Supplementary data for article:

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Supplementary Material

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

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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.

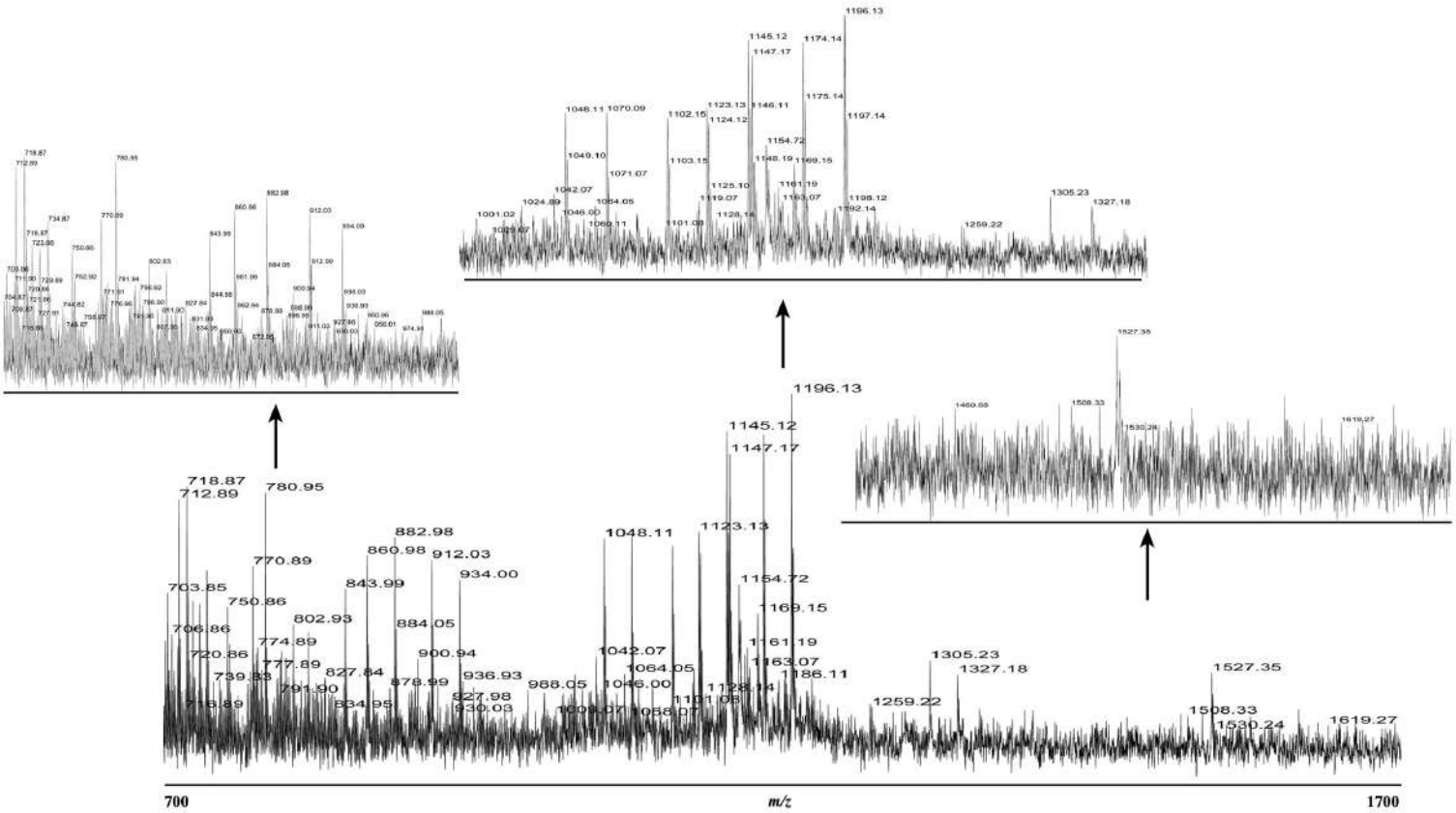
Figure S3. MALDI-TOF mass spectra of the cell-free supernatant, methanol and ethyl acetate extracts obtained from SS-38.4. Lipopeptide compounds were detected in the *m/z* range from 800-1700.

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	*Bacillus subtilis/amyloliquefaciens*	90.0	*Bacillus pumilus* SAFR-032 (NR_074977)	98.86
			Bacillus safensis FO-036b (NR_041794)	98.77
			Bacillus stratosphericus 41KF2a (NR_042336)	98.51
SS-12.6	*Bacillus subtilis/amyloliquefaciens*	94.5	*Bacillus amyloliquefaciens* FZB42 (NR_075005)	99.13
	Bacillus licheniformis	5.8	*Bacillus subtilis* subsp. *subtilis* 168 (NR_102783)	98.90
			Bacillus vallismortis DSM11031 (NR_024696)	98.82
SS-13.1	*Bacillus subtilis/amyloliquefaciens*	98.9	*Bacillus amyloliquefaciens* FZB42 (NR_075005)	99.63
			Bacillus subtilis subsp. *subtilis* 168 (NR_102783)	99.62
			Bacillus vallismortis DSM11031 (NR_024696)	99.24
SS-27.2	*Bacillus subtilis/amyloliquefaciens*	94.7	*Bacillus amyloliquefaciens* FZB42 (NR_075005)	99.04
			Bacillus subtilis subsp. *subtilis* 168 (NR_102783)	98.77
			Bacillus vallismortis DSM11031 (NR_024696)	98.69
SS-38.4	*Bacillus amyloliquefaciens*	81.9	*Bacillus amyloliquefaciens* FZB42 (NR_075005)	99.60
	Bacillus licheniformis	13.5	*Bacillus subtilis* subsp. *subtilis* 168 (NR_102783)	99.36
	Bacillus subtilis	4.3	*Bacillus vallismortis* DSM11031 (NR_024696)	99.28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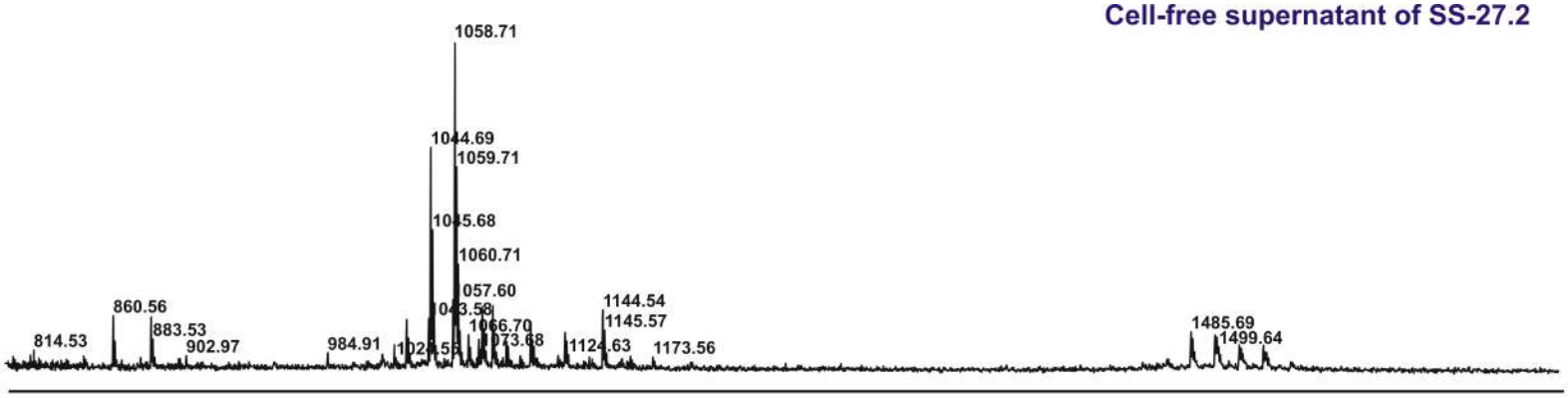
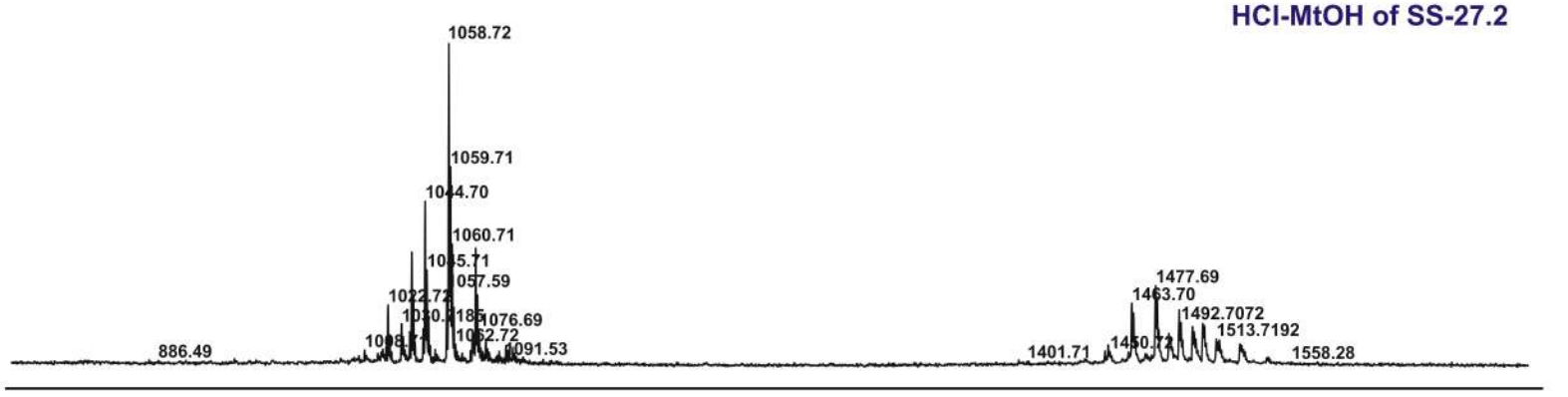
1042.07
1186.11
1064.05
1046.00
1128.14
1101.05
1305.23
1327.18
1259.22
1527.35
1508.33
1530.24
1619.27
700
m/z
1700

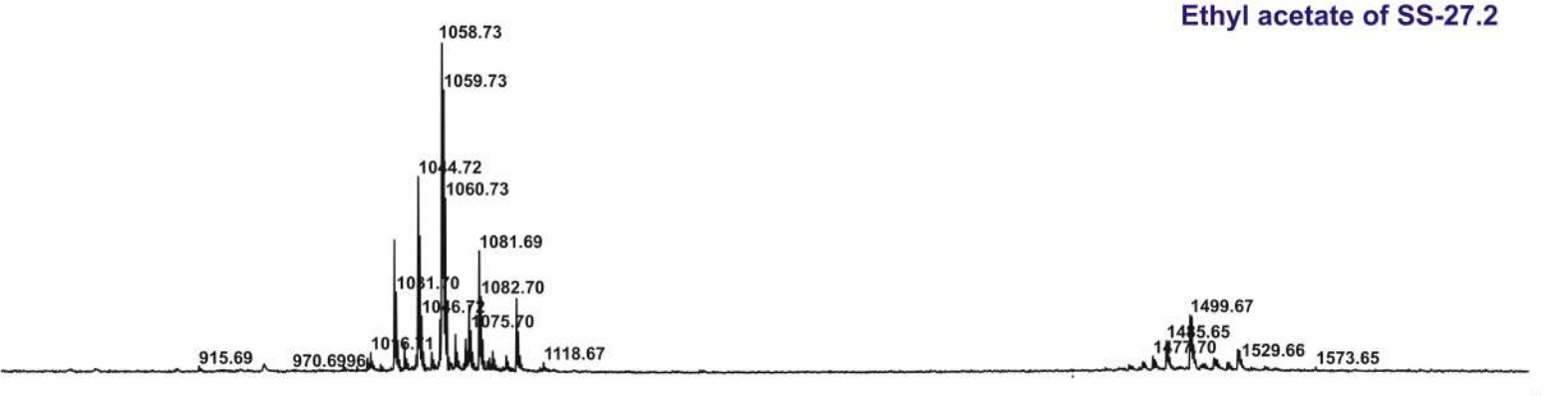
Cell-free supernatant of SS-27.2



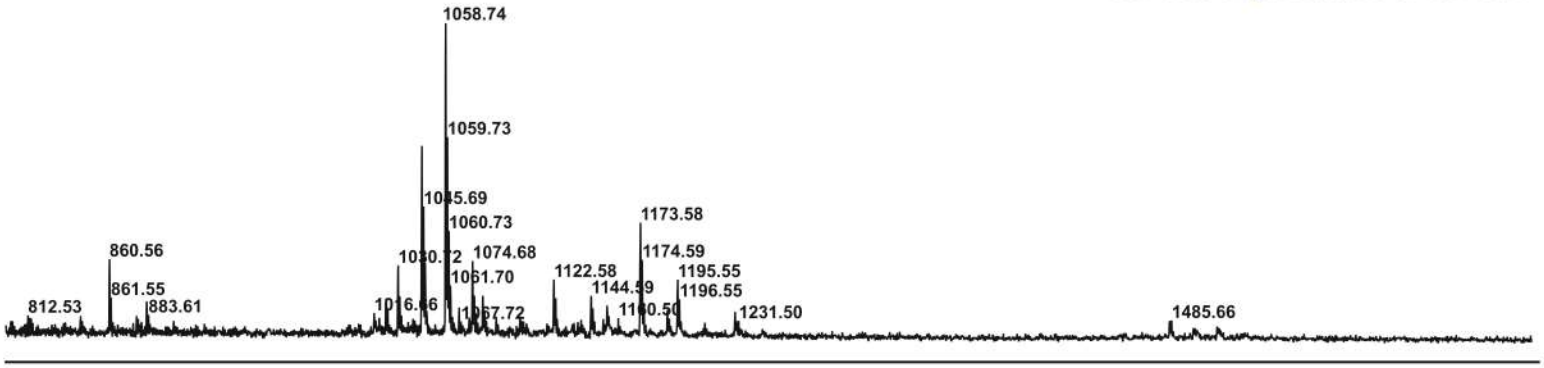
HCl-MtOH of SS-27.2



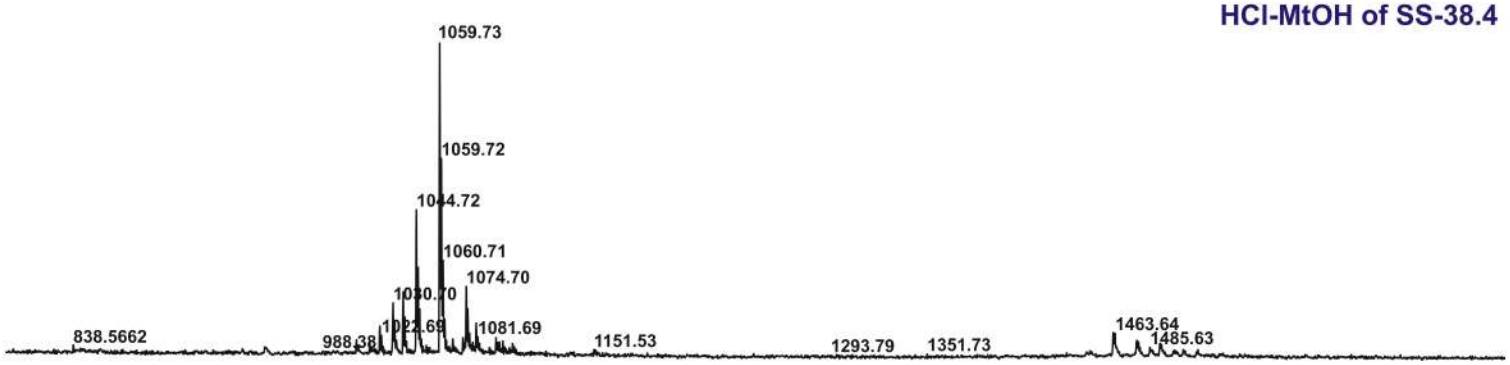
Ethyl acetate of SS-27.2



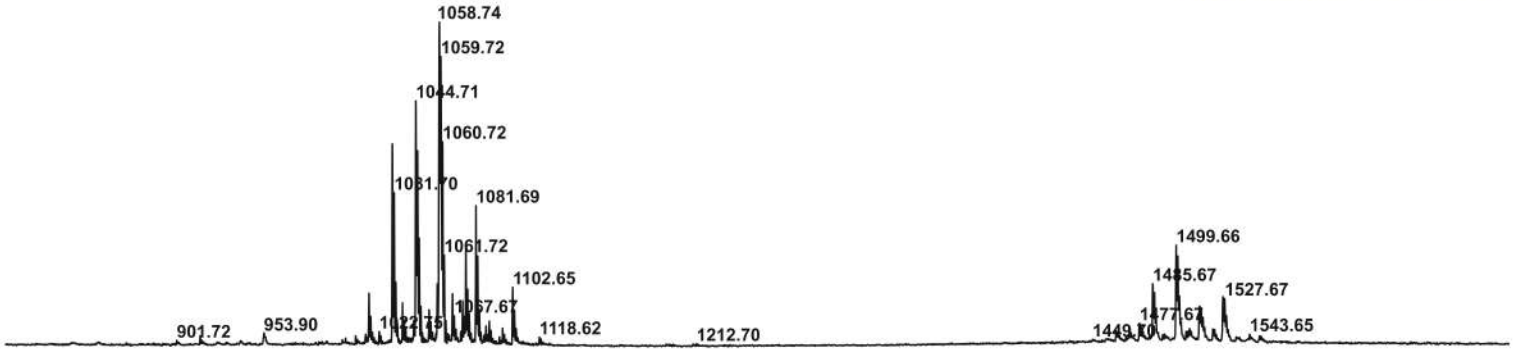
Cell-free supernatant of SS-38.4



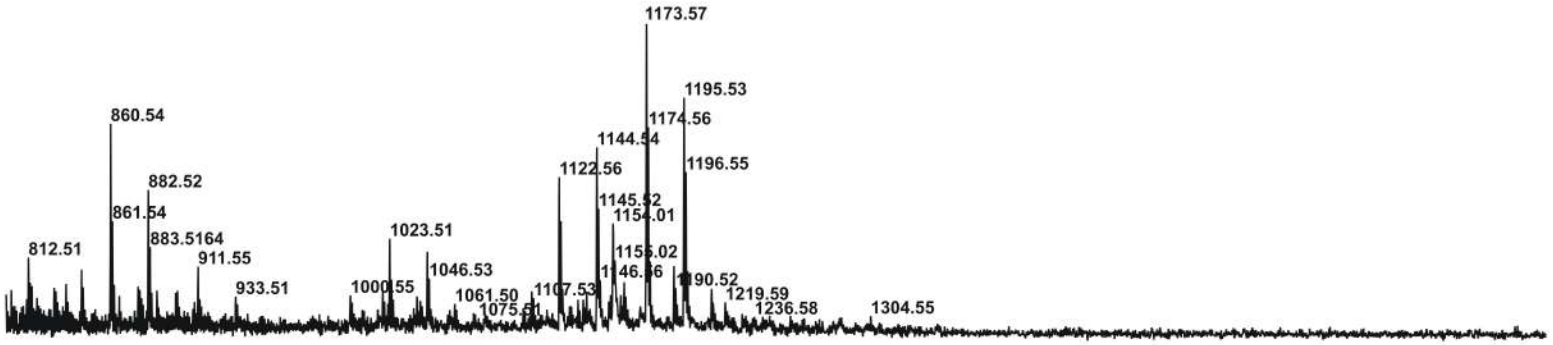
HCl-MtOH of SS-38.4



Ethyl acetate of SS-38.4



Cell-free supernatant of SS-12.6



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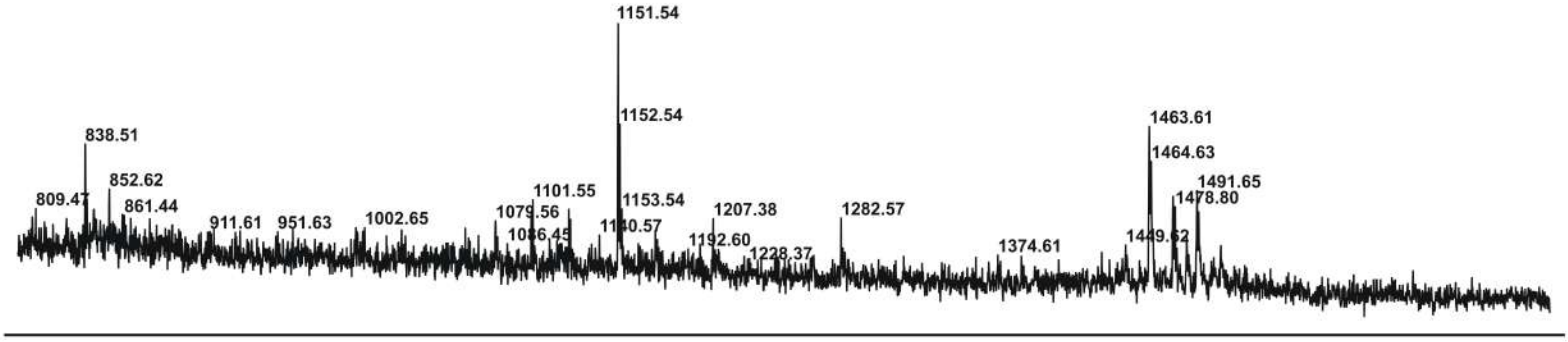

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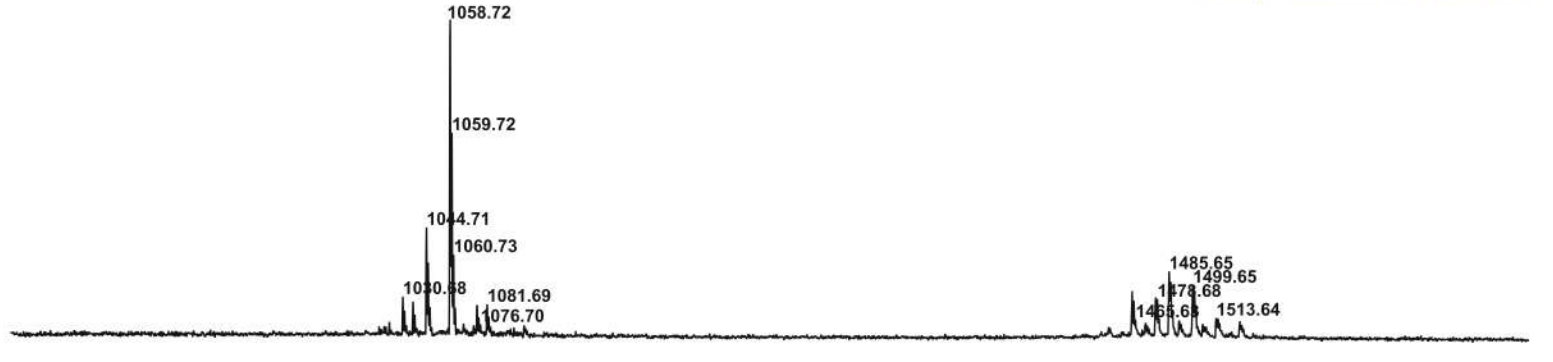

Several strips of iturin A (Sigma-Aldrich, USA) with purification > 95%