTCGAGTGC	172	
<i>HO-1</i>	KU048806.1	Forward	AAGAGCCAGGAGAACGGTCACC	139	
		Reverse	TGCCACCAGGTCTGTCTGAC	139	
<i>SOD1</i>	XM_013097859.1	Forward	CCTGTGGTGTTCATCGGAATA	116	
		Reverse	TTGAACGAGGAAGAGCAAGTA	127	
<i>GCLC</i>	XM_027455104.1	Forward	TTCAGGTGACATTCCAGGCTTGC	108	
		Reverse	AGAACGGAGATGCAGCACTCAATG	108	
<i>GCLM</i>	XM_027462629.1	Forward	TGTTGTGTGATGCCACCTGATCTC	150	
		Reverse	CCATTCGTGTGCTTTGACGTTCTG	150	
<i>CYP1A1</i>	NM_205147.1	Forward	AGGACGGAGGCTGACAAGGTG	104	
		Reverse	AGGATGGTGGTGAGGAAGAGGAAG	104	
<i>CYP1A2</i>	XM_027466425.1	Forward	CCACGCAGATCCCAAACGAG	120	
		Reverse	TGTGAGGGTACGTCACGAGG	120	
<i>CYP2A6</i>	KX687985.1	Forward	CAGGCCCTCTCCTAAACAGATG	81	
		Reverse	AATGCAAACGGCACCTTCAGA	81	
<i>CYP3A4</i>	XM_015294357.2	Forward	GGCAGCCTGTGATGGCTATT	95	
		Reverse	ACCAAAGACCCTGCGATTGG	95	
<i>CAT</i>	KU048802.1	Forward	TGTGCGTGACTGACAACCAAGG	96	
		Reverse	ACATGCGGCTCTCCTTCACAAC	96	
<i>NQO-1</i>	XM_027466610.1	Forward	CGTCGCCGAGCAGAAGAAGATC	195	
		Reverse	CTGGTGGTGAACGACAGCATGG	195	
<i>NLRP3</i>	MH373356.1	Forward	CGCTGAACGAGGACGCACTG	124	
		Reverse	TGGAAGGGTAGTCGGGACATAGC	124	
<i>TXNIP</i>	XM_032204531.1	Forward	GCTGCCAAGAAGGAGAAGAAGGTG	130	
		Reverse	TGTTCTCGAAGTCGGCGTTGATG	130	
<i>IL-6</i>	XM_027446016.1	Forward	GCGGAACCAAGAGCAGAGATGAG	130	
		Reverse	CCACGGCAGGACTGGATAATAACC	130	
<i>IL-18</i>	NM_001310420.1	Forward	GGCTCTGTCCCAAGGCAGGAG	124	
		Reverse	GCCACTCTGCGTCAGCTTCAC	124	
<i>GST</i>	LOC101797566	Forward	ACAAGGCTGCAACCAGATACTTCC	178	
		Reverse	ACTGCACATCTGCTCTGCTAAGC	178	
<i>GPX</i>	XM_027459004.1	Forward	GAACGGCACCAACGAGGAGATC	99	
		Reverse	TTCACCTGGCACTTCTGGAACAG	99	
<i>GAPDH</i>	EF667345.1	Forward	ATGTCGCCCTGGATTTTCG	62	
		Reverse	CACAGGACTCCATACCCAAGAA	62	

Keap1: Kelch-like ECH-associated protein 1; Nrf2: Nuclear Factor E2-related Factor 2; HO-1: Heme oxygenase-1; SOD1: Superoxide dismutase 1; GCLC: Glutamate-cysteine ligase modifier subunit; GCLM: Glutamate-cysteine ligase modifier subunit; CYP1A1: Cytochrome P4501A1; CYP1A2: Cytochrome P4501A2; CYP2A6: Cytochrome P4502A6; CYP3A4: Cytochrome P4503A4; CAT: Catalase; NQO-1: NADPH quinoneoxidoreductase-1; NLRP3: Nod-like receptor families pyrin domain containing 3; TXNIP: Thioredoxin interacting protein; GSH-Px: Glutathione peroxidase; IL-6: Interleukin-6; IL-18: Interleukin-18.