

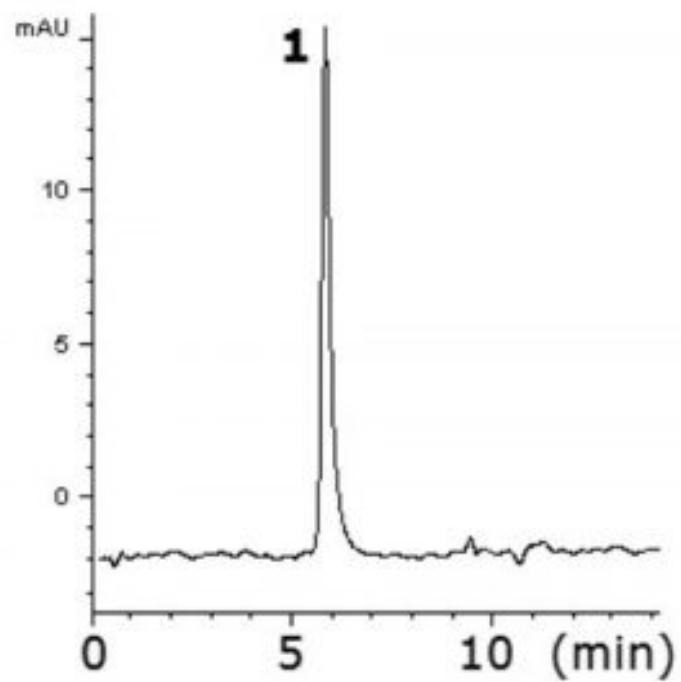
## Determination of Atropine by HPLC – AppNote

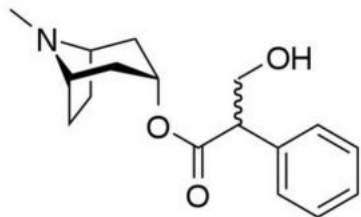
### **Rugged & Fast Without Paired Ion Reagents**

Ion-pair Chromatography (IPC) is commonly used in order to retain Atropine on ordinary Reversed Phase HPLC Columns. Beside long equilibration times with these columns, IPC often suffers from poor robustness.

Using an isocratic elution with flow rate 1mL / minutes gave symmetrical peak for this Tropane Alkaloid. The sensitivity is sufficient for the proper determination of Atropine in plasma after intravenous administration of the drug to hospitalized patients.

This method is also useful for testing for drug poisoning and for stability testing of Atropine solutions during manufacturing. The linear range of detection for Atropine was around 5.0µg / mL with a limit of quantification (LOQ) 10.0µg / mL.





**Atropine**

**Peak:**

Atropine (RT = 5.94 min)

**Method Conditions**

**Column:** Cogent UDC-Cholesterol™, 4μm, 100Å

**Catalog No.:** [69069-15P](#)

**Dimensions:** 4.6 x 150mm

**Mobile Phase:**

A: DI Water + 0.1% Acetic Acid + 0.005% TFA

B: Acetonitrile + 0.1% Acetic Acid + 0.005% TFA

**Flow rate:** 1mL / minute

**Detection:** UV @ 214nm

**Injection vol.:** 1μL

**Sample Preparation:** Prepared in 50% Solution A / 50% Solution B, concentration 1mg / mL Sample was filtered through a 0.45µm Nylon Syringe Filter prior to HPLC-UV injections (MicroSolv Technology Corp.)

**Note:** Being potentially deadly, Atropine derives its name from Atropos, one of the three Fates who, according to Greek mythology, chose how a person was to die. Atropine is a core medicine in the World Health Organization's "Essential Drugs List", which is a list of minimum medical needs for a basic health care system.



## Attachment

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