

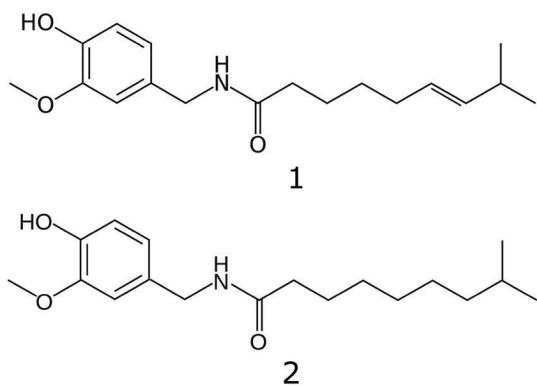
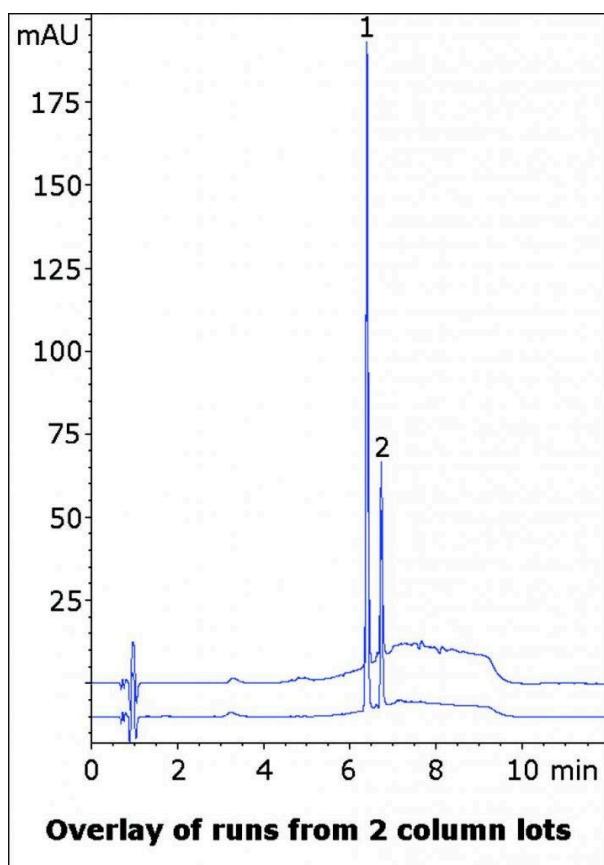


## Capsaicin in Topical Solution Analyzed with HPLC - AppNote

### Separation of Capsaicinoids in an OTC Formulation

A formulation of Capsaicins is used as a topically applied solution for Arthritis pain relief. Analyzing Capsaicin and a similar compound, Dihydrocapsaicin is required. The Method illustrates the ability to resolve structurally similar Capsaicinoids from a pharmaceutical formulation. Peak Shapes and Efficiencies are excellent for both Peaks.

Furthermore, this AppNote presents data from two Column lots with the overlay of two runs in the figure below to exhibit Robustness and Precision of the Method.



### Peaks:

1. Capsaicin
2. Dihydrocapsaicin

## Method Conditions

**Column:** Cogent Bidentate C18™, 4µm, 100Å

**Catalog No.:** 40018-75P

**Dimensions:** 4.6 x 75mm

### Mobile Phase:

A: DI Water with 0.1% Formic Acid (v/v)

B: Acetonitrile with 0.1% Formic Acid (v/v)

### Gradient:

Time (minutes)	%B
0	20
1	20
3	80
8	80
9	20

**Post Time:** 3 minutes

**Injection vol.:** 1µL

**Flow rate:** 1.0mL / minute

**Detection:** UV @ 280nm

**Sample Preparation:** TopCare® Solution, a commercially available Pharmaceutical Product, containing 0.15% Capsaicin was filtered with a 0.45µm Nylon Syringe Filter (MICROSOLV Tech Corp.). Peak identities were confirmed using individual USP Reference Standards.

**t<sub>0</sub>:** 0.9 minutes

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**Note:** Capsaicin is the active ingredient in Chili Peppers and has many uses. It is commonly used in foods to add spiciness, but is also used in pepper spray. It is a highly potent irritant in mammals and pure Capsaicin reference standards should be handled with care.

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