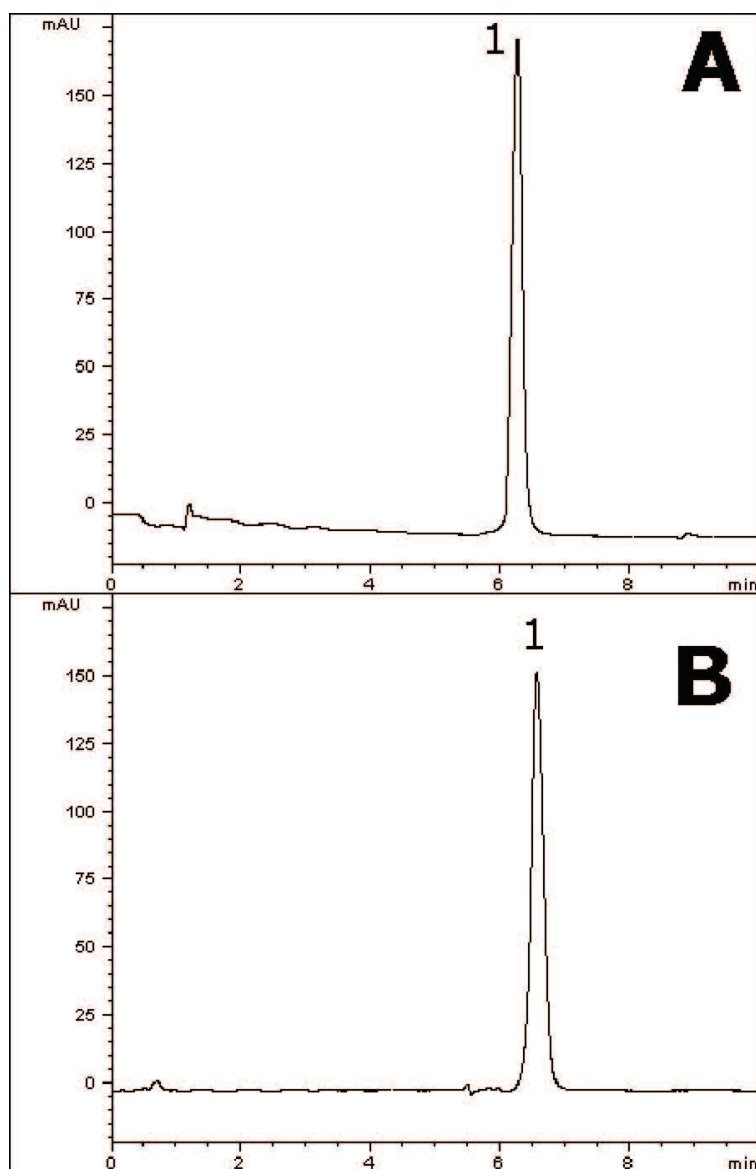


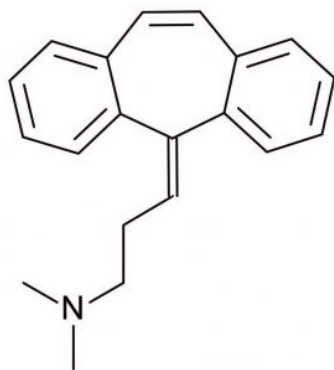
Method transfer for cyclobenzaprine - AppNote

Increased Efficiency: 4 μm to 2.2 μm

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 μm phase while Figure B uses a standard 4 μm 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 μm column to the 2.2 μm ; the advantage of the 2.0[™] phase is the significantly higher efficiency.





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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