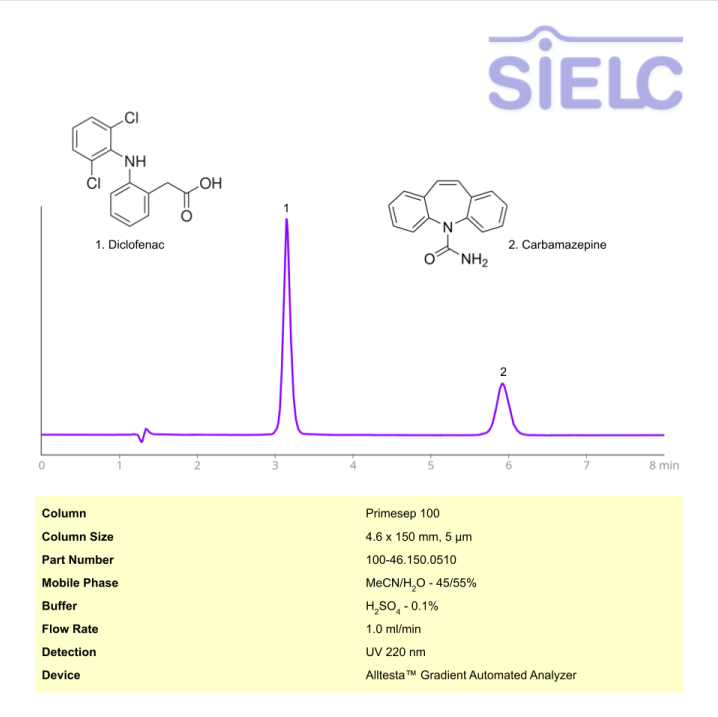
HPLC Method for Analysis of Diclofenac and Carbamazepine on Primesep 100 Column



Column	Primesep 100
Column Size	4.6 x 150 mm, 5 µm
Part Number	100-46.150.0510
Mobile Phase	MeCN/H_2O - 45/55%
Buffer	H_2SO_4 - 0.1%
Flow Rate	1.0 ml/min
Detection	UV 220 nm
Device	Alltesta™ Gradient Automated Analyzer

High Performance Liquid Chromatography (HPLC) Method for Analysis of Diclofenac , Carbamazepine

Diclofenac is an organic compound with the molecular formula C14H11Cl2NO2 .

Properties: Appearance: Typically an odorless, white to off-white crystalline, slightly hygroscopic powder.

Molecular weight: ~296.1 g/mol

Solubility: Soluble in organic solvents like ethanol.

Uses: A nonsteroidal anti-inflammatory drug (NSAID) used to relieve pain and reduce inflammation and swelling.

Carbamazepine is an organic compound with the molecular formula C15H12N2O .

Properties: Appearance: Typically a white to off-white crystalline powder.

Molecular weight: ~236.27 g/mol

Uses: Mainly used to treat several conditions affecting the nervous system such as epilepsy.

Diclofenac , Carbamazepine can be retained and analyzed using the Primesep 100 stationary phase column. The analysis utilizes an isocratic method with a simple mobile phase consisting of water, acetonitrile (MeCN), and sulfuric acid. Detection is performed using UV at 220 nm.

*LOD was determined for this combination of instrument, method, and analyte, and it can vary from one laboratory to another even when the same general type of analysis is being performed.

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Method Parameters

Column	Primesep 100, 4.6 x 150 mm, 5 µm, 100 Å, dual ended
Mobile Phase	MeCN – 45%
Buffer	H2SO4 – 0.1%
Flow Rate	1.0 mL/min
Detection	UV 220 nm

Quelle: https://sielc.com/hplc-ms-method-for-analysis-diclofenac-and-carbamazepine