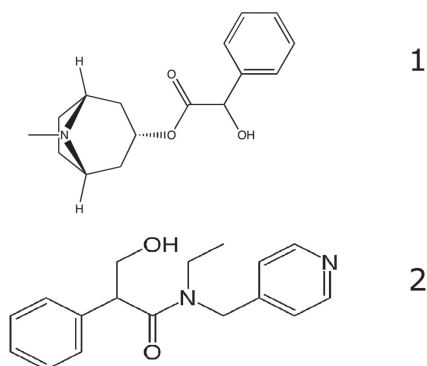
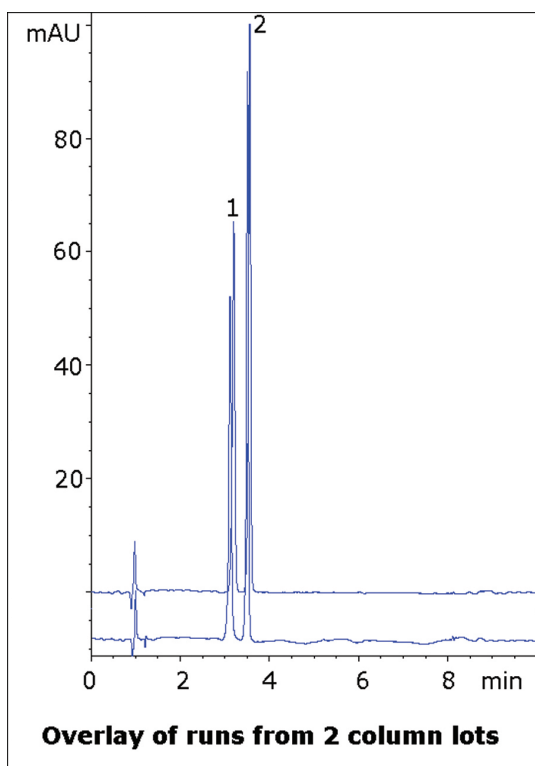


Tropicamide and Homatropine

Separation of anticholinergic mydriatic agents



Note: Homatropine and tropicamide are mydriatic (pupil-dilating) agents used in ophthalmoscopic examinations. Trade names include Homatropaire® for homatropine and Mydral® for tropicamide.

Method Conditions

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

Catalog No.: 70000-7.5P

Dimensions: 4.6 x 75 mm

Solvents: A: DI H₂O / 0.1% trifluoroacetic acid (v/v)

B: Acetonitrile / 0.1% trifluoroacetic acid (v/v)

Gradient:	time (min.)	%B
	0	95
	1	95
	6	50
	7	95

Injection vol.: 2µL

Flow rate: 1.0 mL/min

Detection: UV 220 nm

Sample: 0.1 mg/mL homatropine and 0.01 mg/mL tropicamide reference standards in diluent of 50/50 solvent A / solvent B. Peak identities were confirmed with individual standards.

Peaks: 1. Homatropine
2. Tropicamide

t₀: 0.9 min

Discussion

In this method, homatropine and tropicamide are separated in a simple gradient method. Homatropine is significantly hydrophobic yet still retains well with the Cogent Diamond Hydride column. Furthermore, the separation between these two solutes is excellent, illustrating the selectivity capabilities of the column. Data is shown for two lots of columns in order to demonstrate the stationary phase reproducibility.