

Table S1. The 162 different identified phytochemicals in the 9 studied plant materials. The compounds in blue color belong to the family of polyphenols.

Sr. No	Phytochemical
1	Rhoifolin
2	Eriocitrin
3	Apigenin-7-O-glucoside
4	Limonin
5	Didymin
6	Isorhamnetin-3-O-rutinoside
7	Isorhamnetin 3-O-galactoside
8	Citric acid
9	Eupatilin
10	Luteolin 7-O-diglucuronide
11	Quercetin-3-O-glucoside
12	Kaempferol 3-O-sophoroside
13	Myricetin 3- α -L-arabinopyranoside
14	Manghaslin (Quercetin 3-2G-rhamnosylrutinoside)
15	Orientin
16	Rutin
17	Glucoalyssin
18	Kaempferol 3-O-acetyl-glucoside
19	1,2-Disinapoylgentiobiose
20	Spinacetin 3-O-glucosyl-(1 \rightarrow 6)-glucoside
21	Glucogallin
22	Cirsilineol
23	D-(+)-Mannose
24	Azadirachtin

25	Patulitrin
26	Bergenin
27	Allobetonicoside
28	Nicotiflorin
29	5-Feruloylquinic acid
30	Neodiosmin
31	Ferulic acid-4'-O-glucoside
32	Feruloyl C1-glucuronide
33	3,4-Dicaffeoylquinic Acid
34	Isoscutellarein 7-O-[6'''-O-acetyl- β -d-allopyranosyl-(1 \rightarrow 2)]- β -d-glucopyranoside
35	Salvianolic acid G
36	9-F1-phytoprostane
37	Barbatoside C/D
38	Quercetin 3-arabinoside
39	Quercetin 3-O-(6''-acetyl-galactoside) 7-O-rhamnoside
40	5,5'-Dicaffeic acid
41	Isoscutellarein 4'-methyl ether 7-(6'''-acetylallosyl)(1 \rightarrow 2)-glucoside
42	6''-O-Malonyldaidzin
43	Caffeoyl tartaric acid
44	Naringenin-4',5-diglucuronide
45	Luteolin 4'-glucoside
46	Apigenin 7-O-apiosyl-glucoside
47	Kaempferol 3-O-(6''-acetyl-galactoside) 7-O-rhamnoside
48	Tragopogonic acid
49	Nobiletin
50	Peonidin 3-O-sophoroside

51	Betonicine
52	Sucrose
53	Pelargonidin 3-O-rutinoside
54	Luteolin 7-O-rutinoside
55	Hexose
56	Chrysoeriol 7-O-apiosyl-glucoside
57	Cirsimaritin
58	5,7-Dihydroxychromone
59	Morroniside
60	Echinacoside
61	6''-O-Acetylgenistin
62	Leucosceptoside A
63	Quercetin 3-rutinoside-7-glucoside
64	5-(3'-hydroxyphenyl)-gamma-hydroxyvaleric acid -4'-O-glucuronide
65	Salvianolic acid B
66	Rosmarinic acid
67	Genistein 4',7-O-diglucuronide
68	Lithospermic acid
69	Lithospermic acid B
70	Scutellarin
71	Salvianolic acid C
72	Pectolarigenin
73	Eupatorin
74	Vanillylmandelic acid
75	Cynarin
76	Theaflavin 3-O-gallate

77	Isorhamnetin 3-O-glucoside
78	Juglanin
79	Cafestol (2-hydroxy-)
80	Astilbin
81	Pinoresinol-4-O-Beta-Monoglycoside
82	4-Hydroxy-5-(3',5'-dihydroxyphenyl)-valeric acid-O-glucuronide
83	6''-O-Malonylgenistin
84	Geniposidic-Acid
85	Isoacteoside
86	Homoplantaginin_Tectoridin
87	Kaempferol 3-rhamnosyl-(1->2)-rhamnosyl-(1->6)-glucoside
88	Harpagide
89	Naringenin 7-O-glucoside
90	Diosmin
91	Chicoric acid
92	Aucubin
93	Apigenin 7-O-diglucuronide
94	Hispidulin glucuronide
95	Acteoside
96	Silybin
97	Plumieride
98	Hydroxytyrosol 4-O-glucoside
99	beta-D-Glcp-(1->4)-[L-alpha-D-Hepp-(1->3)]-L-alpha-D-Hepp
100	Luteolin
101	alpha-Methyl-D-mannopyranoside
102	Dihydroferulic acid 4-O-glucuronide

103	Apigenin
104	Quercitrin (Quercetin-3-O-alpha-L-rhamnopyranoside)
105	Luteolin-3-O-glucuronide
106	Quercetin 3'-O-glucuronide
107	Melittoside
108	Oleuropein
109	Astragalin
110	5-O-Caffeoylquinic acid
111	Genkwanin
112	Caffeic acid 4-O-glucoside
113	Salvianolic Acid A
114	1,3-Dicaffeoylquinic acid
115	Quercetin 3-O-beta-D-glucopyranosyl-7-O-alpha-L-rhamnopyranoside
116	Diosmetin
117	Dihydroferulic acid-4'-O-glucuronide
118	Luteolin 7-O-glucoside
119	Silydianin
120	Achillolide A
121	Glucobrassicinapin
122	Hesperidin
123	Isorhamnetin 3-O-glucoside 7-O-rhamnoside
124	Chrysoeriol
125	Hesperetin
126	Barbatoside A/B
127	kaempferol 3-O-rutinoside
128	Antoside

129	Isorhamnetin 4'-O-glucuronide
130	Byakangelicin
131	Myricetin-3-O- α -L-rhamnopyranoside
132	Coumaroyl tartaric acid (p-)
133	Quercetin 3-O-(6-malonyl-glucoside)"
134	4-O-Caffeoylquinic acid
135	Valoneic acid dilactone
136	5-O-Galloylquinic acid
137	Protocatechuic acid 4-O-glucoside
138	Taxifolin
139	Ascorbic acid (L-)
140	Teupolioside
141	Apigenin 7-(4''-E-p-coumarylglucoside)
142	Isoscutellarein 7-O-[6'-O-acetyl- β -D-allopyranosyl-(1 \rightarrow 2)]-6''-O-acetyl- β -D-glucopyranoside"
143	Rhamnetin 3-glucoside
144	Falcarindiol 3-acetate
145	Apigenin 7-(2'',3''-diacetyl-hexocide)
146	Apigenin-7-O-glucuronide
147	5-O-Caffeoylshikimic acid
148	Quercetin
149	Cinnamtannin A2
150	Quercetin 3,4'-O-diglucoside
151	Anhydrochiisanogenoic acid
152	Amentoflavone
153	Kaempferol
154	Myricetin 7-glucoside

155	Coumaroylquinic acid
156	Quercetin 3-glucuronate
157	Hyperoside
158	Naringenin 5-O-glucuronide
159	Kaempferol-3-o-glucuronide
160	Myricetin-3-O-galactopyranoside
161	Caffeic acid
162	Phloridzin

Table S2. Identified compounds in bitter orange aqueous extract (ESI negative mode).

Component name	Neutral mass (Da)	Observed m/z	Mass error (ppm)	Mass error (mDa)	Formula
1,2-Disinapoylgentiobiose	754,23203	753,2249	0,2	0,1	C ₃₄ H ₄₂ O ₁₉
Isoscutellarein 7-O-[6'''-O-acetyl-β-d-allopyranosyl-(1→2)]-β-d-glucopyranoside	652,16395	651,1574	1,2	0,8	C ₂₉ H ₃₂ O ₁₇
Rhoifolin	578,16356	577,1565	0,3	0,2	C ₂₇ H ₃₀ O ₁₄
Eriocitrin_1	596,17412	595,1673	0,8	0,4	C ₂₇ H ₃₂ O ₁₅
Orientin	448,10056	447,0935	0,5	0,2	C ₂₁ H ₂₀ O ₁₁
Salvianolic acid G	418,09	417,0831	0,8	0,3	C ₂₀ H ₁₈ O ₁₀
Kaempferol 3-O-acetyl-glucoside	490,11113	489,1039	0,1	0,1	C ₂₃ H ₂₂ O ₁₂
D-(+)-Mannose	180,06339	179,0563	0,9	0,2	C ₆ H ₁₂ O ₆
Nicotiflorin	594,15847	593,152	1,4	0,8	C ₂₇ H ₃₀ O ₁₅
Didymine	594,19486	593,1873	-0,4	-0,3	C ₂₈ H ₃₄ O ₁₄
5-Feruloylquinic acid	368,11073	367,1028	-1,9	-0,7	C ₁₇ H ₂₀ O ₉
Rutin	610,15338	609,1474	2,1	1,3	C ₂₇ H ₃₀ O ₁₆
3,4-Dicaffeoylquinic Acid	516,12678	515,1199	0,7	0,4	C ₂₅ H ₂₄ O ₁₂
Azadirachtin	720,26294	719,2538	-2,6	-1,9	C ₃₅ H ₄₄ O ₁₆

Ferulic acid-4'-O-glucoside	356,11073	355,1031	-1,1	-0,4	C ₁₆ H ₂₀ O ₉
Eupatilin	344,0896	343,0821	-0,8	-0,3	C ₁₈ H ₁₆ O ₇
Kaempferol 3-O-sophoroside	610,15338	609,1465	0,6	0,4	C ₂₇ H ₃₀ O ₁₆
9-F1-phytoprostane	328,22497	327,2174	-1	-0,3	C ₁₈ H ₃₂ O ₅
Barbatoside C/D	810,25824	809,2483	-3,3	-2,7	C ₃₇ H ₄₆ O ₂₀
Limonin	470,19407	469,1864	-0,7	-0,4	C ₂₆ H ₃₀ O ₈
Isorhamnetin-3-O-rutinoside	624,16903	623,1626	1,3	0,8	C ₂₈ H ₃₂ O ₁₆
Quercetin 3-arabinoside	434,08491	433,0784	1,8	0,8	C ₂₀ H ₁₈ O ₁₁
Bergenin	328,07943	327,0717	-1,3	-0,4	C ₁₄ H ₁₆ O ₉
Cirsilineol_1	344,0896	343,0822	-0,4	-0,1	C ₁₈ H ₁₆ O ₇
Eriocitrin_2	596,17412	595,1657	-1,8	-1,1	C ₂₇ H ₃₂ O ₁₅
Spinacetin 3-O-glucosyl-(1->6)-glucoside	670,17451	669,1682	1,5	1	C ₂₉ H ₃₄ O ₁₈
Quercetin 3-O-(6"-acetyl-galactoside) 7-O-rhamnoside	652,16395	651,155	-2,6	-1,7	C ₂₉ H ₃₂ O ₁₇
Isorhamnetin 3-O-galactoside	478,11113	477,1042	0,8	0,4	C ₂₂ H ₂₂ O ₁₂
5,5'-Dicafeic acid	358,06887	357,062	1,1	0,4	C ₁₈ H ₁₄ O ₈
Manghaslin (Quercetin 3-2G-rhamnosylrutinoside)	756,21129	755,2044	0,6	0,4	C ₃₃ H ₄₀ O ₂₀
Isoscutellarein 4'-methyl ether 7-(6'''-	666,1796	665,1718	-0,7	-0,5	C ₃₀ H ₃₄ O ₁₇

acetylallosyl)(1->2)- glucoside					
Quercetin-3-O-glucoside	464,09548	463,0886	0,8	0,4	C ₂₁ H ₂₀ O ₁₂
Allobetonicoside	506,16356	505,1558	-1	-0,5	C ₂₁ H ₃₀ O ₁₄
Feruloyl C1-glucuronide	370,09	369,0826	-0,3	-0,1	C ₁₆ H ₁₈ O ₁₀
Neodiosmin	608,17412	607,166	-1,3	-0,8	C ₂₈ H ₃₂ O ₁₅
Glucogallin	332,07435	331,0681	3,1	1	C ₁₃ H ₁₆ O ₁₀
Apigenin-7-O-glucoside	432,10565	431,0984	0,2	0,1	C ₂₁ H ₂₀ O ₁₀
6''-O-Malonyldaidzin	502,11113	501,104	0,3	0,1	C ₂₄ H ₂₂ O ₁₂
Caffeoyl tartaric acid	312,04813	311,0406	-0,8	-0,2	C ₁₃ H ₁₂ O ₉
Naringenin-4',5- diglucuronide	608,13773	607,13	-0,8	-0,5	C ₂₇ H ₂₈ O ₁₆
Luteolin 4'-glucoside	448,10056	447,0927	-1,2	-0,5	C ₂₁ H ₂₀ O ₁₁
Apigenin 7-O-apiosyl- glucoside	564,14791	563,1417	1,9	1	C ₂₆ H ₂₈ O ₁₄
Patulitrin	494,10604	493,0976	-2,4	-1,2	C ₂₂ H ₂₂ O ₁₃
Kaempferol 3-O-(6''- acetyl-galactoside) 7-O- rhamnoside	636,16903	635,1591	-4,2	-2,7	C ₂₉ H ₃₂ O ₁₆
Luteolin 7-O- diglucuronide_1	638,11191	637,1023	-3,6	-2,3	C ₂₇ H ₂₆ O ₁₈
Glucoalyssin	451,06406	450,0586	4	1,8	C ₁₃ H ₂₅ NO ₁₀ S ₃
Tragopogonic acid	288,06339	287,0558	-1,1	-0,3	C ₁₅ H ₁₂ O ₆
Citric acid	192,027	191,0194	-1,7	-0,3	C ₆ H ₈ O ₇
Myricetin 3- α -L- arabinopyranoside	450,07983	449,0735	2	0,9	C ₂₀ H ₁₈ O ₁₂

Table S3. Identified compounds in bitter orange aqueous extract (ESI positive mode).

Component name	Neutral mass (Da)	Observed m/z	Mass error (ppm)	Mass error (mDa)	Formula
Rhoifolin	578,16356	579,1708	0	0	C ₂₇ H ₃₀ O ₁₄
Nobiletin	402,13147	425,1198	-2	-0,9	C ₂₁ H ₂₂ O ₈
Peonidin 3-O-sophoroside	625,17686	625,1764	0,1	0,1	C ₂₈ H ₃₃ O ₁₆
Betonicine	159,08954	160,0965	-2,1	-0,3	C ₇ H ₁₃ NO ₃
1,2-Disinapoylgentiobiose	754,23203	777,2219	0,8	0,6	C ₃₄ H ₄₂ O ₁₉
Tragopogonic acid	288,06339	289,07	-2,4	-0,7	C ₁₅ H ₁₂ O ₆
Isoscutellarein 7-O-[6'''-O-acetyl- β -d-allopyranosyl-(1 \rightarrow 2)]- β -d-glucopyranoside	652,16395	653,1725	2	1,3	C ₂₉ H ₃₂ O ₁₇
Orientin	448,10056	449,1077	-0,4	-0,2	C ₂₁ H ₂₀ O ₁₁
Sucrose	342,11621	365,1054	0	0	C ₁₂ H ₂₂ O ₁₁
Pelargonidin 3-O-rutinoside	579,17138	579,171	0,3	0,2	C ₂₇ H ₃₁ O ₁₄
Luteolin 7-O-rutinoside	594,15847	595,1657	-0,1	-0,1	C ₂₇ H ₃₀ O ₁₅
Hexose	180,06339	203,0525	-0,5	-0,1	C ₆ H ₁₂ O ₆
Limonin	470,19407	471,2007	-1,3	-0,6	C ₂₆ H ₃₀ O ₈

Chrysoeriol 7-O-apiosyl-glucoside	594,15847	595,1659	0,3	0,2	C ₂₇ H ₃₀ O ₁₅
9-F1-phytoprostane	328,22497	351,213	-3,5	-1,2	C ₁₈ H ₃₂ O ₅
Eupatilin	344,0896	345,0961	-2,2	-0,8	C ₁₈ H ₁₆ O ₇
Kaempferol 3-O-sophoroside	610,15338	611,1615	1,3	0,8	C ₂₇ H ₃₀ O ₁₆
Eriocitrin_1	596,17412	597,182	1,1	0,6	C ₂₇ H ₃₂ O ₁₅
Cirsimaritin	314,07904	315,0859	-1,3	-0,4	C ₁₇ H ₁₄ O ₆
Didymin	594,19486	617,1826	-2,4	-1,5	C ₂₈ H ₃₄ O ₁₄
5,7-Dihydroxychromone	178,02661	179,0336	-1,4	-0,2	C ₉ H ₆ O ₄
Morroniside	406,14751	429,1362	-1,4	-0,6	C ₁₇ H ₂₆ O ₁₁
Echinacoside	786,25824	787,2643	-1,5	-1,2	C ₃₅ H ₄₆ O ₂₀
6"-O-Acetylgenistin	474,11621	475,1216	-4	-1,9	C ₂₃ H ₂₂ O ₁₁
Leucosceptoside A	638,22107	661,2118	2,2	1,5	C ₃₀ H ₃₈ O ₁₅
Rutin	610,15338	633,1437	1,7	1,1	C ₂₇ H ₃₀ O ₁₆
Quercetin 3-rutinoside-7-glucoside	772,20621	773,2131	-0,6	-0,4	C ₃₃ H ₄₀ O ₂₁
Quercetin 3-arabinoside	434,08491	457,0736	-1,3	-0,6	C ₂₀ H ₁₈ O ₁₁
5-(3'-hydroxyphenyl)-gamma-hydroxyvaleric acid -4'-O-glucuronide	402,11621	403,1223	-3	-1,2	C ₁₇ H ₂₂ O ₁₁

Table S4. Identified compounds in dittany aqueous extract (ESI negative mode).

Component name	Neutral mass (Da)	Observed m/z	Mass error (ppm)	Mass error (mDa)	Formula
Salvianolic acid B_1	718,15338	717,1451	-1,5	-1,1	C ₃₆ H ₃₀ O ₁₆
Luteolin 7-O-diglucuronide_1	638,11191	637,1052	0,9	0,6	C ₂₇ H ₂₆ O ₁₈
Rosmarinic acid	360,08452	359,0778	1,6	0,6	C ₁₈ H ₁₆ O ₈
Genistein 4',7-O-diglucuronide	622,117	621,1101	0,6	0,3	C ₂₇ H ₂₆ O ₁₇
Lithospermic acid_1	538,11113	537,1045	1,2	0,7	C ₂₇ H ₂₂ O ₁₂
ferulic acid-4'-O-glucoside	718,15338	717,1465	0,5	0,4	C ₃₆ H ₃₀ O ₁₆
Cirsilineol_1	344,0896	343,0824	0,3	0,1	C ₁₈ H ₁₆ O ₇
9-F1-phytoprostane	328,22497	327,2177	0	0	C ₁₈ H ₃₂ O ₅
Scutellarin	462,07983	461,0733	1,6	0,7	C ₂₁ H ₁₈ O ₁₂
Salvianolic acid C	492,10565	491,0984	0,1	0	C ₂₆ H ₂₀ O ₁₀
Pectolinarigenin	314,07904	313,072	0,8	0,2	C ₁₇ H ₁₄ O ₆
Orientin	448,10056	447,0937	0,8	0,4	C ₂₁ H ₂₀ O ₁₁
Eupatorin	344,0896	343,0828	1,4	0,5	C ₁₈ H ₁₆ O ₇
Vanillylmandelic acid	198,05282	197,0456	0,5	0,1	C ₉ H ₁₀ O ₅
Cynarin	516,12678	515,119	-0,9	-0,5	C ₂₅ H ₂₄ O ₁₂
Rutin	610,15338	609,1463	0,3	0,2	C ₂₇ H ₃₀ O ₁₆
Theaflavin 3-O-gallate_1	716,13773	715,131	0,7	0,5	C ₃₆ H ₂₈ O ₁₆
Isorhamnetin 3-O-glucoside	478,11113	477,1046	1,6	0,8	C ₂₂ H ₂₂ O ₁₂
Juglanin	418,09	417,0831	0,8	0,3	C ₂₀ H ₁₈ O ₁₀
3,4-Dicaffeoylquinic Acid	516,12678	515,1182	-2,5	-1,3	C ₂₅ H ₂₄ O ₁₂

Cafestol (2-hydroxy-)	332,19876	331,1908	-2	-0,6	C ₂₀ H ₂₈ O ₄
Chrysoeriol 7-O-apiosyl-glucoside	594,15847	593,1514	0,4	0,3	C ₂₇ H ₃₀ O ₁₅
Isorhamnetin 3-O-galactoside	478,11113	477,1049	2,2	1	C ₂₂ H ₂₂ O ₁₂
Ferulic acid-4'-O-glucoside	356,11073	355,1037	0,7	0,2	C ₁₆ H ₂₀ O ₉
Astilbin	450,11621	449,1095	1,3	0,6	C ₂₁ H ₂₂ O ₁₁
Kaempferol 3-O-sophoroside	610,15338	609,1459	-0,3	-0,2	C ₂₇ H ₃₀ O ₁₆
Pinoresinol-4-O-Beta-Monoglycoside	520,19446	519,1894	4,2	2,2	C ₂₆ H ₃₂ O ₁₁
4-Hydroxy-5-(3',5'-dihydroxyphenyl)-valeric acid-O-glucuronide	402,11621	401,1091	0,5	0,2	C ₁₇ H ₂₂ O ₁₁
Glucogallin	332,07435	331,0672	0,4	0,1	C ₁₃ H ₁₆ O ₁₀
Naringenin-4',5-diglucuronide	608,13773	607,129	-2,4	-1,5	C ₂₇ H ₂₈ O ₁₆
6"-O-Malonylgenistin	518,10604	517,0985	-0,5	-0,2	C ₂₄ H ₂₂ O ₁₃
Geniposidic-Acid	374,1213	373,1139	-0,3	-0,1	C ₁₆ H ₂₂ O ₁₀
Isoacteoside	624,20542	623,1954	-4,4	-2,7	C ₂₉ H ₃₆ O ₁₅
Homoplantagin_Tectoridin	462,11621	461,1091	0,4	0,2	C ₂₂ H ₂₂ O ₁₁
Kaempferol 3-rhamnosyl-(1->2)-rhamnosyl-(1->6)-glucoside	740,21638	739,2074	-2,3	-1,7	C ₃₃ H ₄₀ O ₁₉
Harpagide	364,13695	363,1281	-4,3	-1,6	C ₁₅ H ₂₄ O ₁₀
Naringenin 7-O-glucoside	434,1213	433,112	-4,7	-2,1	C ₂₁ H ₂₂ O ₁₀
Diosmin	608,17412	607,1664	-0,7	-0,4	C ₂₈ H ₃₂ O ₁₅
Chicoric acid	474,07983	473,0715	-2,2	-1	C ₂₂ H ₁₈ O ₁₂
Aucubin	346,12638	345,1188	-0,8	-0,3	C ₁₅ H ₂₂ O ₉

Table S5. Identified compounds in dittany aqueous extract (ESI positive mode).

Component name	Neutral mass (Da)	Observed m/z	Mass error (ppm)	Mass error (mDa)	Formula
Luteolin 7-O-diglucuronide_1	638,11191	639,1202	1,5	1	C ₂₇ H ₂₆ O ₁₈
Genistein 4',7-O-diglucuronide	622,117	623,1253	1,7	1	C ₂₇ H ₂₆ O ₁₇
Salvianolic acid B_1	718,15338	741,1427	0,1	0,1	C ₃₆ H ₃₀ O ₁₆
Scutellarin	462,07983	463,0874	0,7	0,3	C ₂₁ H ₁₈ O ₁₂
Cirsilineol_1	344,0896	345,0965	-1,1	-0,4	C ₁₈ H ₁₆ O ₇
9-F1-phytoprostane	328,22497	351,2134	-2,4	-0,8	C ₁₈ H ₃₂ O ₅
Lithospermic acid	538,11113	561,1011	1,4	0,8	C ₂₇ H ₂₂ O ₁₂
Sucrose	342,11621	365,1052	-0,6	-0,2	C ₁₂ H ₂₂ O ₁₁
Eupatorin	344,0896	345,0963	-1,8	-0,6	C ₁₈ H ₁₆ O ₇
Pectolinarigenin	314,07904	315,0861	-0,6	-0,2	C ₁₇ H ₁₄ O ₆
Orientin	448,10056	449,1082	0,7	0,3	C ₂₁ H ₂₀ O ₁₁
Hexose	180,06339	203,0524	-1,1	-0,2	C ₆ H ₁₂ O ₆
Lithospermic acid B	718,15338	741,144	1,9	1,4	C ₃₆ H ₃₀ O ₁₆
Apigenin 7-O-diglucuronide	622,117	645,1072	1,6	1	C ₂₇ H ₂₆ O ₁₇
Hispidulin glucuronide	476,09548	477,1028	0,1	0	C ₂₂ H ₂₀ O ₁₂

Chrysoeriol 7-O-apiosyl-glucoside	594,15847	595,1666	1,5	0,9	C ₂₇ H ₃₀ O ₁₅
Rosmarinic acid	360,08452	383,0734	-0,8	-0,3	C ₁₈ H ₁₆ O ₈
Acteoside	624,20542	647,1954	1,2	0,8	C ₂₉ H ₃₆ O ₁₅
3,4-Dicaffeoylquinic Acid	516,12678	539,1176	3	1,6	C ₂₅ H ₂₄ O ₁₂
Salvianolic acid C	492,10565	515,0944	-0,9	-0,4	C ₂₆ H ₂₀ O ₁₀
Silybin	482,1213	505,1118	2,5	1,3	C ₂₅ H ₂₂ O ₁₀
Plumieride	470,14243	471,1478	-3,9	-1,9	C ₂₁ H ₂₆ O ₁₂
Hydroxytyrosol 4-O-glucoside	316,11582	339,1046	-1,3	-0,4	C ₁₄ H ₂₀ O ₈
beta-D-Glcp-(1->4)-[L-alpha-D-Hepp-(1->3)]-L-alpha-D-Hepp	564,19016	587,1767	-4,5	-2,6	C ₂₀ H ₃₆ O ₁₈
5-Feruloylquinic acid	368,11073	391,101	2,8	1,1	C ₁₇ H ₂₀ O ₉
Vanillylmandelic acid	198,05282	221,043	4,4	1	C ₉ H ₁₀ O ₅

Table S6. Identified compounds in lavender aqueous extract (ESI negative mode).

Component name	Neutral mass (Da)	Observed m/z	Mass error (ppm)	Mass error (mDa)	Formula
Luteolin 7-O-diglucuronide_2	638,11191	637,1054	1,2	0,8	C ₂₇ H ₂₆ O ₁₈

Scutellarin	462,07983	461,0729	0,8	0,4	C ₂₁ H ₁₈ O ₁₂
Salvianolic acid B_2	718,15338	717,147	1,2	0,9	C ₃₆ H ₃₀ O ₁₆
Caffeoyl tartaric acid	312,04813	311,0413	1,4	0,4	C ₁₃ H ₁₂ O ₉
Lithospermic acid_1	538,11113	537,104	0,3	0,2	C ₂₇ H ₂₂ O ₁₂
Rosmarinic acid	360,08452	359,0776	1	0,4	C ₁₈ H ₁₆ O ₈
Luteolin	286,04774	285,0407	0,9	0,3	C ₁₅ H ₁₀ O ₆
alpha-Methyl-D-mannopyranoside	194,07904	193,0717	-0,2	0	C ₇ H ₁₄ O ₆
9-F1-phytoprostane	328,22497	327,2176	-0,4	-0,1	C ₁₈ H ₃₂ O ₅
ferulic acid-4'-O-glucoside	198,05282	197,0458	1,2	0,2	C ₉ H ₁₀ O ₅
Dihydroferulic acid 4-O-glucuronide	372,10565	371,0989	1,4	0,5	C ₁₆ H ₂₀ O ₁₀
Apigenin-7-O-glucoside	432,10565	431,0987	0,8	0,3	C ₂₁ H ₂₀ O ₁₀
D-(+)-Mannose	180,06339	179,0562	0,4	0,1	C ₆ H ₁₂ O ₆
Naringenin-4',5-diglucuronide	608,13773	607,13	-0,7	-0,4	C ₂₇ H ₂₈ O ₁₆
Apigenin	270,05282	269,0456	0,3	0,1	C ₁₅ H ₁₀ O ₅
Pinoresinol-4-O-Beta-Monoglycoside	520,19446	519,188	1,6	0,8	C ₂₆ H ₃₂ O ₁₁
Ferulic acid-4'-O-glucoside	356,11073	355,1035	0,1	0	C ₁₆ H ₂₀ O ₉
Quercitrin (Quercetin-3-O-alpha-L-rhamnopyranoside)	448,10056	447,0941	1,8	0,8	C ₂₁ H ₂₀ O ₁₁

4-Hydroxy-5-(3',5'-dihydroxyphenyl)-valeric acid-O-glucuronide	402,11621	401,1109	4,9	2	C ₁₇ H ₂₂ O ₁₁
Isorhamnetin 3-O-galactoside	478,11113	477,104	0,3	0,1	C ₂₂ H ₂₂ O ₁₂
Hispidulin glucuronide	476,09548	475,0886	0,9	0,4	C ₂₂ H ₂₀ O ₁₂
Luteolin-3-O-glucuronide	462,07983	461,0732	1,4	0,6	C ₂₁ H ₁₈ O ₁₂
Quercetin 3'-O-glucuronide	478,07474	477,0678	0,7	0,4	C ₂₁ H ₁₈ O ₁₃
Chicoric acid	474,07983	473,0735	2	0,9	C ₂₂ H ₁₈ O ₁₂
Melittoside	524,17412	523,165	-3,5	-1,9	C ₂₁ H ₃₂ O ₁₅
Oleuropein	540,18429	539,176	-1,8	-1	C ₂₅ H ₃₂ O ₁₃
Theaflavin 3-O-gallate_1	716,13773	715,1317	1,7	1,2	C ₃₆ H ₂₈ O ₁₆
Aucubin	346,12638	345,1198	1,9	0,7	C ₁₅ H ₂₂ O ₉
Silybin	482,1213	481,1124	-3,3	-1,6	C ₂₅ H ₂₂ O ₁₀

Table S7. Identified compounds in lavender aqueous extract (ESI positive mode).

Component name	Neutral mass (Da)	Observed m/z	Mass error (ppm)	Mass error (mDa)	Formula
Luteolin 7-O-diglucuronide_1	638,11191	639,119	-0,3	-0,2	C ₂₇ H ₂₆ O ₁₈
Scutellarin	462,07983	463,0874	0,7	0,3	C ₂₁ H ₁₈ O ₁₂

Apigenin-7-O-glucoside	432,10565	433,1133	0,8	0,4	C ₂₁ H ₂₀ O ₁₀
Sucrose	342,11621	365,105	-1,1	-0,4	C ₁₂ H ₂₂ O ₁₁
Hexose	180,06339	203,0522	-1,9	-0,4	C ₆ H ₁₂ O ₆
Pinoresinol-4-O-Beta-Monoglycoside	520,19446	543,1846	1,7	0,9	C ₂₆ H ₃₂ O ₁₁
Salvianolic acid B_2	718,15338	741,1436	1,4	1	C ₃₆ H ₃₀ O ₁₆
Caffeoyl tartaric acid	312,04813	335,0371	-0,8	-0,3	C ₁₃ H ₁₂ O ₉
Cynarin	516,12678	539,1187	5	2,7	C ₂₅ H ₂₄ O ₁₂
Hispidulin glucuronide	476,09548	477,1043	3,2	1,5	C ₂₂ H ₂₀ O ₁₂
Astragalin	448,10056	449,1085	1,6	0,7	C ₂₁ H ₂₀ O ₁₁
Acteoside	624,20542	647,1955	1,3	0,8	C ₂₉ H ₃₆ O ₁₅
Luteolin 4'-glucoside	448,10056	471,0903	1	0,5	C ₂₁ H ₂₀ O ₁₁
Salvianolic acid C	492,10565	493,1134	0,9	0,5	C ₂₆ H ₂₀ O ₁₀
Kaempferol 3-rhamnosyl-(1->2)-rhamnosyl-(1->6)-glucoside	740,21638	763,2092	4,8	3,6	C ₃₃ H ₄₀ O ₁₉
5-Feruloylquinic acid	368,11073	391,1005	1,3	0,5	C ₁₇ H ₂₀ O ₉
beta-D-Glcp-(1->4)-[L-alpha-D-Hepp-(1->3)]-L-alpha-D-Hepp	564,19016	587,1796	0,3	0,2	C ₂₀ H ₃₆ O ₁₈

alpha-Methyl-D-mannopyranoside	194,07904	194,079	2,7	0,5	C ₇ H ₁₄ O ₆
5-O-Caffeoylquinic acid	354,09508	377,0861	4,7	1,8	C ₁₆ H ₁₈ O ₉
Isoscutellarein 4'-methyl ether 7-(6'''-acetylallosyl)(1->2)-glucoside	666,1796	667,1901	4,8	3,2	C ₃₀ H ₃₄ O ₁₇

Table S8. Identified compounds in lemon balm aqueous extract (ESI negative mode).

Component name	Neutral mass (Da)	Observed m/z	Mass error (ppm)	Mass error (mDa)	Formula
Lithospermic acid B	718,15338	717,1465	0,6	0,4	C ₃₆ H ₃₀ O ₁₆
Rosmarinic acid	360,08452	359,0778	1,5	0,5	C ₁₈ H ₁₆ O ₈
Theaflavin 3-O-gallate_1	716,13773	715,1308	0,5	0,4	C ₃₆ H ₂₈ O ₁₆
Chicoric acid	474,07983	473,0731	1,1	0,5	C ₂₂ H ₁₈ O ₁₂
Caffeoyl tartaric acid	312,04813	311,0411	0,7	0,2	C ₁₃ H ₁₂ O ₉
Salvianolic acid B_1	718,15338	717,1464	0,4	0,3	C ₃₆ H ₃₀ O ₁₆
9-F1-phytoprostane	328,22497	327,2183	1,9	0,6	C ₁₈ H ₃₂ O ₅
Salvianolic acid B_2	718,15338	717,1462	0,1	0,1	C ₃₆ H ₃₀ O ₁₆
Luteolin	286,04774	285,0407	0,7	0,2	C ₁₅ H ₁₀ O ₆
Vanillylmandelic acid	198,05282	197,0456	0	0	C ₉ H ₁₀ O ₅
Genkwanin	284,06847	283,0612	-0,2	0	C ₁₆ H ₁₂ O ₅

Caffeic acid 4-O-glucoside	342,09508	341,0877	-0,2	-0,1	C ₁₅ H ₁₈ O ₉
Salvianolic Acid A	494,1213	493,1137	-0,6	-0,3	C ₂₆ H ₂₂ O ₁₀
1,3-Dicaffeoylquinic acid	516,12678	515,1184	-2,1	-1,1	C ₂₅ H ₂₄ O ₁₂
Nicotiflorin	594,15847	593,1505	-1,2	-0,7	C ₂₆ H ₃₀ O ₁₅
Isorhamnetin 3-O-galactoside	478,11113	477,1044	1,1	0,5	C ₂₂ H ₂₂ O ₁₂
Quercitrin (Quercetin-3-O-alpha-L-rhamnopyranoside)	448,10056	447,093	-0,6	-0,3	C ₂₁ H ₂₀ O ₁₁
Naringenin-4',5-diglucuronide	608,13773	607,129	-2,4	-1,4	C ₂₆ H ₂₈ O ₁₆
Quercetin 3-O-beta-D-glucopyranosyl-7-O-alpha-L-rhamnopyranoside	610,15338	609,1443	-2,9	-1,8	C ₂₆ H ₃₀ O ₁₆
Kaempferol 3-O-(6''-acetyl-galactoside) 7-O-rhamnoside	636,16903	635,1596	-3,3	-2,1	C ₂₉ H ₃₂ O ₁₆
Diosmetin	300,06339	299,0558	-1,2	-0,4	C ₁₆ H ₁₂ O ₆
Dihydroferulic acid-4'-O-glucuronide	372,10565	371,0974	-2,6	-0,9	C ₁₆ H ₂₀ O ₁₀
Leucosceptoside A	638,22107	637,2151	2,1	1,3	C ₃₀ H ₃₈ O ₁₅
6''-O-Malonyldaidzin	502,11113	501,1042	0,7	0,4	C ₂₄ H ₂₂ O ₁₂
Acteoside	624,20542	623,2007	4,1	2,6	C ₂₉ H ₃₆ O ₁₅

Table S9. Identified compounds in lemon balm aqueous extract (ESI positive mode).

Component name	Neutral mass (Da)	Observed m/z	Mass error (ppm)	Mass error (mDa)	Formula
Luteolin-3-O-glucuronide	462,07983	463,0868	-0,7	-0,3	C ₂₁ H ₁₈ O ₁₂
9-F1-phytoprostane	328,22497	351,2135	-1,9	-0,7	C ₁₈ H ₃₂ O ₅
Sucrose	342,11621	365,1047	-2	-0,7	C ₁₂ H ₂₂ O ₁₁
Luteolin	286,04774	287,0547	-1,1	-0,3	C ₁₅ H ₁₀ O ₆
Luteolin 7-O-glucoside	448,10056	449,1081	0,6	0,3	C ₂₁ H ₂₀ O ₁₁
Hexose	180,06339	203,0522	-2,1	-0,4	C ₆ H ₁₂ O ₆
Salvianolic acid B_1	718,15338	741,1425	-0,2	-0,1	C ₃₆ H ₃₀ O ₁₆
Caffeoyl tartaric acid	312,04813	335,0371	-0,7	-0,2	C ₁₃ H ₁₂ O ₉
Theaflavin 3-O-gallate_1	716,13773	739,1272	0,3	0,2	C ₃₆ H ₂₈ O ₁₆
Luteolin 4'-glucoside	448,10056	449,1078	0	0	C ₂₁ H ₂₀ O ₁₁
Nicotiflorin	594,15847	595,1649	-1,3	-0,8	C ₂₇ H ₃₀ O ₁₅
Lithospermic acid B	718,15338	741,1439	1,8	1,3	C ₃₆ H ₃₀ O ₁₆
Luteolin 7-O-diglucuronide_1	638,11191	639,1209	2,7	1,7	C ₂₇ H ₂₆ O ₁₈
Lithospermic acid_1	538,11113	539,119	1	0,6	C ₂₇ H ₂₂ O ₁₂

Hydroxytyrosol 4-O-glucoside	316,11582	339,1043	-2,3	-0,8	C ₁₄ H ₂₀ O ₈
Acteoside	624,20542	625,2105	-3,6	-2,2	C ₂₉ H ₃₆ O ₁₅
Leucosceptoside A	638,22107	661,2089	-2,1	-1,4	C ₃₀ H ₃₈ O ₁₅
Silydianin	482,1213	483,1273	-2,6	-1,3	C ₂₅ H ₂₂ O ₁₀
Manghaslin (Quercetin 3-2G-rhamnosylrutinoside)	756,21129	779,2003	-0,3	-0,2	C ₃₃ H ₄₀ O ₂₀
Echinacoside	786,25824	809,2456	-2,3	-1,9	C ₃₅ H ₄₆ O ₂₀
Vanillylmandelic acid	198,05282	221,0411	-4,4	-1	C ₉ H ₁₀ O ₅
Achillolide A	306,11034	329,1002	2,1	0,7	C ₁₆ H ₁₈ O ₆
Silybin	482,1213	505,11	-1	-0,5	C ₂₅ H ₂₂ O ₁₀
Glucobrassicinapin	387,06577	388,0724	-1,6	-0,6	C ₁₂ H ₂₁ NO ₉ S ₂

Table S10. Identified compounds in lemon peel aqueous extract (ESI negative mode).

Component name	Neutral mass (Da)	Observed m/z	Mass error (ppm)	Mass error (mDa)	Formula
Eriocitrin_1	596,17412	595,1646	-3,7	-2,2	C ₂₇ H ₃₂ O ₁₅
Isoscutellarein 7-O-[6'''-O-acetyl-β-d-allopyranosyl-(1→2)]-β-d-glucopyranoside	652,16395	651,1571	0,7	0,4	C ₂₉ H ₃₂ O ₁₇
Nicotiflorin	594,15847	593,1519	1,2	0,7	C ₂₇ H ₃₀ O ₁₅
Hesperidin	610,18977	609,1825	0	0	C ₂₈ H ₃₄ O ₁₅
Rutin	610,15338	609,1471	1,6	1	C ₂₇ H ₃₀ O ₁₆

6''-O-Malonyldaidzin	502,11113	501,1042	0,8	0,4	C ₂₄ H ₂₂ O ₁₂
Isorhamnetin 3-O-glucoside 7-O-rhamnoside	624,16903	623,1621	0,5	0,3	C ₂₈ H ₃₂ O ₁₆
D-(+)-Mannose	180,06339	179,0563	0,9	0,2	C ₆ H ₁₂ O ₆
Salvianolic acid G	418,09	417,0828	0,1	0	C ₂₀ H ₁₈ O ₁₀
Diosmin	608,17412	607,1671	0,4	0,2	C ₂₈ H ₃₂ O ₁₅
Chrysoeriol	300,06339	299,056	-0,5	-0,2	C ₁₆ H ₁₂ O ₆
Limonin	470,19407	469,1868	0	0	C ₂₆ H ₃₀ O ₈
Orientin	448,10056	447,0937	1	0,4	C ₂₁ H ₂₀ O ₁₁
9-F1-phytoprostane	328,22497	327,2175	-0,6	-0,2	C ₁₈ H ₃₂ O ₅
Chrysoeriol 7-O-apiosyl-glucoside	594,15847	593,1517	0,9	0,5	C ₂₇ H ₃₀ O ₁₅
Azadirachtin	720,26294	719,2533	-3,2	-2,3	C ₃₅ H ₄₄ O ₁₆
Isorhamnetin-3-O-rutinoside	624,16903	623,1604	-2,2	-1,3	C ₂₈ H ₃₂ O ₁₆
Hesperetin	302,07904	301,0713	-1,4	-0,4	C ₁₆ H ₁₄ O ₆
Ferulic acid-4'-O-glucoside	356,11073	355,1051	4,5	1,6	C ₁₆ H ₂₀ O ₉
Isorhamnetin 3-O-galactoside	478,11113	477,1042	0,7	0,3	C ₂₂ H ₂₂ O ₁₂
Astilbin	450,11621	449,1089	-0,1	-0,1	C ₂₁ H ₂₂ O ₁₁
4-Hydroxy-5-(3',5'-dihydroxyphenyl)-valeric acid-O-glucuronide	402,11621	401,1092	0,7	0,3	C ₁₇ H ₂₂ O ₁₁
Naringenin-4',5-diglucuronide	608,13773	607,1275	-4,9	-3	C ₂₇ H ₂₈ O ₁₆
Barbatoside A/B	664,22146	663,2146	0,6	0,4	C ₂₈ H ₄₀ O ₁₈
Allobetonicoside	506,16356	505,1562	-0,1	-0,1	C ₂₁ H ₃₀ O ₁₄
6''-O-Malonylgenistin	518,10604	517,0993	0,9	0,5	C ₂₄ H ₂₂ O ₁₃

kaempferol 3-O-rutinoside	594,15847	593,1522	1,6	1	C ₂₇ H ₃₀ O ₁₅
Quercetin-3-O-glucoside	464,09548	463,0885	0,6	0,3	C ₂₁ H ₂₀ O ₁₂
Antoside	610,15338	609,1449	-2	-1,2	C ₂₇ H ₃₀ O ₁₆
Isorhamnetin 4'-O-glucuronide	492,09039	491,0826	-1,1	-0,5	C ₂₂ H ₂₀ O ₁₃
Kaempferol 3-O-(6''-acetyl-galactoside) 7-O-rhamnoside	636,16903	635,1595	-3,5	-2,2	C ₂₉ H ₃₂ O ₁₆
Isorhamnetin 3-O-glucoside	478,11113	477,1022	-3,4	-1,6	C ₂₂ H ₂₂ O ₁₂
;Homoplantagin_Tectoridin	462,11621	461,1072	-3,7	-1,7	C ₂₂ H ₂₂ O ₁₁
Pinoresinol-4-O-Beta-Monoglycoside	520,19446	519,1866	-1,1	-0,6	C ₂₆ H ₃₂ O ₁₁
Geniposidic-Acid	374,1213	373,1141	0,2	0,1	C ₁₆ H ₂₂ O ₁₀
Luteolin 7-O-glucoside	448,10056	447,0933	0,1	0,1	C ₂₁ H ₂₀ O ₁₁
Apigenin 7-O-apiosyl-glucoside	564,14791	563,1395	-2	-1,1	C ₂₆ H ₂₈ O ₁₄
Citric acid	192,027	191,0194	-1,6	-0,3	C ₆ H ₈ O ₇
Hispidulin glucuronide	476,09548	475,0871	-2,4	-1,1	C ₂₂ H ₂₀ O ₁₂
Rosmarinic acid	360,08452	359,079	4,9	1,7	C ₁₈ H ₁₆ O ₈

Table S11. Identified compounds in lemon peel aqueous extract (ESI positive mode).

Component name	Neutral mass (Da)	Observed m/z	Mass error (ppm)	Mass error (mDa)	Formula
Peonidin 3-O-sophoroside	625,17686	625,1766	0,5	0,3	C ₂₈ H ₃₃ O ₁₆
Byakangelicin	334,10525	357,0936	-2,4	-0,8	C ₁₇ H ₁₈ O ₇

Nicotiflorin	594,15847	595,1661	0,6	0,4	C ₂₇ H ₃₀ O ₁₅
Limonin	470,19407	471,2009	-1	-0,5	C ₂₆ H ₃₀ O ₈
Isoscutellarein 7-O-[6'''-O-acetyl-β-d-allopyranosyl-(1→2)]-β-d-glucopyranoside	652,16395	653,1711	-0,2	-0,1	C ₂₉ H ₃₂ O ₁₇
Eriocitrin_1	596,17412	619,1636	0,4	0,2	C ₂₇ H ₃₂ O ₁₅
Nobiletin	402,13147	403,1381	-1,6	-0,7	C ₂₁ H ₂₂ O ₈
Hesperidin	610,18977	633,1788	-0,4	-0,2	C ₂₈ H ₃₄ O ₁₅
Rutin	610,15338	611,1615	1,3	0,8	C ₂₇ H ₃₀ O ₁₆
Isorhamnetin 3-O-glucoside 7-O-rhamnoside	624,16903	625,177	1,1	0,7	C ₂₈ H ₃₂ O ₁₆
1,3-Dicaffeoylquinic acid	516,12678	517,1322	-3,5	-1,8	C ₂₅ H ₂₄ O ₁₂
Chrysoeriol 7-O-apiosyl-glucoside	594,15847	595,1663	1	0,6	C ₂₇ H ₃₀ O ₁₅
Myricetin-3-O-α-L-rhamnopyranoside	464,09548	465,103	0,5	0,2	C ₂₁ H ₂₀ O ₁₂
Coumaroyl tartaric acid (p-)	296,05322	297,0607	0,8	0,2	C ₁₃ H ₁₂ O ₈
Isorhamnetin-3-O-rutinoside	624,16903	647,1587	0,7	0,5	C ₂₈ H ₃₂ O ₁₆
Quercetin 3-O-beta-D-glucopyranosyl-7-O-alpha-L-rhamnopyranoside	610,15338	611,1619	2	1,2	C ₂₇ H ₃₀ O ₁₆

Spinacetin 3-O-glucosyl-(1->6)-glucoside	670,17451	670,1764	3,7	2,5	C ₂₉ H ₃₄ O ₁₈
Quercetin 3-O-(6-malonyl-glucoside)"	550,09587	551,1027	-0,8	-0,4	C ₂₄ H ₂₂ O ₁₅
4-O-Caffeoylquinic acid	354,09508	377,0839	-1,2	-0,4	C ₁₆ H ₁₈ O ₉
Cirsimaritin	314,07904	315,085	-4,3	-1,4	C ₁₇ H ₁₄ O ₆
Astilbin	450,11621	473,1043	-2,4	-1,1	C ₂₁ H ₂₂ O ₁₁
Pinoresinol-4-O-Beta-Monoglycoside	520,19446	520,1923	-3,2	-1,7	C ₂₆ H ₃₂ O ₁₁

Table S12. Identified compounds in rosehip aqueous extract (ESI negative mode).

Component name	Neutral mass (Da)	Observed m/z	Mass error (ppm)	Mass error (mDa)	Formula
Astilbin	450,11621	449,1091	0,3	0,2	C ₂₁ H ₂₂ O ₁₁
Valoneic acid dilactone	470,01214	469,0048	-0,1	-0,1	C ₂₁ H ₁₀ O ₁₃
5-O-Galloylquinic acid	344,07435	343,0676	1,5	0,5	C ₁₄ H ₁₆ O ₁₀
Protocatechuic acid 4-O-glucoside	316,07943	315,0724	0,9	0,3	C ₁₃ H ₁₆ O ₉
Nicotiflorin	594,15847	593,1484	-4,7	-2,8	C ₂₇ H ₃₀ O ₁₅
Taxifolin	304,0583	303,0509	-0,5	-0,2	C ₁₅ H ₁₂ O ₇

Ascorbic acid (L-)	176,03209	175,025	1	0,2	C ₆ H ₈ O ₆
Quercetin 3-arabinoside	434,08491	433,0776	-0,2	-0,1	C ₂₀ H ₁₈ O ₁₁
Sucrose	342,11621	341,1095	1,6	0,6	C ₁₂ H ₂₂ O ₁₁
Dihydroferulic acid 4-O-glucuronide	372,10565	371,0972	-3,2	-1,2	C ₁₆ H ₂₀ O ₁₀
Melittoside	524,17412	523,1661	-1,5	-0,8	C ₂₁ H ₃₂ O ₁₅
Diosmin	608,17412	607,1659	-1,5	-0,9	C ₂₈ H ₃₂ O ₁₅
Apigenin 7-O-diglucuronide	622,117	621,1095	-0,3	-0,2	C ₂₇ H ₂₆ O ₁₇
Dihydroferulic acid-4'-O-glucuronide	372,10565	371,099	1,8	0,7	C ₁₆ H ₂₀ O ₁₀

Table S13. Identified compounds in rosehip aqueous extract (ESI positive mode).

Component name	Neutral mass (Da)	Observed m/z	Mass error (ppm)	Mass error (mDa)	Formula
Hexose	180,06339	203,0525	-0,7	-0,1	C ₆ H ₁₂ O ₆
Valoneic acid dilactone	470,01214	471,0189	-1,1	-0,5	C ₂₁ H ₁₀ O ₁₃
Astilbin	450,11621	451,1234	-0,3	-0,1	C ₂₁ H ₂₂ O ₁₁
Teupolioside	786,25824	786,2544	-4,2	-3,3	C ₃₅ H ₄₆ O ₂₀
9-F1-phytoprostane	328,22497	351,2131	-3,1	-1,1	C ₁₈ H ₃₂ O ₅

alpha-Methyl-D-mannopyranoside	194,07904	217,0692	4,1	0,9	C ₇ H ₁₄ O ₆
Genistein 4',7-O-diglucuronide	622,117	623,1232	-1,7	-1	C ₂₇ H ₂₆ O ₁₇
6''-O-Malonylgenistin	518,10604	541,0926	-4,9	-2,6	C ₂₄ H ₂₂ O ₁₃

Table S14. Identified compounds in sideritis aqueous extract (ESI negative mode).

Component name	Neutral mass (Da)	Observed m/z	Mass error (ppm)	Mass error (mDa)	Formula
Acteoside	624,20542	623,198	-0,2	-0,1	C ₂₉ H ₃₆ O ₁₅
Isoscutellarein 4'-methyl ether 7-(6'''-acetylallosyl)(1→2)-glucoside	666,1796	665,1727	0,5	0,4	C ₃₀ H ₃₄ O ₁₇
9-F1-phytoprostane	328,22497	327,2178	0,4	0,1	C ₁₈ H ₃₂ O ₅
Isoscutellarein 7-O-[6'''-O-acetyl-β-d-allopyranosyl-(1→2)]-β-d-glucopyranoside	652,16395	651,1574	1,1	0,7	C ₂₉ H ₃₂ O ₁₇
Apigenin 7-(4''-E-p-coumarylglucoside)	578,14243	577,1352	0,2	0,1	C ₃₀ H ₂₆ O ₁₂
Apigenin-7-O-glucoside	432,10565	431,0984	0,1	0	C ₂₁ H ₂₀ O ₁₀
Teupolioside	786,25824	785,25	-1,3	-1	C ₃₅ H ₄₆ O ₂₀

Bergenin	328,07943	327,0722	0,2	0,1	C ₁₄ H ₁₆ O ₉
Apigenin	270,05282	269,0458	0,9	0,2	C ₁₅ H ₁₀ O ₅
Cirsilineol_1	344,0896	343,0825	0,4	0,2	C ₁₈ H ₁₆ O ₇
Kaempferol 3-O-sophoroside	610,15338	609,1466	0,8	0,5	C ₂₇ H ₃₀ O ₁₆
Leucosceptoside A	638,22107	637,2128	-1,6	-1	C ₃₀ H ₃₈ O ₁₅
Cirsilineol_2	344,0896	343,0824	0,2	0,1	C ₁₈ H ₁₆ O ₇
5-Feruloylquinic acid	368,11073	367,1035	0,1	0	C ₁₇ H ₂₀ O ₉
kaempferol 3-O-rutinoside	594,15847	593,1512	0,1	0	C ₂₇ H ₃₀ O ₁₅
Pectolinarigenin	314,07904	313,07 ₁₆	-0,6	-0,2	C ₁₇ H ₁₄ O ₆
Pinoresinol-4-O-Beta-Monoglycoside	520,19446	519,1862	-1,9	-1	C ₂₆ H ₃₂ O ₁₁
Isoscutellarein 7-O-[6'-O-acetyl-β-D-allopyranosyl-(1→2)]-6"-O-acetyl-β-D-glucopyranoside"	694,17451	693,167	-0,3	-0,2	C ₃₁ H ₃₄ O ₁₈
Geniposidic-Acid	374,1213	373,1138	-0,5	-0,2	C ₁₆ H ₂₂ O ₁₀
Genistein 4',7-O-diglucuronide	622,117	621,1091	-1,1	-0,7	C ₂₇ H ₂₆ O ₁₇
Luteolin 7-O-diglucuronide_2	638,11191	637,103	-2,5	-1,6	C ₂₇ H ₂₆ O ₁₈
Hesperidin	610,18977	609,1826	0,2	0,1	C ₂₈ H ₃₄ O ₁₅
Nicotiflorin	594,15847	593,1495	-2,9	-1,7	C ₂₇ H ₃₀ O ₁₅
Rhamnetin 3-glucoside	478,11113	477,1037	-0,4	-0,2	C ₂₂ H ₂₂ O ₁₂

Luteolin 4'-glucoside	448,10056	447,0931	-0,3	-0,2	C ₂₁ H ₂₀ O ₁₁
3,4-Dicaffeoylquinic Acid	516,12678	515,1195	0	0	C ₂₅ H ₂₄ O ₁₂
4-Hydroxy-5-(3',5'-dihydroxyphenyl)-valeric acid-O-glucuronide	402,11621	401,108	-2,4	-1	C ₁₇ H ₂₂ O ₁₁
Lithospermic acid B	718,15338	717,1463	0,2	0,2	C ₃₆ H ₃₀ O ₁₆
Falcarindiol 3-acetate	302,18819	301,1805	-1,4	-0,4	C ₁₉ H ₂₆ O ₃
Antoside	610,15338	609,1452	-1,5	-0,9	C ₂₇ H ₃₀ O ₁₆
Luteolin 7-O-diglucuronide_1	638,11191	637,102	-4,2	-2,7	C ₂₇ H ₂₆ O ₁₈
Apigenin 7-O-apiosyl-glucoside	564,14791	563,1404	-0,5	-0,3	C ₂₆ H ₂₈ O ₁₄
Kaempferol 3-O-acetyl-glucoside	490,11113	489,1029	-2	-1	C ₂₃ H ₂₂ O ₁₂
Citric acid	192,027	191,0194	-1,9	-0,4	C ₆ H ₈ O ₇

Table S15. Identified compounds in sideritis aqueous extract (ESI positive mode).

Component name	Neutral mass (Da)	Observed m/z	Mass error (ppm)	Mass error (mDa)	Formula
Isoscutellarein 4'-methyl ether 7-(6'''-acetylallosyl)(1->2)-glucoside	666,1796	667,1872	0,5	0,3	C ₃₀ H ₃₄ O ₁₇
9-F1-phytoprostane	328,22497	351,2132	-3	-1	C ₁₈ H ₃₂ O ₅

Isoscutellarein 7-O-[6'''-O-acetyl-β-d-allopyranosyl-(1→2)]-β-d-glucopyranoside	652,16395	653,1717	0,8	0,5	C ₂₉ H ₃₂ O ₁₇
Acteoside	624,20542	647,1952	0,9	0,6	C ₂₉ H ₃₆ O ₁₅
Apigenin-7-O-glucoside	432,10565	433,113	0,2	0,1	C ₂₁ H ₂₀ O ₁₀
Cirsilineol_1	344,0896	345,0963	-1,7	-0,6	C ₁₈ H ₁₆ O ₇
Teupolioside	786,25824	809,2472	-0,3	-0,3	C ₃₅ H ₄₆ O ₂₀
Isoacteoside	624,20542	647,1975	4,3	2,8	C ₂₉ H ₃₆ O ₁₅
Cirsilineol_2	344,0896	345,0962	-2	-0,7	C ₁₈ H ₁₆ O ₇
Leucosceptoside A	638,22107	661,2105	0,3	0,2	C ₃₀ H ₃₈ O ₁₅
5-Feruloylquinic acid	368,11073	391,0997	-0,8	-0,3	C ₁₇ H ₂₀ O ₉
Bergenin	328,07943	351,0681	-1,4	-0,5	C ₁₄ H ₁₆ O ₉
Apigenin 7-(2'',3''-diacetyl-hexocide)	516,12678	517,1342	0,2	0,1	C ₂₅ H ₂₄ O ₁₂
1,3-Dicaffeoylquinic acid	516,12678	517,135	1,8	1	C ₂₅ H ₂₄ O ₁₂
Oleuropein	540,18429	563,1726	-1,7	-1	C ₂₅ H ₃₂ O ₁₃
alpha-Methyl-D-mannopyranoside	194,07904	217,0684	0,5	0,1	C ₇ H ₁₄ O ₆
Luteolin 7-O-diglucuronide_1	638,11191	639,1185	-1,1	-0,7	C ₂₇ H ₂₆ O ₁₈

Table S16. Identified compounds in spearmint aqueous extract (ESI negative mode).

Component name	Neutral mass (Da)	Observed m/z	Mass error (ppm)	Mass error (mDa)	Formula
Nicotiflorin	594,15847	593,151	-0,3	-0,2	C ₂₇ H ₃₀ O ₁₅
Scutellarin	462,07983	461,073	1	0,5	C ₂₁ H ₁₈ O ₁₂
Rosmarinic acid	360,08452	359,0778	1,6	0,6	C ₁₈ H ₁₆ O ₈
Diosmin	608,17412	607, ₁₆ 77	1,4	0,8	C ₂₈ H ₃₂ O ₁₅
Luteolin-3-O-glucuronide	462,07983	461,0741	3,3	1,5	C ₂₁ H ₁₈ O ₁₂
Luteolin	286,04774	285,0407	0,9	0,3	C ₁₅ H ₁₀ O ₆
Hesperidin	610,18977	609,183	0,8	0,5	C ₂₈ H ₃₄ O ₁₅
Vanillylmandelic acid	198,05282	197,0456	0,5	0,1	C ₉ H ₁₀ O ₅
Caffeoyl tartaric acid	312,04813	311,0413	1,4	0,4	C ₁₃ H ₁₂ O ₉
Isorhamnetin 3-O-glucoside 7-O-rhamnoside	624, ₁₆ 903	623, ₁₆ 05	-2	-1,3	C ₂₈ H ₃₂ O ₁₆
Salvianolic acid B_1	718,15338	717,1461	0	0	C ₃₆ H ₃₀ O ₁₆
Salvianolic Acid A	494,1213	493,1148	1,7	0,8	C ₂₆ H ₂₂ O ₁₀
Apigenin-7-O-glucuronide	446,08491	445,0786	2,2	1	C ₂₁ H ₁₈ O ₁₁
Lithospermic acid B	718,15338	717,1456	-0,8	-0,5	C ₃₆ H ₃₀ O ₁₆
Rutin	610,15338	609,1463	0,4	0,2	C ₂₇ H ₃₀ O ₁₆

Luteolin 7-O-diglucuronide_1	638,11191	637,1051	0,7	0,4	C ₂₇ H ₂₆ O ₁₈
Luteolin 7-O-glucoside	448,10056	447,0934	0,3	0,2	C ₂₁ H ₂₀ O ₁₁
Eupatilin	344,0896	343,0826	0,7	0,2	C ₁₈ H ₁₆ O ₇
Chicoric acid	474,07983	473,0729	0,7	0,3	C ₂₂ H ₁₈ O ₁₂
Genkwanin	284,06847	283,0615	1	0,3	C ₁₆ H ₁₂ O ₅
kaempferol 3-O-rutinoside	594,15847	593,1504	-1,3	-0,8	C ₂₇ H ₃₀ O ₁₅
Isorhamnetin 3-O-glucoside	478,11113	477,1034	-0,9	-0,5	C ₂₂ H ₂₂ O ₁₂
Chrysoeriol 7-O-apiosyl-glucoside	594,15847	593,1507	-0,8	-0,5	C ₂₇ H ₃₀ O ₁₅
Cynarin	5 ₁₆ ,12678	515,1186	-1,7	-0,9	C ₂₅ H ₂₄ O ₁₂
Ferulic acid-4'-O-glucoside	356,11073	355,1034	-0,3	-0,1	C ₁₆ H ₂₀ O ₉
1,3-Dicaffeoylquinic acid	5 ₁₆ ,12678	515,1191	-0,8	-0,4	C ₂₅ H ₂₄ O ₁₂
3,4-Dicaffeoylquinic Acid	5 ₁₆ ,12678	515,1179	-3,1	-1,6	C ₂₅ H ₂₄ O ₁₂
Antoside	610,15338	609,1452	-1,5	-0,9	C ₂₇ H ₃₀ O ₁₆
Apigenin 7-O-diglucuronide	622,117	621,1112	2,4	1,5	C ₂₇ H ₂₆ O ₁₇
Naringenin-4',5-diglucuronide	608,13773	607,1275	-4,9	-3	C ₂₇ H ₂₈ O ₁₆

Kaempferol 3-rhamnosyl-(1->2)-rhamnosyl-(1->6)-glucoside	740,21638	739,2078	-1,7	-1,3	C ₃₃ H ₄₀ O ₁₉
Oleuropein	540,18429	539,1763	-1,3	-0,7	C ₂₅ H ₃₂ O ₁₃
Allobetonicoside	506,16356	505,1561	-0,4	-0,2	C ₂₁ H ₃₀ O ₁₄
Acteoside	624,20542	623,2007	4,1	2,5	C ₂₉ H ₃₆ O ₁₅
6''-O-Malonyldaidzin	502,11113	501,1034	-0,8	-0,4	C ₂₄ H ₂₂ O ₁₂
Salvianolic acid G	418,09	417,082	-1,7	-0,7	C ₂₀ H ₁₈ O ₁₀
Quercetin 3-arabinoside	434,08491	433,0779	0,6	0,3	C ₂₀ H ₁₈ O ₁₁
Melittoside	524,17412	523,1679	2	1,1	C ₂₁ H ₃₂ O ₁₅

Table S17. Identified compounds in spearmint aqueous extract (ESI positive mode).

Component name	Neutral mass (Da)	Observed m/z	Mass error (ppm)	Mass error (mDa)	Formula
Scutellarin	462,07983	463,0871	0	0	C ₂₁ H ₁₈ O ₁₂
Diosmin	608,17412	609,1817	0,5	0,3	C ₂₈ H ₃₂ O ₁₅
Luteolin-3-O-glucuronide	462,07983	463,0881	2,1	1	C ₂₁ H ₁₈ O ₁₂
Luteolin 7-O-rutinoside	594,15847	595,166	0,5	0,3	C ₂₇ H ₃₀ O ₁₅
9-F1-phytoprostane	328,22497	351,2137	-1,3	-0,4	C ₁₈ H ₃₂ O ₅
Luteolin	286,04774	287,0548	-0,6	-0,2	C ₁₅ H ₁₀ O ₆

Luteolin 7-O-glucoside	448,10056	449,1079	0	0	C ₂₁ H ₂₀ O ₁₁
Hesperidin	610,18977	633,1791	0,1	0,1	C ₂₈ H ₃₄ O ₁₅
Sucrose	342,1 ₆ 21	365,1052	-0,7	-0,3	C ₁₂ H ₂₂ O ₁₁
Luteolin 7-O-diglucuronide_1	638,11191	639,1197	0,8	0,5	C ₂₇ H ₂₆ O ₁₈
Hexose	180,06339	203,0525	-0,7	-0,1	C ₆ H ₁₂ O ₆
Salvianolic acid B_1	718,15338	741,1424	-0,3	-0,2	C ₃₆ H ₃₀ O ₁₆
Rutin	610,15338	611,1 ₆ 12	0,9	0,6	C ₂₇ H ₃₀ O ₁₆
3,4-Dicaffeoylquinic Acid	5 ₁₆ ,12678	539,118	3,7	2	C ₂₅ H ₂₄ O ₁₂
Acteoside	624,20542	647,1942	-0,7	-0,4	C ₂₉ H ₃₆ O ₁₅
Chrysoeriol 7-O-apiosyl-glucoside	594,15847	595,1 ₆ 63	0,9	0,5	C ₂₇ H ₃₀ O ₁₅
Rhoifolin	578,1 ₆ 356	578,1 ₆ 41	1,8	1,1	C ₂₇ H ₃₀ O ₁₄
Manghaslin (Quercetin 3-2G-rhamnosylrutinoside)	756,21129	757,2183	-0,3	-0,2	C ₃₃ H ₄₀ O ₂₀
Naringenin-4',5-diglucuronide	608,13773	609,145	0	0	C ₂₇ H ₂₈ O ₁₆
5-O-Caffeoylshikimic acid	336,08452	359,0747	2,8	1	C ₁₆ H ₁₆ O ₈
kaempferol 3-O-rutinoside	594,15847	617,1468	-1,5	-0,9	C ₂₇ H ₃₀ O ₁₅
Lithospermic acid_1	538,11113	561,0992	-2,1	-1,2	C ₂₇ H ₂₂ O ₁₂
Quercetin 3-rutinoside-7-glucoside	772,20621	795,1929	-3,1	-2,5	C ₃₃ H ₄₀ O ₂₁
Vanillylmandelic acid	198,05282	221,0411	-4,4	-1	C ₉ H ₁₀ O ₅

Table S18. Identified compounds in St. John's wort aqueous extract (ESI negative mode).

Component name	Neutral mass (Da)	Observed m/z	Mass error (ppm)	Mass error (mDa)	Formula
Quercetin-3-O-glucoside	464,09548	463,0886	0,8	0,4	C ₂₁ H ₂₀ O ₁₂
Quercetin	302,04265	301,0354	-0,1	0	C ₁₅ H ₁₀ O ₇
Luteolin 4'-glucoside	448,10056	447,0932	-0,3	-0,1	C ₂₁ H ₂₀ O ₁₁
Cinnamtannin A2_1	1154,2692	1153,2608	-0,9	-1,1	C ₆₀ H ₅₀ O ₂₄
9-F1-phytoprostane	328,22497	327,2176	-0,2	-0,1	C ₁₈ H ₃₂ O ₅
Astragalin	448,10056	447,0932	-0,1	0	C ₂₁ H ₂₀ O ₁₁
Quercetin 3,4'-O-diglucoside	626,1483	625,1412	0,2	0,1	C ₂₇ H ₃₀ O ₁₇
Anhydrochiisanogenoic acid	502,32944	501,3219	-0,6	-0,3	C ₃₀ H ₄₆ O ₆
Amentoflavone	538,09	537,0825	-0,4	-0,2	C ₃₀ H ₁₈ O ₁₀
Cinnamtannin A2_2	1154,2692	1153,2605	-1,2	-1,4	C ₆₀ H ₅₀ O ₂₄
Kaempferol	286,04774	285,0405	0	0	C ₁₅ H ₁₀ O ₆
Rutin	610,15338	609,1464	0,5	0,3	C ₂₇ H ₃₀ O ₁₆
Oleuropein	540,18429	539,1769	-0,3	-0,2	C ₂₅ H ₃₂ O ₁₃
Kaempferol 3-O-sophoroside	610,15338	609,1442	-3,1	-1,9	C ₂₇ H ₃₀ O ₁₆
Apigenin-7-O-glucuronide	446,08491	445,0771	-1,2	-0,5	C ₂₁ H ₁₈ O ₁₁
5-O-Caffeoylshikimic acid	336,08452	335,0774	0,4	0,1	C ₁₆ H ₁₆ O ₈

Myricetin 7-glucoside	480,09039	479,0811	-4,1	-2	C ₂₁ H ₂₀ O ₁₃
Chicoric acid	474,07983	473,0723	-0,5	-0,2	C ₂₂ H ₁₈ O ₁₂
Quercetin 3'-O-glucuronide	478,07474	477,066	-3,1	-1,5	C ₂₁ H ₁₈ O ₁₃
Dihydroferulic acid-4'-O-glucuronide	372,10565	371,0983	-0,3	-0,1	C ₁₆ H ₂₀ O ₁₀
Allobetonicoside	506,16356	505,1552	-2,2	-1,1	C ₂₁ H ₃₀ O ₁₄
Apigenin-7-O-glucoside	432,10565	431,0972	-2,7	-1,2	C ₂₁ H ₂₀ O ₁₀
Dihydroferulic acid 4-O-glucuronide	372,10565	371,0978	-1,6	-0,6	C ₁₆ H ₂₀ O ₁₀
Coumaroylquinic acid	338,10017	337,0937	2,3	0,8	C ₁₆ H ₁₈ O ₈
Salvianolic acid G	418,09	417,0821	-1,4	-0,6	C ₂₀ H ₁₈ O ₁₀

Table S19. Identified compounds in St. John's wort aqueous extract (ESI positive mode).

Component name	Neutral mass (Da)	Observed m/z	Mass error (ppm)	Mass error (mDa)	Formula
Quercetin 3-glucuronate	478,07474	479,0816	-0,9	-0,4	C ₂₁ H ₁₈ O ₁₃
Quercetin	302,04265	303,0496	-1,2	-0,3	C ₁₅ H ₁₀ O ₇
Hyperoside	464,09548	465,1023	-0,9	-0,4	C ₂₁ H ₂₀ O ₁₂
Myricetin-3-O- α -L-rhamnopyranoside	464,09548	487,0842	-0,9	-0,5	C ₂₁ H ₂₀ O ₁₂
Naringenin 5-O-glucuronide	448,10056	471,0893	-1	-0,5	C ₂₁ H ₂₀ O ₁₁
Amentoflavone	538,09	539,0969	-0,7	-0,4	C ₃₀ H ₁₈ O ₁₀

Luteolin 4'-glucoside	448,10056	471,0896	-0,3	-0,1	C ₂₁ H ₂₀ O ₁₁
9-F1-phytoprostane	328,22497	351,2133	-2,5	-0,9	C ₁₈ H ₃₂ O ₅
Cinnamtannin A2_1	1154,2692	1155,2767	0,2	0,2	C ₆₀ H ₅₀ O ₂₄
Quercetin 3-arabinoside	434,08491	457,0737	-0,9	-0,4	C ₂₀ H ₁₈ O ₁₁
Kaempferol-3-o-glucuronide	462,07983	463,0868	-0,5	-0,3	C ₂₁ H ₁₈ O ₁₂
Hexose	180,06339	203,0524	-0,9	-0,2	C ₆ H ₁₂ O ₆
Chrysoeriol 7-O-apiosyl-glucoside	594,15847	595,1654	-0,5	-0,3	C ₂₇ H ₃₀ O ₁₅
Cinnamtannin A2_2	1154,2692	1155,2773	0,7	0,8	C ₆₀ H ₅₀ O ₂₄
Rutin	610,15338	633,1423	-0,5	-0,3	C ₂₇ H ₃₀ O ₁₆
Quercetin 3,4'-O-diglucoside	626,1483	627,1567	1,9	1,2	C ₂₇ H ₃₀ O ₁₇
Myricetin-3-O-galactopyranoside	480,09039	503,0797	0,2	0,1	C ₂₁ H ₂₀ O ₁₃
Oleuropein	540,18429	541,1919	0,5	0,3	C ₂₅ H ₃₂ O ₁₃
Pinoresinol-4-O-Beta-Monoglycoside	520,19446	543,1845	1,5	0,8	C ₂₆ H ₃₂ O ₁₁
Caffeic acid	180,04226	181,0498	1,4	0,2	C ₉ H ₈ O ₄
Betonicine	159,08954	160,0962	-4,2	-0,7	C ₇ H ₁₃ NO ₃
Luteolin-3-O-glucuronide	462,07983	485,0713	4,7	2,3	C ₂₁ H ₁₈ O ₁₂
Phloridzin	436,13695	459,125	-2,5	-1,1	C ₂₁ H ₂₄ O ₁₀

Table S20. Total phytochemical profile of the 9 studied plants.

Total Phytochemical Profile									
Sr. No.	Bitter Orange	Dittany	Lemon Peel	Spearmint	Lavender	Lemon Balm	Sideritis	St. John's wort	Rosehip
1	1,2-Disinapoylgentiobiose	3,4-Dicaffeoylquinic Acid	9-F1-phytoprostane	Oleuropein	Rosmarinic acid	Rosmarinic acid	9-F1-phytoprostane	Oleuropein	Ascorbic acid (L-)
2	Isoscutellarein 7-O-[6'''-O-acetyl- β -D-allopyranosyl-(1 \rightarrow 2)]- β -D-glucopyranoside	Rosmarinic acid	Quercetin-3-O-glucoside	Luteolin	Luteolin-3-O-glucuronide	Lithospermic acid B	Geniposidic-Acid	Quercetin-3-O-glucoside	Apigenin 7-O-diglucuronide
3	Rhoifolin	Salvianolic acid C	Allobetonicoside	Allobetonoside	Vanillylmandelic acid	Vanillylmandelic acid	Cirsilineol_1	Allobetonicoside	Melittoside
4	Eriocitrin_1	Lithospermic acid B	D-(+)-Mannose	1,3-Dicaffeoylquinic acid	D-(+)-Mannose	Quercitrin (Quercetin-3-O- α -L-rhamnopyranoside)	Bergenin	Astragalin	Valoneic acid dilactone
5	Orientin	Vanillylmandelic acid	Geniposidic-Acid	Luteolin 7-O-glucoside	Quercitrin (Quercetin-3-O- α -L-rhamnopyranoside)	Diosmetin	Teupolioside	Rutin	5-O-Galloylquinic acid

6	Salvianolic acid G	Ferulic acid-4'-O-glucoside	Barbatoside A/B	Vanillylmandelic acid	Apigenin	Salvianolic acid B_1	Leucosceptoside A	Amentoflavone	Astilbin
7	Kaempferol 3-O-acetylglucoside	Diosmin	Luteolin 7-O-glucoside	Rutin	Ferulic acid-4'-O-glucoside	Nicotiflorin	Lithospermic acid B	Apigenin-7-O-glucuronide	Taxifolin
8	D-(+)-Mannose	Salvianolic acid B_1	Rutin	Rosmarinic acid	Salvianolic acid B_2	Quercetin 3-O-beta-D-glucopyranosyl-7-O-alpha-L-rhamnopyranoside	5-Feruloylquinic acid	Kaempferol	Sucrose
9	Nicotiflorin	Isoacteoside	Limonin	Lithospermic acid B	Luteolin 7-O-diglucuronide_2	1,3-Dicaffeoylquinic acid	Apigenin	Cinnamtannin A2_1	Protocatechuic acid 4-O-glucoside
10	Didymin	6"-O-Malonylgenistin	Rosmarinic acid	Isorhamnetin 3-O-glucoside	Luteolin	Leucosceptoside A	Kaempferol 3-O-sophoroside	Quercetin	Nicotiflorin
11	5-Feruloylquinic acid	Naringenin 7-O-glucoside	Isorhamnetin 3-O-glucoside	Apigenin-7-O-glucuronide	Melittoside	Salvianolic Acid A	Acteoside	Chicoric acid	Diosmin
12	Rutin	Cirsilineol_1	Azadirachtin	Apigenin 7-O-diglucuronide	Theaflavin 3-O-gallate_1	Luteolin	Hesperidin	Apigenin-7-O-glucoside	Quercetin 3-arabinoside
13	3,4-Dicaffeoylquinic Acid	Glucogallin	Isorhamnetin 3-O-galactoside	Salvianolic Acid A	Quercetin 3'-O-glucuronide	Genkwanin	Luteolin 7-O-diglucuronide_1	Luteolin 4'-glucoside	Dihydroferulic acid 4-O-

									glucuronid e
14	Azadirachtin	Cafestol (2- hydroxy-)	Chrysoeriol	Melittoside	Chicoric acid	Theaflavin 3- O-gallate_1	Luteolin 7- O- diglucuroni de_2	9-F1- phytoprostane	Dihydrofer ulic acid- 4'-O- glucuronid e
15	Ferulic acid- 4'-O- glucoside	Rutin	Hesperidin	Eupatilin	Scutellarin	Chicoric acid	Citric acid	Quercetin 3,4'- O-diglucoside	9-F1- phytoprost ane
16	Eupatilin	Theaflavin 3-O- gallate_1	Hesperetin	Acteoside	Silybin	Acteoside	Pectolinarig enin	Anhydrochiisa nogenoic acid	Teupoliosi de
17	Kaempferol 3-O- sophoroside	Orientin	Citric acid	Genkwanin	Aucubin	Caffeoyl tartaric acid	Rhamnetin 3-glucoside	Cinnamtannin A2_2	Hexose
18	9-F1- phytoprostan e	Chicoric acid	Eriocitrin_1	Caffeoyl tartaric acid	Apigenin-7- O-glucoside	9-F1- phytoprostan e	kaempferol 3-O- rutinoside	Kaempferol 3- O-sophoroside	alpha- Methyl-D- mannopyr anoside
19	Barbatoside C/D	Kaempferol 3-O- sophoroside	Astilbin	Chicoric acid	Oleuropein	Salvianolic acid B_2	Apigenin-7- O-glucoside	5-O- Caffeoylshiki mic acid	Genistein 4',7-O- diglucuron ide
20	Limonin	Scutellarin	Isorhamnetin-3- O-rutinoside	Hesperidin	Pinoresinol- 4-O-Beta- Monoglycos ide	Caffeic acid 4-O- glucoside	Pinoresinol- 4-O-Beta- Monoglycos ide	Myricetin 7- glucoside	6''-O- Malonylge nistin
21	Isorhamnetin -3-O- rutinoside	Eupatorin	Hispidulin glucuronide	Luteolin 7-O- diglucuronid e_1	Caffeoyl tartaric acid	Isorhamnetin 3-O- galactoside	Nicotiflorin	Quercetin 3'- O-glucuronide	

22	Quercetin 3-arabinoside	Homoplantaginin_Tectoridin	Orientin	Cynarin	Lithospermic acid_1	Naringenin-4',5-diglucuronide	3,4-Dicaffeoylquinic Acid	Dihydroferulic acid-4'-O-glucuronide	
23	Bergenin	Luteolin 7-O-diglucuronide_1	kaempferol 3-O-rutinoside	kaempferol 3-O-rutinoside	alpha-Methyl-D-mannopyranoside	Kaempferol 3-O-(6''-acetyl-galactoside) 7-O-rhamnoside	Isoscutellarein 4'-methyl ether 7-(6'''-acetylallosyl)(1->2)-glucoside	Dihydroferulic acid 4-O-glucuronide	
24	Cirsilineol_1	Juglanin	Pinoresinol-4-O-Beta-Monoglycoside	Scutellarin	9-F1-phytoprostane	Dihydroferulic acid-4'-O-glucuronide	Isoscutellarein 7-O-[6'''-O-acetyl-beta-d-allopyranosyl-(1->2)]-beta-d-glucopyranoside	Coumaroylquinic acid	
25	Eriocitrin_2	Isorhamnetin 3-O-glucoside	Nicotiflorin	Salvianolic acid B_1	Dihydroferulic acid 4-O-glucuronide	6''-O-Malonyldaidzin	Apigenin 7-(4''-E-p-coumarylglucoside)	Salvianolic acid G	
26	Spinacetin 3-O-glucosyl-(1->6)-glucoside	Pectolinarigenin	Diosmin	Nicotiflorin	Naringenin-4',5-diglucuronide	Luteolin 7-O-diglucuronide_1	Cirsilineol_2	Myricetin-3-O-galactopyranoside	

27	Quercetin 3-O-(6''-acetyl-galactoside) 7-O-rhamnoside	Cynarin	Isoscutellarein 7-O-[6'''-O-acetyl-β-d-allopyranosyl-(1→2)]-β-d-glucopyranoside	3,4-Dicaffeoylquinic Acid	4-Hydroxy-5-(3',5'-dihydroxyphenyl)-valeric acid-O-glucuronide	Echinacoside	Isoscutellarein 7-O-[6'-O-acetyl-β-D-allopyranosyl-(1→2)]-6''-O-acetyl-β-D-glucopyranoside"	Kaempferol-3-o-glucuronide	
28	Isorhamnetin 3-O-galactoside	Aucubin	6''-O-Malonyldaidzin	Diosmin	Isorhamnetin 3-O-galactoside	Silydianin	Genistein 4',7-O-diglucuronide	Hyperoside	
29	5,5'-Dicaffeic acid	Geniposidic-Acid	Isorhamnetin 3-O-glucoside 7-O-rhamnoside	Luteolin-3-O-glucuronide	Hispidulin glucuronide	Achillolide A	Luteolin 4'-glucoside	Phloridzin	
30	Manghaslin (Quercetin 3-2G-rhamnosylrutinoside)	Pinoresinol-4-O-Beta-Monoglycoside	Salvianolic acid G	Isorhamnetin 3-O-glucoside 7-O-rhamnoside	Salvianolic acid C	Sucrose	4-Hydroxy-5-(3',5'-dihydroxyphenyl)-valeric acid-O-glucuronide	Caffeic acid	
31	Isoscutellarein 4'-methylether 7-(6'''-acetylallosyl)(1→2)-glucoside	Astilbin	Chrysoeriol 7-O-apiosyl-glucoside	Chrysoeriol 7-O-apiosyl-glucoside	5-Feruloylquinic acid	Manghaslin (Quercetin 3-2G-rhamnosylrutinoside)	Falcarindiol 3-acetate	Myricetin-3-O-α-L-rhamnopyranoside	

32	Quercetin-3-O-glucoside	Genistein 4',7-O-diglucuronide	Ferulic acid-4'-O-glucoside	Ferulic acid-4'-O-glucoside	Astragalin	Luteolin 7-O-glucoside	Antoside	Betonicine	
33	Allobetonicoside	Lithospermic acid_1	4-Hydroxy-5-(3',5'-dihydroxyphenyl)-valeric acid-O-glucuronide	Antoside	5-O-Caffeoylquinic acid	Silybin	Apigenin 7-O-apiosyl-glucoside	Pinoresinol-4-O-Beta-Monoglycoside	
34	Feruloyl C1-glucuronide	9-F1-phytoprostane	Naringenin-4',5-diglucuronide	Naringenin-4',5-diglucuronide	Luteolin 7-O-diglucuronide_1	Glucobrassicinapin	Kaempferol 3-O-acetyl-glucoside	Quercetin 3-glucuronate	
35	Neodiosmin	Chrysoeriol 7-O-apiosyl-glucoside	6''-O-Malonylgenistin	Kaempferol 3-rhamnosyl-(1->2)-rhamnosyl-(1->6)-glucoside	Cynarin	Luteolin-3-O-glucuronide	Oleuropein	Naringenin 5-O-glucuronide	
36	Glucogallin	Isorhamnetin 3-O-galactoside	Antoside	6''-O-Malonyldaidzin	Acteoside	Hexose	Isoacteoside	Quercetin 3-arabinoside	
37	Apigenin-7-O-glucoside	4-Hydroxy-5-(3',5'-dihydroxyphenyl)-valeric acid-O-glucuronide	Isorhamnetin 4'-O-glucuronide	Salvianolic acid G	Sucrose	Luteolin 4'-glucoside	1,3-Dicaffeoylquinic acid	Hexose	
38	6''-O-Malonyldaidzin	Naringenin-4',5-diglucuronide	Kaempferol 3-O-(6''-acetyl-galactoside) 7-O-rhamnoside	Quercetin 3-arabinoside	Hexose	Lithospermic acid_1	Apigenin 7-(2'',3''-diacetylhexoside)	Chrysoeriol 7-O-apiosyl-glucoside	

39	Caffeoyl tartaric acid	Kaempferol 3-rhamnosyl-(1->2)-rhamnosyl-(1->6)-glucoside	Homoplantaginidin_Tectoridin	Manghaslin (Quercetin 3-2G-rhamnosylrutinoside)	Luteolin 4'-glucoside	Hydroxytyrosol 4-O-glucoside	alpha-Methyl-D-mannopyranoside	Luteolin-3-O-glucuronide	
40	Naringenin-4',5-diglucuronide	Harpagide	Apigenin 7-O-apiosyl-glucoside	Rhoifolin	Kaempferol 3-rhamnosyl-(1->2)-rhamnosyl-(1->6)-glucoside				
41	Luteolin 4'-glucoside	5-Feruloylquinic acid	Quercetin 3-O-(6-malonyl-glucoside)"	Luteolin 7-O-rutinoside	beta-D-Glcp-(1->4)-[L-alpha-D-Hepp-(1->3)]-L-alpha-D-Hepp				
42	Apigenin 7-O-apiosyl-glucoside	Plumieride	Quercetin 3-O-beta-D-glucopyranosyl-7-O-alpha-L-rhamnopyranoside	9-F1-phytoprostane	Isoscutellarein 4'-methyl ether 7-(6'''-acetylallosyl)(1->2)-glucoside				
43	Patulitrin	Hexose	Nobiletin	Sucrose					
44	Kaempferol 3-O-(6''-acetyl-	Sucrose	1,3-Dicaffeoylquinic acid	Hexose					

	galactoside) 7-O- rhamnoside								
45	Luteolin 7-O- diglucuronid e_1	Silybin	4-O- Caffeoylquinic acid	5-O- Caffeoylshiki mic acid					
46	Glucoalyssin	Acteoside	Byakangelicin	Lithospermic acid_1					
47	Tragopogonic acid	Lithospermic acid	Myricetin-3-O- α - L- rhamnopyranosid e	Quercetin 3- rutinoside-7- glucoside					
48	Citric acid	Apigenin 7-O- diglucuronide	Cirsimaritin						
49	Myricetin 3- α -L- arabinopyran oside	Hispidulin glucuronide	Peonidin 3-O- sophoroside						
50	Echinacoside	Hydroxytyrosol 4-O-glucoside	Coumaroyl tartaric acid (p-)						
51	Cirsimaritin	beta-D-Glcp-(1- >4)-[L-alpha-D- Hepp-(1->3)]-L- alpha-D-Hepp	Spinacetin 3-O- glucosyl-(1->6)- glucoside						
52	Hexose								
53	Leucosceptos ide A								
54	Luteolin 7-O- rutinoside								
55	Sucrose								

56	5,7-Dihydroxych romone								
57	Nobiletin								
58	Morroniside								
59	Quercetin 3- rutinoside-7- glucoside								
60	Peonidin 3- O- sophoroside								
61	Betonicine								
62	Pelargonidin 3-O- rutinoside								
63	Chrysoeriol 7-O-apiosyl- glucoside								
64	6"-O- Acetylgenisti n								
65	5-(3'- hydroxyphen yl)-gamma- hydroxyvaler ic acid -4'-O- glucuronide								

Table S21. Phytochemicals of bitter orange with antioxidant activity according to international literature.

Sr. No.	Component name	Formatted citation
1	1,2-Disinapoylgentiobiose	[1]
2	Rhoifolin	[2]
3	Eriocitrin_1	[3]
4	Orientin	[4]
5	Kaempferol 3-O-acetyl-glucoside	[5]
6	D-(+)-Mannose	[6]
7	Nicotiflorin	[7]
8	Didymin	[8]
9	5-Feruloylquinic acid	[9]
10	Rutin	[10]
11	3,4-Dicaffeoylquinic Acid	[11]
12	Azadirachtin	[12]
13	Ferulic acid-4'-O-glucoside	[13]
14	Eupatilin	[14]
15	Kaempferol 3-O-sophoroside	[15]
16	Limonin	[16]
17	Isorhamnetin-3-O-rutinoside	[17]
18	Bergenin	[18]
19	Cirsilineol_1	[19]
20	Eriocitrin_2	[20]
21	Spinacetin 3-O-glucosyl-(1->6)-glucoside	[21]
22	Isorhamnetin 3-O-galactoside	[22]
23	Manghaslin (Quercetin 3-2G-rhamnosylrutinoside)	[23]

24	Quercetin-3-O-glucoside	[24]
25	Allobetonicoside	[25]
26	Feruloyl C1-glucuronide	[26]
27	Neodiosmin	[27]
28	Glucogallin	[28]
29	Apigenin-7-O-glucoside	[29]
30	Patulitrin	[30]
31	Luteolin 7-O-diglucuronide_1	[31]
32	Glucoalyssin	[32]
33	Citric acid	[33]
34	Myricetin 3- α -L-arabinopyranoside	[34]
35	Nobiletin	[36]
36	Sucrose	[39]
37	Luteolin 7-O-rutinoside	[40]
38	Hexose	[41]
39	Cirsimaritin	[46]
40	5,7-Dihydroxychromone	[48]
41	Morroniside	[49]
42	Echinacoside	[50]
43	Leucosceptoside A	[51]
44	Quercetin 3-rutinoside-7-glucoside	[53]

Table S22. Phytochemicals of dittany with antioxidant activity according to international literature.

Sr. No.	Component Name	Formatted Citation
1	Salvianolic acid B_1	[54]
2	Luteolin 7-O-diglucuronide_1	[55]
3	Rosmarinic acid	[56]
4	ferulic acid-4'-O-glucoside	[57]
5	Cirsilineol_1	[58]
6	Scutellarin	[59]
7	Salvianolic acid C	[60]
8	Pectolinarigenin	[61]
9	Orientin	[38]
10	Eupatorin	[62]
11	Vanillylmandelic acid	[63]
12	Cynarin	[64]
13	Rutin	[52]
14	Theaflavin 3-O-gallate_1	[65]
15	Isorhamnetin 3-O-glucoside	[66]
16	Juglanin	[67]
17	3,4-Dicaffeoylquinic Acid	[68]
18	Cafestol (2-hydroxy-)	[69]
19	Astilbin	[71]
20	Kaempferol 3-O-sophoroside	[44]
21	Pinoresinol-4-O-Beta-Monoglycoside	[72]
22	Glucogallin	[73]

23	6"-O-Malonylgenistin	[74]
24	Geniposidic-Acid	[75]
25	Isoacteoside	[76]
26	Homoplantagin_Tectoridin	[77]
27	Naringenin 7-O-glucoside	[78]
28	Diosmin	[79]
29	Chicoric acid	[80]
30	Aucubin	[81]
31	Sucrose	[39]
32	Hexose	[82]
33	Lithospermic acid B	[57]
34	Acteoside	[83]
35	Silybin	[84]
36	Plumieride	[85]
37	5-Feruloylquinic acid	[86]

Table S23. Phytochemicals of lemon peel with antioxidant activity according to international literature.

Sr. No.	Component name	Formatted Citation
1	Eriocitrin_1	[45]
2	Nicotiflorin	[69]
3	Hesperidin	[108]
4	Rutin	[52]

5	D-(+)-Mannose	[90]
6	Diosmin	[79]
7	Chrysoeriol	[42]
8	Limonin	[38]
9	Orientin	[38]
10	Azadirachtin	[109]
11	Isorhamnetin-3-O-rutinoside	[66]
12	Hesperetin	[108]
13	Isorhamnetin 3-O-galactoside	[110]
14	Astilbin	[111]
15	Barbatoside A/B	[112]
16	Allobetonicoside	[113]
17	kaempferol 3-O-rutinoside	[114]
18	Quercetin-3-O-glucoside	[115]
19	Isorhamnetin 3-O-glucoside	[116]
20	Pinoresinol-4-O-Beta-Monoglycoside	[75]
21	Citric acid	[117]
22	Hispidulin glucuronide	[118]
23	Rosmarinic acid	[56]
24	Peonidin 3-O-sophoroside	[119]
25	Nobiletin	[36]
26	1,3-Dicaffeoylquinic acid	[100]
27	Myricetin-3-O- α -L-rhamnopyranoside	[120]
28	Quercetin 3-O-beta-D-glucopyranosyl-7-O-alpha-L-rhamnopyranoside	[102]
29	Quercetin 3-O-(6-malonyl-glucoside)"	[121]

30	4-O-Caffeoylquinic acid	[122]
31	Cirsimaritin	[123]

Table S24. Phytochemicals of spearmint with antioxidant activity according to international literature.

Sr. No.	Component name	Formatted Citation
1	Nicotiflorin	[69]
2	Scutellarin	[59]
3	Rosmarinic acid	[56]
4	Diosmin	[79]
5	Luteolin	[88]
6	Hesperidin	[108]
7	Vanillylmandelic acid	[63]
8	Caffeoyl tartaric acid	[137]
9	Salvianolic acid B_1	[54]
10	Salvianolic Acid A	[138]
11	Apigenin-7-O-glucuronide	[130]
12	Lithospermic acid B	[139]
13	Rutin	[52]
14	Luteolin 7-O-diglucuronide_1	[55]
15	Luteolin 7-O-glucoside	[87]
16	Eupatilin	[43]
17	Chicoric acid	[80]
18	Genkwanin	[140]
19	kaempferol 3-O-rutinoside	[114]

20	Isorhamnetin 3-O-glucoside	[116]
21	Cynarin	[64]
22	1,3-Dicaffeoylquinic acid	[100]
23	3,4-Dicaffeoylquinic Acid	[68]
24	Apigenin 7-O-diglucuronide	[130]
25	Oleuropein	[96]
26	Allobetonicoside	[113]
27	Acteoside	[132]
28	Melittoside	[129]
29	Rhoifolin	[141]
30	Manghaslin (Quercetin 3-2G-rhamnosylrutinoside)	[105]

Table S25. Phytochemicals of levander with antioxidant activity according to international literature.

.Sr. No.	Component name	Formatted Citation
1	Luteolin 7-O-diglucuronide_2	[87]
2	Scutellarin	[59]
3	Salvianolic acid B_2	[54]
4	Rosmarinic acid	[87]
5	Luteolin	[88]
6	ferulic acid-4'-O-glucoside	[57]
7	Apigenin-7-O-glucoside	[89]
8	D-(+)-Mannose	[90]

9	Apigenin	[91]
10	Pinoresinol-4-O-Beta-Monoglycoside	[72]
11	Quercitrin (Quercetin-3-O-alpha-L-rhamnopyranoside)	[92]
12	Luteolin-3-O-glucuronide	[93]
13	Quercetin 3'-O-glucuronide	[94]
14	Chicoric acid	[80]
15	Melittoside	[95]
16	Oleuropein	[96]
17	Theaflavin 3-O-gallate_1	[65]
18	Aucubin	[81]
19	Silybin	[84]
20	Luteolin 7-O-diglucuronide_1	[55]
21	Cynarin	[64]
22	Astragalin	[69]
23	Acteoside	[83]
24	Salvianolic acid C	[60]
25	5-Feruloylquinic acid	[86]
26	5-O-Caffeoylquinic acid	[97]

Table S26. Phytochemicals of lemon balm with antioxidant activity according to international literature.

Sr. No.	Component name	Formatted citation
1	Rosmarinic acid	[56]

2	Chicoric acid	[80]
3	Genkwanin	[98]).
4	Salvianolic Acid A	[99]
5	1,3-Dicaffeoylquinic acid	[100]
6	Quercitrin (Quercetin-3-O-alpha-L-rhamnopyranoside)	[92]
7	Quercetin 3-O-beta-D-glucopyranosyl-7-O-alpha-L-rhamnopyranoside	[102]
8	Diosmetin	[79]
9	Sucrose	[39]
10	Luteolin	[88]
11	Luteolin 7-O-glucoside	[103]
12	Salvianolic acid B_1	[54]
13	Theaflavin 3-O-gallate_1	[65]
14	Nicotiflorin	[101]
15	Lithospermic acid B	[57]
16	Luteolin 7-O-diglucuronide_1	[55]
17	Acteoside	[83]
18	Leucosceptoside A	[51]
19	Silydianin	[104]
20	Manghaslin (Quercetin 3-2G-rhamnosylrutinoside)	[105]
21	Echinacoside	[50]
22	Vanillylmandelic acid	[63]
23	Achillolide A	[106]
24	Silybin	[84]
25	Glucobrassicinapin	[107]

Table S27. Phytochemicals of sideritis with antioxidant activity according to international literature.

Sr. No.	Component name	Formatted Citation
1	Acteoside	[132]
2	Apigenin-7-O-glucoside	[89]
3	Teupolioside	[131]
4	Bergenin	[133]
5	Apigenin	[91]
6	Cirsilineol_1	[134]
7	Kaempferol 3-O-sophoroside	[15]
8	Leucosceptoside A	[51]
9	5-Feruloylquinic acid	[97]
10	kaempferol 3-O-rutinoside	[114]
11	Pectolarigenin	[61]
12	Pinoresinol-4-O-Beta-Monoglycoside	[72]
13	Geniposidic-Acid	[75]
14	Luteolin 7-O-diglucuronide_2	[55]
15	Hesperidin	[108]
16	Nicotiflorin	[69]
17	Rhamnetin 3-glucoside	[135]
18	3,4-Dicaffeoylquinic Acid	[68]
19	Lithospermic acid B	[57]
20	Citric acid	[117]
21	Isoacteoside	[76]

22	1,3-Dicaffeoylquinic acid	[100]
23	Oleuropein	[96]
24	Luteolin 7-O-diglucuronide_1	[55]

Table S28. Phytochemicals of St. John's wort with antioxidant activity according to international literature.

Sr. No	Component name	Formatted Citation
1	Quercetin-3-O-glucoside	[115]
2	Astragalin	[143]
3	Kaempferol	[145]
4	Apigenin-7-O-glucuronide	[130]
5	Chicoric acid	[80]
6	Allobetonicoside	[113]
7	Apigenin-7-O-glucoside	[89]
8	Quercetin	[137]
9	Hyperoside	[146]
10	Myricetin-3-O- α -L-rhamnopyranoside	[120]
11	Amentoflavone	[144]
12	Cinnamtannin A2_1	[142]
13	Kaempferol-3-o-glucuronide	[147]
14	Rutin	[52]
15	Myricetin-3-O-galactopyranoside	[148]
16	Oleuropein	[96]
17	Pinoresinol-4-O-Beta-Monoglycoside	[72]
18	Caffeic acid	[149]

19	Betonicine	[150]
20	Phloridzin	[151]

Table S29. Phytochemicals of rosehip with antioxidant activity according to international literature.

Sr. No.	Component name	Formatted Citaion
1	Astilbin	[111]
2	Valoneic acid dilactone	[124]
3	5-O-Galloylquinic acid	[125]
4	Protocatechuic acid 4-O-glucoside	[126]
5	Nicotiflorin	[69]
6	Taxifolin	[127]
7	Ascorbic acid (L-)	[128]
8	Sucrose	[39]
9	Melittoside	[129]
10	Diosmin	[79]
11	Apigenin 7-O-diglucuronide	[130]
12	Hexose	[124]

Table S30. Polyphenolic components of each studied plant.

Polyphenolic Components									
Sr. No	Bitter Orange	Dittany	Lemon Peel	Spearmint	St. John's wort	Lemon Balm	Lavender	Sideritis	Rosehip
1	1,2-Disinapoylgen tiobiose	3,4-Dicaffeoylquinic Acid	Quercetin-3-O-glucoside	Luteolin	Quercetin-3-O-glucoside	Rosmarinic acid	Rosmarinic acid	Cirsilineol_1	Apigenin 7-O-diglucuronide
2	Isoscutellarein 7-O-[6'''-O-acetyl- β -D-allopyranosyl-(1 \rightarrow 2)]- β -D-glucopyranoside	Rosmarinic acid	Luteolin 7-O-glucoside	1,3-Dicaffeoylquinic acid	Astragalin	Lithospermic acid B	Luteolin-3-O-glucuronide	Bergenin	Valoneic acid dilactone
3	Rhoifolin	Salvianolic acid C	Rutin	Luteolin 7-O-glucoside	Rutin	Vanillylmandelic acid	Vanillylmandelic acid	Leucosceptoside A	5-O-Galloylquinic acid
4	Eriocitrin_1	Lithospermic acid B	Rosmarinic acid	Vanillylmandelic acid	Amentoflavone	Diosmetin	Apigenin	Lithospermic acid B	Astilbin
5	Orientin	Vanillylmandelic acid	Isorhamnetin 3-O-glucoside	Rosmarinic acid	Apigenin-7-O-glucuronide	Salvianolic acid B_1	Ferulic acid-4'-O-glucoside	5-Feruloylquinic acid	Taxifolin
6	Salvianolic acid G	Ferulic acid-4'-O-glucoside	Isorhamnetin 3-O-galactoside	Lithospermic acid B	Kaempferol	Nicotiflorin	Salvianolic acid B_2	Apigenin	Protocatechuic acid 4-O-glucoside

7	Kaempferol 3-O-acetyl-glucoside	Diosmin	Chrysoeriol	Isorhamnetin 3-O-glucoside	Cinnamtannin A2_1	1,3-Dicaffeoylquinic acid	Luteolin 7-O-diglucuronide_2	Kaempferol 13-O-sophoroside	Nicotiflorin
8	Nicotiflorin	Salvianolic acid B_1	Hesperidin	Apigenin-7-O-glucuronide	Quercetin	Leucosceptoside A	Luteolin	Acteoside	Diosmin
9	Didymin	Isoacteoside	Hesperetin	Apigenin 7-O-diglucuronide	Chicoric acid	Salvianolic Acid A	Theaflavin 3-O-gallate_1	Hesperidin	Quercetin 3-arabinoside
10	5-Feruloylquinic acid	6"-O-Malonylgenistin	Eriocitrin_1	Salvianolic Acid A	Apigenin-7-O-glucoside	Luteolin	Quercetin 3'-O-glucuronide	Luteolin 7-O-diglucuronide_1	Dihydroferulic acid 4-O-glucuronide
11	Rutin	Naringenin 7-O-glucoside	Astilbin	Eupatilin	Luteolin 4'-glucoside	Genkwanin	Chicoric acid	Luteolin 7-O-diglucuronide_2	Dihydroferulic acid-4'-O-glucuronide
12	3,4-Dicaffeoylquinic Acid	Cirsilineol_1	Isorhamnetin-3-O-rutinoside	Genkwanin	Quercetin 3,4'-O-diglucoside	Theaflavin 3-O-gallate_1	Scutellarin	Pectolinarigenin	Genistein 4',7-O-diglucuronide
13	Ferulic acid-4'-O-glucoside	Glucogallin	Hispidulin glucuronide	Caffeoyl tartaric acid	Cinnamtannin A2_2	Chicoric acid	Silybin	Rhamnetin 3-glucoside	6"-O-Malonylgenistin

14	Eupatilin	Cafestol (2-hydroxy-)	Orientin	Chicoric acid	Kaempferol 3-O-sophoroside	Acteoside	Apigenin-7-O-glucoside	kaempferol 3-O-rutinoside	
15	Kaempferol 3-O-sophoroside	Rutin	kaempferol 3-O-rutinoside	Hesperidin	5-O-Caffeoylshikimic acid	Caffeoyl tartaric acid	Caffeoyl tartaric acid	Apigenin-7-O-glucoside	
16	Barbatoside C/D	Theaflavin 3-O-gallate_1	Nicotiflorin	Luteolin 7-O-diglucuronide_1	Myricetin 7-glucoside	Salvianolic acid B_2	Lithospermic acid_1	Nicotiflorin	
17	Isorhamnetin-3-O-rutinoside	Orientin	Diosmin	Cynarin	Quercetin 3'-O-glucuronide	Caffeic acid 4-O-glucoside	Dihydroferulic acid 4-O-glucuronide	3,4-Dicaffeoylquinic Acid	
18	Quercetin 3-arabinoside	Chicoric acid	Isoscutellarein 7-O-[6'''-O-acetyl-β-d-allopyranosyl-(1→2)]-β-d-glucopyranoside	kaempferol 3-O-rutinoside	Dihydroferulic acid-4'-O-glucuronide	Isorhamnetin 3-O-galactoside	Naringenin-4',5-diglucuronide	Isoscutellarein 7-O-[6'''-O-acetyl-β-d-allopyranosyl-(1→2)]-β-d-glucopyranoside	
19	Bergenin	Kaempferol 3-O-sophoroside	6''-O-Malonyldaidzin	Scutellarin	Dihydroferulic acid 4-O-glucuronide	Naringenin-4',5-diglucuronide	Isorhamnetin 3-O-galactoside	Cirsilineol_2	
20	Cirsilineol_1	Scutellarin	Isorhamnetin 3-O-glucoside 7-O-rhamnoside	Salvianolic acid B_1	Coumaroylquinic acid	Kaempferol 3-O-(6''-acetyl-galactoside) 7-	Hispidulin glucuronide	Isoscutellarein 7-O-[6'-O-acetyl-β-D-	

						O-rhamnoside		allopyranosyl-(1→2)]-6"-O-acetyl-β-D-glucopyranoside"	
21	Eriocitrin_2	Eupatorin	Salvianolic acid G	Nicotiflorin	Salvianolic acid G	Dihydroferulic acid-4'-O-glucuronide	Salvianolic acid C	Genistein 4',7-O-diglucuronide	
22	Spinacetin 3-O-glucosyl-(1→6)-glucoside	Homoplantaginin_Tectoridin	Chrysoeriol 7-O-apiosyl-glucoside	3,4-Dicaffeoylquinic Acid	Myricetin-3-O-galactopyranoside	6"-O-Malonyldaidzin	5-Feruloylquinic acid	Luteolin 4'-glucoside	
23	Quercetin 3-O-(6"-acetyl-galactoside) 7-O-rhamnoside	Luteolin 7-O-diglucuronide_1	Ferulic acid-4'-O-glucoside	Diosmin	Kaempferol-3-o-glucuronide	Luteolin 7-O-diglucuronide_1	Astragalin	Antoside	
24	Isorhamnetin 3-O-galactoside	Juglanin	Naringenin-4',5-diglucuronide	Luteolin-3-O-glucuronide	Hyperoside	Silydianin	5-O-Caffeoylquinic acid	Apigenin 7-O-apiosyl-glucoside	
25	5,5'-Dicaffeic acid	Isorhamnetin 3-O-glucoside	6"-O-Malonylgenistin	Isorhamnetin 3-O-glucoside 7-O-rhamnoside	Phloridzin	Manghaslin (Quercetin 3-2G-rhamnosylrutinoside)	Luteolin 7-O-diglucuronide_1	Kaempferol 13-O-acetyl-glucoside	
26	Manghaslin (Quercetin 3-2G-	Pectolinarigenin	Antoside	Chrysoeriol 7-O-apiosyl-glucoside	Caffeic acid	Luteolin 7-O-glucoside	Cynarin	Isoacteoside	

	ramnosylrutinoside)								
27	Quercetin-3-O-glucoside	Cynarin	Isorhamnetin 4'-O-glucuronide	Ferulic acid-4'-O-glucoside	Myricetin-3-O- α -L-rhamnopyranoside	Silybin	Acteoside	1,3-Dicaffeoylquinic acid	
28	Feruloyl C1-glucuronide	Astilbin	Kaempferol 3-O-(6''-acetylgalactoside) 7-O-rhamnoside	Antoside	Quercetin 3-glucuronate	Luteolin-3-O-glucuronide	Luteolin 4'-glucoside		
29	Neodiosmin	Genistein 4',7-O-diglucuronide	Homoplantagininetectoridin	Naringenin-4',5-diglucuronide	Naringenin 5-O-glucuronide	Luteolin 4'-glucoside	Kaempferol 3-rhamnosyl-(1->2)-rhamnosyl-(1->6)-glucoside		
30	Glucogallin	Lithospermic acid_1	Apigenin 7-O-apiosyl-glucoside	Kaempferol 3-rhamnosyl-(1->2)-rhamnosyl-(1->6)-glucoside	Quercetin 3-arabinoside	Lithospermic acid_1			
31	Apigenin-7-O-glucoside	Chrysoeriol 7-O-apiosyl-glucoside	Quercetin 3-O-(6-malonylglucoside)''	6''-O-Malonyldaidzine	Chrysoeriol 7-O-apiosyl-glucoside	Hydroxytyrosol 4-O-glucoside			
32	6''-O-Malonyldaidzine	Isorhamnetin 3-O-galactoside	Nobiletin	Salvianolic acid G	Luteolin-3-O-glucuronide				

33	Caffeoyl tartaric acid	Naringenin-4',5-diglucuronide	1,3-Dicaffeoylquinic acid	Quercetin 3-arabinoside					
34	Naringenin-4',5-diglucuronide	Kaempferol 3-rhamnosyl-(1->2)-rhamnosyl-(1->6)-glucoside	4-O-Caffeoylquinic acid	Manghaslin (Quercetin 3-2G-rhamnosylrutinoside)					
35	Luteolin 4'-glucoside	5-Feruloylquinic acid	Byakangelicin	Rhoifolin					
36	Apigenin 7-O-apiosyl-glucoside	Silybin	Myricetin-3-O- α -L-rhamnopyranoside	Luteolin 7-O-rutinoside					
37	Patulitrin	Acteoside	Cirsimaritin	5-O-Caffeoylshikimic acid					
38	Kaempferol 3-O-(6"-acetylgalactoside) 7-O-rhamnoside	Lithospermic acid	Peonidin 3-O-sophoroside	Lithospermic acid_1					
39	Luteolin 7-O-diglucuronide_1	Apigenin 7-O-diglucuronide	Coumaroyl tartaric acid (p-)	Quercetin 3-rutinoside-7-glucoside					
40	Myricetin 3- α -L-arabinopyranoside	Hispidulin glucuronide	Spinacetin 3-O-glucosyl-(1->6)-glucoside						
41	Cirsimaritin	Hydroxytyrosol 4-O-glucoside							

42	Leucosceptosi de A								
43	Luteolin 7-O- rutinoside								
44	5,7- Dihydroxychr omone								
45	Nobiletin								
46	Morroniside								
47	Quercetin 3- rutinoside-7- glucoside								
48	Peonidin 3-O- sophoroside								
49	Pelargonidin 3-O-rutinoside								
50	Chrysoeriol 7- O-apiosyl- glucoside								
51	6''-O- Acetylgenistin								
52	5-(3'- hydroxypheny l)-gamma- hydroxyvaleri c acid -4'-O- glucuronide								

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