

Table S1. Parameters of all the molecules monitored with the MRM method

Compound	Precursor ion Q1 (m/z)	Product ion Q2 (m/z)	CE (V)	Retention time (min)
Gallic acid 1	169	124.9	-20	1.89
Gallic acid 2	169	78.9	-30	1.89
3,4-Dihydroxybenzoic acid 1	153	108.9	-20	3
3,4-Dihydroxybenzoic acid 2	153	65	-26	3
Chlorogenic acid 1	352.9	190.8	-26	3.45
Chlorogenic acid 2	352.9	84.9	-26	3.45
Caffeic acid 1	179	135	-22	3.75
Caffeic acid 2	179	107	-32	3.75
Syringic acid 1	197	181.9	-18	3.8
Syringic acid 2	197	122.9	-30	3.8
Daidzin 1	415.1	251.9	-38	3.96
Daidzin 2	415.1	222.8	-38	3.96
Rutin 1	609	300.3	-46	4.01
Rutin 2	609	270.9	-46	4.01
Ellagic acid 1	301	284	-40	4.27
Ellagic acid 2	301	229	-38	4.27
p-Coumaric acid 1	163	119	-20	4.33
p-Coumaric acid 2	163	92.9	-42	4.33
Salicylic acid 1	137	93	-16	4.46
Salicylic acid 2	137	75	-40	4.46
Vanillin 1	150.9	136.1	-18	4.65
Vanillin 2	150.9	91.9	-26	4.65
Cynarin 1	515	353	-28	4.68
Cynarin 2	515	191	-42	4.68

m-Coumaric acid 1	163	119	-20	4.72
m-Coumaric acid 2	163	92.9	-42	4.72
Ferulic acid 2	193	177.9	-18	4.74
Ferulic acid 1	193	134	-22	4.74
Sinapic acid 1	223.1	164	-22	4.78
Sinapic acid 2	223.1	148.9	-28	4.78
Rosmarinic acid 1	358.9	160.9	-22	4.8
Rosmarinic acid 2	358.9	132.6	-40	4.8
Naringin	579	271	-32	5.03
Quercetin 1	301	121	-34	7.08
Quercetin 2	301.1	150.9	-30	7.08
trans-cinnamic-d7 acid	153.9	110	-16	7.4
trans-cinnamic acid 1	146.9	77	-28	7.53
trans-cinnamic acid 2	146.9	103	-14	7.53
Apigenin 1	269.9	116.9	-42	8.33
Apigenin 2	269.9	150.9	-34	8.33
Genistein 1	269	133	-30	8.42
Genistein 2	269	159	-40	8.42
Naringenin 1	271	150.9	-24	8.51
Naringenin 2	271	118.9	-34	8.51

Table S2. Qualitative-quantitative analysis of phenolic compounds using the LC-MS/MS technique in ethanolic (A), PBS (B) and GID (C) extracts

A (Ethanolic extracts)															
Name of polyphenolic compound	[ng/g DW]														
	3,4-Dihydroxybenzoic acid	Caffeic acid	Syringic acid	Daidzin	Rutin	Ellagic acid	<i>p</i> -Coumaric acid	Salicylic acid	Vanillin	Ferulic acid	Sinapic acid	Rosmarinic acid	<i>t</i> -Cinnamic acid	Genistein	Naringenin
C	13.73±0.12 ^a	<1	153.03±2.37 _{ab}	n.d	<1	n.d	314.90±6.06 _{ab}	<1	112.17±13.05 ^a	1587.57±85.27 ^a	177.77±4.56 ^{ab}	n.d	n.d	n.d	n.d

R2.5	186.60±7.27 ^{ab}	19.33±0.9 _{2^a}	862.10±27.3 _{7^{ab}}	<1	<1	n.d	287.67±10.5 _{ab}	<1	105.73±7.5 ^a	1314.03±78.1 _{7^{ab}}	336.67±18.1 _{13^a}	<1	n.d	n.d	<1
R5	316.60±0.69 ^b	35.17±16.22 ^a	1242.43±77.31 ^a	<1	<1	n.d	197.33±5.48 _a	<1	96.83±6.29 ^a	918.23±20.50 _b	256.47±4.2 _{7^{ab}}	<1	n.d	n.d	<1
L2.5	22.83±0.92 ^{ab}	<1	106.43±6.12 _{ab}	n.d	<1	n.d	343.83±15.9 _{9^{ab}}	<1	104.57±2.0 _{2^a}	1436.23±78.3 _{5^{ab}}	120.50±2.9 _{4^{ab}}	<1	n.d	n.d	n.d
L5	26.37±0.64 ^{ab}	<1	93.87±2.83 ^b	n.d.	<1	n.d	381.83±8.08 _b	<1	84.70±5.89 ^a	1457.43±2.66 _{ab}	115.87±1.6 _{2^b}	<1	n.d	n.d	n.d
<i>P - value</i>	<i>0.0086</i>	<i>0.0809</i>	<i>0.0086</i>	-	-	-	<i>0.0086</i>	-	<i>0.0651</i>	<i>0.0189</i>	<i>0.0086</i>	-	-	-	-

B (PBS extracts)															
Name of polyphenolic compound	[ng/g DW]														
	3,4-Dihydroxybenzoic acid	Caffeic acid	Syringic acid	Daidzin	Rutin	Ellagic acid	<i>p</i> -Coumaric acid	Salicylic acid	Vanillin	Ferulic acid	Sinapic acid	Rosmarinic acid	<i>t</i> -Cinnamic acid	Genistein	Naringenin
C	26.33±5.08 ^a	n.d	140.13±16.86 ^{ab}	n.d	<1	n.d	209.10±16.45 ^a	<1	69.90±11.78 ^{ab}	1247.77±150.46 ^a	48.57±10.33	n.d	n.d	n.d	n.d
R2.5	15.70±3.64 ^a	n.d	727.67±24.31 ^{ab}	<1	n.d	n.d	187.70±1.04 ^a	<1	70.73±4.62 ^{ab}	809.20±31.00 ^a	n.d	n.d	n.d	<1	<1
R5	30.27±8.54 ^a	n.d	2400.87±900.20 ^a	<1	n.d	n.d	261.80±103.75 ^a	<1	134.83±47.57 ^a	1406.67±595.71 ^a	n.d	n.d	n.d	<1	<1
L2.5	n.d	n.d	101.50±6.06 ^{ab}	n.d	n.d	n.d	251.80±2.42 ^a	<1	65.83±5.31 ^{ab}	1004.83±1.33 ^a	n.d	n.d	n.d	n.d	n.d
L5	n.d	n.d	97.90±0.17 _b	n.d.	n.d	n.d	277.73±2.54 ^a	<1	57.33±5.77 ^b	1159.57±15.13 ^a	n.d	n.d	n.d	n.d	n.d
<i>P - value</i>	<i>0.5660</i>	--	<i>0.0097</i>	-	-	-	<i>0.1088</i>	-	<i>0.0349</i>	<i>0.1416</i>	-	-	-	-	-

C (GID samples)															
Name of polyphenolic compound	[ng/g DW]														
	3,4-Dihydroxybenzoic acid	Caffeic acid	Syringic acid	Daidzin	Rutin	Ellagic acid	<i>p</i> -Coumaric acid	Salicylic acid	Vanillin	Ferulic acid	Sinapic acid	Rosmarinic acid	<i>t</i> -Cinnamic acid	Genistein	Naringenin
C	n.d	n.d	124.85±0.52 ^b	n.d	<1	n.d	143.08±2.19 ^a	<1	179.85±7.09 ^a	936.87±43.13 ^a	68.28±0.09 ^b	<1	n.d	<1	n.d
R2.5	32.27±0.79 ^a	n.d	502.22±49.95 ^a _b	n.d	<1	n.d	159.70±12.07 ^a	<1	202.83±16.88 ^a	906.57±73.13 ^a	136.01±8.49 ^a	n.d	n.d	<1	<1

R5	26.62±03.8 5 ^a	n.d	799.85±32.05 ^a	n.d	<1	n.d	131.31±2 .45 ^a	<1	188.94±0. 52 ^a	760.00±30.70 ^a	135.71±3 .50 ^{ab}	n.d	n.d	<1	<1
L2.5	n.d	n.d	109.19±16.62 ^a b	n.d	n.d	n.d	153.89±2 0.56 ^a	<1	223.28±4 3.65 ^a	863.94±121.77 ^a	23.23±5. 16 ^b	n.d	n.d	<1	n.d
L5	n.d	n.d	100.30±0.52 ^b	n.d	n.d	n.d	159.75±9 .62 ^a	<1	207.47±3 6.39 ^a	845.40±42.60 ^a	31.16±4. 29 ^{ab}	n.d	n.d	<1	n.d
<i>P - value</i>	<i>0.0809</i>	-	<i>0.0112</i>	-	-	-	<i>0.0746</i>	-	<i>0.5257</i>	<i>0.1309</i>	<i>0.0122</i>	-	-	-	-