

Table S1. Total phenolic content of the experimental runs proposed by the Box-Behnken design.

Experimental run	Ethanol content (% v/v)	Extraction time (minutes)	Solvent/material ratio (mL/g)	US power (%)	TPC (mg GAE/g dry sample) (\pm stdev)*, N=3 ¹
21	80	10	40	20	73.6(\pm 3.1)
18	100	25	20	50	9.1(\pm 1.6)
4	100	40	40	50	24.0(\pm 1.2)
25	80	25	40	50	141.1(\pm 3.8)
11	60	25	40	80	140(\pm 18)
6	80	25	60	20	84.4(\pm 1.4)
13	80	10	20	50	90.3(\pm 1.8)
14	80	40	20	50	104.3(\pm 8.9)
9	60	25	40	20	126.3(\pm 2.0)
22	80	40	40	20	143(\pm 12)
1	60	10	40	50	81.5(\pm 7.0)
26	80	25	40	50	127(\pm 11)
20	100	25	60	50	13.8(\pm 4.6)
16	80	40	60	50	143(\pm 22)
17	60	25	20	50	145(\pm 16)
24	80	40	40	80	129(\pm 13)
7	80	25	20	80	114(\pm 17)
8	80	25	60	80	89(\pm 17)
10	100	25	40	20	2.8(\pm 1.4)
23	80	10	40	80	111(\pm 11)
27	80	25	40	50	141(\pm 12)
12	100	25	40	80	20.05(\pm 0.78)
15	80	10	60	50	77(\pm 10)
2	100	10	40	50	22.5(\pm 1.8)
19	60	25	60	50	126(\pm 14)
5	80	25	20	20	101.1(\pm 7.5)
3	60	40	40	50	145(\pm 7.2)

*stdev: standard deviation; ¹ number of replicates

Table S2. ANOVA table of the applied Box-Behnken design.

Source	DF	Adj SS	Adj MS	F-Value	p-Value
<i>Model</i>	11	58432.6	5312.1	36.45	0.000
<i>Linear terms</i>	4	42868.8	10717.2	73.53	0.000
Ethanol content (%) (A)	1	37746.5	37746.5	258.99	0.000
Extraction time (min) (B)	1	4610.0	4610.0	31.63	0.000
Solvent/material (mL/g) (C)	1	80.9	80.9	0.56	0.468
US power (%) (D)	1	431.3	431.3	2.96	0.106
<i>Square terms</i>	4	13201.0	3300.2	22.64	0.000
Ethanol content (%)*Ethanol content (%) (AA)	1	13041.4	13041.4	89.48	0.000
Extraction time (min)*Extraction time (min) (BB)	1	961.7	961.7	6.60	0.021
Solvent/material (mL/g)*Solvent/material (mL/g) (CC)	1	1982.1	1982.1	13.60	0.002
US power (%)*US power (%) (DD)	1	1135.5	1135.5	7.79	0.014
<i>2-Way Interaction</i>	3	2362.9	787.6	5.40	0.010
Ethanol content (%)*Extraction time (min) (AB)	1	974.4	974.4	6.69	0.021
Extraction time (min)*Solvent/material (mL/g) (BC)	1	709.8	709.8	4.87	0.043
Extraction time (min)*US power (%) (BD)	1	678.6	678.6	4.66	0.048
<i>Error</i>	15	2186.2	145.7		
<i>Lack-of-Fit</i>	13	2069.8	159.2	2.74	0.299
<i>Pure Error</i>	2	116.4	58.2		
<i>Total</i>	26	60618.8			
R^2	0.964				
R^2_{adj}	0.938				
R^2_{pred}	0.854				

Table S3. Intensities of the phenolic compounds elucidated by LC-MS/MS analysis.

Phenolic compound	m/z intensities of the elucidated compounds (cps × 10 ⁶)			
	RSB1_BEST	RSB1_LOW	RSB2_BEST	RSB2_LOW
		TPC		TPC
Benzoic acid	15.47	7.45	16.47	-
Catechin	-	-	2.58	1.30
Coumaric acid	38.68	30.37	-	7.45
Eriodictyol	-	-	62.14	40.60
Gallic acid	1148.94	786.98	226.80	173.96
Kaempferol	1141.20	828.40	795.34	497.04
Naringenin	145.84	117.91	124.27	156.57
Pyrocatechol	-	-	14.60	-
Protocatehuic acid	162.46	6.35	18.64	-
Quercetin	1160.54	817.36	274.33	160.16
Rosmarinic acid	15.47	22.09	16.47	-
Syringaldehyde	-	-	-	1.30
p-Hydroxybenzoic acid	42.55	20.16	8.06	17.40

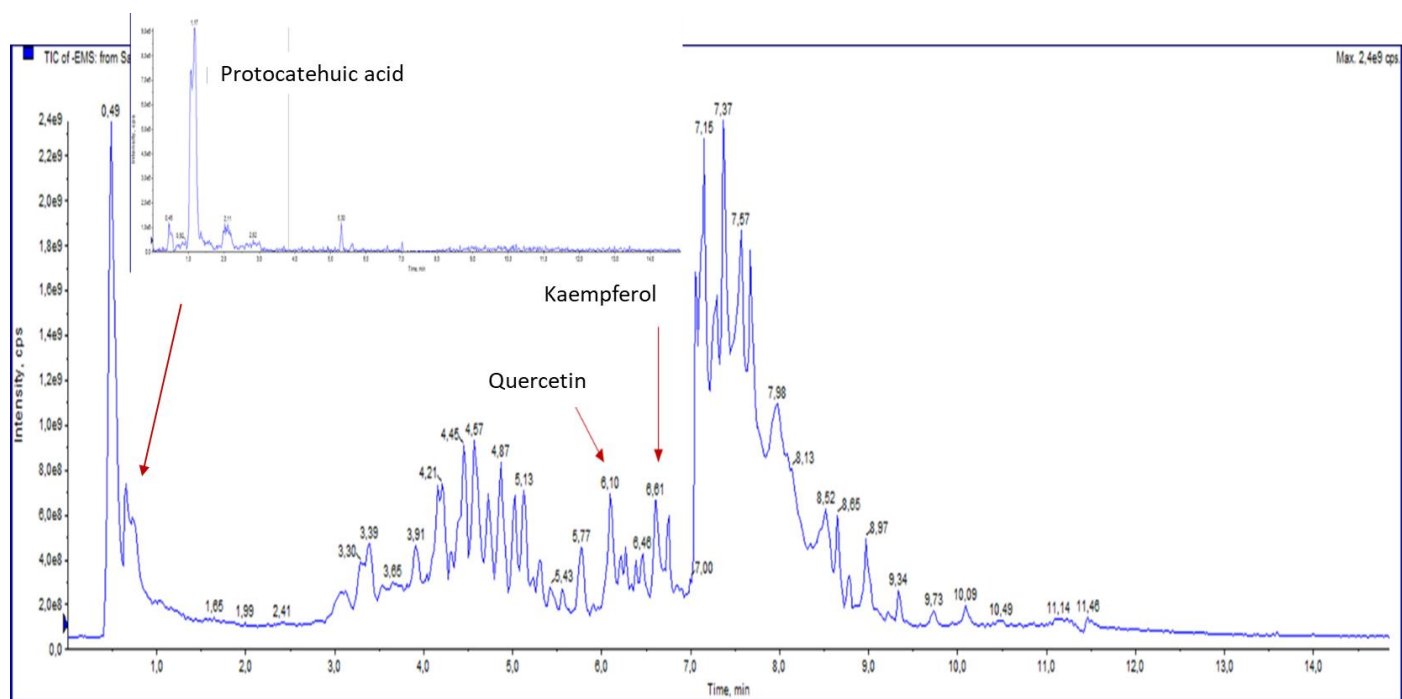


Figure S1. Chromatographs mass spectra of selected identified phenolic compounds.