

Supporting Information

Unlocking the Pharmacological Potential of Brennnesselwurzel (*Urtica dioica*

L.): An In-depth Study on Multifaceted Biological Activities

Table S1: List of amino acid detected in BWE extract by Amino Acid Analyzer.

	Compound Name	Abbreviation	Retention Time [min]	Response	Amount [PPM]
1	Aspartic acid	ASP	8.360	11145.657	22.331
2	Threonine	THR	10.165	4659.031	8.303
3	Serine	SER	10.845	5887.113	10.321
4	Glutamic acid	GLU	12.112	19745.279	48.613
5	Glycine	GLY	17.184	5899.240	7.201
6	Alanine	ALA	18.301	7237.286	10.639
7	Cysteine	CYS	20.573	357.891	0.995
8	Valine	VAL	21.424	9695.650	14.941
9	Methionine	MET	23.672	885.981	1.815
10	Isoleucine	ILE	25.712	6247.394	12.275
11	Leucine	LEU	26.931	10920.189	21.496
12	Tyrosine	TYR	29.651	2834.712	8.138
13	Phenylalanine	PHE	31.128	4468.409	11.895
14	Histidine	HIS	35.629	3812.604	8.845
15	Lysine	LYS	38.619	8997.873	19.393
16	Ammonia	-	40.781	31593.540	14.861
17	Arginine	ARG	42.560	5066.743	16.080
18	Proline	PRO	13.856	2927.452	16.579

Table S2: List of flavonoids detected by HPLC analysis in BWE extract.

Retention Time [min]	Compound Name	Concentration [µg/gm]
5.0	Rutin	5.22
7.0	Querstin	4.10
8.0	Kampferol	2.03
9.0	Luteolin	13.71
10.0	Apegenin	3.89
12.0	Catechin	14.63

Table S3: List of phenolics detected by HPLC analysis in BWE extract.

Retention Time [min]	Compound Name	Concentration [µg/gm]
4.0	Catechol	14.22
5.0	Syringenic	11.38
7.0	Cinnamic	6.74
8.0	Caffeic	6.81
9.3	Pyrogallol	3.56
11.0	Ferulic	7.02
12.0	Salicylic	2.10

Table S4: List of fat-soluble vitamins detected by HPLC analysis in BWE extract.

Retention Time [min]	Compound Name	Concentration [µg/gm]
6.2	Vitamin D	7.63
7.9	Vitamin K	12.56
9.0	Retinol	10.66

Table S5: List of water-soluble vitamins detected by HPLC analysis in BWE extract.

Retention Time [min]	Compound Name	Concentration [µg/gm]
2.0	Vitamin C	1.55
3.0	Vitamin B2	11.20
5.0	Vitamin B6	5.33
6.0	Vitamin B1	6.25
7.0	Vitamin B3	9.80

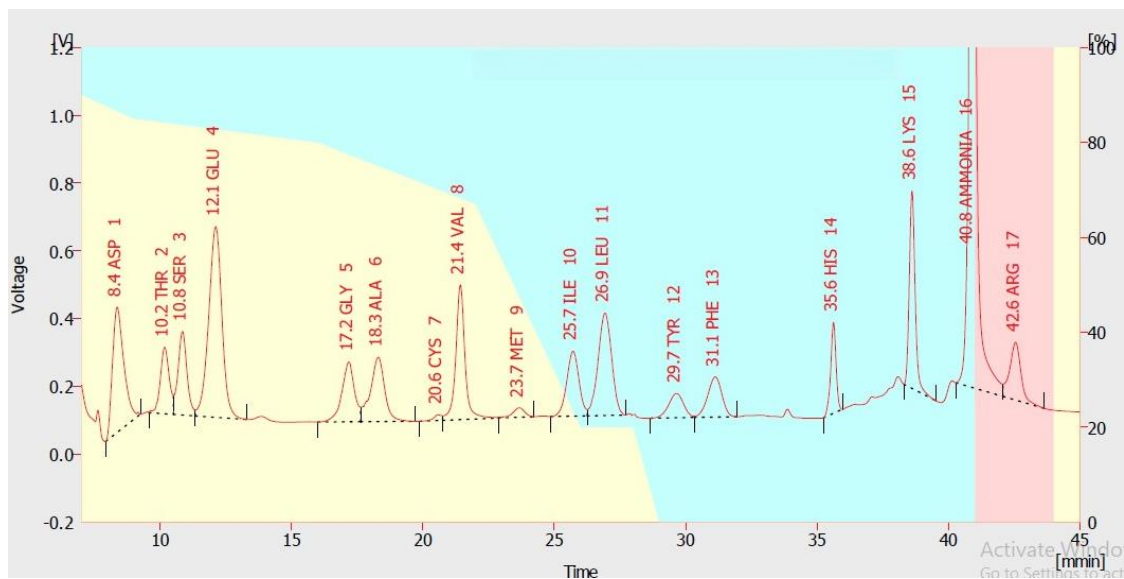


Figure S1: Chromatogram of amino acids detected in the BWE extract by amino acid analyzer.

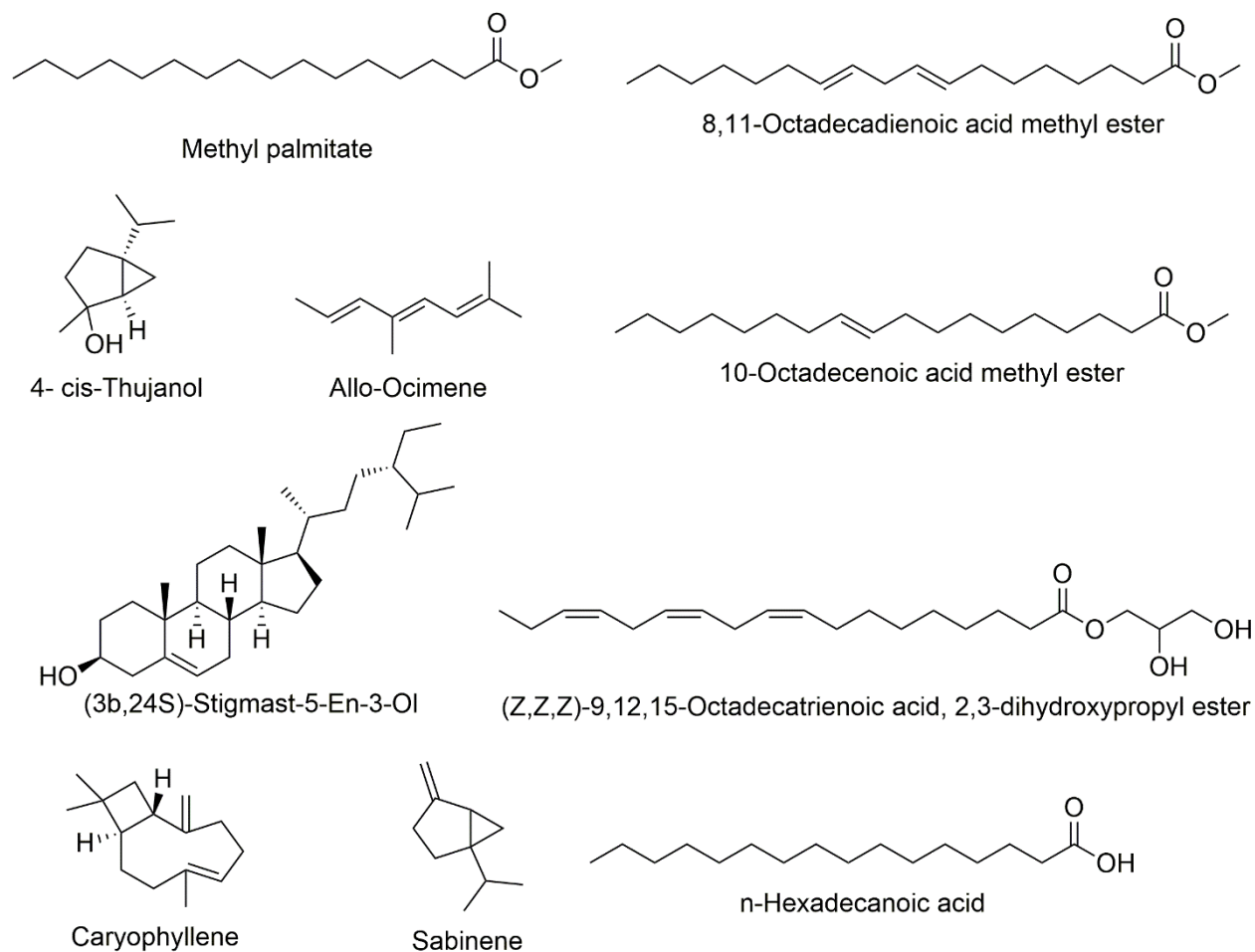


Figure S2: Representative metabolites predominantly detected in the BWE extract by GC-MS analysis.