

Supplementary Tables

Supplementary Table S1: Human *Bacillus* Strains with Inhibitory Activity to *C. difficile*

Name ^a	Surf ^b	Activity ^c			HELM Composition ^d			
		Sup.	AmSO ₄	Lytic	Iturin	Fengycin	Surfactin	Chlorotetaine
Bv277	+++	1:160	1:1280	+	+	+	+	+
Bv297	+++	1:160	1:1280	+	+	+	+	+
Bv57	++	1:80	1:640	+	+	+	+	-
Bv137	++	1:80	1:640	+	-	+	+	-
Bv185	++	1:80	1:320	+	-	+	+	-
Bs83	+	1:20	1:320	+	-	+	+	-
Bs140	+	1:10	1:80	+	-	+	+	-

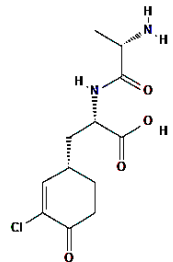
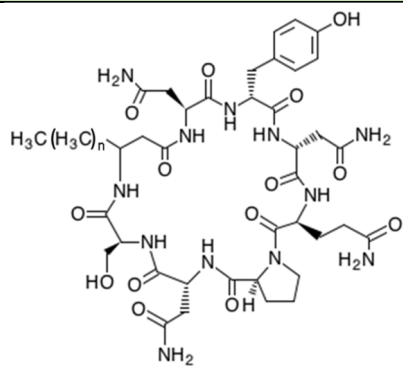
^a Strains isolated from human feces were either *B. subtilis* (Bs) or *B. velezensis* (Bv). Species determination was made initially by sequencing of the *gyrA* gene and then by complete genome sequencing.

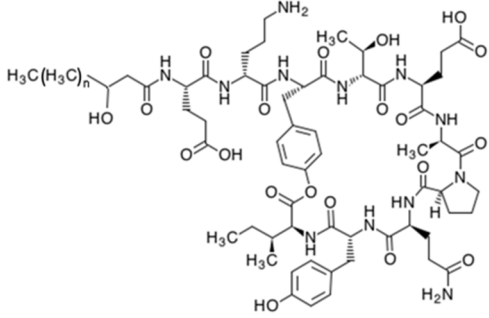
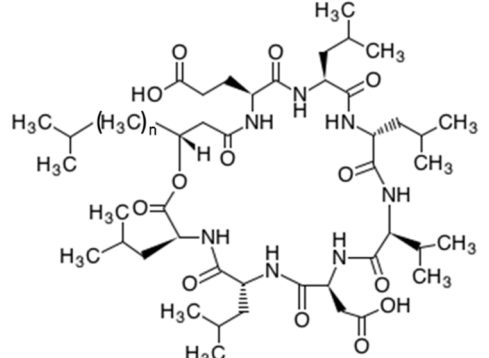
^b Biosurfactant activity of cell free supernatants determined using an oil-displacement assay (Youssef, N. H. *et al.* Comparison of methods to detect biosurfactant production by diverse microorganisms. *J Microbiol Methods* **56**, 339-347, doi:10.1016/j.mimet.2003.11.001 (2004)).

^c Activity was determined using an *in vitro* microdilution assay measuring inhibition of growth of CD630 using two test samples, a) a filter-sterile cell-free supernatant (Sup.) from an overnight (18h) culture of the *Bacillus* strain, and b) an AmSO₄ (20%) precipitate of the cell-free supernatant at approx. 30X concentration. Lytic activity was determined as the ability to clarify a log-phase culture of CD630.

^d The AmSO₄ precipitate was fractionated using SEC and the active fraction (determined using the *in vitro* microdilution assay) examined by RP-HPLC. Approximately 20 fractions were collected and identified by cross-referencing them to the known retention time of each of the four compounds shown in the table.

Supplementary Table S2: MALDI-TOF Analysis of BV277 HELM RP-HPLC Active Fractions

Compounds	m/z	Ions detected	Structure
Chlorotetaine			
Chlorotetaine (³⁵ Cl)	288.088	[M+Na], [M+K], [M-H+2xNa]	
Chlorotetaine (³⁷ Cl)	290.085	[M+Na], [M+K], [M-H+2xNa]	
Hydroxychlorotetaine (³⁵ Cl)	304.083	[M+Na], [M+K]	
Hydroxychlorotetaine (³⁷ Cl)	306.080	[M+Na], [M+K]	
Iturins			
C ₁₂ IturinA/C ₁₂ Mycosubtilin/C ₁₁ BacillomycinF	1014.512	[M+Na]	
C ₁₄ BacillomycinL	1020.511	[M+Na], [M-H+2xNa]	
C ₁₃ IturinA/C ₁₃ Mycosubtilin/C ₁₂ BacillomycinF	1028.527	[M+Na]	
C ₁₄ BacillomycinD	1030.532	[M+K]	
C ₁₅ BacillomycinL	1034.527	[M+H], [M+Na], [M+K]	
C ₁₄ IturinA/C ₁₄ Mycosubtilin/C ₁₃ BacillomycinF	1042.543	[M+H], [M+Na], [M+K]	
C ₁₅ BacillomycinD	1044.547	[M+K]	
C ₁₆ BacillomycinL	1048.542	[M+H], [M-H+2xNa]	
C ₁₅ IturinA/C ₁₅ Mycosubtilin/C ₁₄ BacillomycinF	1056.559	[M+H], [M+Na], [M+K]	
C ₁₅ IturinB	1057.543	[M+H], [M+Na], [M+K]	
C ₁₆ BacillomycinD	1058.563	[M+K]	
C ₁₇ BacillomycinL	1062.558	[M-H+2xNa]	
C ₁₆ IturinA/C ₁₆ Mycosubtilin/C ₁₅ BacillomycinF	1070.574	[M+Na], [M+K]	
C ₁₇ IturinA/C ₁₇ Mycosubtilin/C ₁₆ BacillomycinF	1084.605	[M+Na]	

Fengycins				
C ₁₅ FengycinA/C ₁₃ FengycinB//Plipastatin B C ₁₃	1448.778	[M+Na]		
C ₁₆ FengycinA/C ₁₄ FengycinB//Plipastatin A1	1462.793	[M+H], [M+Na]		
Fengycin B (C ₁₆ /Ala-6)	1462.900	[M+H], [M+Na]		
C ₁₇ FengycinA/C ₁₅ FengycinB//Plipastatin A 2	1476.809	[M+H], [M+Na]		
Fengycin C (C ₁₇ /Ala-6)	1476.900	[M+H], [M+Na]		
C ₁₈ FengycinA/C ₁₆ FengycinB//Plipastatin B 1	1490.824	[M+H], [M+Na]		
Fengycin D (C ₁₆ /Val-6)	1490.900	[M+H], [M+Na]		
C ₁₉ FengycinA/C ₁₇ FengycinB//Plipastatin B 2	1504.840	[M+Na]		
Fengycin E (C ₁₇ /Val-6)	1504.900	[M+Na]		
Surfactins				
C ₁₂ SurfactinA/C ₁₃ SurfactinB/C ₁₂ SurfactinC/Pumilacidin	993.634	[M+Na], [M-H+Na+K]		
C ₁₃ SurfactinA/C ₁₄ SurfactinB/C ₁₃ SurfactinC/Pumilacidin	1007.650	[M+Na], [M+K], [M-H+2xNa], [M-H+Na+K]		
C ₁₂ Surfactin (linearized)	1011.600	[M+Na], [M-H+2xNa]		
C ₁₄ SurfactinA/C ₁₅ SurfactinB/C ₁₄ SurfactinC/Pumilacidin	1021.665	[M+Na], [M+K], [M-H+2xNa], [M-H+Na+K]		
C ₁₃ Surfactin (linearized)	1026.600	[M+K]		
C ₁₅ SurfactinA/C ₁₆ SurfactinB/C ₁₅ SurfactinC/Pumilacidin	1035.681	[M+Na], [M+K], [M-H+2xNa], [M-H+Na+K]		
C ₁₄ Surfactin (linearized)	1040.600	[M+K]		
C ₁₆ SurfactinA/C ₁₇ SurfactinB/C ₁₆ SurfactinC/Pumilacidin	1049.696	[M+H], [M+Na], [M+K]		
C ₁₇ SurfactinA/C ₁₈ SurfactinB/C ₁₇ SurfactinC/Pumilacidin	1063.712	[M+K]		