

Table S3. Fatty acid nutritional indices of thigh muscle from different chicken breeds.

Nutritional index	AA chicken	Chengkou chicken	Langshan chicken
PUFA/SFA	0.862	1.079	0.831
<i>n</i> -6/ <i>n</i> -3 PUFA ratio ¹	14.77	13.970	23.95
Index of atherogenicity (IA)	0.340	0.322	0.343
Index of thrombogenicity (IT)	0.905	0.827	1.004
Hypocholesterolemic/hypercholesterolemic ratio (HH)	2.569	2.841	2.580
Health-promoting index (HPI)	2.939	3.104	2.919

Note: Nutritional indices were calculated using the breed-group mean fatty acid contents reported in Table 2 (based on *n* = 6 biological replicates per breed). C12:0, C14:0, and C22:5n3 (DPA) were absent from the quantified fatty acid dataset and therefore contributed zero to the calculations. ¹C20:2 (eicosadienoic acid) was classified as an *n*-6 polyunsaturated fatty acid (C20:2n6) and included in the calculation of Σn -6 PUFA for the *n*-6/*n*-3 ratio and IT index. IA and IT were calculated according to Ulbricht and Southgate (1991), HH according to Santos-Silva et al. (2002), and HPI according to Chen et al. (2004).

$$\text{PUFA/SFA} = \Sigma \text{PUFA} / \Sigma \text{SFA};$$

$$n\text{-6}/n\text{-3} = \Sigma n\text{-6 PUFA} / \Sigma n\text{-3 PUFA};$$

$$\text{IA} = [\text{C12:0} + (4 \times \text{C14:0}) + \text{C16:0}] / \Sigma \text{UFA};$$

$$\text{IT} = (\text{C14:0} + \text{C16:0} + \text{C18:0}) / [(0.5 \times \Sigma \text{MUFA}) + (0.5 \times \Sigma n\text{-6 PUFA}) + (3 \times \Sigma n\text{-3 PUFA}) + (\Sigma n\text{-3 PUFA} / \Sigma n\text{-6 PUFA})];$$

$$\text{HH} = (\text{C18:1n9c} + \text{C18:2n6c} + \text{C18:3n3} + \text{C20:4n6} + \text{C20:5n3} + \text{C22:6n3}) / (\text{C14:0} + \text{C16:0});$$

$$\text{HPI} = \Sigma \text{UFA} / [\text{C12:0} + (4 \times \text{C14:0}) + \text{C16:0}].$$