

Supplementary Materials

The Use of Upcycled Grape Pomace as a Functional Ingredient in Biscuits

Table S1. Chemical composition of grape pomace Cabernet Sauvignon variety.

Component	Content (Mean \pm SD ^{%db})
Ash	4.89 \pm 0.04
NDF	50.33 \pm 1.69
ADF	40.03 \pm 2.35
ADL (lignin)	25.80 \pm 0.92
Hemicellulose	10.31 \pm 0.96
Cellulose	14.22 \pm 1.79
Crude proteins	7.38 \pm 0.13
TOC _{GP}	1.27 \pm 0.01
TOC _{LGPE}	35.63 \pm 1.14
TN	1.27 \pm 0.01
Free fats	8.18 \pm 0.59
Glucose	4.53 \pm 0.06
Arabinose	1.35 \pm 0.46
Sucrose	3.23 \pm 0.11
Fructose	8.51 \pm 0.06
TPC	53.55 \pm 2.81
TF	22.85 \pm 0.12
TPA	9.79 \pm 0.12

NDF—neutral detergent fibers, ADF—acid detergent fibers, ADL—acid detergent lignin, TOC_{GP}—total organic carbon in grape pomace, TOC_{LGPE}—total organic carbon in liquid grape pomace extract, TN—total nitrogen, TPC—total phenolic content, TF—total flavonoids content, TPA—total extractable proanthocyanidins, db—dry basis. All data are expressed as means value of replication (n = 3) \pm SD (%_{db}).

Table S2. Content of individual phenolic compounds (C) in grape pomace Cabernet Sauvignon extract determined by UHPLC analysis.

	Compounds	C ($\mu\text{g/g}_{\text{db}}$)
Phenolic acids (Hydroxybenzoic acids)	Gallic acid	383.41 \pm 2.23
	3,4-Dihydroxybenzoic acid	90.34 \pm 3.60
	<i>p</i> -Hydroxybenzoic acid	3.92 \pm 0.00
	Syringic acid	76.35 \pm 4.87
	Vanillic acid	17.73 \pm 0.37
	Ellagic acid	127.34 \pm 1.91
Phenolic acids (Hydroxycinnamic acids)	Caffeic acid	4.28 \pm 0.21
	Ferulic acid	9.34 \pm 0.24
	<i>o</i> -Coumaric acid	5.14 \pm 0.03
	<i>p</i> -Coumaric acid	6.52 \pm 0.15
Flavan-3-ols	Epicatechin	1279.11 \pm 8.31
	Catechin	3088.84 \pm 2.10
	Epicatechin gallate	71.27 \pm 2.50
	Gallocatechin gallate	460.58 \pm 3.00
	Procyanidin B1	843.44 \pm 46.13
	Procyanidin B2	395.00 \pm 16.90
Flavonols	Quercetin	470.69 \pm 6.46
	Kaempferol	37.65 \pm 1.08
	Rutin	12.89 \pm 3.80
Stilbenes	Resveratrol	29.82 \pm 0.66
	ϵ -Viniferin	62.27 \pm 3.47
Anthocyanins	Oenin chloride	509.16 \pm 3.35
	Myrtillin chloride	42.05 \pm 0.40
	Kuromanin chloride	8.24 \pm 0.15
	Petunidin chloride	8.39 \pm 0.49
	Callistephin chloride	3.59 \pm 0.21
	Peonidin-3- <i>O</i> -glucoside chloride	63.54 \pm 0.61

All data are expressed as means value of replication (n = 3) \pm SD.