

Supplementary data for article:

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Supplementary Material

The profile and antimicrobial activity of *Bacillus* lipopeptide extracts of five potential biocontrol strains

Dimkić Ivica¹, Stanković Slaviša¹, Nišavić Marija², Petković Marijana², Ristivojević Petar³, Fira Djordje⁴, Berić Tanja^{1*}

¹Department of Microbiology, Faculty of Biology, University of Belgrade, Belgrade, Serbia

²Institute of Nuclear Sciences "Vinča", Department of Physical Chemistry, University of Belgrade, Belgrade, Serbia

³Innovation Centre of the Faculty of Chemistry Ltd., University of Belgrade, Belgrade, Serbia

⁴Department of Biochemistry and Molecular Biology, Faculty of Biology, University of Belgrade, Belgrade, Serbia

*** Correspondence:**

Tanja Berić, PhD

Faculty of Biology, University of Belgrade

Studentski trg 16, 11000 Belgrade, Serbia

Telephone: +381 11 2637 364

Fax: +381 11 2637 364;

E-mail: tanjab@bio.bg.ac.rs

1 Supplementary Data

Table S1. Preliminary identification of the five *Bacillus* isolates on the basis of biochemical and enzymatic tests, as well as on BLAST n analysis based on 16S rDNA.

Figure S1. MALDI-TOF mass spectra of LB medium as negative control in the m/z range from 700-1700.

Figure S2. MALDI-TOF mass spectra of the cell-free supernatant, methanol and ethyl acetate extracts obtained from SS-27.2. Lipopeptide compounds were detected in the m/z range from 800-1700.

Figure S3. MALDI-TOF mass spectra of the cell-free supernatant, methanol and ethyl acetate extracts obtained from SS-38.4. Lipopeptide compounds were detected in the m/z range from 800-1700.

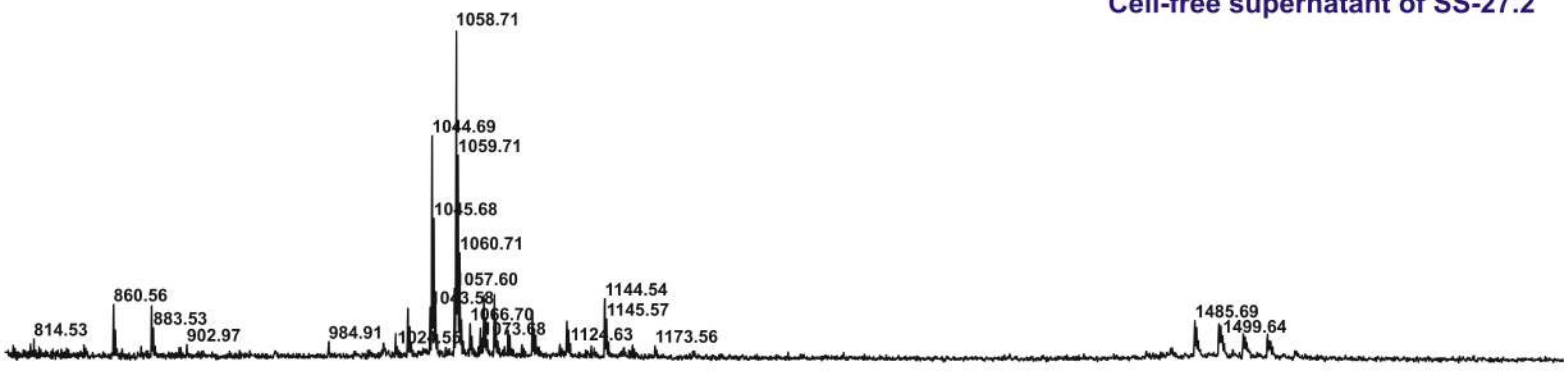
Figure S4. MALDI-TOF mass spectra of the cell-free supernatant, methanol and ethyl acetate extracts obtained from SS-12.6. Lipopeptide compounds were detected in the m/z range from 800-1700.

Figure S5. The iturin A standard (Sigma-Aldrich, USA) with purification rate over 95% and several stripes with different R_F values.

Table S1.

Isolate	The percentages based on the identification of the biochemical analysis (API 20 E and 50 CHB)		The closest reference strain from the NCBI base and achieved maximum of identity (%) by 16S rDNA sequences	
SS-10.7	<i>Bacillus subtilis/amyloliquefaciens</i>	90.0	<i>Bacillus pumilus</i> SAFR-032 (NR_074977)	98.86
			<i>Bacillus safensis</i> FO-036b (NR_041794)	98.77
			<i>Bacillus stratosphericus</i> 41KF2a (NR_042336)	98.51
SS-12.6	<i>Bacillus subtilis/amyloliquefaciens</i>	94.5	<i>Bacillus amyloliquefaciens</i> FZB42 (NR_075005)	99.13
	<i>Bacillus licheniformis</i>	5.8	<i>Bacillus subtilis</i> subsp. <i>subtilis</i> 168 (NR_102783)	98.90
			<i>Bacillus vallismortis</i> DSM11031 (NR_024696)	98.82
SS-13.1	<i>Bacillus subtilis/amyloliquefaciens</i>	98.9	<i>Bacillus amyloliquefaciens</i> FZB42 (NR_075005)	99.63
			<i>Bacillus subtilis</i> subsp. <i>subtilis</i> 168 (NR_102783)	99.62
			<i>Bacillus vallismortis</i> DSM11031 (NR_024696)	99.24
SS-27.2	<i>Bacillus subtilis/amyloliquefaciens</i>	94.7	<i>Bacillus amyloliquefaciens</i> FZB42 (NR_075005)	99.04
			<i>Bacillus subtilis</i> subsp. <i>subtilis</i> 168 (NR_102783)	98.77
			<i>Bacillus vallismortis</i> DSM11031 (NR_024696)	98.69
SS-38.4	<i>Bacillus amyloliquefaciens</i>	81.9	<i>Bacillus amyloliquefaciens</i> FZB42 (NR_075005)	99.60
	<i>Bacillus licheniformis</i>	13.5	<i>Bacillus subtilis</i> subsp. <i>subtilis</i> 168 (NR_102783)	99.36
	<i>Bacillus subtilis</i>	4.3	<i>Bacillus vallismortis</i> DSM11031 (NR_024696)	99.28

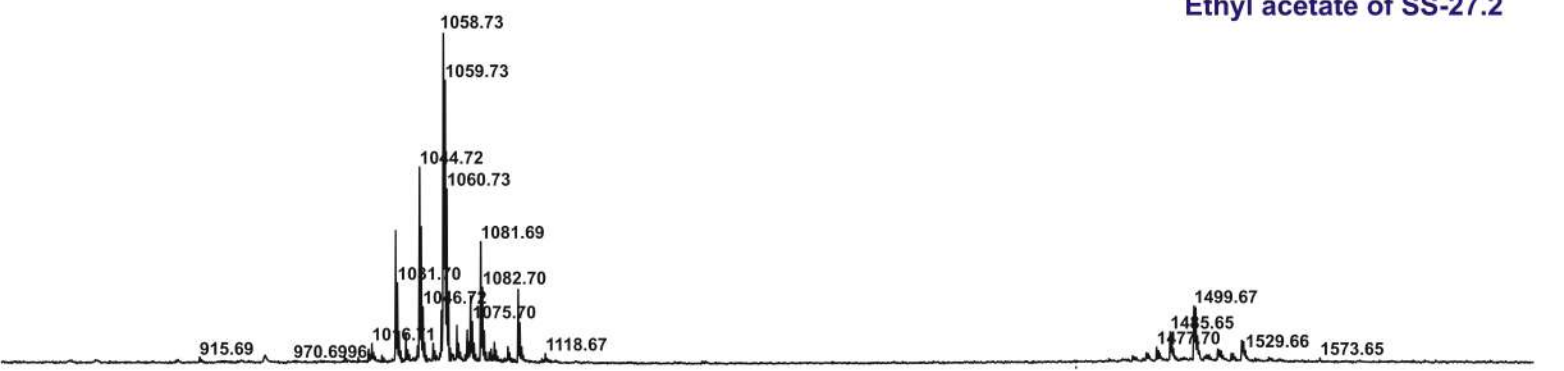
Cell-free supernatant of SS-27.2



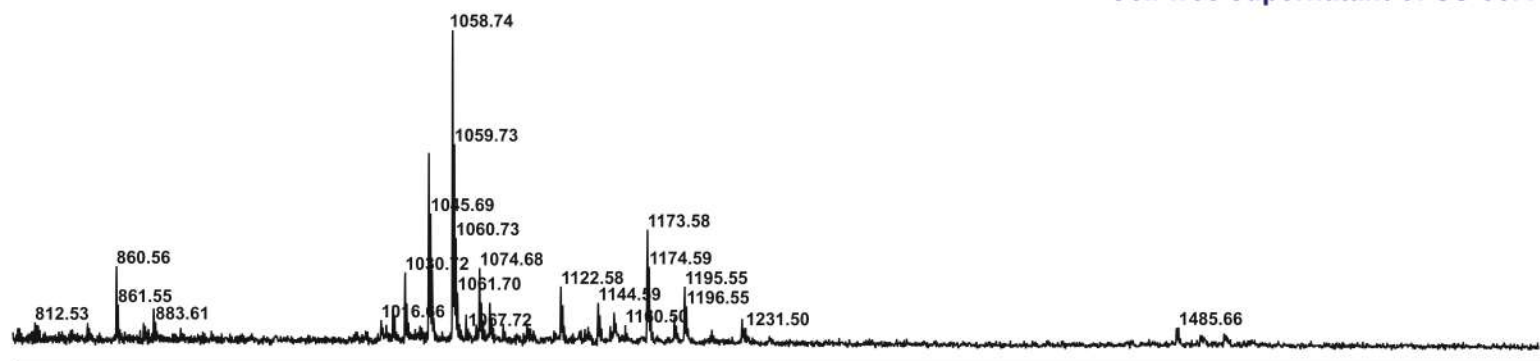
HCl-MtOH of SS-27.2



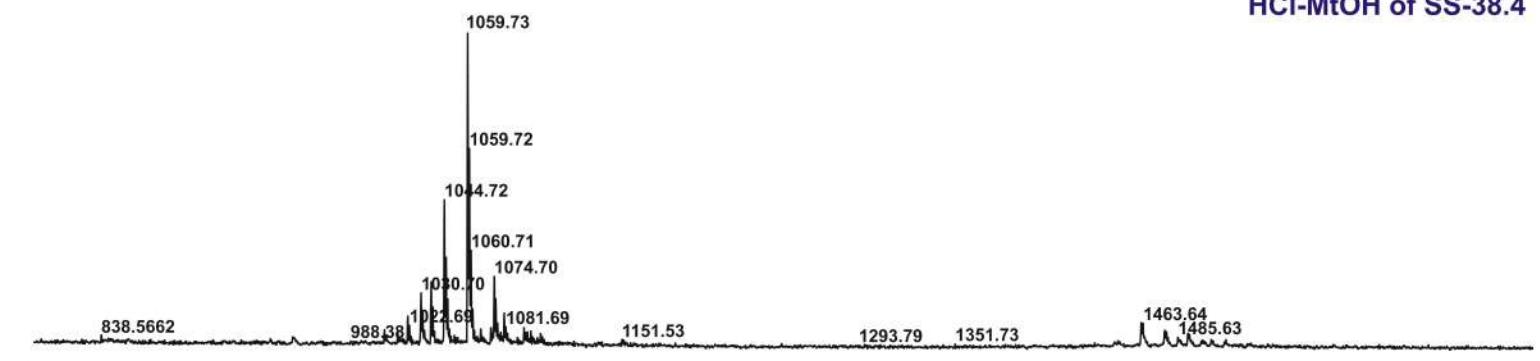
Ethyl acetate of SS-27.2



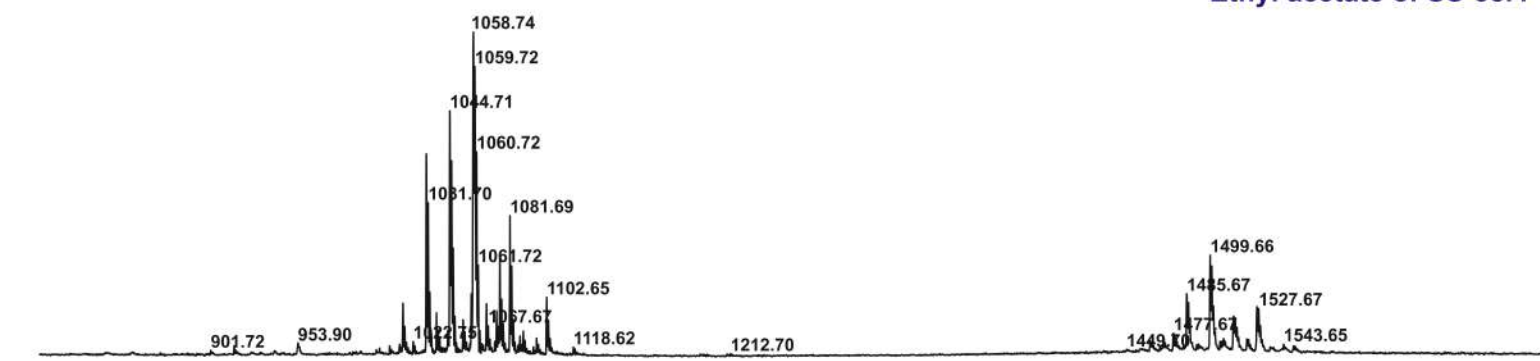
Cell-free supernatant of SS-38.4



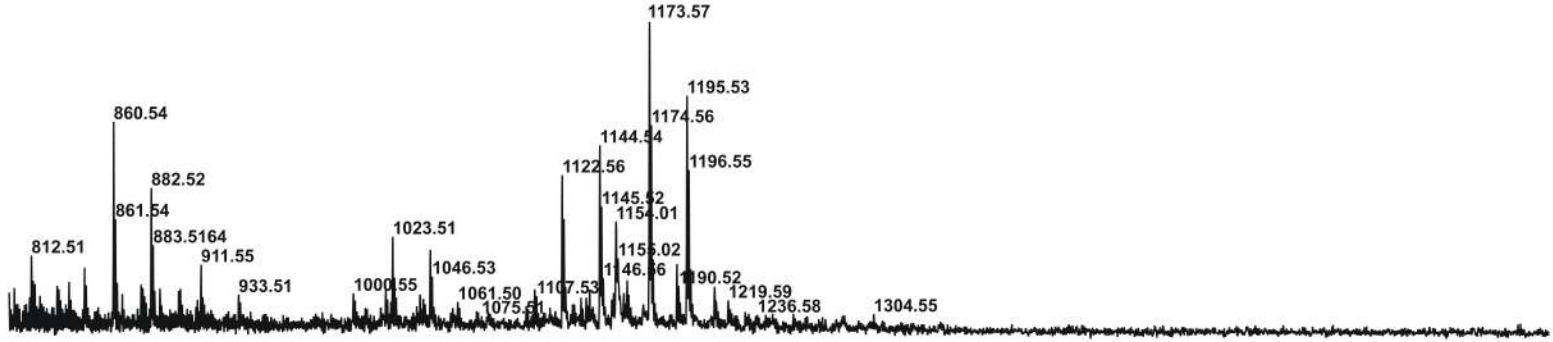
HCl-MtOH of SS-38.4



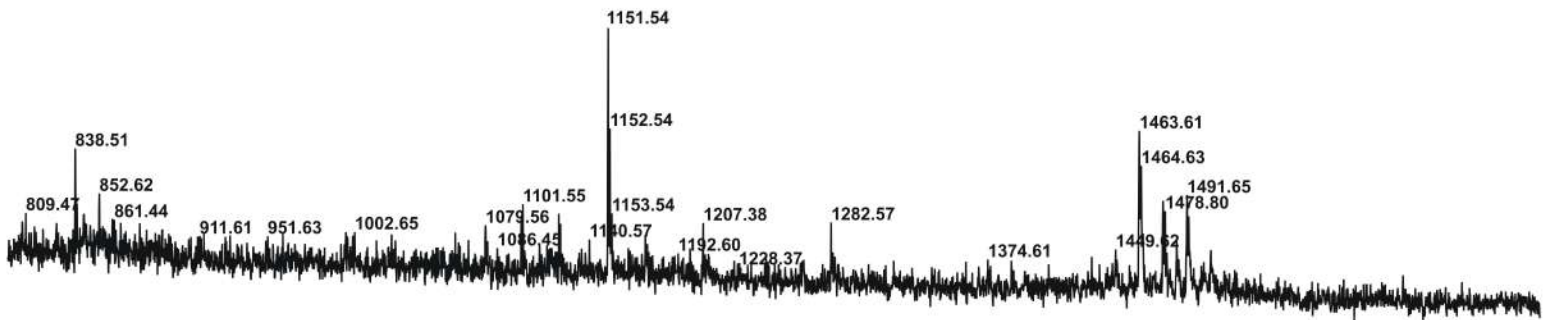
Ethyl acetate of SS-38.4



Cell-free supernatant of SS-12.6



HCl-MtOH of SS-12.6



Ethyl acetate of SS-12.6





**Several strips of iturin A (Sigma-Aldrich, USA)
with purification > 95%**