

HPLC Method for Analysis of Pefloxacin on Primesep 100 Column



Separation type: Liquid Chromatography Mixed-mode SIELC Technologies

Pefloxacin is an antibiotic that belongs to the fluoroquinolone class of drugs. It is primarily used to treat bacterial infections by inhibiting the DNA gyrase enzyme, which is essential for bacterial DNA replication and repair. Because of its mechanism, Pefloxacin is effective against a variety of gram-negative and some gram-positive bacteria.

Pefloxacin can be retained, separated and analyzed using a Primesep 100 mixed-mode stationary phase column. The analysis employs a gradient method with a simple mobile phase comprising water, acetonitrile (MeCN), and sulfuric acid as a buffer. This method allows for detection using UV 200 nm.

You can find detailed UV spectra of Pefloxacin and information about its various lambda maxima by visiting the following link .

Method Parameters

Column	Primesep 100, 4.6 x 150 mm, 5 µm, 100 Å, dual ended
Mobile Phase	MeCN – 50%
Buffer	H ₂ SO ₄ – 0.1%
Flow Rate	1.0 mL/min
Detection	UV 200 nm
Limit of Detection	40 ppb

Quelle: <https://sielc.com/hplc-method-pefloxacin>