

SUPPLEMENTARY FILE

Is Phytomelatonin Complex Better Than Synthetic Melatonin? The Assessment of the Antiradical and Anti-Inflammatory Properties

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Figure S1. The comparison of the MS/MS spectra of melatonin recorded for the phytomelatonin powder and synthetic melatonin at the collision energies of 10 V.

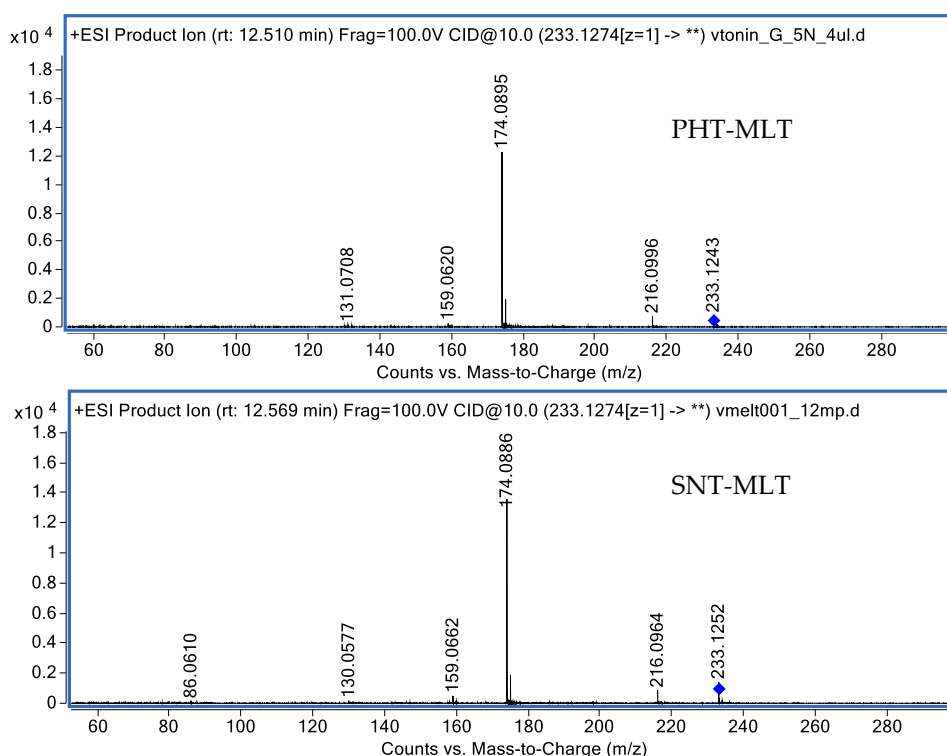


Figure S2. The total ion chromatograms recorded for the obtained extracts of PHT-MLT powder in the negative ionization mode.

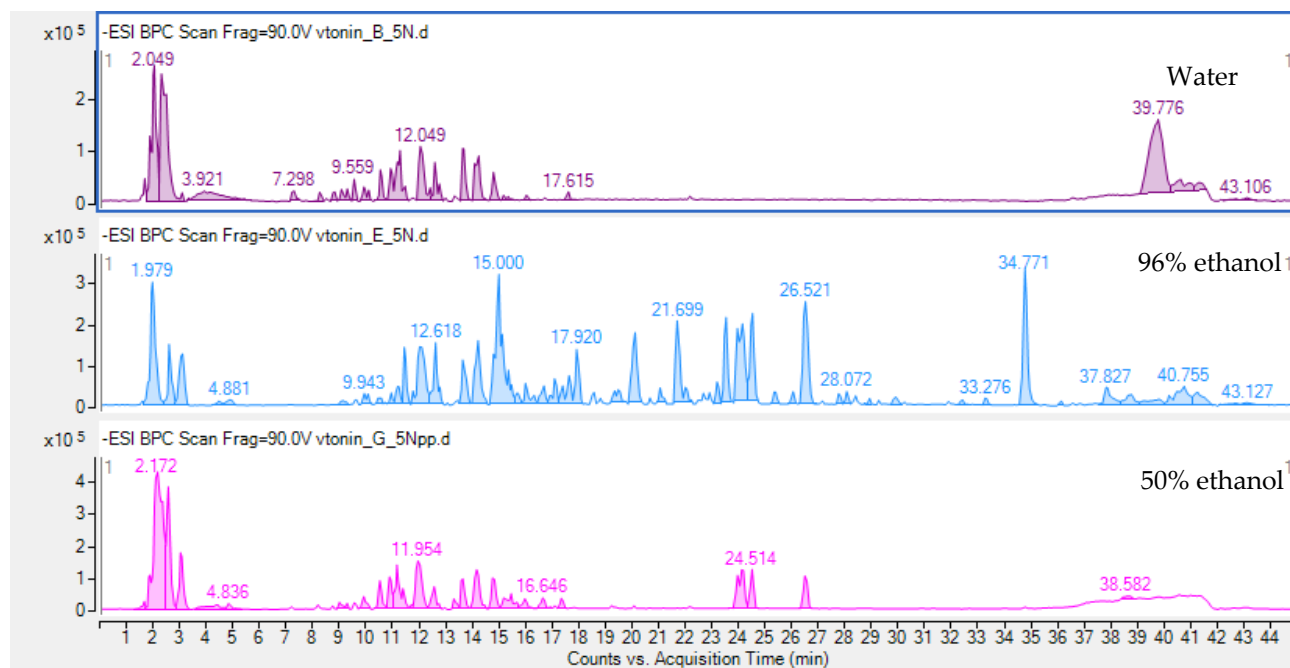


Table S1. The antiradical potential calculated for three types of extracts obtained from herbatonin powder expressed as IC₅₀ values

Extract	IC ₅₀ value [mg of powder/mL]	Standard deviation	Initial concentration
Water	78.7	5.5	1 g/ 10 mL
96% Ethanol	61	4	
50% Ethanol	21.7	1	
Ascorbic acid	0.12 mg/mL		1 mg/mL

Figure S3. The relationship between the antiradical properties of 50% ethanol extract from PHT-MLT powder expressed in percent of inhibition and quantity of the powder in milligrams compiled to calculate the IC50 value of the extract.

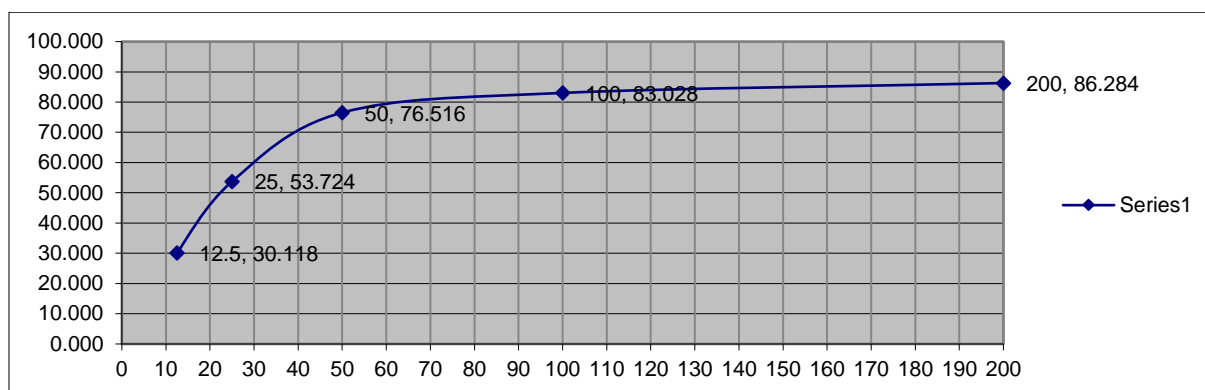


Table S2. The scavenging properties (% inhibition of radicals) obtained for the ascorbic acid stock solution (0.2 mg/mL)

The volume collected from the stock solution [μL]	Absorbance obtained	value	% of scavenged DPPH radicals
100	0.052		95
80	0.101		90.3
60	0.148		85.8
40	0.181		82.63
20	0.750		28.02
10	0.932		10.55

Table S3. The percentage of scavenged DPPH radicals calculated for SNT-MLT (5 mg/mL) alone and in combination with vitamin C solution (0.2 mg/mL)

Synthetic melatonin sample [μL]	SNT-MLT volume	SNT-MLT + 10 μL vitamin C	SNT-MLT + 20 μL vitamin C
200	17.384	32.679	43.861
100	17.384	30.886	44.072
50	18.439	30.886	43.650
25	17.384	31.941	43.966
IC50 [mg /mL]	-		