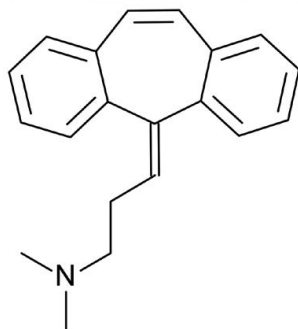
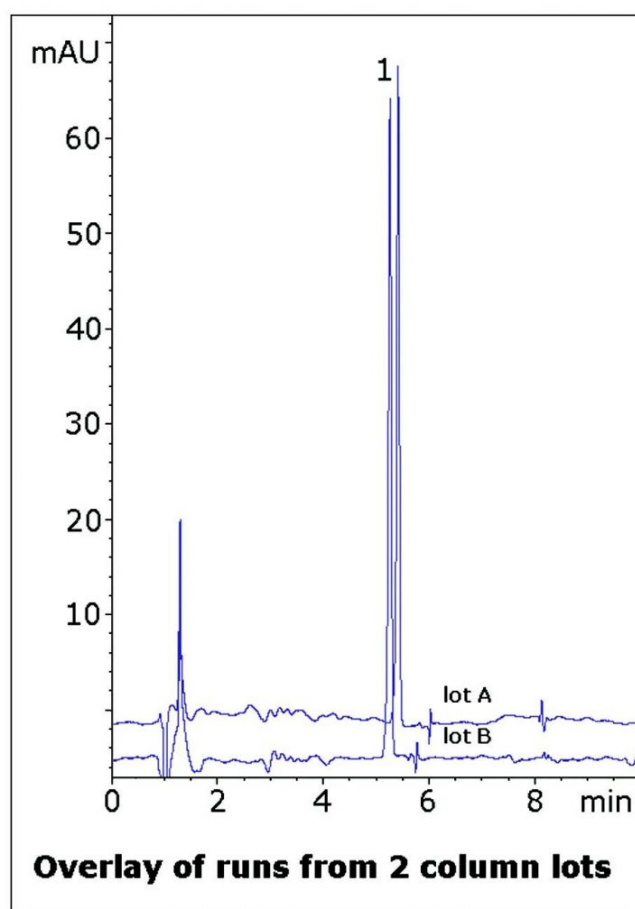


Cyclobenzaprine Retention with an Inverse Gradient – AppNote

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.

t₀: 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](#)

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