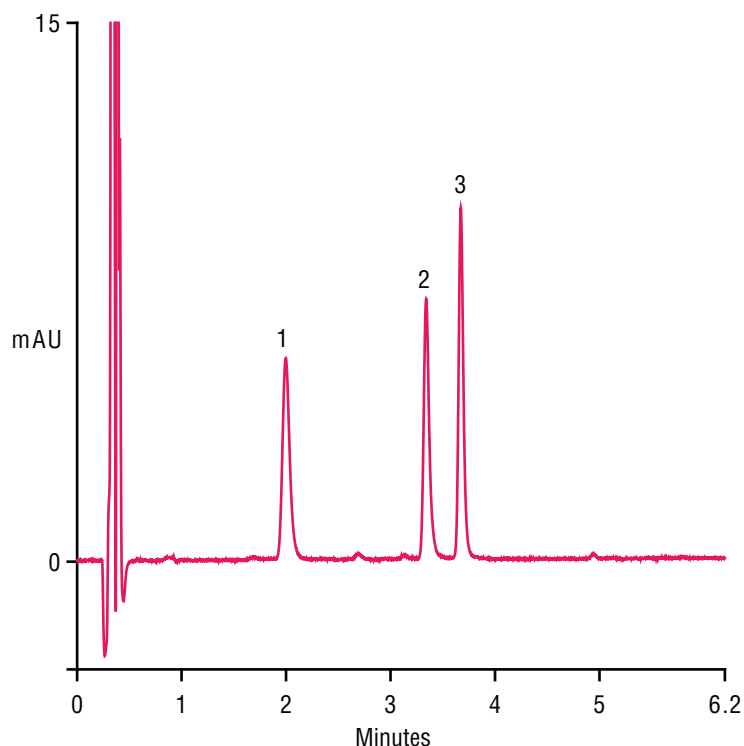


## Separation of Microcystins on a Thermo Scientific™ Acclaim™ RSLC C18 Column



Column:	Thermo Scientific™ Acclaim™ RSLC 120 C18, 2.2 µm						
Dimensions:	2.1 × 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 µL						
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 µg/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 µm 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.