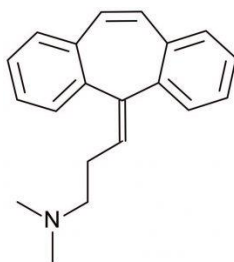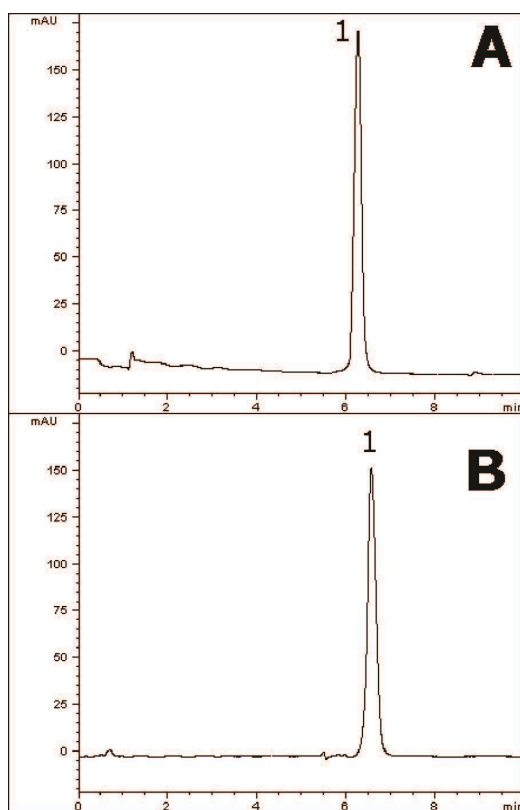# MICROSOLV

Cyclobenzaprine Method Transfer - 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 2.2µm phase while Figure B uses a standard 4µm particle size column. The results show consistent retention between the two phases *(about 5% difference)* .

These method conditions can readily be transferred from the 4um column to the 2.2um; the advantage of the 2.o™ 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®.

COGENT
HPLC Columns™

Attachment Method Transfer Cyclobenzaprine   [Download File](#)