

Supplementary material for the article:

Aćimović, M.; Šovljanski, O.; Pezo, L.; Travičić, V.; Tomić, A.; Zheljazkov, V. D.; Ćetković, G.; Švarc-Gajić, J.; Brezo-Borjan, T.; Sofrenić, I. Variability in Biological Activities of *Satureja Montana* Subsp. *Montana* and Subsp. *Variegata* Based on Different Extraction Methods. *Antibiotics* 2022, 11 (9), 1235.

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Supplementary Table S1. Number of microorganisms (log CFU/mL) during contact with MIC value of antimicrobials.

		Essential oil									
Microorganism	<i>S. montana</i> subsp.	Contact time (hours)									
		0	1	2	3	4	6	12	18	24	
<i>B. cereus</i>	subsp. <i>montana</i>	6.1	5.1	4.4	3.0	1.8	1.0	0.0	0.0	0.0	
	subsp. <i>variegata</i>	6.1	5.4	3.3	2.5	1.3	0.0	0.0	0.0	0.0	
<i>S. aureus</i>	subsp. <i>montana</i>	5.8	3.1	2.3	1.9	1.5	1.05	0.0	0.0	0.0	
	subsp. <i>variegata</i>	5.8	5.5	2.7	2.3	1.9	0	0.0	0.0	0.0	
<i>E. faecalis</i>	subsp. <i>montana</i>	6	4.9	4.2	3.8	2.6	1.2	0.0	0.0	0.0	
	subsp. <i>variegata</i>	6	5.5	5.1	4.5	2.3	0.0	0.0	0.0	0.0	
<i>E. coli</i>	subsp. <i>montana</i>	6	4.8	4.0	3.4	2.1	1.4	0.0	0.0	0.0	
	subsp. <i>variegata</i>	6	4.7	3.7	2.6	1.2	0.0	0.0	0.0	0.0	
<i>S. Typhimurium</i>	subsp. <i>montana</i>	6.3	5.7	4.8	2.9	2.2	1.7	0.0	0.0	0.0	
	subsp. <i>variegata</i>	6.3	3.9	2.2	1.1	0.0	0.0	0.0	0.0	0.0	
		0	3	6	9	12	18	24	48	72	
<i>S. cerevisiae</i>	subsp. <i>montana</i>	5.7	5.3	4.1	3.1	2.1	1.3	0.0	0.0	0.0	
	subsp. <i>variegata</i>	5.7	3.6	3.2	2.1	2.0	0.0	0.0	0.0	0.0	
<i>C. albicans</i>	subsp. <i>montana</i>	5.9	5.5	4.0	3.4	2.7	1.05	0.0	0.0	0.0	
	subsp. <i>variegata</i>	5.9	4.2	4.1	3.7	3.4	0.0	0.0	0.0	0.0	
		Hydrolate									
		Contact time (hours)									
		0	3	6	9	12	18	24	48	72	
<i>S. cerevisiae</i>	subsp. <i>montana</i>	5.7	3.8	3.7	3.5	2.7	2.2	1.2	0.0	0.0	
	subsp. <i>variegata</i>	5.7	4.3	4.0	3.7	3.5	2.4	1.4	0.0	0.0	
<i>C. albicans</i>	subsp. <i>montana</i>	5.9	5.1	4.9	4.8	3.1	3.0	2.7	0.0	0.0	
	subsp. <i>variegata</i>	5.9	4.7	4.4	4.3	3.4	2.9	2.2	0.0	0.0	
		SWE									
		Contact time (hours)									
		0	1	2	3	4	6	12	18	24	
<i>B. cereus</i>	subsp. <i>montana</i>	6.1	5.5	3.9	3.5	3.3	1.9	0.0	0.0	0.0	
	subsp. <i>variegata</i>	6.1	5.8	5.5	5.5	5.3	2.7	1.1	0.7	0.0	
		UAE-MeOH									
		Contact time (hours)									
		0	3	6	9	12	18	24	48	72	
<i>S. cerevisiae</i>	subsp. <i>variegata</i>	5.7	4.1	3.1	2.0	1.05	0.0	0.0	0.0	0.0	
<i>C. albicans</i>	subsp. <i>variegata</i>	5.9	5.3	5.0	4.7	4.4	2.4	1.1	0.0	0.0	

Supplementary Table S2. The “goodness of fit” kinetics models.

Microorganism	<i>S. montana</i> subsp.	χ^2	RMSE	MBE	MPE	SSE	AARD	r^2	Skew	Kurt	Mean	StDev	Var
Essential oil													
<i>B. cereus</i>	<i>montana</i>	0.04	0.18	-0.03	3.68	0.29	1.38	0.99	-0.42	-0.27	-0.03	0.19	0.04
	<i>variegata</i>	0.07	0.24	-0.04	3.52	0.52	1.48	0.99	-0.1	1.74	-0.04	0.25	0.07
<i>S. aureus</i>	<i>montana</i>	0.07	0.24	-0.06	5.72	0.49	1.9	0.98	-0.31	-1.54	-0.06	0.25	0.06
	<i>variegata</i>	0.18	0.4	-0.03	8.7	1.42	2.89	0.97	-0.01	-0.58	-0.03	0.42	0.18
<i>E. faecalis</i>	<i>montana</i>	0.09	0.29	-0.05	5.16	0.71	2.24	0.98	0.63	-0.69	-0.05	0.3	0.09
	<i>variegata</i>	0.05	0.21	-0.02	2.15	0.4	1.22	0.99	0.51	1.93	-0.02	0.22	0.05
<i>E. coli</i>	<i>montana</i>	0.08	0.26	-0.06	4.52	0.56	2.06	0.99	0.38	-0.81	-0.06	0.27	0.07
	<i>variegata</i>	0.41	0.6	0.34	17.6 1	2.23	4.09	0.95	0.36	-0.99	0.34	0.53	0.28
<i>S. Typhimurium</i>	<i>montana</i>	0.07	0.25	-0.03	5.76	0.57	1.83	0.99	0.94	0.56	-0.03	0.27	0.07
	<i>variegata</i>	0.07	0.24	-0.05	4.14	0.51	1.62	0.99	-0.43	0.96	-0.05	0.25	0.06
<i>S. cerevisiae</i>	<i>montana</i>	0.06	0.22	-0.04	3.92	0.43	1.38	0.99	-0.99	2.65	-0.04	0.23	0.05
	<i>variegata</i>	0.24	0.47	-0.08	8.29	1.89	3.62	0.95	-0.09	-1.22	-0.08	0.49	0.24
<i>C. albicans</i>	<i>montana</i>	0.11	0.31	-0.05	4.53	0.83	2.08	0.98	-0.4	0.14	-0.05	0.32	0.1
	<i>variegata</i>	0.35	0.55	-0.03	7.33	2.75	3.3	0.94	1.79	4.4	-0.03	0.59	0.34
Hydrolate													
<i>S. cerevisiae</i>	<i>montana</i>	0.21	0.43	-0.07	8.7	1.64	3.36	0.95	-0.35	-1.11	-0.07	0.45	0.21
	<i>variegata</i>	0.17	0.39	-0.06	6.93	1.34	3.05	0.96	0.6	-0.55	-0.06	0.41	0.17
<i>C. albicans</i>	<i>montana</i>	0.25	0.47	-0.06	8.71	1.99	3.77	0.95	-0.03	-1.16	-0.06	0.5	0.25
	<i>variegata</i>	0.18	0.4	-0.06	6.95	1.41	3.29	0.96	0.36	-1.18	-0.06	0.42	0.18
SWE													
<i>B. cereus</i>	<i>montana</i>	0.15	0.36	-0.08	5.23	1.15	2.66	0.98	0.06	-0.43	-0.08	0.38	0.14
	<i>variegata</i>	0.1	0.29	0.00	9.27	0.77	2.21	0.99	-0.33	-0.37	0.00	0.31	0.1
UAE-MeOH													
<i>S. cerevisiae</i>	<i>variegata</i>	0.09	0.29	-0.07	4.36	0.69	2.1	0.98	-0.32	-1.28	-0.07	0.29	0.09
<i>C. albicans</i>	<i>variegata</i>	0.06	0.22	-0.02	3.69	0.44	1.56	0.99	1.19	1.53	-0.02	0.23	0.05

χ^2 , reduced chi-square; RMSE, root mean square error; MBE, mean bias error; r^2 , coefficient of determination; Skew, skewness; Kurt, kurtosis; Mean, mean of the residuals; StDev, standard deviation of the residuals; Var, variance of the residuals;