

Table S1: Analytical parameters of proposed method for the analysis of phenolic compounds in extra virgin olive oils.

Compounds	Linearity	Run-to-Run Precision (RSD% n=5)		Day-to-Day Precision (RSD% n=10)		LOD Mg L <sup>-1</sup>	LOQ Mg L <sup>-1</sup>	Recovery %			
		tr	Peak Area	tr	Peak Area			10 (µg g <sup>-1</sup> )	RSD %	50 (µg g <sup>-1</sup> )	RSD %
Tyrosol	0.996	0.5	6.2	0.8	5.8	0.1	0.8	91.4	2.1	92.1	1.6
4-hydroxyphenylacetic acid	0.998	0.4	5.9	0.4	6.4	0.1	0.5	86.3	2.0	93.1	3.8
Vanillic acid	0.995	0.4	6.6	0.4	7.9	0.001	0.05	87.9	1.3	91.2	2.1
p-coumaric acid	0.995	0.5	6.4	0.3	7.2	0.0001	0.001	86.4	1.4	90.4	0.8
Oleuropein	0.995	0.6	6.5	0.4	10.5	1	2	73.9	15.8	79.1	3.6
Pinoresinol	0.993	0.7	7.4	0.5	8.2	0.05	0.1	88.1	0.3	91.4	1.1
Luteolin	0.989	0.6	7.3	0.5	8.9	0.1	0.5	85.5	1.8	95.8	6.6
Apigenin	0.997	0.7	10.4	0.6	9.6	1	2	92.1	2.6	102.8	2.0

Table S2: geographical origin and olive varieties of the thirty EVOO samples.

<b>Sample</b>	<b>Geographical origin</b>	<b>Variety</b>
1	Sicily	Monocultivar
2	Tuscany	Monocultivar
3	Puglia	Monocultivar
4	Tuscany	Blend
5	Puglia	Blend
6	Puglia	Monocultivar
7	Sicily	Monocultivar
8	Tuscany	Blend
9	Lazio	Blend
10	Sicily	Monocultivar
11	Puglia	Monocultivar
12	Lazio	Blend
13	Tuscany	Blend
14	Tuscany	Monocultivar
15	Sicily	Blend
16	Puglia	Monocultivar
17	Tuscany	Monocultivar
18	Lazio	Monocultivar
19	Lazio	Monocultivar
20	Tuscany	Blend
21	Tuscany	Blend
22	Puglia	Monocultivar
23	Lazio	Blend
24	Lazio	Blend
25	Sicily	Monocultivar
26	Tuscany	Blend
27	Tuscany	Blend
28	Puglia	Blend
29	Puglia	Blend
30	Sicily	Blend

Table S3: Concentration of phenolic compounds in the analyzed thirty EVOO samples.

	Hydroxytyrosol	Tyrosol	Vanillic acid	Lingstroside derivative	p-cumaric acid	Hydroxycarboxymethyl elenolic acid	Elenolic acid	dialdehydic form of oleuropein aglycon	Oleuropein aglycon	Oleuropein aglycon	Ligstroside aglycon	Oleuropein aglycon	Luteolin	Ligstroside aglycon	Apigenin	Unknown	Unknown	Unknown
Sample Number	mg Kg <sup>-1</sup> of oil (RSD%)																	
1	62.7 (5.4)	62.3 (1.8)	2.9 (6.7)	67.9 (2.8)	3.1 (5.5)	7.3 (0.5)	6.1 (8.9)	218.1 (6.2)	35.2 (3.0)	190.5 (1.8)	91.5 (1.7)	108.7 (4.6)	12.9 (2.4)	98.6 (1.9)	1.4 (2.7)	188.1 (6.6)	149.9 (1.4)	128.1 (3.6)
2	2.5 (17.0)	6.0 (4.7)	2.9 (1.4)	14.2 (0.8)	1.2 (0.9)	5.7 (17.9)	4.2 (6.8)	87.7 (7.6)	46.6 (3.4)	156.9 (7.1)	269.6 (6.7)	328.8 (0.4)	13.0 (1.5)	173.9 (6.7)	1.2 (0.5)	103.1 (3.6)	210.5 (3.1)	124.3 (4.9)
3	1.3 (4.0)	0.6 (34.6)	2.5 (3.9)	15.8 (4.8)	1.3 (3.8)	2.9 (1.8)	4.5 (3.9)	278.0 (2.1)	199.2 (1.4)	333.7 (12.4)	758.9 (5.6)	1440.0 (9.9)	13.5 (0.4)	712.8 (0.2)	1.8 (3.0)	108.2 (0.7)	320.7 (1.1)	121.6 (2.8)
4	14.07 (7.77)	5.27 (3.80)	3.02 (4.56)	19.57 (7.00)	3.66 (4.03)	9.27 (8.19)	10.47 (2.43)	891.69 (0.29)	923.83 (4.19)	542.57 (0.57)	899.48 (1.48)	1434.22 (0.17)	13.82 (4.94)	569.69 (1.31)	1.89 (4.25)	151.26 (3.01)	271.78 (4.32)	154.77 (5.04)
5	17.65 (0.81)	5.26 (1.05)	1.89 (0.05)	7.35 (0.08)	1.18 (0.02)	7.49 (0.63)	6.47 (0.74)	541.76 (0.74)	387.61 (0.91)	571.91 (2.53)	786.98 (1.02)	1340.02 (0.70)	13.43 (0.74)	627.84 (2.04)	1.69 (0.35)	114.48 (0.30)	25.38 (0.34)	327.47 (1.66)
6	9.68 (0.30)	0.32 (2.63)	1.07 (0.63)	3.06 (3.17)	1.26 (0.19)	5.84 (3.32)	2.21 (6.61)	688.74 (1.32)	327.57 (4.45)	512.67 (1.98)	537.24 (0.76)	1572.99 (1.79)	13.32 (0.46)	707.07 (2.52)	1.38 (1.58)	101.33 (1.31)	31.80 (3.74)	303.90 (4.99)
7	21.64 (0.61)	0.03 (3.55)	1.20 (0.78)	18.17 (0.85)	1.61 (0.16)	12.80 (2.04)	3.36 (8.29)	228.64 (1.07)	26.16 (0.23)	281.74 (3.01)	80.83 (0.86)	82.74 (0.15)	11.58 (0.02)	56.43 (1.16)	1.06 (0.07)	80.96 (1.09)	33.53 (2.86)	237.68 (0.31)
8	11.33 (1.48)	0.88 (16.18)	0.71 (2.58)	8.77 (1.88)	1.51 (1.20)	7.17 (0.74)	1.63 (3.54)	1235.24 (3.62)	361.37 (3.14)	625.75 (0.93)	263.49 (0.21)	686.90 (3.93)	13.40 (0.36)	212.97 (0.66)	1.61 (0.01)	69.14 (3.31)	16.53 (4.58)	73.93 (5.61)
9	11.30 (1.43)	0.34 (1.97)	3.06 (2.31)	24.29 (0.64)	2.36 (0.18)	13.46 (2.22)	9.54 (0.99)	997.83 (2.75)	41.60 (0.46)	511.34 (1.02)	165.37 (4.86)	500.62 (1.67)	12.22 (0.22)	159.45 (1.16)	1.82 (1.02)	144.63 (1.74)	351.99 (1.93)	142.68 (1.70)
10	9.20 (3.95)	11.25 (0.21)	1.02 (0.97)	11.36 (3.77)	0.99 (0.43)	5.10 (0.33)	30.75 (0.44)	93.10 (1.25)	20.41 (0.80)	164.67 (0.93)	100.58 (0.53)	21.89 (0.50)	11.59 (0.06)	23.03 (0.12)	1.05 (0.55)	102.16 (0.66)	25.24 (3.38)	180.59 (6.62)
11	10.10 (5.28)	7.39 (4.49)	1.83 (3.88)	14.58 (3.91)	1.49 (0.38)	12.03 (1.14)	12.13 (1.48)	584.00 (4.19)	109.50 (0.63)	674.05 (0.14)	234.99 (0.31)	922.43 (0.02)	16.82 (0.17)	652.79 (1.78)	1.83 (0.66)	120.33 (0.32)	73.11 (1.58)	186.39 (0.51)
12	2.61 (5.74)	0.79 (2.73)	1.12 (0.36)	16.84 (4.15)	1.19 (0.01)	16.95 (2.36)	5.46 (12.28)	536.58 (4.05)	45.83 (1.14)	390.09 (1.09)	218.13 (0.21)	160.89 (0.21)	15.45 (0.09)	156.73 (0.58)	2.91 (3.85)	143.56 (0.04)	368.49 (1.16)	137.96 (0.43)
13	18.94 (0.18)	2.57 (3.01)	1.03 (0.08)	12.97 (0.31)	1.44 (0.42)	12.75 (1.72)	17.90 (1.70)	1108.04 (4.46)	820.72 (1.25)	660.10 (0.65)	615.10 (2.69)	1468.91 (0.21)	13.72 (0.04)	359.96 (0.56)	2.43 (0.86)	106.92 (0.65)	32.06 (1.78)	173.67 (0.81)
14	2.74 (3.75)	1.64 (9.14)	0.93 (0.84)	11.02 (1.20)	1.20 (0.13)	2.29 (3.37)	3.21 (1.99)	386.36 (4.12)	77.25 (0.10)	589.64 (0.54)	232.95 (0.24)	626.50 (0.45)	13.32 (0.03)	294.92 (0.88)	1.51 (0.03)	144.86 (0.43)	30.52 (0.42)	286.62 (0.28)
15	57.35 (0.81)	33.14 (0.58)	0.94 (0.01)	12.94 (0.28)	1.50 (0.24)	41.70 (0.60)	1.99 (0.60)	992.77 (1.13)	51.07 (0.77)	655.31 (0.62)	180.11 (0.23)	173.64 (0.90)	13.07 (0.07)	53.13 (0.87)	1.20 (0.12)	109.38 (0.01)	46.03 (1.67)	199.74 (0.40)
	14.98	7.45	2.03	11.09	1.33	8.01	4.69	565.43	124.52	710.81	339.30	828.29	12.98	347.45	1.21	125.91	54.92	491.75

16	(0.61)	(4.66)	(0.04)	(0.12)	(0.23)	(1.68)	(0.31)	(0.26)	(0.44)	(0.90)	(0.60)	(1.50)	(0.06)	(0.60)	(2.04)	(0.95)	(1.12)	(0.71)
17	15.32 (0.43)	0.96 (0.64)	2.08 (1.04)	17.14 (0.06)	1.36 (0.05)	5.02 (0.33)	9.22 (0.36)	952.84 (0.16)	319.99 (0.45)	449.88 (0.27)	202.80 (0.45)	890.28 (0.91)	14.75 (0.01)	213.35 (0.97)	2.57 (0.25)	109.50 (0.86)	149.49 (0.65)	134.11 (0.33)
18	24.43 (1.58)	12.83 (0.02)	2.37 (1.18)	23.32 (0.09)	1.60 (0.05)	4.13 (0.19)	2.76 (1.32)	332.08 (2.00)	26.96 (4.08)	422.33 (0.45)	186.64 (1.23)	198.18 (0.36)	12.17 (0.08)	79.61 (0.83)	1.73 (0.36)	119.24 (0.54)	21.51 (0.05)	120.39 (0.41)
19	14.24 (0.57)	7.14 (5.02)	2.40 (1.75)	18.93 (4.50)	1.66 (0.25)	12.60 (0.90)	3.67 (8.33)	838.27 (0.99)	26.84 (8.21)	429.26 (0.17)	152.81 (0.24)	187.21 (0.17)	15.11 (0.22)	106.82 (1.60)	1.60 (0.05)	125.34 (0.69)	50.46 (0.29)	191.39 (0.17)
20	38.64 (0.06)	9.04 (0.03)	1.79 (7.19)	11.71 (0.15)	1.62 (0.01)	22.83 (0.54)	11.57 (0.67)	922.84 (0.39)	285.84 (0.42)	539.36 (0.39)	352.06 (2.06)	1241.38 (0.06)	14.92 (0.46)	337.42 (2.48)	1.93 (1.45)	164.89 (0.43)	33.29 (1.92)	206.22 (0.45)
21	0.72 (4.13)	0.98 (2.77)	1.15 (0.74)	12.12 (0.22)	1.95 (1.00)	13.03 (1.71)	4.39 (1.97)	621.61 (0.99)	40.98 (0.62)	486.31 (0.53)	150.09 (0.68)	297.76 (2.90)	15.47 (0.25)	84.20 (0.23)	1.88 (0.50)	19.22 (0.73)	136.92 (0.30)	200.44 (0.72)
22	13.91 (3.05)	0.32 (13.75)	2.11 (3.34)	16.61 (0.10)	1.49 (0.09)	16.51 (1.26)	11.15 (0.33)	757.72 (0.20)	118.40 (0.81)	424.97 (0.18)	205.90 (0.52)	747.46 (0.74)	14.54 (0.37)	371.96 (0.09)	1.63 (2.15)	141.90 (0.77)	54.41 (0.51)	359.89 (0.91)
23	11.88 (2.29)	11.82 (0.86)	0.98 (0.75)	11.70 (0.41)	1.72 (0.19)	2.59 (0.02)	1.41 (1.23)	789.67 (1.52)	135.21 (0.48)	912.35 (0.77)	205.33 (0.35)	623.65 (1.34)	15.21 (0.02)	412.32 (3.09)	1.42 (0.06)	22.42 (0.77)	139.32 (0.33)	125.20 (0.63)
24	22.54 (1.49)	3.15 (7.43)	1.30 (0.21)	15.21 (0.58)	1.58 (0.06)	27.93 (4.11)	9.92 (0.11)	1546.61 (0.45)	79.34 (0.31)	724.72 (1.65)	200.55 (0.31)	455.88 (0.08)	15.35 (0.16)	236.68 (0.07)	2.44 (0.13)	44.31 (0.31)	162.24 (0.22)	274.37 (2.35)
25	29.32 (0.29)	6.16 (3.04)	2.24 (0.12)	15.24 (0.91)	1.69 (0.17)	27.33 (2.02)	12.81 (0.64)	387.90 (1.23)	25.31 (0.03)	412.31 (0.69)	126.57 (0.24)	123.98 (0.05)	12.04 (0.05)	64.99 (0.13)	1.24 (0.11)	21.33 (0.20)	182.70 (0.01)	270.96 (0.01)
26	22.45 (1.02)	8.25 (0.25)	1.37 (0.66)	8.85 (0.39)	1.61 (0.44)	12.08 (0.65)	5.97 (1.48)	370.63 (0.03)	40.27 (0.20)	327.88 (2.69)	124.36 (0.06)	233.93 (0.10)	12.57 (0.08)	112.00 (0.22)	1.34 (0.05)	25.93 (0.04)	138.69 (0.61)	228.63 (0.15)
27	8.20 (0.80)	14.02 (3.12)	1.56 (0.92)	8.59 (1.13)	1.45 (0.40)	4.42 (0.76)	3.88 (0.39)	317.38 (0.04)	30.72 (0.30)	417.16 (0.33)	159.11 (0.16)	256.43 (0.12)	13.24 (0.01)	112.13 (0.05)	1.45 (0.12)	35.56 (2.69)	161.02 (0.13)	232.11 (0.39)
28	53.05 (0.16)	39.00 (0.58)	2.44 (0.33)	18.24 (0.19)	1.41 (0.38)	5.61 (0.91)	7.02 (0.42)	839.10 (0.78)	104.95 (0.72)	996.01 (0.76)	389.29 (0.20)	1682.89 (0.41)	13.45 (0.07)	990.64 (0.78)	2.19 (0.60)	114.56 (0.39)	286.34 (1.11)	67.42 (1.32)
29	53.41 (1.20)	41.88 (0.13)	1.35 (0.39)	11.78 (0.22)	1.47 (0.17)	5.13 (1.19)	2.33 (1.11)	697.39 (1.16)	125.91 (0.86)	825.19 (1.11)	224.69 (0.02)	775.19 (0.35)	14.99 (0.72)	324.35 (1.57)	1.59 (0.21)	25.32 (0.26)	161.19 (0.25)	218.11 (0.45)
30	39.89 (0.40)	25.60 (1.92)	1.78 (0.16)	12.90 (0.01)	1.65 (0.09)	13.77 (0.42)	8.56 (0.75)	328.50 (0.29)	63.81 (0.03)	380.98 (1.69)	176.81 (0.21)	375.80 (0.19)	12.87 (0.06)	216.15 (0.10)	1.39 (0.30)	27.75 (0.07)	173.17 (0.03)	214.53 (0.10)

Table S4: TPC, TEAC, DPPH, FRAP values of analyzed EVOO samples grouped by geographical areas. Values are expressed as mean  $\pm$  SD. Sample number refers to table S2.

	Sample Number	TPC (mg GAE kg <sup>-1</sup> )	TEAC ( $\mu$ mol TE g <sup>-1</sup> )	DPPH ( $\mu$ mol TE g <sup>-1</sup> )	ORAC ( $\mu$ mol TE g <sup>-1</sup> )	FRAP ( $\mu$ mol TE g <sup>-1</sup> )	HPLC (mg Kg <sup>-1</sup> )
SICILY	1	159.70 $\pm$ 16.11	3.13 $\pm$ 0.56	0.59 $\pm$ 0.08	3.03 $\pm$ 0.43	1.00 $\pm$ 0.16	1435.20 $\pm$ 2.00
	7	138.67 $\pm$ 9.89	3.45 $\pm$ 0.38	0.67 $\pm$ 0.10	3.28 $\pm$ 0.59	0.90 $\pm$ 0.13	4821.47 $\pm$ 1.23
	10	97.63 $\pm$ 7.10	2.11 $\pm$ 0.27	0.46 $\pm$ 0.05	1.67 $\pm$ 0.19	0.59 $\pm$ 0.03	3093.91 $\pm$ 1.53
	15	236.41 $\pm$ 18.10	3.86 $\pm$ 0.32	1.03 $\pm$ 0.08	10.65 $\pm$ 0.58	1.03 $\pm$ 0.15	2707.48 $\pm$ 0.65
	25	165.46 $\pm$ 24.97	4.59 $\pm$ 0.74	0.76 $\pm$ 0.10	5.00 $\pm$ 0.74	0.93 $\pm$ 0.09	3424.21 $\pm$ 0.06
	30	156.50 $\pm$ 16.84	3.32 $\pm$ 0.23	0.53 $\pm$ 0.06	3.34 $\pm$ 0.35	1.18 $\pm$ 0.07	2075.92 $\pm$ 0.31
PUGLIA	3	419.53 $\pm$ 14.44	7.18 $\pm$ 0.81	1.32 $\pm$ 0.12	9.35 $\pm$ 1.18	1.82 $\pm$ 0.30	1552.15 $\pm$ 1.67
	5	509.00 $\pm$ 37.87	8.02 $\pm$ 0.61	1.55 $\pm$ 0.11	11.76 $\pm$ 0.91	2.77 $\pm$ 0.09	5920.32 $\pm$ 0.71
	6	409.75 $\pm$ 16.29	7.86 $\pm$ 1.26	1.23 $\pm$ 0.07	14.69 $\pm$ 1.44	2.04 $\pm$ 0.06	4785.86 $\pm$ 0.44
	11	334.90 $\pm$ 19.01	5.82 $\pm$ 0.40	0.99 $\pm$ 0.06	6.70 $\pm$ 0.83	1.27 $\pm$ 0.18	813.96 $\pm$ 1.40
	16	301.77 $\pm$ 14.20	5.38 $\pm$ 0.30	0.96 $\pm$ 0.08	11.01 $\pm$ 0.95	0.80 $\pm$ 0.12	2625.00 $\pm$ 0.63
	22	268.63 $\pm$ 19.59	4.83 $\pm$ 0.65	0.89 $\pm$ 0.10	8.30 $\pm$ 0.66	1.41 $\pm$ 0.04	2089.20 $\pm$ 0.73
	28	136.21 $\pm$ 13.47	2.50 $\pm$ 0.19	0.42 $\pm$ 0.03	6.05 $\pm$ 0.54	0.94 $\pm$ 0.05	5613.64 $\pm$ 0.28
	29	301.46 $\pm$ 26.97	5.24 $\pm$ 0.54	1.00 $\pm$ 0.15	11.92 $\pm$ 0.60	1.35 $\pm$ 0.10	3511.29 $\pm$ 0.15
TUSCANY	2	213.14 $\pm$ 15.15	4.28 $\pm$ 0.23	0.75 $\pm$ 0.07	7.58 $\pm$ 0.86	0.93 $\pm$ 0.08	2929.45 $\pm$ 4.05
	4	573.20 $\pm$ 33.66	8.94 $\pm$ 1.22	2.41 $\pm$ 0.15	15.17 $\pm$ 1.66	3.19 $\pm$ 0.17	4317.37 $\pm$ 5.08
	8	488.59 $\pm$ 33.67	7.48 $\pm$ 0.14	1.71 $\pm$ 0.04	8.61 $\pm$ 0.53	2.43 $\pm$ 0.30	1180.14 $\pm$ 0.57
	13	513.03 $\pm$ 40.79	6.69 $\pm$ 0.82	1.78 $\pm$ 0.11	17.99 $\pm$ 1.01	2.42 $\pm$ 0.14	2221.55 $\pm$ 0.66
	14	246.80 $\pm$ 19.05	4.34 $\pm$ 0.61	0.83 $\pm$ 0.07	9.46 $\pm$ 0.75	0.90 $\pm$ 0.17	5429.22 $\pm$ 1.49
	17	338.95 $\pm$ 31.47	4.40 $\pm$ 0.54	1.30 $\pm$ 0.08	10.65 $\pm$ 0.58	1.57 $\pm$ 0.13	3652.16 $\pm$ 0.67
	20	374.12 $\pm$ 36.61	5.00 $\pm$ 0.45	1.25 $\pm$ 0.11	7.29 $\pm$ 0.63	2.06 $\pm$ 0.12	2185.76 $\pm$ 0.50
	21	171.16 $\pm$ 6.24	3.27 $\pm$ 0.38	0.60 $\pm$ 0.04	5.61 $\pm$ 0.91	1.00 $\pm$ 0.10	4197.36 $\pm$ 0.32
	26	407.49 $\pm$ 34.86	7.61 $\pm$ 0.48	1.05 $\pm$ 0.03	13.72 $\pm$ 1.51	2.51 $\pm$ 0.26	1676.81 $\pm$ 0.54
27	156.00 $\pm$ 10.82	3.99 $\pm$ 0.39	0.57 $\pm$ 0.05	6.17 $\pm$ 1.64	0.83 $\pm$ 0.07	1778.42 $\pm$ 0.10	
LAZIO	9	287.47 $\pm$ 9.35	4.79 $\pm$ 0.31	1.07 $\pm$ 0.04	7.21 $\pm$ 0.30	1.71 $\pm$ 0.10	3592.33 $\pm$ 2.11
	12	164.64 $\pm$ 11.11	3.47 $\pm$ 0.34	0.75 $\pm$ 0.04	4.68 $\pm$ 0.87	0.96 $\pm$ 0.05	3635.78 $\pm$ 1.02
	18	161.82 $\pm$ 15.60	2.91 $\pm$ 0.32	0.62 $\pm$ 0.05	2.99 $\pm$ 0.43	1.04 $\pm$ 0.11	3490.66 $\pm$ 0.30
	19	202.88 $\pm$ 20.62	3.25 $\pm$ 0.28	0.82 $\pm$ 0.07	4.55 $\pm$ 0.74	1.33 $\pm$ 0.10	1592.28 $\pm$ 0.63
	23	316.04 $\pm$ 28.41	6.21 $\pm$ 0.38	0.82 $\pm$ 0.05	8.26 $\pm$ 1.52	1.57 $\pm$ 0.19	2425.75 $\pm$ 0.07
	24	298.23 $\pm$ 28.96	4.93 $\pm$ 0.49	1.01 $\pm$ 0.12	8.37 $\pm$ 1.37	2.07 $\pm$ 0.20	3260.89 $\pm$ 0.30

**Table S5:** Pearson correlation coefficients of individual phenolic compounds concentration and antioxidant activity values.

Compounds	TEAC	DPPH	FRAP	ORAC
Hydroxytyrosol	-0.217	-0.169	-0.093	-0.090
Tyrosol	-0.328	-0.339	-0.287	-0.215
Vanillic acid	-0.070	0.084	0.019	-0.062
Ligstroside derivative	-0.294	-0.128	-0.167	-0.270
p-cumaric acid	0.092	0.282	0.213	0.111
Hydroxycarboxymethyl elenolic acid	-0.126	0.036	0.004	0.006
Elenolic acid	-0.155	0.050	0.009	-0.077
Dialdehydic for of oleuropein aglycon	0.295	0.504**	0.512**	0.428*
Oleuropein aglycon (3,4-DHPEA)	0.677***	0.881***	0.757***	0.705***
Oleuropein aglycon	0.256	0.208	0.199	0.385*
Lygstroside aglycon (p-HPEA-EA)	0.709***	0.743***	0.669***	0.632***
Oleuropein aglycon	0.584**	0.589**	0.564**	0.621***
Luteolin	0.089	0.165	0.143	0.169
lygstroside aglycon (p-HPEA-EA)	0.477**	0.343**	0.368**	0.417**
Apigenin	0.042	0.289	0.286	0.210
Unknown 1	0.002	0.210	0.049	0.013
Unknown 2	-0.025	-0.046	-0.009	-0.097
Unknown 3	0.136	-0.001	-0.048	0.246

\*p <0.05; \*\*p <0.01; \*\*\*p <0.001.