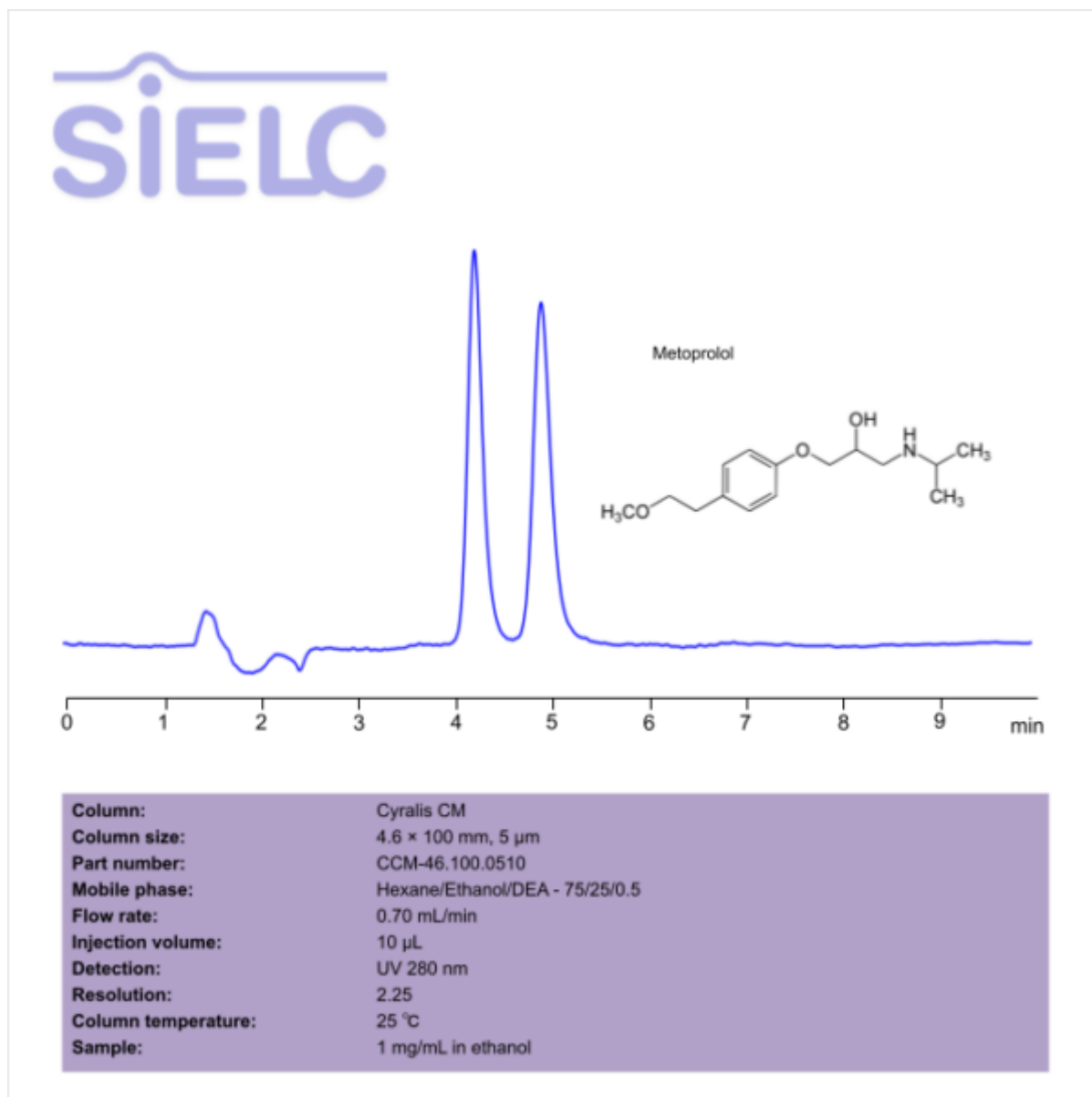


HPLC Chiral Separation of Metoprolol Enantiomers on Cyralis CM Column

<https://sielc.com/hplc-method-for-metoprolol>

Chromatogram



Description

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

Metoprolol is a medication with the chemical formula $C_{15}H_{25}NO_3$. It is primarily used to treat angina, high blood pressure, abnormally fast heart rate, and to prevent heart problems after a myocardial infarction. It works through blocking β_1 -adrenergic receptors, which increase heart rate.

You can find detailed UV spectra of Metoprolol 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 Metoprolol 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.

Metoprolol 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 – 75/25/0.5%
Flow Rate	1.0 mL/min
Detection	UV 280 nm
Resolution	2.25
Class of Compounds	Drug
Analyzing Compounds	Metoprolol

HPLC Column Used

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

[Order this column at hplc-shop.de →](https://www.hplc-shop.de)