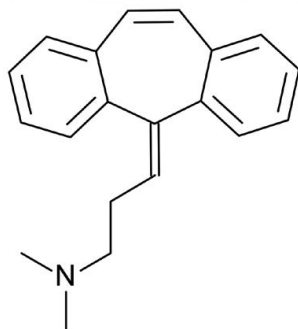
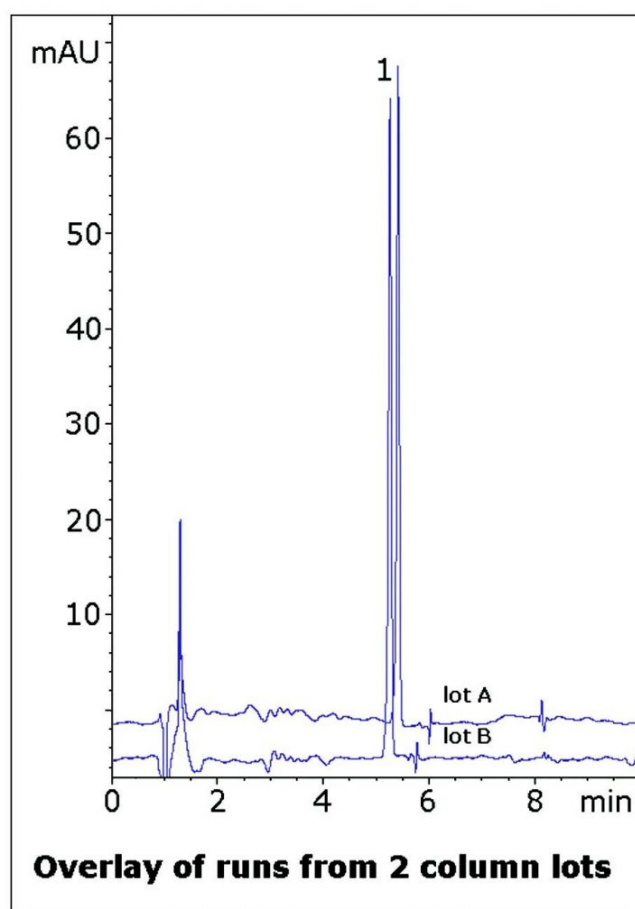


## Cyclobenzaprine Retention with an Inverse Gradient – AppNote

### ANP Retention of a Hydrophobic Compound

This Application Note shows an example of a hydrophobic analyte retention in Aqueous Normal Phase (*ANP / HILIC Like Gradient*) HPLC. Although Cyclobenzaprine has a logP of approximately 4.6–4.9, it is well retained with a Symmetrical Peak Shape.

Data from two production lots of Columns is shown to illustrate the Reproducibility of the Method.



**Peak:**

Cyclobenzaprine

## Method Conditions

**Column:** Cogent Diamond Hydride™, 4µm, 100Å

**Catalog No.:** 70000-7.5P

**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	95
1	95
6	40
7	95

**Injection vol.:** 1µL

**Flow rate:** 1.0mL / minute

**Detection:** UV @ 224nm

**Sample Preparation:** 10mg strength Cyclobenzaprine Tablet was ground and added to a 25mL volumetric flask. A diluent of 50:50 Solvent A / Solvent B was added and the flask was sonicated for 30 minutes. It was then diluted to mark, mixed, and filtered with a 0.45µm Nylon Syringe Filter (MicroSolv Tech Corp.). A portion of the filtrate was diluted 1:10 for HPLC Injections.

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

**Note:** Cyclobenzaprine is a muscle relaxant and used to treat Fibromyalgia. Cyclobenzaprine is structurally related to first-generation tricyclic antidepressants. It is marketed under the trade name Flexeril®.



**Attachment**

**No 242 Cyclobenzaprine Tablet pdf** 0.6 Mb [Download File](#)

Printed from the Chrom Resource Center

**MicroSolv Technology Corporation**

9158 Industrial Blvd. NE, Leland, NC 28451

tel. (732) 380-8900, fax (910) 769-9435

Email: [customers@mtc-usa.com](mailto:customers@mtc-usa.com)

Website: [www.mtc-usa.com](http://www.mtc-usa.com)

Date: 05-05-2024