Supporting Information

Rec. Nat. Prod. **X:X (202X) XX-XX**

Chemical Components of the Extracts and Essential Oil of *Sanguisorba minor* Scop. subspecies *muricata* (Spach) Briq.

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The District Court of Niš
Dušan Abramović
Permanent Sworn-in-Court Translator for English appointed by the Ministry of Justice of the Republic of Serbia pursuant to Decision No. 740-06-1840/2008-03

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Pursuant to Article 29 of the General Administrative Procedures Act ("Official Gazette of the RS, No. 18/2016 and 19/2018 – authentic interpretation and 2/2023 – Decision of the Constitutional Court) and the available documentation, the Secretariat of the Faculty of Sciences and Mathematics in Niš, on 29th March 2024, issues the following

CERTIFICATE
as official evidence

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FACULTY OF SCIENCES AND MATHEMATICS IN NIŠ
Number: 1/57-02
Date: 29th March 2024
NIŠ

At the request of Ana Barjaktarević, PhD, a full professor of the Faculty of Medical Sciences of the University in Kragujevac, we issue a certificate that the material entitled: *Sanguisorba minor* Scop. has been deposited in the Herbarium Collection of the Department of Botany, Department of Biology and Ecology of the Faculty of Sciences and Mathematics in Niš, of the University in Niš (HMN). The herbal material was collected and identified by Marija Marković, PhD, on the following site: Seličevica Mountain (Serbia), in the following habitat: the edge of the forest on: 15th June 2018. The specimen is kept in the HMN Collection under voucher number 13869.

The Certificate is issued for the purpose of publishing data in a scientific journal and cannot be used for other purposes.

Head of the Department of Botany

Zlatković Bojan (Signed)
Bojan Zlatković, PhD, Full Professor

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I, the undersigned sworn-in-court translator for English, hereby confirm that this translation into English is fully true to the original text written in Serbian.
Niš, 2024-04-01
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(Dušan Abramović, sworn-in-court translator for English)

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На основу члана 29. Закона о општем управном поступку („Сл. Гласник РС“, бр. 18/2016, 95/2018 - аутентично тумачење и 2/2023 - Одлука УС) и документације с којом располаже, Секретаријат Природно-математичког факултета у Нишу дана 29.3.2024. године издаје

РЕПУБЛИКА СРБИЈА
УНИВЕРЗИТЕТ У НИШУ
ПРИРОДНО-МАТЕМАТИЧКИ
ФАКУЛТЕТ У НИШУ
Број: 1|57-02
Датум: 29.3.2024.
НИШ

ПОТВРДУ

На захтев др Ане Барјактаревић, редовног професора Факултета медицинских наука Универзитета у Крагујевцу, издајемо потврду да је у Хербаријумској збирци Катедре за ботанику, Департмана за биологију и екологију Природно-математичког факултета у Нишу, Универзитета у Нишу (HMN), депонован материјал под називом: *Sanguisorba minor* Scop. Биљни материјал је сакупила и идентификовала др Марија Марковић, на локалитету: планина Селичевица (Србија), на станишту: обод шуме, дана: 15.06.2018. године. Примерак се чува у збирци HMN под ваучер бројем 13869.

Потврда се издаје ради публиковања података у научном часопису и у друге сврхе се не може употребити.

Шеф Катедре за Ботанику

др Бојан Златковић, ред. проф.

СЕКРЕТАР

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Figure S1: Certificate - The proof of the Herbarium

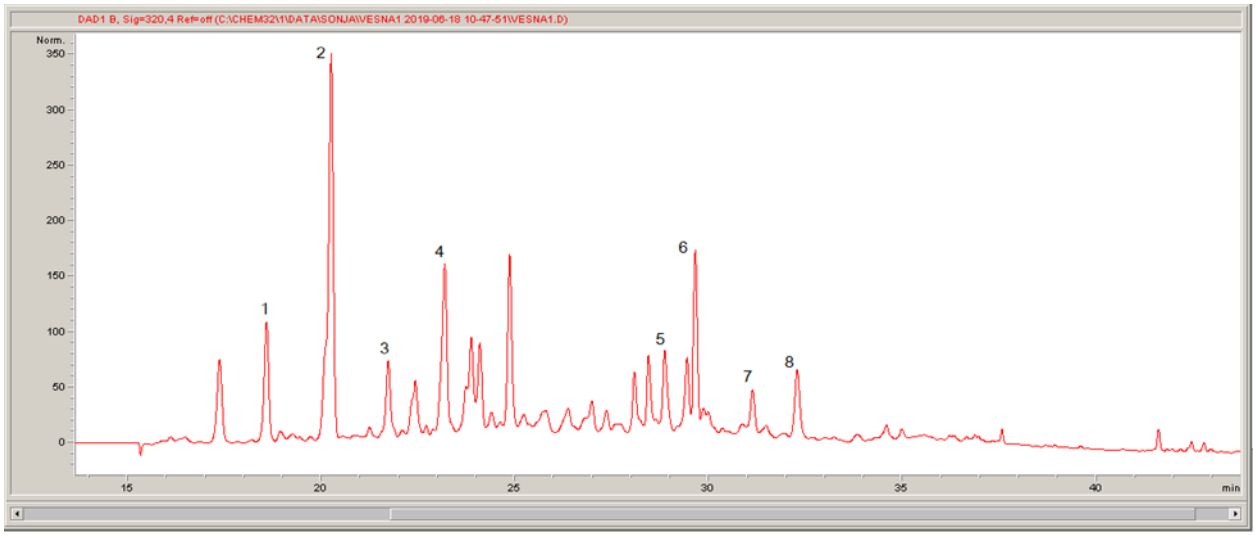

Figure S2: HPLC chromatogram of ethanol extract of *S. minor* subsp. *muricata* aerial parts - compound **1** - Neochlorogenic acid; compound **2** - Caffeic acid; compound **3** - Chlorogenic acid; compound **4** - Caffeoylquinic acid; compound **5** - Quercetin-3-sophoroside; compound **6** - Quercetin-3-rutinoside; compound **7** – Quercetin-hexoside; compound **8** - Quercetin-3-glucuronide

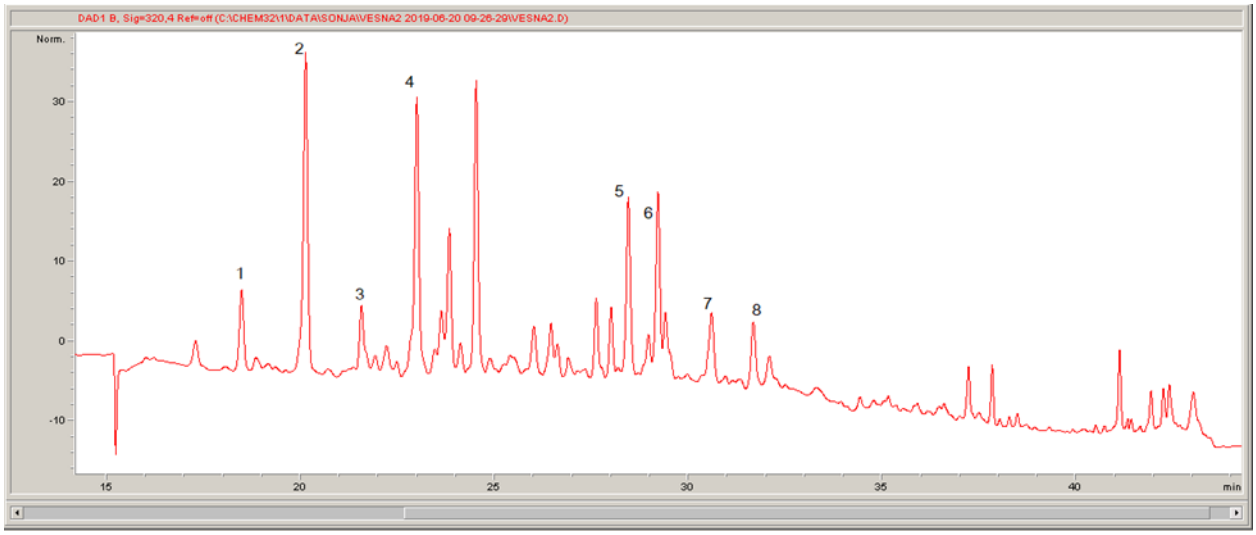

Figure S3: HPLC chromatogram of acetone extract of *S. minor* subsp. *muricata* aerial parts - compound **1** - Neochlorogenic acid; compound **2** - Caffeic acid; compound **3** - Chlorogenic acid; compound **4** - Caffeoylquinic acid; compound **5** - Quercetin-3-sophoroside; compound **6** - Quercetin-3-rutinoside; compound **7** – Quercetin-hexoside; compound **8** - Quercetin-3-glucuronide

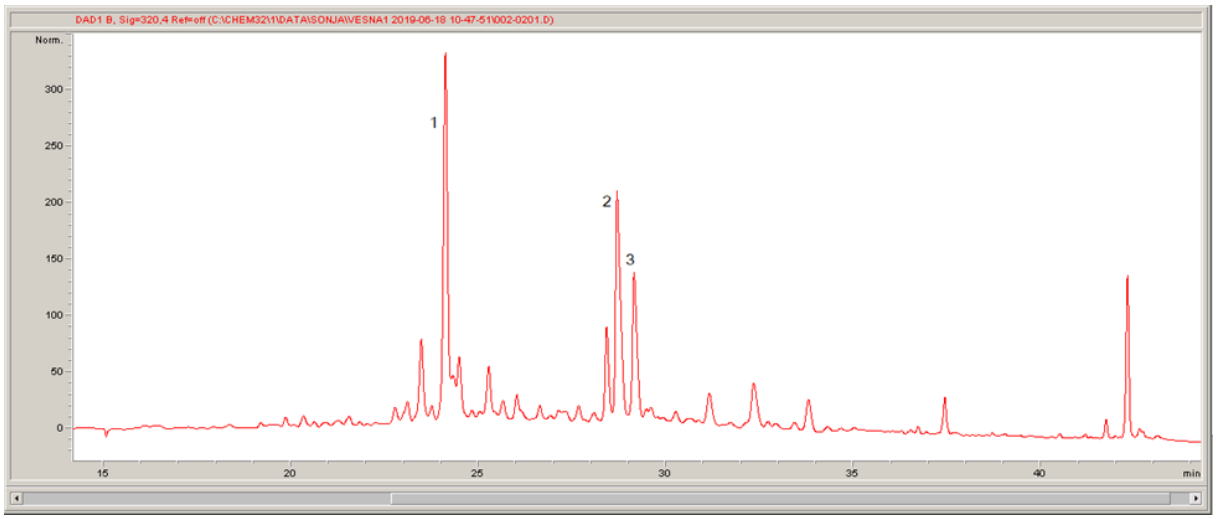

Figure S4 : HPLC chromatogram of ethanol extract of *S. minor* subsp. *muricata* roots - compound **1** - Coumaroylquinicacid; compound **2** - Quercetin-3-sophoroside; compound **3** - Quercetin-3-rutinoside

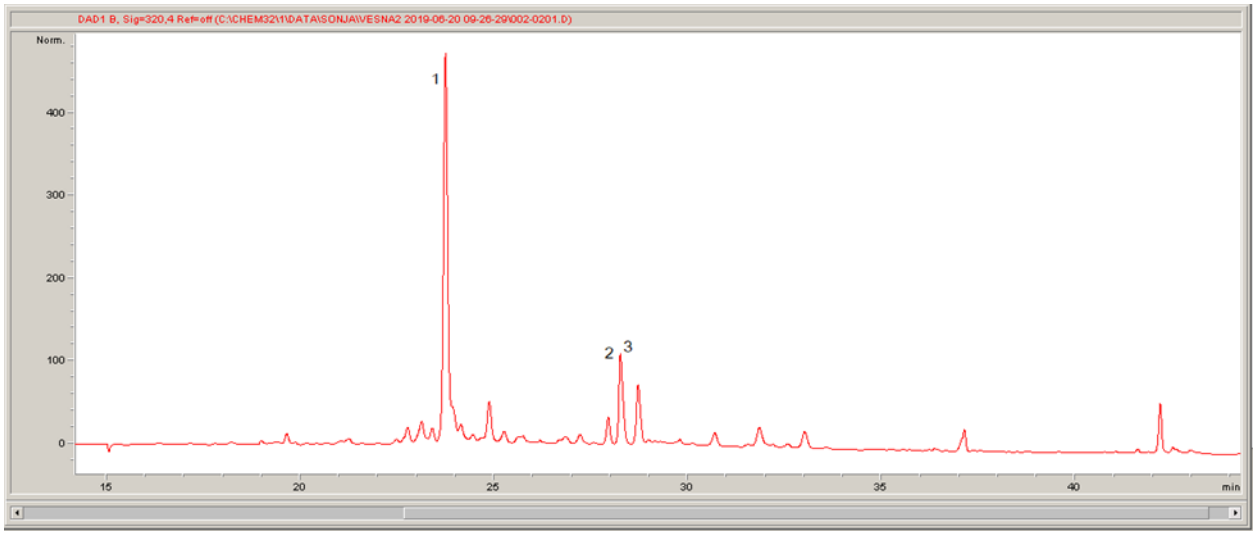

Figure S5 : HPLC chromatogram of acetone extract of *S. minor* subsp. *muricata* roots - compound **1** - Coumaroylquinicacid; compound **2** - Quercetin-3-sophoroside; compound **3** - Quercetin-3-rutinoside

Table S3 : Chemical composition of *S. minor* subsp. *muricata* aerial parts essential oil obtained by GC- MS (%)

No	RL	RI	Compound	%
1	800	797	*n*-Octane	2.55
2	822*	817	2,4-dimethyl-Heptane	t
3	844*	838	4-hydroxy-4-methyl-2-Pentanone	0.12
4	856*	852	(*Z*)-3-Hexen-1-ol	0.32
5	860*	863	1-Hexanol	0.18
6	931	931	α-Thujene	t
7	947*	953	(*E*)-2-Heptenal	0.07
8	959	958	Benzaldehyde	0.21
9	977*	970	5-(*Z*)-Octa-1,5-dien-3-ol	0.12
10	978	975	1-Octene-3-ol	0.38
11	982*	980	2,3-Octanedione	0.06
12	985	984	6-methyl-5-hepten-2-one	0.11
13	985*	989	2-Methyl-2-heptene-6-ol	2.24
14	1012	1008	(*E*,*E*)-2,4-Heptadienal	0.60
15	1022	1022	*p*-Cymene	t
16	1031	1026	Limonene	0.14
17	1030	1036	3-Octen-2-one	t
18	1047*	1041	Salicylaldehyde	27.40
19	1065*	1065	(*Z*)-2-Octen-1-ol	t
20	1068*	1068	(*E*,*E*)-3,5-Octadien-2-one	t
21	1066*	1070	*cis*-Linalooloxide (furanoid)	4.21
22	1089*	1086	*trans*-Linalool oxide (furanoid)	1.47
23	1093*	1091	3,5-Octadien-2-one	t
24	1098	1096	Linalool	6.87
25	1002	1100	Nonanal	1.49
26		1106	4-hydroxy-4-methyl-Cyclohexanone	0.58
27	1112*	1111	Benzeneethanol	0.68
28	1154*	1151	(*E*,*Z*)- 2,6-Nonadienal	0.11
29	1165	1165	Borneol	0.14
30	1172*	1168	1-Nonanol	0.20
31	1177	1176	Terpinen-4-ol	0.23
32	1189	1189	α-Terpineol	4.26
33	1195*	1193	Methyl salicylate	0.83
34	1201*	1198	Safranal	0.14
35	1203*	1202	Decanal	0.28
36	1228	1225	Nerol	3.63
37	1250*	1251	Geraniol	1.35
38	1256*	1258	(*E*)-2-Decenal	0.35
39	1266*	1263	5-pentyl-2(3*H*)-Furanone	0.15
40	1298	1298	Carvacrol	9.28
41	1305*	1303	Undecanal	0.61

42	1314	1313	(*E*,*E*)-2,4-Decadienal	0,63
43	1356	1356	Eugenol	1.07
44	1357	1360	(*E*)-2-Undecenal	0.72
45	1386	1384	β-Damascenone	0.18
46	1400	1395	Tetradecane	0.13
47	1407*	1401	6,10-Dimethylundecan-2-one	0.08
48	1411	1404	Dodecanal	0.17
49	1418	1421	*trans*-β-Caryophyllene	0.18
50	1438	1436	2-Methyl butyl benzoate	0.05
51	1455	1450	Geranylacetone	0.77
52	1485*	1485	*trans*-β-Ionone	2.04
53	1500	1492	Pentadecane	0.09
54	1513	1506	Tridecanal	0.64
55	1532*	1532	Dihydroactinidiolide	0.31
56	1577	1579	Spathulenol	0.05
57	1582	1586	Caryophyllene oxide	0.27
58	1600	1594	Hexadecane	0.15
59	1609*	1607	Tetradecanal	0.07
60	1700	1693	Heptadecane	0.09
61	1715*	1709	Pentadecanal	0.33
62	1763*	1765	Benzyl benzoate	0.23
63	1788*	1778	Phenanthrene	0.12
64	1800	1793	Octadecane	0.07
65	1843*	1840	6,10,14-Trimethyl-2-pentadecanone	1.40
66	1926	1920	Methyl palmitate	0.07
67	2117	2107	Phytol	0.45
OM (No. 21, 22, 24, 29, 31, 32, 34, 40, 43, 45, 49, 52, 56, 57)				**30.39**
M (No. 6, 15, 16)				**0.14**
Others				**51.19**
Total				**81.72**

Compounds are listed in order of elution on a HP-5MS column; RL: Literature-reported retention indices; RT: Retention time; RI: Experimental retention indices relative to C8-C44 *n*-alkanes; (*): comparison with *NIST 2005* basis and for the other components *Adams 2007* data basis*;* tr: traces (< 0.05%). M: monoterpene hydrocarbons; OM: oxygenated monoterpenes.

Table S4 : Chemical composition of *S. minor* subsp. *muricata* root essential oil obtained by GC- MS (%)

No	RL	RI	Compound	%
1	800	797	*n*-Octane	1.33
2	822*	817	2,4-dimethyl-Heptane	t
3	844*	838	4-hydroxy-4-methyl-2-Pentanone	0.52
4	857*	857	Ethylbenzene	t
5	978	975	1-Octene-3-ol	3.77
6	985*	980	2-methyl-3-Octanone	0.45
7	982*	980	2,3-Octanedione	0.47
8	985	983	6-methyl-5-hepten-2-one	1.36
9	985*	989	2-Methyl-2-heptene-6-ol	0.90
10	1012*	1008	(*E*,*E*)-2,4-Heptadienal	1.57
11	1046*	1041	Benzene acetaldehyde	3.28
12	1066*	1065	Acetophenone	1.43
13	1071*	1068	(*E*,*E*)-3,5-Octadien-2-one	t
14	1077*	1070	*cis*-Linalooloxide (furanoid)	0.59
15	1087	1087	*o*-Guaiacol (2-methoxy-Phenol)	2.65
16	1093*	1091	3,5-Octadien-2-one	1.35
17	1098	1096	Linalool	1.41
18	1102	1100	Nonanal	2.46
19	1102*	1105	*trans*-Vetrocitral C	t
20		1118	7,7-Dimethyl-bicyclo[2.2.1]heptan-2-ol	0.82
21	1122	1125	α-Campholenal	1.45
22	1139	1138	*trans*-Pinocarveol	0.48
23	1143	1143	Camphor	0.76
24	1165	1165	Borneol	19.83
25	1183	1183	*p*-Cymen-8-ol	0.94
26	1189	1189	α-Terpineol	1.94
27	1195*	1193	Methyl salicylate	0.44
28	1194	1195	Myrtenol	7.93
29	1202*	1201	α -Campholenol	4.20
30	1214*	1213	Fragranol	0.79
31	1222*	1216	γ-Isogeraniol	1.11
32	1228	1226	Nerol	1.07
33	1250	1252	*cis*-Myrtanol	0.43
34	1258	1259	*trans*-Myrtanol	0.22
35	1266*	1263	5-pentyl-2(3*H*)-Furanone	0.43
36	1272*	1266	Nonanoic acid	1.01
37	1298	1298	Carvacrol	2.24
38	1305*	1303	Undecanal	0.46
39	1314	1313	(*E*,*E*)-2,4-Decadienal	2.26
40	1356	1356	Eugenol	0.43

41	1892*	1387	1-Tetradecene	t
42	1399*	1398	(*Z*)-Jasmone	0.47
43	1411	1404	Dodecanal	0.48
44	1455	1450	Geranylacetone	1.36
45	1475*	1470	1-Dodecanol	t
46	1485*	1485	*trans*-β-Ionone	0.43
47	1500	1492	Pentadecane	1.44
48	1624	1628	Benzophenone	0.43
49	1652	1654	*cis*-Methyl dihydrojasmonate	t
50	1700	1693	Heptadecane	1.49
51	1772*	1765	Benzyl benzoate	1.28
52	1800	1793	Octadecane	0.50
OM (No. 14, 17, 19, 21-26, 28-34, 37, 40, 42, 46, 49)				**46.72**
Others				**34.07**
Total				**80.79**

Compounds are listed in order of elution on a HP-5MS column; RL: Literature-reported retention indices; RT: Retention time; RI: Experimental retention indices relative to C8-C44 *n*-alkanes; (*): comparison with *NIST 2005* basis and for the other components *Adams 2007* data basis*;* tr: traces (< 0.05%). OM: oxygenated monoterpenes.