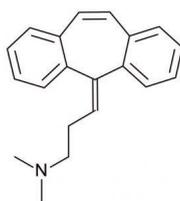
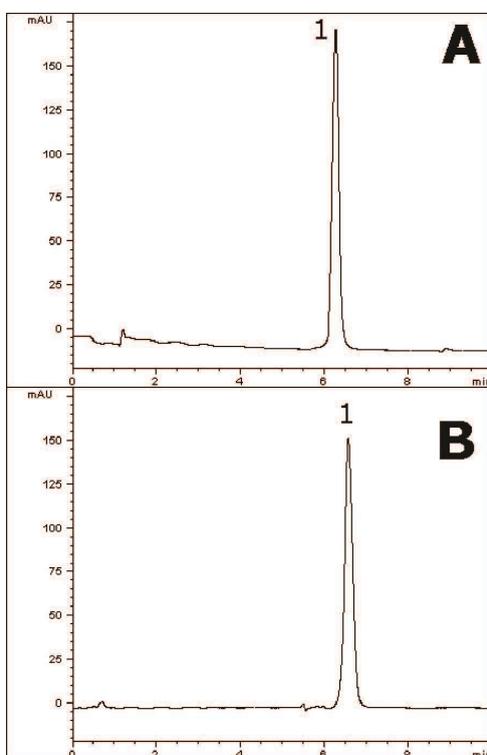


## Cyclobenzaprine Method Transfer - AppNote

### Increased Efficiency: 4 $\mu\text{m}$ to 2.2 $\mu\text{m}$

The two chromatograms compare the retention and efficiency of a Cyclobenzaprine peak using two types of Cogent Diamond Hydride columns. Figure A uses a near UHPLC 2.2 $\mu\text{m}$  phase while Figure B uses a standard 4 $\mu\text{m}$  particle size column. The results show consistent retention between the two phases (*about 5% difference*).

These method conditions can readily be transferred from the 4 $\mu\text{m}$  column to the 2.2 $\mu\text{m}$ ; the advantage of the 2.0<sup>TM</sup> phase is the significantly higher efficiency.



**Peak:**  
Cyclobenzaprine

### Method Conditions

**Column:** Cogent Diamond Hydride<sup>TM</sup>, 2.2  $\mu\text{m}$ , 120 $\text{\AA}$

**Catalog No.:** [70200-05P-2](#)

**Dimensions:** 2.1 x 50 mm

**Mobile Phase:**

A: 90% DI Water / 10% Acetonitrile / 0.1% Formic Acid (v/v)

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

**Gradient:**

Time (Minutes)	%B
0	90
0.5	90
8	40
9	40

**Post Time:** 3 minutes

**Flow rate:** 0.3 mL / minute

**Detection:** UV @ 230 nm

**Injection vol.:** 1 µL

**Sample Preparation:**

10mg strength Cyclobenzaprine tablet was ground and added to a 50 mL volumetric flask. A diluent of 80/20/0.1 acetonitrile / DI water / formic acid was added and the flask was sonicated for 30 minutes. It was then diluted to mark, mixed, and filtered with a 0.45 µm nylon syringe filter (*MICROSOLV Tech Corp*)

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**Note:** Cyclobenzaprine is used to relieve muscle spasms and accompanying acute pain caused by various musculoskeletal maladies. Brand names include Amrix®, Flexeril®, and Fexmid®.

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**Attachment Method Transfer Cyclobenzaprine** [Download File](#)

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