

Supplementary Materials

Table S1. Macronutrient content, Bioactive content, Antioxidant and Enzymatic Inhibitory activities of pomegranate seed flour (PSF).

Macronutrient content (per 100 g flour)				
Protein (g)	Carbohydrates (g)		Total Fats (g)	Dietary Fiber (g)
4.67	18.74		11.49	28.92
PSF Bioactive content				
TPC (mg quercetin equivalents (QE) per 100 g of dried weight)			TFC (mg gallic acid equivalents (GAE) per 100 g of dried weight)	
0.09			0.05	
PSF Antioxidant activity				
FRAP Test	β-Carotene Bleaching Test		DPPH Test	ABTS Test
	t = 30 min	t = 60 min		
μM Fe (II)/g	Inhibition (%) at 100 μg/mL	Inhibition (%) at 100 μg/mL	Inhibition (%) at 500 μg/mL	Inhibition (%) at 500 μg/mL
8.30 ± 0.05	61.31 ± 8.03	63.88 ± 8.11	42.58 ± 6.21	58.99 ± 7.01
PSF Enzymatic inhibitory activity				
α-Glucosidase	α-Amylase		Pancreatic Lipase	
Inhibition (%) at 1000 μg/mL	Inhibition (%) at 1000 μg/mL		Inhibition (%) at 1000 μg/mL	
57.25 ± 4.77	87.38 ± 9.43		32.33 ± 4.11	

PSF: Pomegranate seeds flour extract. Data are shown as mean of triplicate and the experiment was independently replicated three times $\pm$ SD. Ascorbic acid, BHT and propyl gallate were used as positive control in the antioxidant tests: ascorbic acid IC_{50} of 5.02 $\pm$ 0.79 $\mu\text{g/mL}$ in the DPPH test, and 1.75 $\pm$ 0.12 $\mu\text{g/mL}$ in ABTS test; BHT 63.26 $\pm$ 2.71 $\mu\text{MFe (II)/g}$ in the FRAP test; propyl gallate was used in the β -carotene bleaching test with IC_{50} of 0.09 $\pm$ 0.04, and 0.08 $\pm$ 0.06 $\mu\text{g/mL}$ at t = 30 and 60 min, respectively. Acarbose IC_{50} of 35.51 $\pm$ 1.10 $\mu\text{g/mL}$ in α -glucosidase test and IC_{50} of 50.12 $\pm$ 1.13 $\mu\text{g/mL}$ in α -amylase test. Orlistat was used as a positive control in lipase test (IC_{50} value of 37.4 $\pm$ 1.0 $\mu\text{g/mL}$).

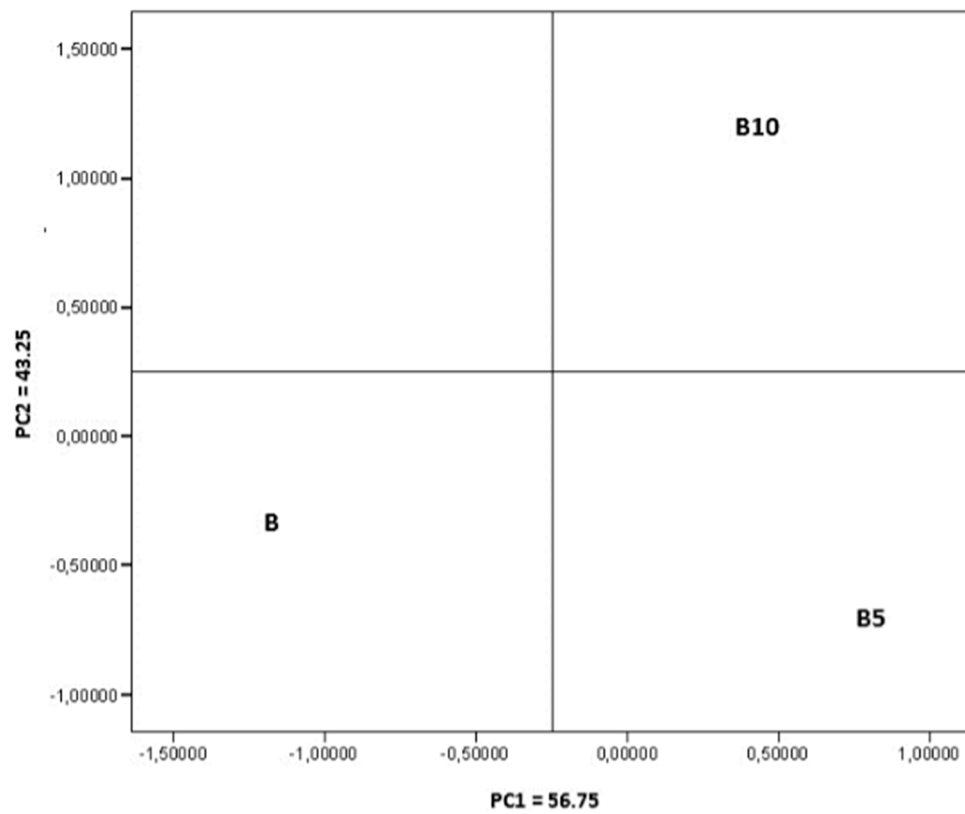


Figure S1. Score plot of the Principal Component Analysis (PCA) of cookie formulations.