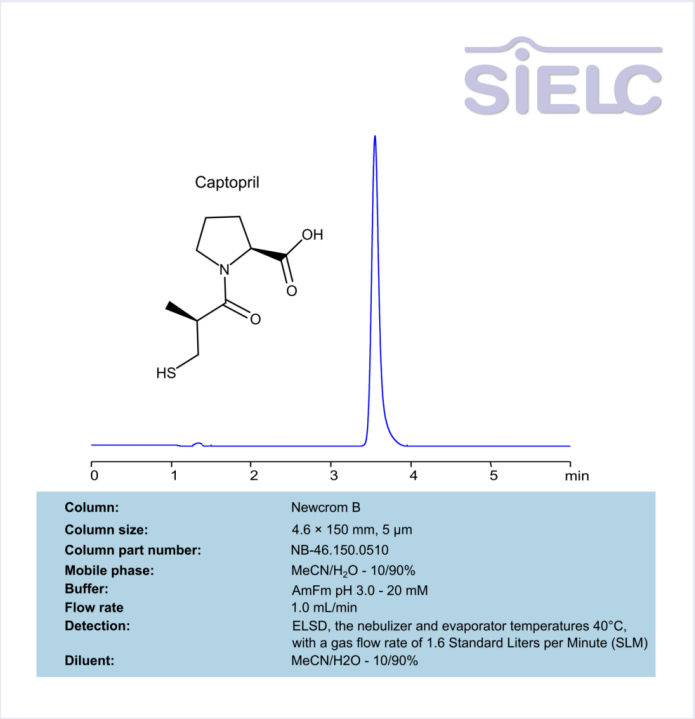
ELSD HPLC Method for Analysis of Captopril on Newcrom B Column



Captopril is a widely used angiotensin-converting enzyme (ACE) inhibitor, effective in managing high blood pressure (hypertension), heart failure, and diabetic kidney complications. By relaxing blood vessels and enhancing blood flow, it reduces strain on the heart and promotes cardiovascular health.

Captopril can be retained, and analyzed using the Newcrom B mixed-mode stationary phase column. The analysis employs an isocratic method with a simple mobile phase consisting of water, acetonitrile (MeCN), and ammonium formate as a buffer. Detection is performed using an Evaporative Light Scattering Detector (ELSD).

*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.

Method Parameters

Column	Newcrom B, 4.6 x 150 mm, 5 µm, 100 Å, dual ended
Mobile Phase	MeCN10%
Buffer	Ammonium Formate pH 3.0 – 20 mM
Flow Rate	1 mL/min
Detection	ELSD, the nebulizer and evaporator temperatures 40°C, with a gas flow rate of 1.6 Standard Liters per Minute (SLM)

Quelle: https://sielc.com/hplc-method-for-analysis-captopril-newcrom-b