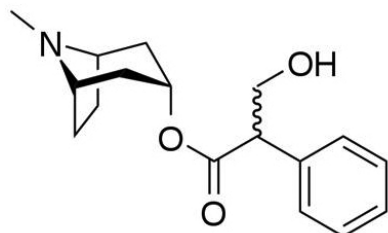
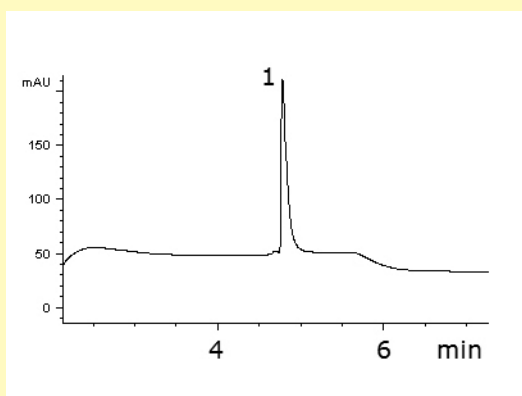


Precise Determination of Atropine using a simple gradient
No Ion Pair Reagent Necessary



Atropine



Note: After a simple sample clean up procedure, the method can be applied for monitoring atropine concentrations in biological specimens in cases of drug poisoning. The recoveries of atropine added to drug-free specimens which were analyzed using the described method were satisfactory with coefficients of variation of 4% or less.

Method Conditions

Column: Cogent Bidentate C18™, 4µm, 100Å
Catalog No.: 40018-75P
Dimensions: 4.6 x 75 mm
Mobile phase: A: DI water + 0.1% acetic acid + 0.005% TFA
 B: Acetonitrile + 0.1% acetic acid + 0.005% TFA

Both solutions were vacuum filtered through a 0.45 µm nylon filter

Flow rate: 1 µL/min.
Gradient: 0 min - 10% B,
 0 to 4 min to 30%B
 4 – 6 min hold 30%B
 6.01 min back to 10%B

Injection: 1 microL
Sample: Prepared in 50% solution A/50% solution B, concentration 1 mg/mL and was filtered through a 0.45 µm nylon membrane

Peak: Atropine
Injection 1: RT = 4.772 min, Injection 2: RT = 4.773 min, Injection 3: RT = 4.772 min Injection 4: RT = 4.774 min

Detection: UV 214 nm

Discussion

Chromatographic separation and quantification methods of tropane alkaloids are often described in the literature and the method of choice is usually ion-pair chromatography (IPC), which requires long equilibration times and it is not very robust. This method shows a symmetrical peak for atropine using a simple gradient method that does not include any ion pair reagents which can cause damage to columns and lack reproducibility. The retention times are extremely repeatable but one of the best advantages to this method is the time savings between runs. Using a Cogent Bidentate C18 column the equilibration time was very short (5 min between every gradient run).

For more information visit www.MTC-USA.com

Cat. No.	Description
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40018-75P	Cogent Bidentate™ C18 HPLC Column, 4mm, 100A 4.6mm x 75mm
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