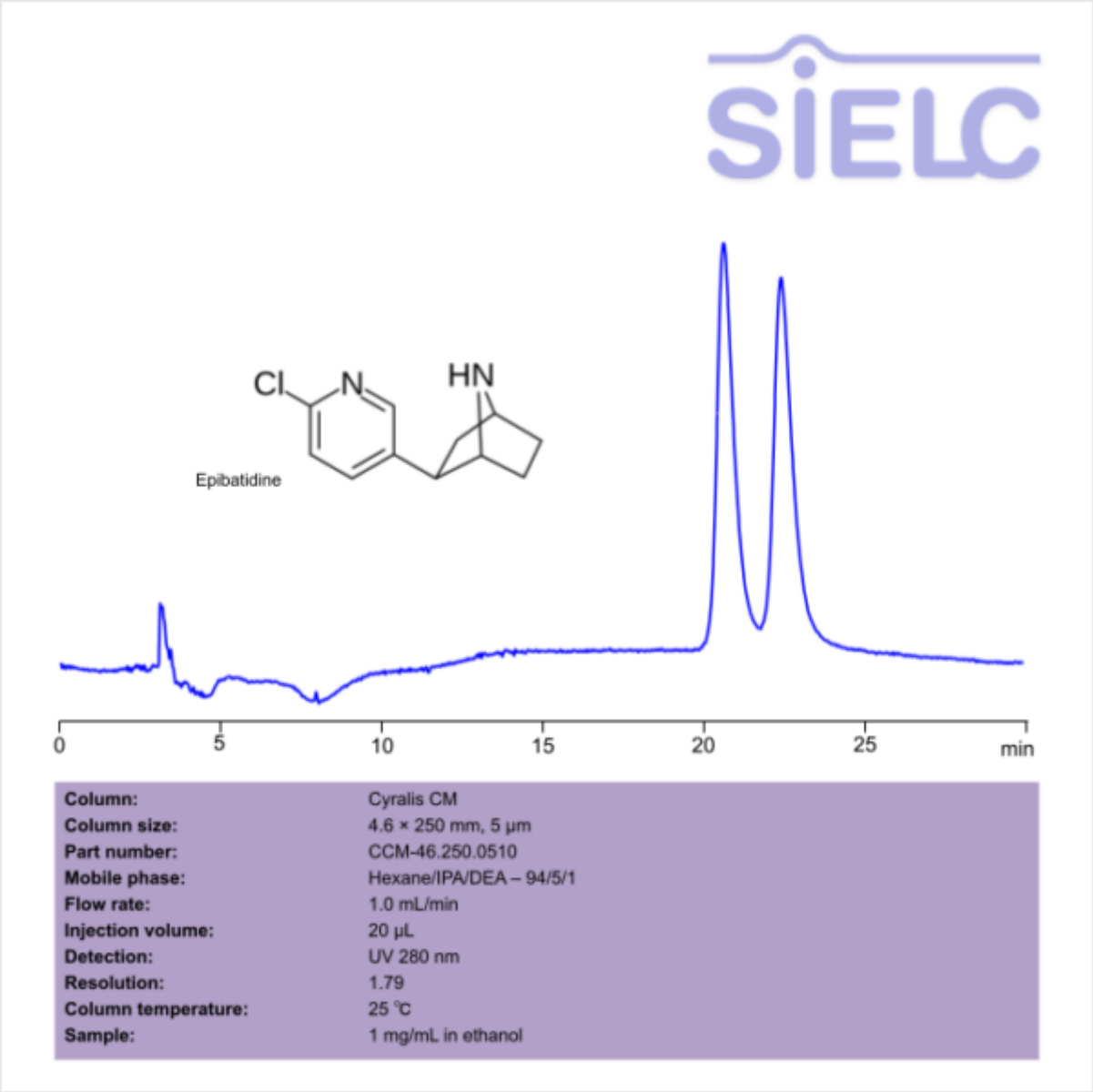
HPLC Chiral Separation of Epibatidine on Cyralis CM Column

https://sielc.com/hplc-chiral-method-for-analysis-of-epibatidine

Chromatogram



Column:	Cyralis CM
Column size:	4.6 × 250 mm, 5 µm
Part number:	CCM-46.250.0510
Mobile phase:	Hexane/IPA/DEA – 94/5/1
Flow rate:	1.0 mL/min
Injection volume:	20 µL
Detection:	UV 280 nm
Resolution:	1.79
Column temperature:	25 °C
Sample:	1 mg/mL in ethanol

Description

· High Performance Liquid Chromatography (HPLC) Method for Analysis of Epibatidine .

Epibatidine is an alkaloid with the chemical formula C 11 H 13 ClN 3 . It is secreted by the Ecuadorian frog commonly known as Anthony's Poison Arrow frog from the genus of poison dart frogs, Ameerega. It's existence in nature is still debated due to limited samples that were collected by John W. Daly, and even fewer samples that were still left when high resolution spectrometry was popularized and used on the compound. As a poison, Epibatidine causes full body numbness which can progress into full body paralysis and respiratory arrest. Due to it's high toxicity, it is not used as a drug, despite the analgesic effect. You can find detailed UV spectra of Epibatidine and information about its various lambda maxima by visiting the following link.

This application describes a normal-phase chiral HPLC method for the separation of Epibatidine enantiomers using SIELC's Cyralis CM chiral column. Cyralis CM is a cellulose-based chiral stationary phase (CSP) designed for enantiomeric separations, optical purity testing, chiral impurity analysis, and stereoisomer characterization in pharmaceutical, chemical, agrochemical, and fine chemical applications. For best results, the sample should be prepared fresh for analysis.

Epibatidine can be retained and analyzed using the Cyralis CM stationary phase column. The analysis utilizes an isocratic method with a mobile phase consisting of Hexane, IPA, and DEA. Detection is performed using UV.

Method Parameters

Mobile Phase	Hexane/IPA/DEA- 99/1/0.02%
Flow Rate	1.0 mL/min
Detection	UV 280 nm
Resolution	1.79
Class of Compounds	Alkaloid
Analyzing Compounds	Epibatidine

HPLC Column Used

Cyralis CM, 4.6 x 250 mm, 5 µm, 100 A, dual ended

Order this column at hplc-shop.de →