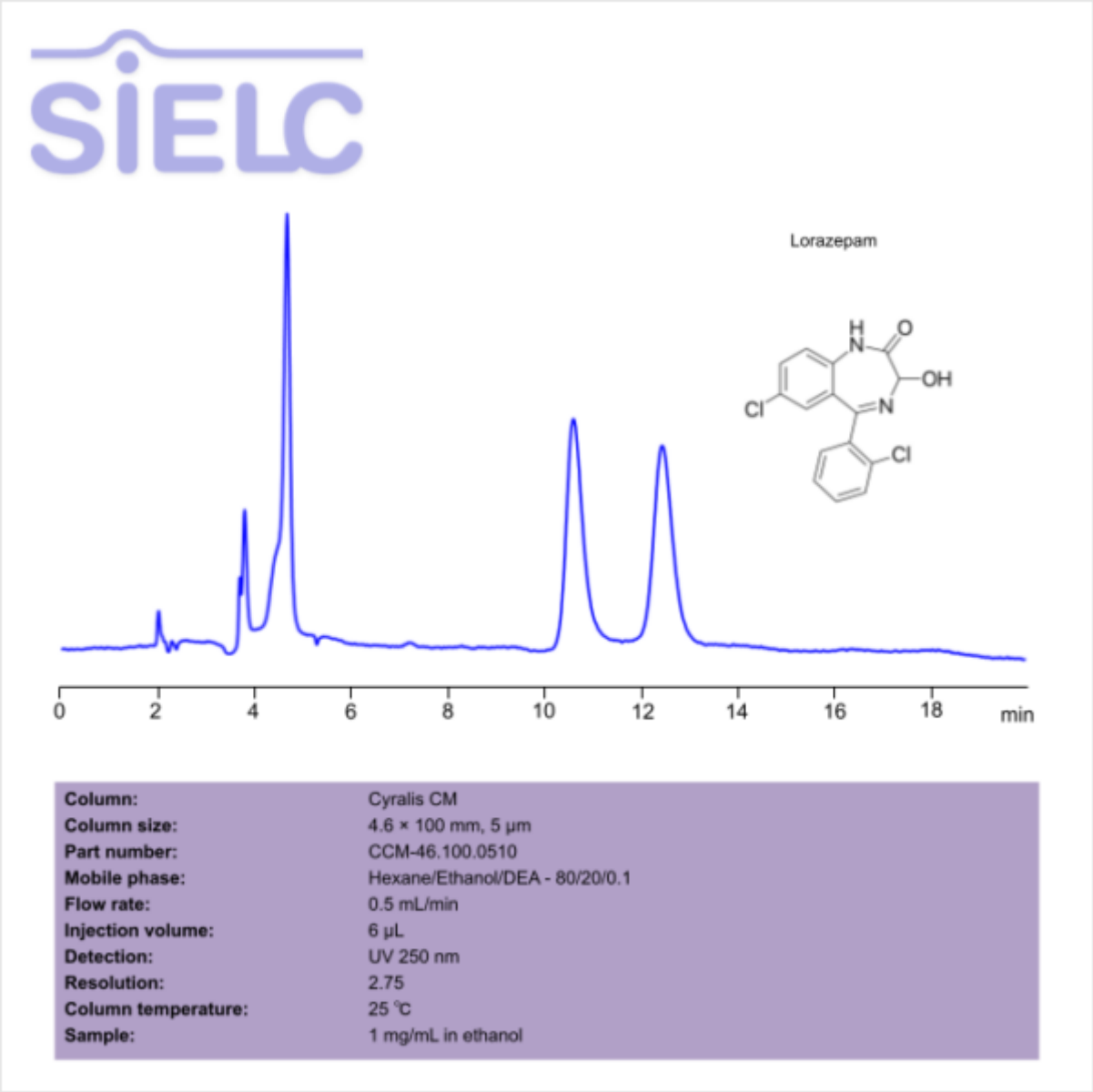
HPLC Chiral Separation of Lorazepam Enantiomers on Cyralis CM Column

https://sielc.com/hplc-method-for-lorazepam

Chromatogram



Column:	Cyralis CM
Column size:	4.6 × 100 mm, 5 µm
Part number:	CCM-46.100.0510
Mobile phase:	Hexane/Ethanol/DEA - 80/20/0.1
Flow rate:	0.5 mL/min
Injection volume:	6 µL
Detection:	UV 250 nm
Resolution:	2.75
Column temperature:	25 °C
Sample:	1 mg/mL in ethanol

Description

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

Lorazepam is a short-acting benzodiazepine medication commonly used as a sedative and anxiolytic of choice in the inpatient setting owing to its fast onset of action when administered intravenously. Lorazepam is one of the few sedative-hypnotics with a relatively clean side effect profile. It has the chemical formula C 15 H 10 Cl 2 N 2 O 2 .

You can find detailed UV spectra of Lorazepam 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 Lorazepam 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.

Lorazepam 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, Ethanol, and DEA. Detection is performed using UV.

Method Parameters

Mobile Phase	Hexane/Ethanol/DEA – 80/20/0.1%
Flow Rate	0.5 mL/min
Detection	UV 250 nm
Resolution	2.75
Class of Compounds	Medication
Analyzing Compounds	Lorazepam

HPLC Column Used

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

Order this column at hplc-shop.de →