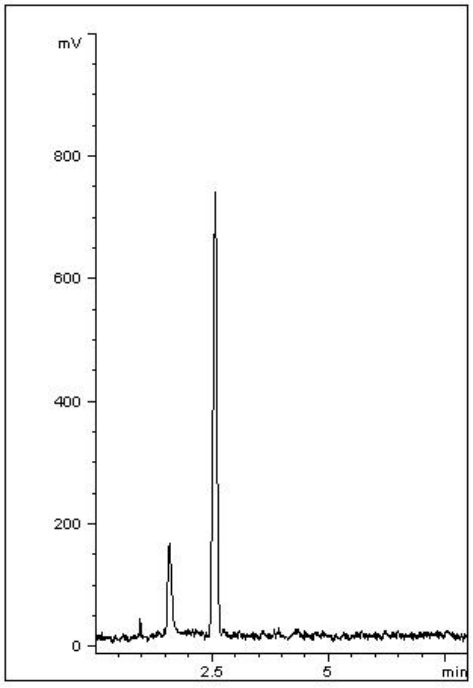
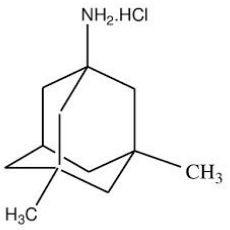
Memantine Hydrochloride a Tricyclic Amine Analyzed with ELSD- AppNote

Memantine Hydrochloride, a Tricyclic Amine

As this compound lacks Chromophores, it typically requires Derivitization for use in UV detection. In this Method, we retain excellent peak shape without the need for these pre-column derivatization steps.

This compound can also cause issues with Peak Tailing in typical Reversed Phase Columns due to the strong adsorption of residual Silanols. RSD values (less than 0.4%) demonstrate the consistent and reliable Retention.





Peak:

Memantine HCl

Method Conditions:

Column: Cogent Diamond Hydride™, 4 µm, 100 Å.

Catalog No.: 70000-10P
Dimensions: 4.6 x 100 mm

Mobile Phase: 95% Acetonitrile / 5% DI Water 10 mM Ammonium Formate
Injection vol.: 1 µL
Flow rate: 1.0 mL / minute.
Detection: ELSD, Gain: 12, Temperature: 50°C, Nitrogen: 3.5 bar.

Sample Preparation: 1.0 mg / mL Mermantine HCL in DI Water.

Notes: Persistent activation of the N-methyl-D-aspartate (NMDA) receptors in the central nervous system triggered by glutamate is believed to cause some of the Alzheimer's disease symptoms. Memantine blocks the effects of glutamate, a neurotransmitter in the brain that leads to neuronal excitability and stimulation, being offered as a treatment for Alzheimer's dementia.

COGENT HPLC Columns™

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