Supporting Information

Dietary Supplementation with Pioglitazone Hydrochloride and Resveratrol Improves Meat Quality and Antioxidant Capacity of Broiler Chickens

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Table S1. Composition and nutrient levels of the basic diet.

Ingredient	Content (%)	Nutrient	Content (%)
Corn	71.36	ME (MJ/kg) [1]	12.97
Soybean meal (46%)	19.80	Crude protein	16.50
Corn protein flour (60%)	2.79	Crude fat	5.32
Soybean oil	2.45	Crude fiber	1.97
Limestone power	1.36	Calcium	0.80
Dicalcium phosphate	0.90	Total phosphorus	0.48
Sodium chloride	0.35	Nonphytate phosphorus	0.26
L-lysine sulfate (70%)	0.33	Sodium	0.16
DL-methionine (98%)	0.14	Potassium	0.62
L-threonine (98%)	0.04	Lysine	0.93
Choline chloride (60%)	0.03	Methionine+cystine	0.70
Premix[2]	0.40		

[1] Metabolizable energy. [2] Premix contains the following per kg of diet: Cu, 5.0 mg; Fe, 76.0 mg; Zn, 47.0 mg; Mn, 73.0 mg; vitamin A, 2000 IU; vitamin D3, 400 IU; vitamin E, 20 IU; vitamin B1, 3.7 mg; niacin, 47.0 mg; pantothenic acid, 14.0 mg; folic acid, 1.3 mg; biotin, 195.0 μg; and Se, 190.0 μg.

Table S2. Sequences of the primers used for detection of the abundances of various genes.

Gene	Accession no.	Primer sequences (5′ to 3′)	Product size (bp)
PGC-1α	NM_001006457.1	F: GACGTATCGCCTTCTTGCTC R: CTCGATCGGGAATATGGAGA	158
FABP3	NM_001030889	F: ACCTGGAAGCTGGTGGATACGG R: GTCTTCACCGTCGCCTTGTCG	140
GLUT4	NM_001042.3	F: TGAGTTTCCAGTATGTTGCG R: GGTTTCAGGCACTTTTAGGA	107
NRF2	NM_205117.1	F: CAGAAGCTTTCCCGTTCATAGA R: TGGGTGGCTGAGTTTGATTAG	120
GPX4	NM_001346448.1	F: CAGTACAGGGGCTTCGTCTG R: CAGCCCCTTCTCAGCGTATC	114
SOD1	NM_205064.1	F: AGATGGCAGTGGGAAATGAG R: ACTCAAGACAGCAGAGTAGTAATG	110
GADPH	NM_204305	F: AGATGCAGGTGCTGAGTATG R: CTGAGGGAGCTGAGATGATAAC	113

Abbreviations: *FABP3*, fatty acid-binding protein 3; *PGC-1α*, peroxisome proliferator-activated receptor γ-coactivator 1α; *GLUT4*, glucose transporter 4; *GPX4*, glutathione peroxidase 4; *SOD1*, superoxide dismutase 1; and *NRF2*, nuclear factor erythroid-2-related factor 2.

Table S3. Effects of dietary with PGZ and RES on the meat quality in the breast muscle of broilers.

Parameter		Treatment				SEM	*p*-value
		Control	PGZ	RES	PGZ+RES		
Shear force (N)		21.67	21.49	21.82	21.50	0.026	0.561
Drip loss (%)		2.48 [a]	2.55 [a]	2.05 [b]	1.95 [b]	0.08	<0.05
Cooking loss (%)		19.92 [a]	19.36 [a]	18.48 [b]	16.23 [c]	0.22	<0.05
$pH_{45\ min}$		5.92	5.92	5.99	5.87	0.04	0.845
$pH_{24\ h}$		5.74	5.75	5.82	5.83	0.03	0.346
Color at 45 min	*L**	50.06	49.62	49.92	49.15	0.39	0.913
	*A**	9.26	9.30	9.39	9.43	0.28	0.574
	*B**	7.94	7.62	7.28	7.82	0.54	0.439
Color at 24 h	*L**	50.34	50.50	49.76	50.69	0.65	0.865
	*A**	8.44	8.55	8.69	8.57	0.19	0.783
	*B**	8.19	7.71	7.32	7.69	0.78	0.589
Intramuscular fat (%)		0.99 [b]	1.14 [a]	1.02 [b]	1.27 [a]	0.03	<0.05

[a-c] Values with different letters within the line means significant differences ($p < 0.05$). $n = 5$. Abbreviations: SEM, standard error of the means; *L**, lightnesss; *A**, redness; *B**, yellowness; PGZ, pioglitazone hydrochloride; and RES, resveratrol.