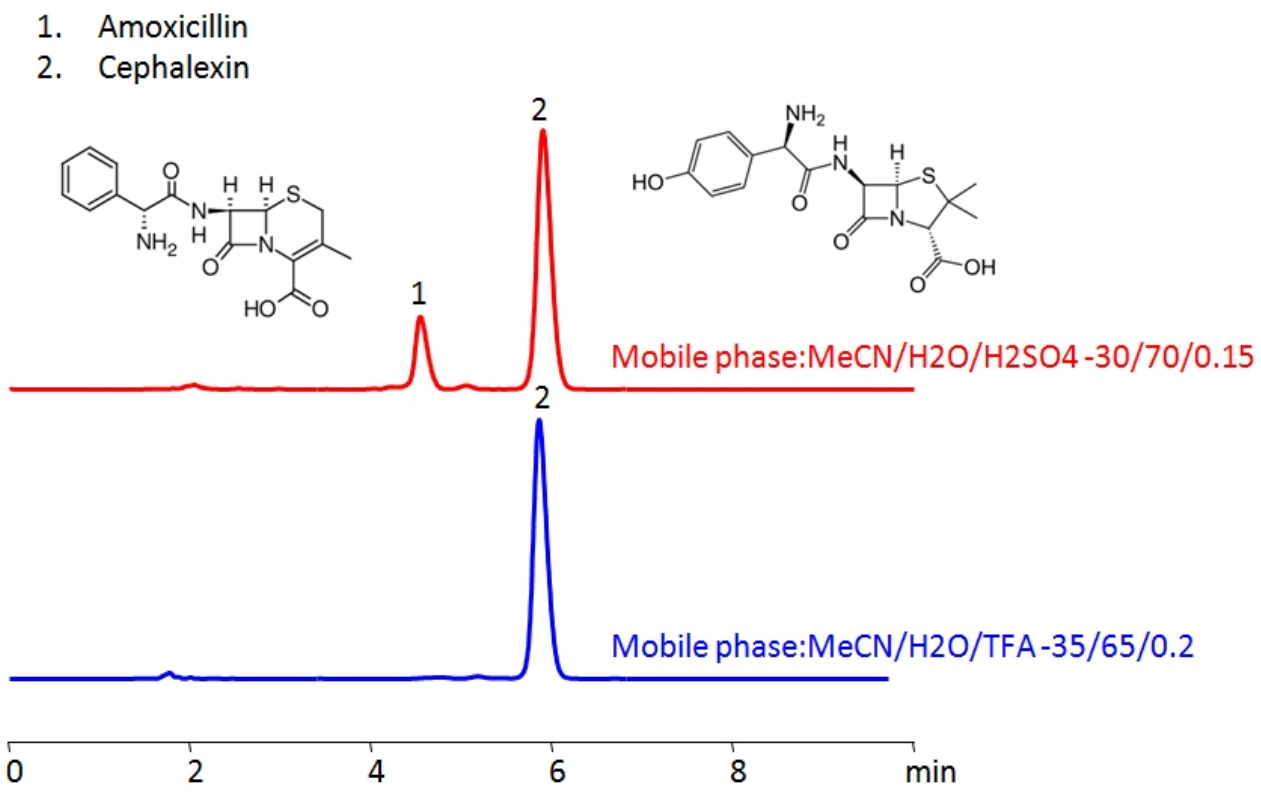
# HPLC Separation of β-Lactam Antibiotics such as Amoxicillin and Cephalexin on Primesep 100 Column

https://sielc.com/hplc-separation-of-b2-lactam-antibiotics

## Chromatogram

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|---|---|
| **Column:** | **Primesep 100** |
| **Size:** | 4.6 x 100mm, 5µm, 100A |
| **Flow:** | 1.0 mL/min |
| **Detection:** | UV 250 nm |

## Description

High Performance Liquid Chromatography (HPLC) Method for Analysis of Cephalexin , Amoxicillin , Amoxicillin hydrate (1:3) .

Both amoxicillin and cephalexin are beta-lactam antibiotics. Beta-lactam antibiotics contain a beta-lactam ring in their molecular structure. As a group, these drugs are active against many gram-positive, gram-negative and anaerobic organisms. Amoxicillin is a prescription antibiotic with the molecular formula C 16 H 19 N 3 O 5 S . It is typically used to treat bacterial infections and is taken orally. Cephalexin has the chemical formula C 16 H 17 N 3 O 4 S .

Cephalexin , Amoxicillin , Amoxicillin hydrate (1:3) can be retained and baseline separated with an isocratic method in 30/70 Acetonitrile (ACN) and water mobile phase with a Sulfuric acid (H2SO4) buffer. UV detection at 250 nm.

## Method Parameters

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| **Mobile Phase** | MeCN/H2O |

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|---|---|
| **Buffer** | TFA, H2SO4 |
| **Flow Rate** | 1.0 ml/min |
| **Detection** | UV, 250 nm |
| **Class of Compounds** | Drug, Antibiotics, Hydrophobic, Ionizable |
| **Analyzing Compounds** | Cephalexin,Amoxicillin,Amoxicillin hydrate (1:3) |

**HPLC Column Used**

**Primesep 100, 4.6 x 100 mm, 5 µm, 100 A, dual ended**

Order this column at hplc-shop.de →