

## How can I separate capsaicinoids in hot sauce by HPLC - Tips & Suggestions

If you have a hot sauce extract containing nordihydrocapsaicin, capsaicin, dihydrocapsaicin, and homodihydrocapsaicin, the Cogent Bidentate C18 2.0™ HPLC column is a good choice for sufficient separation when the compounds are analyzed by LC-MS; look for the [M+H]+ ions.

The following gradient should be a good starting point:

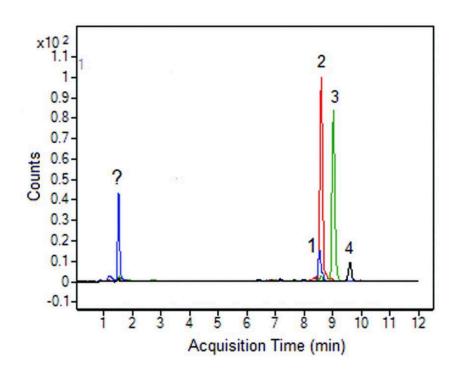
Mobile Phase: A: DI H<sub>2</sub>O / 0.1% formic acid (v/v)

B: Methanol

Gradient:

time (min.)	%B
0	10
1	10
9	70
10	70
11	10

You may get EICs which look like this:



- 1. nordihydrocapsaicin, 294.2064 m/z [M+H]+
  - 2. capsaicin, 306.2064 m/z [M+H]+
  - 3. dihydrocapsaicin, 308.2220 m/z [M+H]+
- 4. homodihydrocapsaicin, 322.2377 m/z [M+H]+

For peaks 1 and 2, you will be able to obtain separate peaks for each compound in the EICs so there will not be an issue of interference from co-elution. **In terms of sample preparation, try using a Soxhlet extraction procedure.** 

Click <u>HERE</u> for Cogent Bidentate C18™ ordering information



Printed from the Chrom Resource Center
Copyright 2025, All Rights Apply
MicroSolv Technology Corporation
9158 Industrial Blvd. NE, Leland, NC 28451

Tel: (732) 380-8900

Fax: (910) 769-9435

Email: customers@mtc-usa.com

Website: www.mtc-usa.com