

Supplementary materials

Table S1 Ingredients and nutrients levels of basal diets (%)

Item	Content
Ingredient	
Corn grain	22.75
Flours	10.00
Ground rice	15.00
Soybean oil	1.00
Glucose	2.50
Whey powder (High protein)	5.00
Wheat grain	2.50
Corn Soya Meal Blend	15.00
Soybean meal	5.00
Fermented soybean meal	2.50
Puffed soybeans	5.00
Soybean protein concentrate	4.00
Fish meal	2.00
Broken wall yeast powder	1.25
Bran	2.5
Premix ¹	4.00
Total	100.00
Nutrient level (%)	
Digestible energy (MJ/kg)	14.34
Crude Protein	17.2
Total Ca	0.75
Total P	0.70

¹The premix provided the following per kg of diets: VA 14,000 IU, VB₁ 2.4mg, VB₂ 8mg, VB₁₂ 0.032mg, VD₃ 3,000 IU, dL-a- tocopherols 48.4mg, VB₇ 0.4mg, VB₅ 21.6mg, VB₉ 2mg, Fe (as FeSO₄ · H₂O) 70mg, Zn (as ZnO) 90mg, Cu (as CuSO₄·5H₂O) 20mg, Se (Na₂SeO₃) 0.08mg.

Table S2 Antioxidant indices in plasma of weaning piglets¹

Item	Ctrl	LPS	RBO+LPS
DAO (U/ml)	0.64±0.07 ^b	1.54±0.17 ^a	0.63±0.19 ^{bc}
MDA (nmol/ml)	0.84±0.09 ^b	4.22±0.64 ^a	2.19±0.57 ^{bc}
CAT (U/ml)	62.44±6.24 ^b	30.01±3.73 ^a	61.44±10.56 ^{bc}
SOD (U/ml)	13.44±0.88 ^b	9.70±0.45 ^a	12.79±0.84 ^{bc}
T-AOC (μmol/ml)	0.34±0.02 ^b	0.25±0.03 ^a	0.35±0.01 ^{bc}

¹The data followed by different capital letters in the same column are significantly different ($P<0.05$). Data are expressed as mean±SEM, $n=7$.

Table S3 Immunological indices in plasma of weaning piglets¹

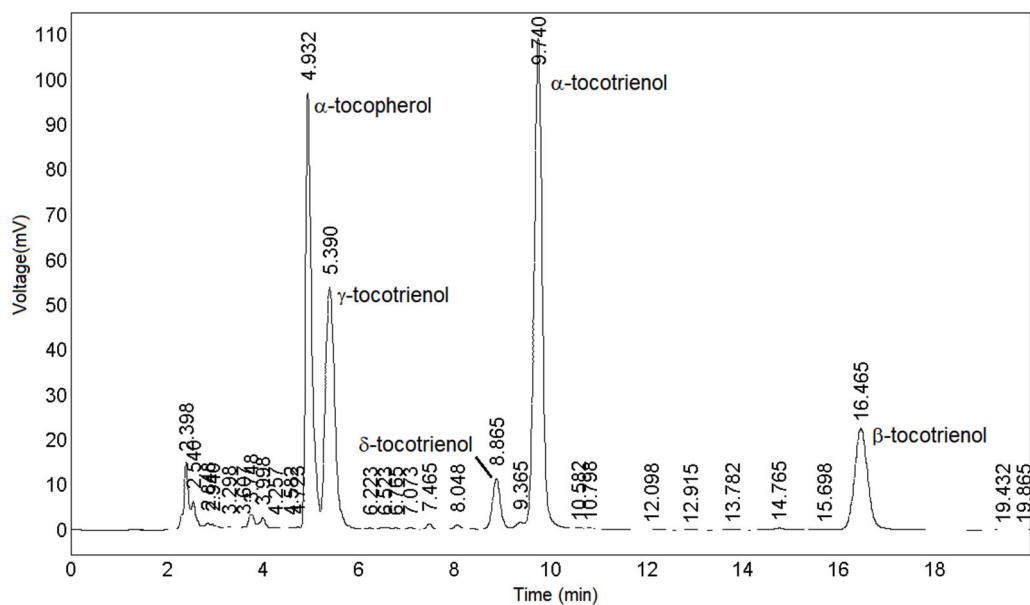
Item	Ctrl	LPS	RBO+LPS
IgG (μg/ml)	113.80±1.68	94.52±4.25	119.63±4.49
IgA (μg/ml)	11.21±0.76 ^{ab}	9.37±0.42 ^a	12.84±0.48 ^b
IgM (μg/ml)	22.92±0.31 ^b	16.34±1.15 ^a	25.14±0.56 ^{bc}
β-defensin-1(pg/ml)	45.10±0.77 ^{ab}	43.90±0.61 ^a	52.56±1.55 ^b
Lysozyme (μg/ml)	4.86±0.15 ^b	4.03±0.07 ^a	5.11±0.14 ^{bc}

¹The data followed by different capital letters in the same column are significantly different ($P<0.05$). Data are expressed as mean±SEM, $n=7$.

Table S4 The concentrations of SCFAs in feces of piglets (μmol/g)¹

Item	Ctrl	LPS	RBO+LPS
Acetate	91.49±9.97 ^b	73.62±18.05 ^a	104.18±16.63 ^{bc}
Propionate	25.24±8.20 ^b	16.75±2.96 ^a	40.02±6.97 ^{bc}
Butyrate	31.81±7.69 ^b	18.53±6.12 ^a	28.63±5.18 ^{bc}
Total SCFAs	148.54±29.80	108.90±26.40	172.83±33.26

¹The data followed by different capital letters in the same column are significantly different ($P<0.05$). Data are expressed as mean±SEM, $n=7$.

**Fig. S1 The ultra-performance liquid chromatography chromatogram of RBO.**