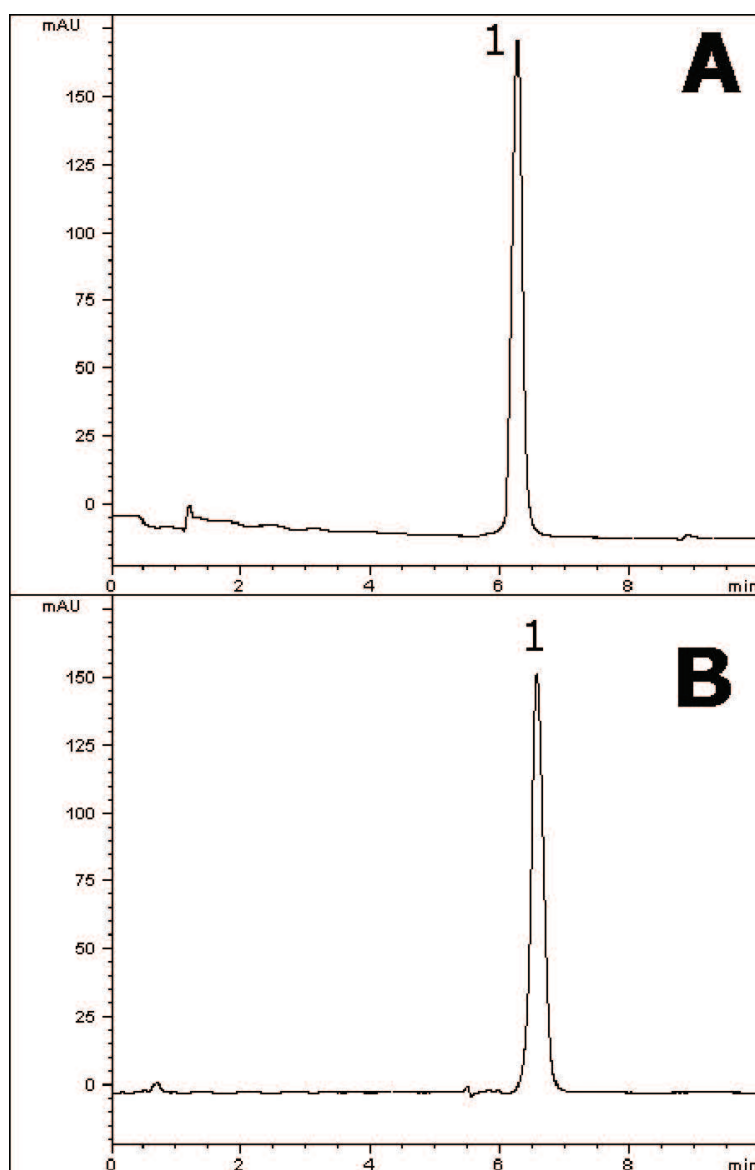


## Method transfer for cyclobenzaprine – AppNote

### 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>™</sup> phase is the significantly higher efficiency.



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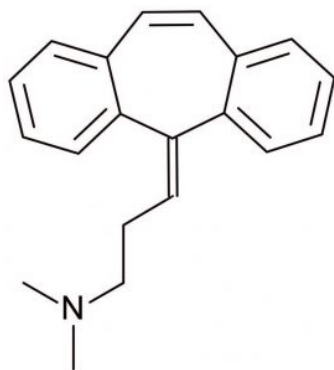
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## Peak:

Cyclobenzaprine

## Method Conditions

**Column:** Cogent Diamond Hydride™, 2.2µm, 120Å

**Catalog No.:** 70200-05P-2

**Dimensions:** 2.1 x 50mm

### 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:** 0.3mL / minute

**Detection:** UV @ 230 nm

**Injection vol.:** 1µL

### 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*)

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



### Attachment

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

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