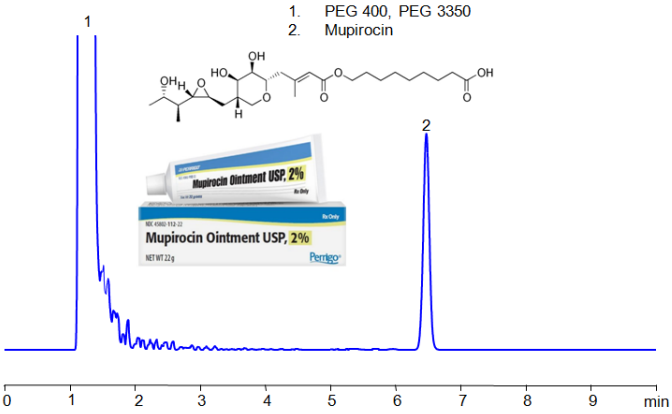
HPLC Method for Analysis of Mupirocin in Pharmaceutical Dosage Form on Newcrom BH Column



Column:	Newcrom BH
Column size:	3.2 × 100 mm, 5 µm
Column part number:	NBH-32.100.0510
Mobile phase:	Gradient MeCN –20-50 %, 10 min
Buffer:	Ammonium Formate pH 3.0- 20 mM
Flow rate:	0.5 ml/min
UV detection:	ELSD, the nebulizer and evaporator temperatures 50°C, with a gas flow rate of 1.6 Standard Liters per Minute (SLM)

Separation type: Liquid Chromatography Mixed-mode

Mupirocin is an antibiotic ointment commonly used for the treatment of bacterial skin infections. Here are some key points about mupirocin:

Topical Mupirocin: Commonly prescribed for skin infections caused by Staphylococcus and Streptococcus bacteria. It is effective against both methicillin-sensitive Staphylococcus aureus (MSSA) and methicillin-resistant Staphylococcus aureus (MRSA). It is also used to eliminate nasal colonization of MRSA in some healthcare settings. Formulation: Mupirocin is typically available as a topical ointment or cream. There is also a nasal formulation for specific uses.

Mupirocin can be retained, separated, and analyzed on a mixed-mode Newcrom BH column with a mobile phase consisting of water, Acetonitrile (MeCN), and Ammonium Formate. This analytical method can be detected with high resolution and peak symmetry with many evaporative detection methods, including Evaporative Light Scattering Detection (ELSD), Charged Aerosol Detector (CAD), and Electrospray Ionization (ESI) for Mass Spectrometry (MS).

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Method Parameters

Column	Newcrom BH, 3.2 x 100 mm, 5 µm, 100 Å, dual ended
Mobile Phase	Gradient MeCN/H2O – 20-50%, 10 min
Buffer	Ammonium formate pH 3.0 –20 mM
Flow Rate	0.5 mL/min
Detection	ELSD, the nebulizer and evaporator temperatures 50°C, with a gas flow rate of 1.6 Standard Liters per Minute (SLM)

Quelle: https://sielc.com/hplc-determination-of-mupirocin