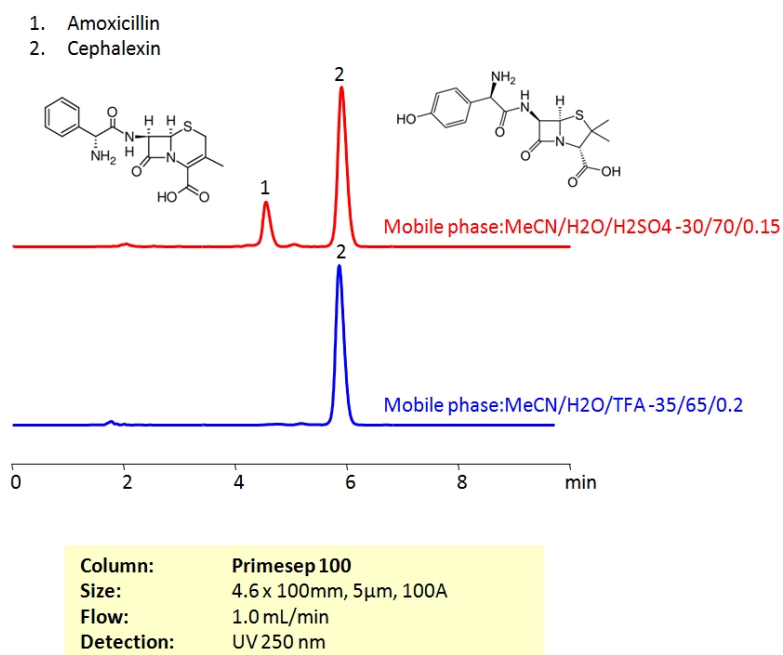


HPLC Separation of β -Lactam Antibiotics such as Amoxicillin and Cephalexin on Primesep 100 Column



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 C₁₆H₁₉N₃O₅S . It is typically used to treat bacterial infections and is taken orally. Cephalexin has the chemical formula C₁₆H₁₇N₃O₄S .

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

Column	Primesep 100, 4.6 x 100 mm, 5 μ m, 100 Å, dual ended
Mobile Phase	MeCN/H ₂ O
Buffer	TFA, H ₂ SO ₄
Flow Rate	1.0 mL/min
Detection	UV, 250 nm

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