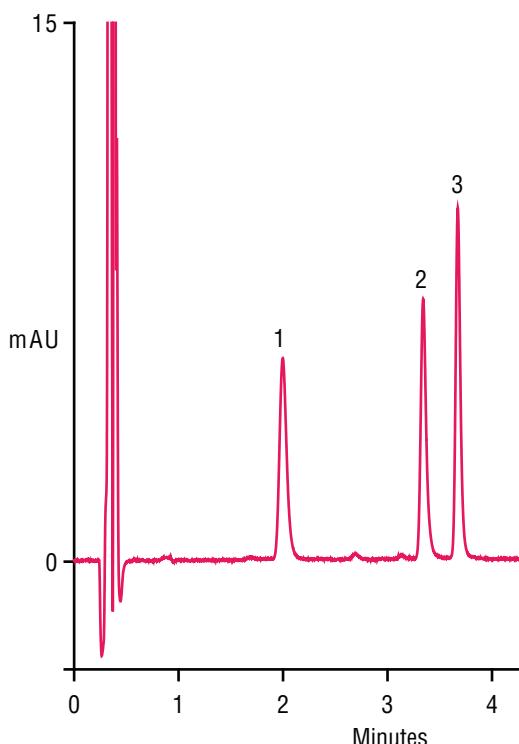


Separation of Microcystins on a Thermo Scientific™ Acclaim™ RSLC C18 Column

Column:	Thermo Scientific™ Acclaim™ RSLC 120 C18, 2.2 μ m						
Dimensions:	2.1 x 50 mm						
LC System:	Thermo Scientific™ Dionex™ UltiMate™ 3000						
Mobile Phases:	A: 0.05% TFA (v/v) in water B: 0.05% TFA (v/v) in acetonitrile						
Gradient time (min):	-6.8	0	1.2	6.2	6.6	7.0	7.4
%A	70	70	70	30	0	0	70
%B	30	30	30	70	100	100	30
Flow Rate:	0.39 mL/min						
Temperature:	35 °C						
Injection:	2.5 μ L						
Detection:	UV at 238 nm, 20 Hz, 0.07 s time						
constant							
Reference:	ISO 20179:2005(E)						
Sample:	Standards in mobile phase A						
Peaks:	1. Microcystin RR 3 μ g/mL 2. Microcystin YR 3 3. Microcystin LR 3						

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Microcystins are highly toxic peptides produced by blue-green algae and can contaminate sources of municipal drinking water. While the standard method takes about an hour to run, a straightforward conversion to rapid separation LC (RSLC) using the Acclaim RSLC 120 C18 2.2 μ m column shortens the analysis time to six minutes. There are many microcystin variants according to the amino acid composition, with RR, YR, and LR being the most common.