

**Table S1.** Analytical parameters of the method proposed. LOD: Limit of detection, LOQ: Limit of quantification.

Analyte	LOD	LOQ	Linear range (mg L <sup>-1</sup> )	Calibration curves (mg L <sup>-1</sup> )	r <sup>2</sup>
Hydroxytyrosol	0.0122	0.0407	LOQ-100	y=76790x + 108991	0.9977
Oleuropein	0.0954	0.3179	LOQ-100	y= 6615.7x + 9603.8	0.9947
Rutin	0.2366	0.7888	LOQ-100	y= 3957.7x + 2144.5	0.9970
Apigenin-7-glucoside	0.0229	0.0764	LOQ-100	y= 40886x + 833.18	0.9988
Luteolin	0.0061	0.0203	LOQ-100	y= 153477x + 4221.2	0.9995

**Table S2.** Phenolic compounds tentatively identified in olive leaf extracts by HPLC-ESI-TOF-MS

	RT (min)	m/z experimental	m/z calculated	Conf (%)	Error (ppm)	Molecular formula	Compound	C	Aaw	Anig	AO5- m	AO5- s	AO8- s	Ref.
1	1.45	315.1074	315.1080	100	-1.9	C14H20O8	Hydroxytyrosol-hexose	X	X	X	X	X	X	[1,2]
2	1.51	389.1064	389.1084	96.06	-5.1	C16H22O11	Oleoside	X	X	X	X	X	X	[1,2]
3	1.64	153.0546	153.0552	100	-3.9	C8H10O3	Hydroxytyrosol	X	X	X	X	X	X	[1]
4	2.55	505.1552	505.1550	100.00	-1.0	C21H30O14	Allobetonicoside	X	-	-	-	-	-	[3]
5	3.44	389.1076	389.1084	100	-2.1	C16H22O11	Oleoside/secologanoside	X	X	X	X	X	X	[1,2]
6	3.58	305.0682	305.0661	58.17	6.9	C15H14O7	Gallocatechin	X	X	X	X	X	X	Pubchem
7	3.76	403.1233	403.1240	99.95	-1.7	C17H24O11	Elenolic acid glucoside isomer a	X	-	-	-	-	-	[1,2]
8	4.62	403.1235	403.1240	99.95	-1.2	C17H24O11	Elenolic acid glucoside isomer b	X	X	X	X	X	X	[1,2]
9	5.84	593.1494	593.1506	99.92	-2.0	C27H30O15	Luteolin rutinoside isomer a	X	X	X	X	X	X	[1,2]
10	6.03	215.0918	215.0919	100	-0.5	C10H16O5	Elenolic acid (EA) derivative	X	X	X	X	X	X	[4]
11	6.35	403.1230	403.1240	99.95	-2.5	C17H24O11	Elenolic acid glucoside isomer c	X	-	-	-	-	-	[1,2]
12	6.59	571.1658	571.1663	100.00	-0.9	C25H32O15	Dihydroxyeluropein isomer a	-	-	X	X	X	X	[5]
13	6.72	609.1458	609.1456	99.79	0.3	C27H30O16	Luteolin-diglucoside isomer a	X	X	X	X	X	X	[1,2]
14	6.89	403.1240	403.1240	99.95	-5.7	C17H24O11	Elenolic acid glucoside isomer d	X	X	X	X	X	X	[1,2]
15	7.04	639.1914	639.1925	99.81	-1.7	C29H36O16	$\beta$ -Hydroxyverbascoside [Campneoside II] isomer a	X	X	X	X	X	X	[6]
16	7.19	639.1918	639.1925	99.99	-1.1	C29H36O16	$\beta$ -Hydroxyverbascoside [Campneoside II] isomer b	X	X	X	X	X	X	[6]
17	7.52	403.1237	403.1240	99.95	-0.7	C17H24O11	Elenolic acid glucoside isomer e	X	X	X	X	X	X	[1,2]

18	7.63	243.0860	243.0869	100	-3.7	C11H16O6	Hydrogenated-EA isomer a	-	X	X	X	X	X	[4,7]
19	7.89	195.0650	195.0657	100	-3.6	C10H12O4	Hydroxytyrosol acetate	X	-	-	-	-	-	[8, 9]
20	8.08	243.0866	243.0869	100	-1.2	C11H16O6	Hydrogenated-EA isomer b	-	X	X	X	X	X	[4,7]
21	8.16	403.1222	403.1240	99.95	-4.5	C17H24O11	Elenolic acid glucoside isomer f	X	X	X	X	X	X	[1,2]
22	8.21	609.1454	609.1456	100.00	-0.3	C27H30O16	Luteolin-diglucoside isomer b	X	X	X	X	X	X	[1,2]
23	8.35	525.1597	525.1608	99.99	-2.1	C24H30O13	Demethyloleuropein isomer a	X	X	X	X	X	X	[1,2]
24	8.61	609.1437	609.1456	99.99	-3.1	C27H30O16	Rutin	X	-	-	X	X	X	[1,2]
25	8.71	555.1702	555.1714	100.00	-2.2	C25H32O14	Hydroxyoleuropein isomer a	X	X	X	X	X	X	[1]
26	8.79	555.1702	555.1714	100.00	-2.2	C25H32O14	Hydroxyoleuropein isomer b	X	X	X	X	X	X	[1]
27	9.05	593.1497	593.1506	99.99	-1.5	C27H30O15	Luteolin rutinoside isomer b	X	X	X	X	X	X	[1,2]
28	9.06	447.0918	447.0927	100.00	-2.0	C21H20O11	Luteolin glucoside isomer a	X	X	X	X	X	X	[1,2]
29	9.13	571.1663	571.1663	100.00	0.0	C25H32O15	Dihydroxyoleuropein isomer b	-	-	-	X	X	X	[5]
30	9.26	701.2291	701.2293	99.63	-0.3	C31H42O18	Oleuropein glucoside isomer a	X	-	-	-	-	-	[1]
31	9.31	551.1769	551.1765	99.97	0.7	C26H32O13	6-(3-Hydroxy-3- methylbutyl) taxifolin 7-O- $\beta$ -D-glucoside	-	-	X	X	X	X	Pubchem
32	9.41	525.1605	525.1608	100.00	-0.6	C24H30O13	Demethyloleuropein isomer b	X	-	-	-	-	-	[1,2]
33	9.43	701.2292	701.2293	99.91	-0.1	C31H42O18	Oleuropein glucoside isomer b	X	-	-	-	-	-	[1]
34	9.58	593.1514	593.1506	99.77	1.3	C27H30O15	Luteolin rutinoside isomer c	X	X	X	X	X	X	[1,2]
35	9.62	555.1723	555.1714	80.99	1.6	C25H32O14	Hydroxyoleuropein isomer c	X	X	X	X	X	X	[1]
36	9.74	623.1990	623.1976	99.98	2.2	C29H36O15	Verbascoside isomer a	X	X	X	X	X	X	[1,2]

37	9.82	555.1725	555.1714	99.94	2.0	C25H32O14	Hydroxyoleuropein isomer d	X	X	X	X	X	X	[1]
38	10.09	555.1732	555.1714	99.99	3.2	C25H32O14	Hydroxyoleuropein isomer e	X	-	X	X	X	X	[1]
39	10.24	337.1285	337.1287	100	-0.6	C17H22O7	Monohydrated oleacein	-	X	X	X	X	X	[10]
40	10.35	323.1489	323.1495	100	-1.9	C17H24O6	Hydroxytyrosol derivative	-	X	X	X	X	X	[11]
41	10.42	577.1575	577.1557	99.95	3.1	C27H30O14	Apigenin rutinoside	X	X	X	X	X	X	[1,2]
42	10.44	593.1505	593.1506	99.97	-0.2	C27H30O15	Luteolin rutinoside isomer d	X	X	X	X	X	X	[1,2]
43	10.49	447.0915	447.0927	100.00	-2.7	C21H20O11	Luteolin glucoside isomer b	X	X	X	X	X	X	[1,2]
44	10.55	623.1989	623.1976	99.90	2.1	C29H36O15	Verbascoside isomer b	X	-	-	X	-	-	[1,2]
45	10.64	431.0976	431.0978	100	-0.5	C21H20O10	Apigenin glucoside	X	X	X	X	X	X	[1]
46	10.72	701.2292	701.2293	100.00	-0.1	C31H42O18	Oleuropein glucoside isomer c	X	-	-	-	-	-	[1]
47	10.84	555.1718	555.1714	99.96	0.7	C25H32O14	Hydroxyoleuropein isomer f	X	X	X	X	X	X	[1]
48	10.86	701.2289	701.2293	99.98	-0.6	C31H42O18	Oleuropein glucoside isomer d	X	X	X	X	X	X	[1]
49	10.88	535.1810	535.1816	99.79	-1.1	C25H28O13	Comselogoside	X	X	X	-	-	-	[4]
50	10.97	623.1968	623.1976	99.89	-1.3	C29H36O15	Verbascoside isomer c	-	X	-	-	-	-	[1,2]
51	11.09	701.2301	701.2293	99.62	1.1	C31H42O18	Oleuropein glucoside isomer e	X	X	X	X	X	X	[1]
52	11.35	321.1332	321.1338	100	-1.9	C17H22O6	Lactone (ester with hydroxytyrosol)	-	X	X	X	X	X	[11]
53	11.44	701.2296	701.2293	99.99	0.4	C31H42O18	Oleuropein glucoside isomer f	X	-	X	X	X	X	[1]
54	11.51	461.1085	461.1084	100	0.2	C22H22O11	Hydroxyoleuropein isomer g	-	-	-	X	X	X	[1]
55	11.58	555.1704	555.1714	99.89	-1.8	C25H32O14	Chrysoeriol-7-Oglucoside	X	X	X	X	X	X	[1,2]
56	11.63	447.0927	447.0927	99.97	0.0	C21H20O11	Luteolin glucoside isomer c	X	X	X	X	X	X	[1,2]
57	11.84	701.2300	701.2293	99.59	1.0	C31H42O18	Oleuropein glucoside isomer g	X	X	X	X	X	X	[1]

58	12.35	539.1770	539.1765	91.85	0.9	C25H32O13	Oleuropein isomer a	X	X	X	X	X	X	[1,2]
59	12.43	541.1932	541.1921	99.99	2.0	C25H34O13	Hydro-oleuropein	X	X	X	X	X	X	[4]
60	12.56	539.1771	539.1765	98.15	1.1	C25H32O13	Oleuropein isomer b	X	X	X	X	X	X	[1,2]
61	12.59	569.1874	569.1870	100.00	0.7	C26H34O14	2"-Methoxyoleuropein isomer a	X	-	-	-	X	-	[2]
62	12.76	569.1872	569.1870	100.00	0.4	C26H34O14	2"-Methoxyoleuropein isomer b	X	X	X	X	X	X	[2]
63	12.90	701.2292	701.2293	99.72	-0.1	C31H42O18	Oleuropein glucoside isomer h	X	X	X	X	X	X	[1]
64	13.01	539.1777	539.1765	100.00	2.2	C25H32O13	Oleuropein isomer c	X	X	X	X	X	X	[1,2]
65	13.63	537.1608	537.1608	99.28	0.0	C25H30O13	Ligstroside aglycone glucuronide isomer a	X	X	X	X	X	X	[12]
66	13.90	537.1611	537.1608	99.92	0.6	C25H30O13	Ligstroside aglycone glucuronide isomer b	X	X	X	X	X	X	[12]
67	14.15	301.0341	301.0348	100	-2.3	C15H10O7	Quercetin	X	X	X	X	X	X	[13]
68	14.21	539.1761	539.1765	100.00	-0.7	C25H32O13	Oleuropein isomer d	X	X	X	X	X	X	[1,2]
69	14.32	285.0399	285.0399	100	0.0	C15H10O6	Luteolin	X	X	X	X	X	X	[1,2]
70	14.47	701.2275	701.2293	99.98	-2.6	C31H42O18	Oleuropein glucoside isomer i	X	X	X	X	-	X	[1,2]
71	14.66	701.2293	701.2293	100.00	0.0	C31H42O18	Oleuropein glucoside isomer j	X	X	X	X	-	-	[1,2]
72	14.86	539.1755	539.1765	100.00	-1.9	C25H32O13	Oleuropein isomer e	X	X	X	X	X	X	[1]
73	15.14	537.1607	537.1608	98.40	-0.2	C25H30O13	Ligstroside aglycone glucuronide isomer c	X	X	X	X	X	X	[12]
74	15.35	539.1761	539.1765	100.00	-0.7	C25H32O13	Oleuropein isomer f	X	X	X	X	X	X	[1]
75	15.47	583.2034	583.2027	100.00	1.2	C27H36O14	Lucidumoside C isomer a	-	-	-	-	-	-	[5]
76	15.59	557.2231	557.2234	99.97	-0.5	C26H38O13	6'-O-[(2E)-2.6-Dimethyl-8-hydroxy-2-octenoyloxy] secologanoside isomer a	X	X	X	X	X	X	[8]
77	15.63	583.2036	583.2027	99.98	1.5	C27H36O14	Lucidumoside C isomer b	X	-	-	-	-	-	[5]
78	15.77	523.1822	523.1816	99.99	1.1	C25H32O12	Ligstroside	X	X	X	X	X	X	[1,2]

79	15.85	539.1777	539.1765	99.25	2.2	C25H32O13	Oleuropein isomer g	X	X	X	X	X	X	[1,2]
80	16.04	377.1232	377.1236	100	-1.1	C19H22O8	Oleuropein aglycone	X	X	X	X	X	X	[13]
81	16.13	601.2128	601.2132	99.99	-0.7	C27H38O15	Frameroside/2"-epi-frameroside	X	X	X	X	X	X	[14]
82	16.20	553.1922	553.1921	99.73	0.2	C26H34O13	Oleurosides methyl ether isomer a	X	X	-	-	-	-	[1]
83	16.37	623.1405	623.1401	100.00	0.6	C31H28O14	Luteolin derivative	X	X	-	X	-	X	[4]
84	16.92	583.2041	583.2027	99.99	2.4	C27H36O14	Lucidumoside C isomer c	X	-	-	-	-	-	[5]
85	17.56	553.1924	553.1921	100.00	0.5	C26H34O13	Oleurosides methyl ether isomer b	X	X	X	X	X	X	[1]
86	17.64	557.2236	557.2234	99.99	0.4	C26H38O13	6'-O-[(2E)-2,6-Dimethyl-8-hydroxy-2-octenoyloxy] secologanoside isomer b	X	X	X	X	X	X	[8]
87	17.98	299.0553	299.0556	100	-1.0	C16H12O6	Diosmetin	X	X	X	X	X	X	[4]
88	18.73	539.1765	539.1765	100.00	0.0	C25H32O13	Oleuropein isomer h	X	-	-	-	-	-	[1,2]
89	18.79	539.1776	539.1765	99.30	2.0	C25H32O13	Oleuropein isomer i	X	-	-	-	-	-	[1,2]
90	18.84	539.1780	539.1765	99.98	2.8	C25H32O13	Oleuropein isomer j	X	-	-	-	-	-	[1,2]
91	18.89	377.1228	377.1236	100	-2.1	C19H22O8	Oleuropein aglycone	X	X	X	X	X	X	[13]
92	18.99	539.1769	539.1765	100.00	0.7	C25H32O13	Oleuropein isomer k	X	-	-	-	-	-	[1,2]
93	19.12	613.1921	613.1921	99.74	0.0	C31H34O13	Resinoside isomer a	X	X	X	X	X	X	[1]
94	19.40	613.1924	613.1921	99.98	0.5	C31H34O13	Resinoside isomer b	X	X	X	X	X	X	[1]
95	21.57	707.2899	707.2915	99.94	-2.3	C35H48O15	Oleuropein derivative	X	X	X	X	X	X	[5]
96	22.69	303.1226	303.1232	100	-2.0	C17H20O5	Oleocanthal (p-HPEA-EDA)	-	X	X	X	X	X	[4]

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**Table S3.** Content of phenolic compounds in olive leaf extracts (mg/g d.w. leaf)

Phenolic compound	Control		Aaw		Anig		AO5-m		AO5-s		AO8-s	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
1 Hydroxytyrosol-hexose	0.46	0.01	0.09	0.004	0.23	0.003	0.04	0.002	0.002	0.00003	0.04	0.001
2 Oleoside	0.22	0.01	0.25	0.005	0.18	0.001	0.23	0.001	0.19	0.01	0.23	0.01
3 Hydroxytyrosol	0.53	0.01	0.68	0.004	0.63	0.02	0.48	0.02	0.19	0.01	0.26	0.01
4 Allobetonicoside	0.09	0.01										
5 Secologanoside	0.37	0.0001	0.41	0.02	0.34	0.001	0.38	0.001	0.29	0.02	0.36	0.04
6 Gallocatechin	0.56	0.02	0.68	0.03	0.62	0.002	0.63	0.02	0.61	0.01	0.59	0.01
7 Elenolic acid glucoside isomer a												
8 Elenolic acid glucoside isomer b	0.08	0.004	0.13	0.01	0.13	0.001	0.15	0.003	0.18	0.01	0.21	0.01
9 Luteolin rutinoside isomer a	0.09	0.01	0.10	0.004	0.09	0.001	0.09	0.01	0.10	0.001	0.09	0.003
10 Elenolic acid (EA) derivative	0.15	0.01	0.30	0.005	0.34	0.01	0.24	0.01	0.37	0.003	0.24	0.0002
12 Dihydroxyeluropein isomer I					0.33	0.01	0.36	0.01	0.41	0.04	0.46	0.06
13 Luteolin-diglucoside isomer a	0.17	0.01	0.09	0.01	0.10	0.002	0.11	0.01	0.08	0.01	0.14	0.01
14 Elenolic acid glucoside isomer c	0.19	0.01	0.20	0.01	0.16	0.003	0.18	0.002	0.10	0.01	0.16	0.004
15 $\beta$ -Hydroxyverbascoside [Campneoside II] isomer I	0.24	0.01	0.29	0.03	0.33	0.01	0.18	0.004	0.30	0.01	0.24	0.002
16 $\beta$ -Hydroxyverbascoside [Campneoside II] isomer II	0.26	0.02	0.30	0.01	0.31	0.01	0.17	0.002	0.29	0.001	0.26	0.002
17 Elenolic acid glucoside isomer d		0.01	0.004	0.0029	0.0003	0.01	0.001	0.02	0.0002	0.01	0.0004	
18 Hydrogenated-EA isomer a		0.08	0.003	0.08	0.003	0.25	0.002	0.18	0.02	0.14	0.0002	
19 Hydroxytyrosol acetate	0.85	0.01										
20 Hydrogenated-EA isomer b		0.33	0.01	0.32	0.003	0.39	0.01	0.38	0.02	0.30	0.005	
22 Luteolin-diglucoside isomer b	0.08	0.01	0.07	0.002	0.07	0.001	0.06	0.01	0.06	0.004	0.06	0.01
23 Demethyloleuropein isomer a		0.01	0.00004	0.0035	0.0004	0.01	0.0004			0.02	0.0003	
24 Rutin	0.10	0.002	0.002	0.001		0.06	0.001	0.06	0.002	0.07	0.001	
25 Hydroxyoleuropein isomer a	0.40	0.01	0.43	0.01	0.38	0.004	0.11	0.01	0.16	0.01	0.19	0.001

26	Hydroxyoleuropein isomer b	0.41	0.01	0.47	0.004	0.40	0.01	0.14	0.01	0.18	0.01	0.22	0.001
27	Luteolin rutinoside isomer b	0.08	0.002	0.02	0.004	0.09	0.0002	0.10	0.003	0.11	0.004	0.09	0.01
28	Luteolin glucoside isomer a	0.61	0.01	0.55	0.01	0.49	0.01	0.45	0.01	0.47	0.01	0.43	0.05
29	Dihydroxyoleuropein isomer II							0.21	0.004	0.12	0.002	0.16	0.005
33	Oleuropein glucoside isomer a												
34	Luteolin rutinoside isomer c	0.10	0.001	0.07	0.002	0.10	0.001	0.13	0.002	0.13	0.003	0.11	0.0004
35	Hydroxyoleuropein isomer c	0.12	0.002	0.17	0.005	0.16	0.004	0.04	0.003	0.06	0.01	0.08	0.001
36	Verbascoside isomer a	0.88	0.003	0.81	0.01	0.75	0.01	0.91	0.03	0.71	0.002	0.78	0.04
37	Hydroxyoleuropein isomer d	0.12	0.001	0.14	0.005	0.14	0.001	0.05	0.004	0.07	0.01	0.09	0.004
38	Hydroxyoleuropein isomer e	0.01	0.002			0.16	0.002	0.21	0.01	0.16	0.01	0.21	0.002
39	Monohydrated oleacein			0.09	0.001	0.08	0.001	0.25	0.01	0.10	0.002	0.17	0.002
40	Hydroxytyrosol derivative			0.42	0.01	0.83	0.02	1.51	0.22	0.54	0.01	0.93	0.000
41	Apigenin rutinoside	0.17	0.002	0.06	0.01	0.16	0.0009	0.16	0.003	0.17	0.003	0.15	0.02
42	Luteolin rutinoside isomer d	0.02	0.0001	0.02	0.0003	0.03	0.0003	0.02	0.002	0.03	0.002	0.03	0.002
43	Luteolin glucoside isomer b	0.34	0.02	0.35	0.01	0.32	0.01	0.31	0.01	0.31	0.01	0.33	0.01
44	Verbascoside isomer b	0.38	0.003										
45	Apigenin glucoside	0.18	0.01	0.34	0.004	0.18	0.0016	0.16	0.01	0.15	0.01	0.16	0.02
46	Oleuropein glucoside isomer b												
47	Hydroxyoleuropein isomer f	0.03	0.004	0.03	0.002	0.03	0.00004	0.005	0.001	0.01	0.002	0.007	0.0001
48	Oleuropein glucoside isomer c	0.02	0.001			0.03	0.001	0.01	0.003			0.02	0.0001
49	Comselogoside	0.02	0.0001	0.03	0.002	0.01	0.0003						
50	Verbascoside isomer c												
51	Oleuropein glucoside isomer d	0.02	0.002	0.02	0.005	0.03	0.0002	0.02	0.004	0.001	0.002	0.03	0.00001
52	Lactone (ester with hydroxytyrosol)			0.98	0.06	0.59	0.0007	0.93	0.10	0.26	0.01	0.55	0.01
53	Oleuropein glucoside isomer e	0.06	0.0005			0.03	0.0026				0.002	0.00003	
54	Hydroxyoleuropein isomer g								0.01	0.003	0.01	0.0001	
55	Chrysoeriol-7-Oglucoside	0.29	0.01	0.36	0.002	0.29	0.003	0.29	0.01	0.28	0.01	0.29	0.02
56	Luteolin glucoside isomer c	0.20	0.02	0.27	0.002	0.26	0.01	0.25	0.004	0.29	0.002	0.28	0.01

57	Oleuropein glucoside isomer f	0.16	0.002	0.02	0.001	0.11	0.004	0.02	0.003	0.04	0.01	0.07	0.0005
58	Oleuropein isomer a			0.05	0.001	0.03	0.001	0.05	0.003	0.02	0.003	0.05	0.0001
59	Hydrooleuropein	0.0009	0.00001	0.01	0.003	0.01	0.002	0.02	0.001		0.01	0.0001	
60	Oleuropein isomer b	0.03	0.002	0.07	0.005	0.05	0.001	0.07	0.003	0.04	0.004	0.07	0.001
61	2"-Methoxyoleuropein isomer a												
62	2"-Methoxyoleuropein isomer b												
63	Oleuropein glucoside isomer g	0.59	0.01	0.14	0.06	0.33	0.01	0.16	0.01	0.18	0.03	0.27	0.04
64	Oleuropein isomer c	2.06	0.03	2.52	0.03	1.94	0.02	2.27	0.08	1.80	0.12	2.38	0.06
65	Ligstroside aglycone glucuronide isomer a	0.07	0.0005	0.05	0.002	0.08	0.002	0.06	0.001	0.08	0.000	0.08	0.0002
66	Ligstroside aglycone glucuronide isomer b	0.13	0.003	0.16	0.01	0.14	0.01	0.14	0.01	0.15	0.002	0.15	0.0004
67	Quercetin			0.07	0.001	0.05	0.01			0.01	0.004		
68	Oleuropein isomer d	0.22	0.01	0.31	0.0004	0.26	0.01	0.30	0.01	0.26	0.01	0.33	0.01
69	Luteolin	0.04	0.03	0.55	0.01	0.33	0.02	0.45	0.02	0.57	0.01	0.36	0.004
70	Oleuropein glucoside isomer h	0.02	0.002										
71	Oleuropein glucoside isomer i	0.002	0.001		0.0007	0.0002							
72	Oleuropein isomer e	1.09	0.02	1.34	0.01	0.94	0.01	1.43	0.03	0.91	0.05	1.22	0.13
73	Ligstroside aglycone glucuronide isomer c	0.20	0.01	0.17	0.001	0.20	0.003	0.13	0.003	0.16	0.003	0.18	0.002
74	Oleuropein isomer f	0.10	0.0003	0.10	0.001	0.09	0.004	0.14	0.001	0.08	0.005	0.11	0.0003
75	Lucidumoside C isomer a												
76	6'-O-[(2E)-2,6-Dimethyl-8-hydroxy-2-octenoyloxy] secologanoside isomer I	0.003	0.001	0.03	0.001	0.02	0.0009	0.03	0.004	0.04	0.002	0.03	0.0002
77	Lucidumoside C isomer b												
78	Ligstroside isomer b	0.01	0.0002	0.04	0.003	0.02	0.0008	0.04	0.0002	0.03	0.004	0.06	0.003
79	Oleuropein isomer g	0.07	0.0007	0.07	0.0002	0.05	0.0004	0.11	0.0004	0.05	0.005	0.08	0.001
80	Oleuropein aglycone isomer a	0.05	0.003	0.06	0.0001	0.04	0.002	0.06	0.0007	0.03	0.004	0.04	0.000

81	Frameroside	0.19	0.01	0.32	0.01	0.28	0.01	0.27	0.01	0.31	0.02	0.36	0.003
84	Lucidumoside C isomer c												
86	6'-O-[(2E)-2,6-Dimethyl-8-hydroxy-2-octenoyloxy] secologanoside isomer II	0.001	0.002	0.015	0.001	0.004	0.003	0.02	0.004	0.03	0.001	0.02	0.00001
88	Oleuropein isomer h												
89	Oleuropein isomer i												
90	Oleuropein isomer j												
91	Oleuropein aglycone isomer b	0.56	0.03	0.01	0.001	0.04	0.01	0.11	0.01	0.22	0.02	0.10	0.002
92	Oleuropein isomer k												
93	Resinoside isomer a	0.08	0.01	0.13	0.004	0.095	0.001	0.09	0.001	0.10	0.0001	0.09	0.002
94	Resinoside isomer b	0.03	0.004	0.04	0.001	0.025	0.002	0.03	0.001	0.03	0.001	0.03	0.001
95	Oleuropein derivative			0.17	0.002	0.015	0.002			0.01	0.003		
96	Oleocanthal (p-HPEA-EDA)			0.03	0.004								
<b>Simple phenols</b>		1.84	0.01	2.16	0.06	2.24	0.04	2.96	0.34	0.99	0.01	1.79	0.00
<b>Elenolic acid derivatives</b>		0.42	0.02	1.05	0.04	1.04	0.01	1.21	0.001	1.22	0.01	1.06	0.01
<b>Flavonoids</b>		3.15	0.14	3.79	0.06	3.29	0.07	3.40	0.23	3.56	0.02	3.30	0.13
<b>Secoiridoids</b>		7.37	0.11	7.71	0.17	6.95	0.02	7.46	0.21	6.20	0.37	7.77	0.44
<b>Iridoids</b>		0.09	0.01										
<b>Other phenolic compounds</b>		1.76	0.03	1.40	0.03	1.39	0.01	1.26	0.04	1.31	0.01	1.28	0.04
<b>Total phenols</b>		14.64	0.07	16.12	0.24	14.91	0.03	16.30	0.59	13.29	0.38	15.20	0.61

Missing values are < LOQ

**Figure S1.** PLS-DA analysis

