

1 *Supplementary materials*

## 2 ***Fragaria viridis* Fruit Metabolites: Variation of 3 LC-MS Profile and Antioxidant Potential during 4 Ripening and Storage**

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### 11 Content

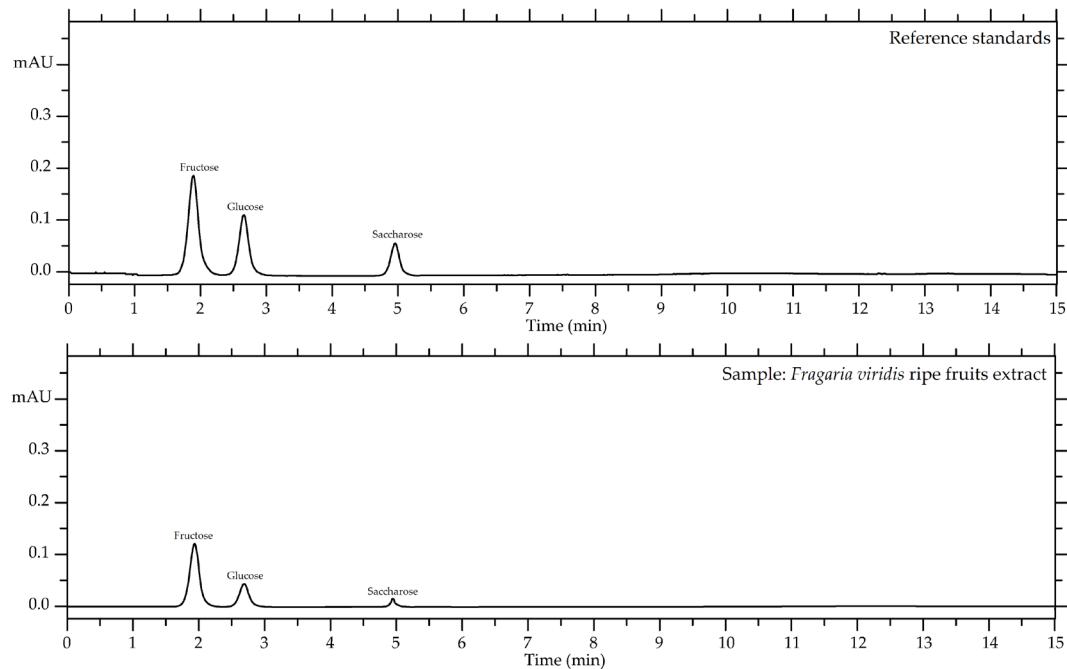
12 **Figure S1.** High-Performance Liquid Chromatography with Diode Array Detection chromatogram of free  
13 sugars in *F. viridis* ripe fruits.

14 **Figure S2.** High-Performance Liquid Chromatography with Electrospray Ionization Triple Quadrupole Mass  
15 Spectrometric Detection chromatogram of *F. viridis* ripe fruits extract coupled with spectrophotometric DPPH  
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17 **Table S1.** Reference standards used for the qualitative and quantitative analysis by HPLC-DAD-ESI-tQ-MS  
18 assays.

19 **Table S2.** Regression equations, correlation coefficients, standard deviation, limits of detection, limits of  
20 quantification, and linear ranges for 48 reference standards.

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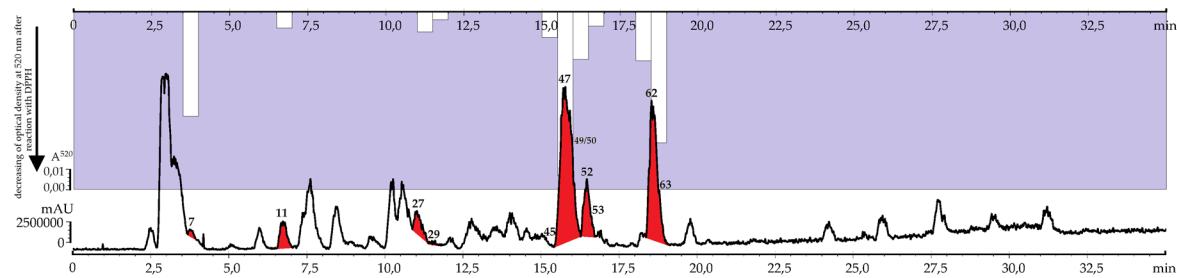


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**Figure S1.** High-Performance Liquid Chromatography with Diode Array Detection (HPLC-DAD) chromatogram (detector wavelength 190 nm) of free sugars in *F. viridis* ripe fruits.

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27 **Figure S2.** High-Performance Liquid Chromatography with Electrospray Ionization Triple  
28 Quadrupole Mass Spectrometric Detection (HPLC-ESI-tQ-MS) chromatogram (Total Ion  
29 Chromatogram or TIC mode, negative ionization) of *F. viridis* ripe fruits extract coupled with  
30 spectrophotometric DPPH radical scavenging assay.

31      **Table S1.** Reference standards used for the qualitative and quantitative analysis by  
 32      HPLC-DAD-ESI-tQ-MS assays.

No. <sup>a</sup>	Compound	Standard <sup>a</sup>	Purity, (≥) %	Manufacturer (Cat. no) <sup>b</sup>
1	Hexosyl-hexose	Sucrose <sup>B</sup>	99	Sigma (S7903)
2	Hexose	Fructose <sup>A,B</sup>	99	Sigma (47739)
3	Citric acid	Citric acid <sup>A,B</sup>	99	Sigma (251275)
4	Malic acid	Malic acid <sup>A,B</sup>	99	Sigma (W265501)
5	Tartaric acid	Tartaric acid <sup>A,B</sup>	99	Sigma (W304401)
6	Fumaric acid	Fumaric acid <sup>A,B</sup>	99	Sigma (47910)
7	Ascorbic acid	Ascorbic acid <sup>A,B</sup>	99	Sigma (255564)
8	Oxalic acid	Oxalic acid <sup>A,B</sup>	99	Sigma (658537)
9	1-O-Galloyl glucose	1-O-Galloyl glucose <sup>A,B</sup>	90	Sigma (69288)
10	Gallic acid	Gallic acid <sup>A,B</sup>	97	Sigma (G7384)
11	Pedunculagin	Pedunculagin <sup>A,B</sup>	95	Toronto (P354070)
12	Umbelliferone	Umbelliferone <sup>A,B</sup>	99	Sigma (H24003)
13	4-O-Caffeoylquinic acid	4-O-Caffeoylquinic acid <sup>A,B</sup>	98	Sigma (65969)
14	Strictinin	Strictinin <sup>A,B</sup>	98	Funakoshi (NH026102)
15	5-O-Caffeoylquinic acid	5-O-Caffeoylquinic acid <sup>A,B</sup>	95	Sigma (C3878)
16	Strictinin isomer	Strictinin <sup>B</sup>	98	Funakoshi (NH026102)
17	3-O-Caffeoylquinic acid	3-O-Caffeoylquinic acid <sup>A,B</sup>	98	Sigma (94419)
18	Pedunculagin isomer	Pedunculagin <sup>B</sup>	95	Toronto (P354070)
19	Procyanidin B2	Procyanidin B2 <sup>A,B</sup>	90	Sigma (PHL89552)
20	Cyanidin 3-O-sophoroside	Cyanidin 3-O-sophoroside <sup>A,B</sup>	85	Sigma (42739)
21	Procyanidin B4	Procyanidin B4 <sup>A,B</sup>	98	ChemFaces (CFN91171)
22	Pelargonidin di-O-hexoside	Pelargonidin 3-O-rutinoside <sup>B</sup>	98	ChemFaces (CFN92133)
23	Catechin	Catechin <sup>A,B</sup>	95	Sigma (PHL89172)
24	p-Coumaric acid O-hexoside	p-Coumaric acid 4-O-glucoside <sup>B</sup>	95	Carbosynth (MC71595)
25	p-Coumaric acid 4-O-glucoside	p-Coumaric acid 4-O-glucoside <sup>A,B</sup>	95	Carbosynth (MC71595)
26	Cyanidin 3-O-rutinoside	Cyanidin 3-O-rutinoside <sup>A,B</sup>	90	Sigma (PHL80577)
27	Cyanidin 3-O-glucoside	Cyanidin 3-O-glucoside <sup>A,B</sup>	98	Sigma (94099)
28	Pelargonidin 3-O-rutinoside	Pelargonidin 3-O-rutinoside <sup>A,B</sup>	98	ChemFaces (CFN92133)
29	Pelargonidin 3-O-glucoside	Pelargonidin 3-O-glucoside <sup>A,B</sup>	98	ChemFaces (CFN92134)
30	Castalagin isomer	Castalagin <sup>B</sup>	95	Sigma (61221)
31	Procyanidin C2	Procyanidin C2 <sup>A,B</sup>	95	TransMIT (C6201-P045)
32	Cyanidin O-p-coumaroyl-O-hexoside	Cyanidin 3-O-glucoside <sup>B</sup>	98	Sigma (94099)
33	Casuarictin isomer	Pedunculagin <sup>B</sup>	95	Toronto (P354070)
34	Castalagin isomer	Castalagin <sup>B</sup>	95	Sigma (61221)
35	Sanguin H2	Sanguin H2 <sup>A</sup> Pedunculagin <sup>B</sup>	92 95	[68] Toronto (P354070)
36	Procyanidin trimer	Procyanidin C2 <sup>B</sup>	95	TransMIT (C6201-P045)
37	Pelargonidin O-p-coumaroyl-O-hexoside	Pelargonidin 3-O-glucoside <sup>B</sup>	98	ChemFaces (CFN92134)
38	Cyanidin O-acetyl-O-hexoside	Cyanidin 3-O-glucoside <sup>B</sup>	98	Sigma (94099)
39	Quercetin 3-O-sophoroside	Quercetin 3-O-sophoroside <sup>A,B</sup>	98	ChemFaces (CFN90630)
40	Casuarictin isomer	Pedunculagin <sup>B</sup>	95	Toronto (P354070)
41	Ellagic acid O-pentoside	Ellagic acid <sup>B</sup>	98	ChemFaces (CFN98716)
42	Sanguin H10	Sanguin H10 <sup>A</sup> Pedunculagin <sup>B</sup>	92 95	[68] Toronto (P354070)
43	Ellagic acid O-desoxyhexoside	Ellagic acid <sup>B</sup>	98	ChemFaces (CFN98716)
44	Sanguin H2 isomer	Sanguin H2 <sup>A</sup> Pedunculagin <sup>B</sup>	92 95	[68] Toronto (P354070)
45	Quercetin 3-O-rutinoside	Rutin	95	Sigma (R2303)
46	Sanguin H6 isomer	Sanguin H6 <sup>A</sup> Pedunculagin <sup>B</sup>	92 95	[68] Toronto (P354070)

Table S1. Continuation

No <sup>a</sup>	Compound	Standard <sup>a</sup>	Purity, (≥) %	Manufacturer (Cat. no) <sup>b</sup>
47	Lambertianin C	Lambertianin C <sup>A</sup>	92	[68]
		Pedunculagin <sup>B</sup>	95	Toronto (P354070)
48	Pelargonidin O-acetyl-O-hexoside	Pelargonidin 3-O-glucoside <sup>B</sup>	98	ChemFaces (CFN92134)
49	Quercetin 3-O-glucoside	Quercetin 3-O-glucoside <sup>A,B</sup>	98	Sigma (16654)
50	Quercetin 3-O-glucuronide	Quercetin 3-O-glucuronide <sup>A,B</sup>	90	Sigma (90733)
51	Agrimonic acid A	Agrimonic acid A <sup>A</sup>	90	[28]
		Agrimonii <sup>B</sup>	95	[28]
52	Sanguinin H6	Sanguinin H6 <sup>A</sup>	92	[68]
		Pedunculagin <sup>B</sup>	95	Toronto (P354070)
53	Ellagic acid	Ellagic acid	98	ChemFaces (CFN98716)
54	Agrimonic acid B	Agrimonic acid B <sup>A</sup>	90	[28]
		Agrimonii <sup>B</sup>	95	[28]
55	Quercetin 3-O-xyloside	Quercetin 3-O-xyloside <sup>A,B</sup>	97	Sigma (83390)
56	Quercetin 3-O-arabinoside	Quercetin 3-O-arabinoside <sup>A,B</sup>	95	Sigma (75759)
57	Kaempferol 3-O-rutinoside	Kaempferol 3-O-rutinoside <sup>A,B</sup>	98	Sigma (90242)
58	Kaempferol 3-O-glucoside	Kaempferol 3-O-glucoside <sup>A,B</sup>	97	Sigma (79851)
59	Kaempferol 3-O-glucuronide	Kaempferol 3-O-glucuronide <sup>A,B</sup>	98	ChemFaces (CFN90359)
60	Quercetin 3-O-(6''-O-p-coumaroyl)-glucoside	Helichrysoside <sup>A,B</sup>	98	BioCrick (BCN9477)
		Helichrysoside <sup>B</sup>	98	BioCrick (BCN9477)
61	Quercetin O-p-coumaroyl-O-hexoside	Agrimonii <sup>A,B</sup>	95	[28]
		Agrimonii <sup>B</sup>	95	[28]
62	Fragariin A	Quercetin		
		3-O-(6''-O-malonyl)-glucoside <sup>B</sup>	85	Sigma (16733)
63	Quercetin O-malonyl-O-hexoside	Quercetin		
		3-O-(6''-O-malonyl)-glucoside <sup>A,B</sup>	85	Sigma (16733)
64	Kaempferol 3-O-(6''-O-p-coumaroyl)-glucoside	Tiliroside <sup>A,B</sup>	98	Sigma (79257)
		1,2,3,4,6-Penta-O-galloyl glucose <sup>A,B</sup>	96	Sigma (67548)
65	Kaempferol O-malonyl-O-hexoside	Kaempferol		
		3-O-(6''-O-malonyl)-glucoside <sup>B</sup>	95	BOC (81149-02-2)
66	Kaempferol 3-O-(6''-O-malonyl)-glucoside	Kaempferol		
		3-O-(6''-O-malonyl)-glucoside <sup>A,B</sup>	95	BOC (81149-02-2)
67	Quercetin 3-O-(2''-O-acetyl)-glucoside	Quercetin		
		3-O-(2''-O-acetyl)-glucoside <sup>A</sup>	92	[70]
68	Quercetin 3-O-(6''-O-acetyl)-glucoside	Quercetin		
		3-O-(6''-O-acetyl)-glucoside <sup>B</sup>	85	Extrasynthese (1099)
69	Quercetin 3-O-(6''-O-acetyl)-glucoside	Quercetin		
		3-O-(6''-O-acetyl)-glucoside <sup>A,B</sup>	85	Extrasynthese (1099)
70	Kaempferol O-acetyl-O-hexoside	Quercetin		
		3-O-(2''-O-acetyl)-glucoside <sup>B</sup>	85	Extrasynthese (1099)
71	Kaempferol 3-O-acetyl-O-hexoside	Quercetin		
		3-O-(6''-O-acetyl)-glucoside <sup>A,B</sup>	85	Extrasynthese (1099)
72	Quercetin	Kaempferol 3-O-glucoside <sup>B</sup>	97	Sigma (79851)
		Kaempferol 3-O-glucoside <sup>B</sup>	97	Sigma (79851)
73	Tormentic acid di-O-hexoside	Quercetin <sup>A,B</sup>	95	Sigma (Q4951)
		Tormentic acid <sup>A,B</sup>	98	ChemFaces (CFN99434)
74	Kaempferol	Kaempferol <sup>A,B</sup>	99	Sigma (96353)
		Pomolic acid <sup>B</sup>	98	ChemFaces (CFN99433)
75	Pomolic acid di-O-hexoside	Tormentic acid <sup>B</sup>	98	ChemFaces (CFN99434)
		Quercetin		
76	Tormentic acid O-hexoside	3-O-(2'',6''-di-O-acetyl)-glucoside	90	[70]
		Quercetin	85	Extrasynthese (1099)
77	Quercetin 3-O-(2'',6''-di-O-acetyl)-glucoside	3-O-(6''-O-acetyl)-glucoside <sup>B</sup>		
		Quercetin 3-O-(6''-O-acetyl)-glucoside <sup>B</sup>		
78	Quercetin 3-O-(2'',6''-di-O-acetyl)-glucoside	Quercetin		
		3-O-(2'',6''-di-O-acetyl)-glucoside <sup>B</sup>		
79	Quercetin 3-O-(2'',6''-di-O-acetyl)-glucoside	Quercetin		
		3-O-(6''-O-acetyl)-glucoside <sup>B</sup>		

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Table S1. Continuation

No <sup>a</sup>	Compound	Standard <sup>a</sup>	Purity, ( $\geq$ ) %	Manufacturer (Cat. no) <sup>b</sup>
80	Quercetin O-acetyl-O-malonyl-O-hexoside	Quercetin 3-O-(6''-O-malonyl)- glucoside <sup>B</sup>	85	Sigma (16733)
81	Tormentic acid	Tormentic acid <sup>A,B</sup>	98	ChemFaces (CFN99434)
82	Ellagic acid O-methyl ester-O-desoxyhexoside	Ellagic acid <sup>A,B</sup>	98	ChemFaces (CFN98716)
83	Pomolic acid O-hexoside	Pomolic acid <sup>A,B</sup>	98	ChemFaces (CFN99433)
84	Quercetin O-malonyl-O-p-coumaroyl- O-hexoside	Helichryoside <sup>B</sup>	98	BioCrick (BCN9477)
85	Quercetin O-malonyl-O-p-coumaroyl- O-hexoside	Helichryoside <sup>B</sup>	98	BioCrick (BCN9477)
86	Ellagic acid di-O-methyl ester- O-desoxyhexoside	Ellagic acid <sup>A,B</sup>	98	ChemFaces (CFN98716)
87	Kaempferol di-O-acetyl-O-hexoside	Kaempferol 3-O-glucoside <sup>B</sup>	97	Sigma (79851)
88	Quercetin O-acetyl-O-p-coumaroyl-O-hexoside	Helichryoside <sup>B</sup>	98	BioCrick (BCN9477)
89	Kaempferol O-acetyl-O-malonyl-O-hexoside	Kaempferol 3-O-(6''-O-malonyl)- glucoside <sup>B</sup>	95	BOC (81149-02-2)
90	Kaempferol O-malonyl-O-p-coumaroyl- O-hexoside	Tiliroside <sup>B</sup>	98	Sigma (79257)
91	Pomolic acid	Pomolic acid <sup>A,B</sup>	98	ChemFaces (CFN99433)
92	Kaempferol O-malonyl-O-p-coumaroyl- O-hexoside	Tiliroside <sup>B</sup>	98	Sigma (79257)
93	Kaempferol O-acetyl-O-p-coumaroyl- O-hexoside	Tiliroside <sup>B</sup>	98	Sigma (79257)
94	Quercetin di-O-acetyl-O-p-coumaroyl- O-hexoside	Helichryoside <sup>B</sup>	98	BioCrick (BCN9477)
95	Quercetin O-acetyl-O-malonyl-O-p-coumaroyl- O-hexoside	Helichryoside <sup>B</sup>	98	BioCrick (BCN9477)

<sup>a</sup> Standards were used in qualitative (<sup>A</sup>) or/and quantitative analysis (<sup>B</sup>). <sup>b</sup> Manufacturers list:  
 BioCrick—BioCrick (Chengdu, Sichuan, PRC); BOC—BOC Sciences (Shirley, NY, USA);  
 Carbosynth—Carbosynth Ltd. (Compton, UK); ChemFaces—ChemFaces (Wuhan, Hubei, PRC);  
 Extrasynthese—Extrasynthese (Lyon, France); Funakoshi—Funakoshi Co. Ltd. (Tokyo, Japan);  
 Sigma—Sigma-Aldrich (St. Louis, MO, USA); Toronto—Toronto Research Chemicals (North York, ON, Canada); TransMIT—TransMIT GmbH (Gießen, Germany).

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43**Table S2.** Regression equations, correlation coefficients ( $r^2$ ), standard deviation ( $S_{YX}$ ), limits of detection (LOD), limits of quantification (LOQ) and linear ranges for 48 reference standards.

Compound	Ioniz ation <sup>a</sup>	CE <sup>b</sup> (eV)	Regression equation <sup>c</sup>		$r^2$	$S_{YX}$	LOD/ LOQ ( $\mu\text{g/mL}$ )	Linear range ( $\mu\text{g/mL}$ )
			$a$	$b \cdot 10^6$				
1,2,3,4,6-Penta-O-galloyl glucose	N	-25	2.4561	-0.0171	0.9979	$12.33 \cdot 10^{-2}$	0.17/0.50	0.6–100.0
1-O-Galloyl glucose	N	-20	1.3586	-0.0663	0.9987	$9.69 \cdot 10^{-2}$	0.24/0.71	0.8–100.0
3-O-Caffeoylquinic acid	N	-15	0.9320	-0.0523	0.9991	$4.14 \cdot 10^{-2}$	0.15/0.44	0.5–100.0
4-O-Caffeoylquinic acid	N	-15	0.9217	-0.0437	0.9982	$3.94 \cdot 10^{-2}$	0.14/0.43	0.5–100.0
5-O-Caffeoylquinic acid	N	-15	0.9406	-0.0497	0.9973	$5.18 \cdot 10^{-2}$	0.18/0.55	0.6–100.0
Agrimonin	N	-35	0.8214	-0.2716	0.9893	$5.37 \cdot 10^{-2}$	0.22/0.65	0.7–100.0
Ascorbic acid	N	-10	0.9214	-0.0373	0.9997	$2.10 \cdot 10^{-2}$	0.07/0.22	0.3–100.0
Castalagin	N	-35	0.9361	-0.4518	0.9870	$9.35 \cdot 10^{-2}$	0.32/1.00	1.0–100.0
Catechin	N	-35	0.9562	-0.0521	0.9971	$7.79 \cdot 10^{-2}$	0.27/0.82	0.9–100.0
Citric acid	N	-10	0.9518	-0.0267	0.9990	$1.03 \cdot 10^{-2}$	0.03/0.10	0.1–100.0
Cyanidin 3-O-glucoside	N	-20	1.4267	-0.5637	0.9907	$12.72 \cdot 10^{-2}$	0.29/0.89	0.9–100.0
Cyanidin 3-O-rutinoside	N	-20	1.6341	-0.4283	0.9900	$15.02 \cdot 10^{-2}$	0.30/0.92	1.0–100.0
Cyanidin 3-O-sophoroside	N	-20	1.5963	-0.3518	0.9910	$14.63 \cdot 10^{-2}$	0.30/0.92	1.0–100.0
Ellagic acid	N	-30	0.9114	-0.6312	0.9887	$6.37 \cdot 10^{-2}$	0.23/0.70	0.7–100.0
Fructose	N	-10	1.5632	-0.0376	0.9983	$5.14 \cdot 10^{-2}$	0.11/0.33	0.4–100.0
Fumaric acid	N	-10	0.8615	-0.0364	0.9982	$2.03 \cdot 10^{-2}$	0.03/0.07	0.1–100.0
Gallic acid	N	-20	2.6538	-0.1376	0.9990	$1.17 \cdot 10^{-2}$	0.01/0.04	0.1–100.0
Helichrysinoside	N	-30	2.0319	-0.3615	0.9811	$10.09 \cdot 10^{-2}$	0.17/0.52	0.6–100.0
Kaempferol 3-O-(6''-O-malonyl)-glucoside	N	-30	2.3618	-0.5214	0.9873	$11.35 \cdot 10^{-2}$	0.16/0.48	0.5–100.0
Kaempferol 3-O-glucoside	N	-20	2.0859	-0.9171	0.9980	$6.18 \cdot 10^{-2}$	0.03/0.09	0.1–100.0
Kaempferol 3-O-glucuronide	N	-30	2.2126	-0.5160	0.9987	$8.11 \cdot 10^{-2}$	0.12/0.37	0.4–100.0
Kaempferol 3-O-rutinoside	N	-30	1.9634	-0.4511	0.9952	$9.18 \cdot 10^{-2}$	0.15/0.46	0.5–100.0
Kaempferol	N	-20	1.2416	-0.3615	0.9901	$3.02 \cdot 10^{-2}$	0.08/0.24	0.3–100.0
Malic acid	N	-10	0.9911	-0.0379	0.9988	$2.05 \cdot 10^{-2}$	0.07/0.21	0.3–100.0
Oxalic acid	N	-10	0.9804	-0.0210	0.9970	$2.01 \cdot 10^{-2}$	0.06/0.21	0.3–100.0
p-Coumaric acid 4-O-glucoside	N	-20	1.4238	-0.0891	0.9901	$7.33 \cdot 10^{-2}$	0.17/0.52	0.6–100.0
Pedunculagin	N	-35	0.6370	-0.4521	0.9872	$6.11 \cdot 10^{-2}$	0.32/0.96	1.0–100.0
Pelargonidin 3-O-glucoside	N	-20	0.9634	-0.8634	0.9832	$10.37 \cdot 10^{-2}$	0.36/1.07	1.1–100.0
Pelargonidin 3-O-rutinoside	N	-20	0.8237	-0.7310	0.9801	$14.73 \cdot 10^{-2}$	0.59/1.79	2.0–100.0
Pomolic acid	N	-30	1.4784	-0.8634	0.9763	$19.39 \cdot 10^{-2}$	0.43/1.31	1.5–100.0
Procyanidin B2	N	-25	1.3620	-0.0820	0.9961	$9.91 \cdot 10^{-2}$	0.21/0.72	0.8–100.0
Procyanidin B4	N	-25	1.0634	-0.0933	0.9902	$10.01 \cdot 10^{-2}$	0.31/0.94	1.0–100.0
Procyanidin C2	N	-25	1.4632	-0.0524	0.9953	$8.12 \cdot 10^{-2}$	0.18/0.56	0.6–100.0
Quercetin 3-O-(6''-O-acetyl)-glucoside	N	-20	1.1103	-0.9217	0.9901	$14.33 \cdot 10^{-2}$	0.42/1.29	1.5–100.0
Quercetin 3-O-(6''-O-malonyl)-glucoside	N	-20	1.2703	-0.7911	0.9814	$15.26 \cdot 10^{-2}$	0.40/1.20	1.5–100.0
Quercetin 3-O-arabinoside	N	-20	1.4412	-0.6211	0.9930	$11.25 \cdot 10^{-2}$	0.26/0.78	0.8–100.0
Quercetin 3-O-glucoside	N	-20	1.8267	-0.4160	0.9990	$11.73 \cdot 10^{-2}$	0.21/0.67	0.7–100.0
Quercetin 3-O-glucuronide	N	-20	1.6705	-0.4374	0.9988	$12.79 \cdot 10^{-2}$	0.25/0.77	0.8–100.0
Quercetin 3-O-sophoroside	N	-25	1.4001	-0.8214	0.9884	$12.08 \cdot 10^{-2}$	0.29/0.86	1.0–100.0
Quercetin 3-O-xyloside	N	-20	1.5364	-0.3614	0.9927	$10.07 \cdot 10^{-2}$	0.22/0.66	0.7–100.0
Quercetin	N	-15	1.1105	-0.3211	0.9937	$4.18 \cdot 10^{-2}$	0.12/0.38	0.4–100.0
Rutin	N	-25	1.2716	-0.7389	0.9897	$9.14 \cdot 10^{-2}$	0.23/0.72	0.8–100.0
Strictinin	N	-35	0.9634	-0.3518	0.9804	$7.34 \cdot 10^{-2}$	0.25/0.76	0.8–100.0
Sucrose	N	-10	1.6278	-0.0428	0.9990	$7.11 \cdot 10^{-2}$	0.14/0.44	0.5–100.0

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Table S2. Continuation

Compound	Ioniz ation <sup>a</sup>	CE <sup>b</sup> (eV)	Regression equation <sup>c</sup>		<i>r</i> <sup>2</sup>	<i>S<sub>YX</sub></i>	LOD/ LOQ ( $\mu\text{g/mL}$ )	Linear range ( $\mu\text{g/mL}$ )
			<i>a</i>	<i>b·10<sup>6</sup></i>				
Tartaric acid	N	-10	1.5330	-0.0863	0.9985	4.15·10 <sup>-2</sup>	0.09/0.27	0.3–100.0
Tiliroside	N	-30	2.3312	-0.4563	0.9803	14.92·10 <sup>-2</sup>	0.21/0.64	0.7–100.0
Tormentic acid	N	-30	1.2820	-0.9634	0.9697	11.64·10 <sup>-2</sup>	0.30/0.91	1.0–100.0
Umbelliferone	N	-15	0.5697	-0.2634	0.9900	4.33·10 <sup>-2</sup>	0.25/0.76	0.8–100.0

45 <sup>a</sup>Ionization mode : N—negative. <sup>b</sup>CE—collision energy. <sup>c</sup> Regression equation:  $y = a \cdot x + b$ .

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