Organisms	Minimum inhibitory concentration (mg mL^{-1})
Bacillus subtilis	0.78
Staphylococcus aureus(ATCC 9144)	1.56
Enterococcus faecium	1.56
Micrococcus luteus	1.56
Agrobacterium tumefaciens	3.125
Salmonella enterica(CIP 80.39)	3.125
Pseudomonas savastanoi	1.56
Escherichia coli (ATCC 10536)	3.125

Table 1: Antibacterial action of crude biosurfactant on pathogen bacterial strains.

Table 2: Liquid chromatography–mass spectrometry (LC-MS) characterization of *Bacillus safensis*F4biosurfactant.

Retention time (min)	Molecular ions (m/z)			adducts	possible molecules
	Molecular formula	Negativeionization $[M-H]^-$	Positive ionization $[M+H]^+$		
15.98	$C_{52}H_{91}O_{13}N_7$	1020.6579	1022.6668	[M+Na]= 1039.5651	Leu/Ile-7, C14 surfactin
15.98	$C_{51}H_{89}O_{13}N_7$	1006.6436	1008.6513	[M+Na]= 1030.6336	Leu/Ile-7, C13 surfactin
15.27	$C_{26}H_{45}O_6N$	466.2774	468.3317	[M+AF-H]= 512.3221 [M+Na]= 490.3131	-
9.20	$C_{18}H_{34}O_5$	329.2328		[M+Na]= 353.2291 [2M-H]= 659.4730	Pinellic acid
5.61	$C_{22}H_{36}O_8N_4$	483.2449	485.2599	[M+Na]= 507.2417	-
3.20	$C_{20}H_{32}O_8N_4$	455.2138	457.2291	[M+Na]= 479.2109	-