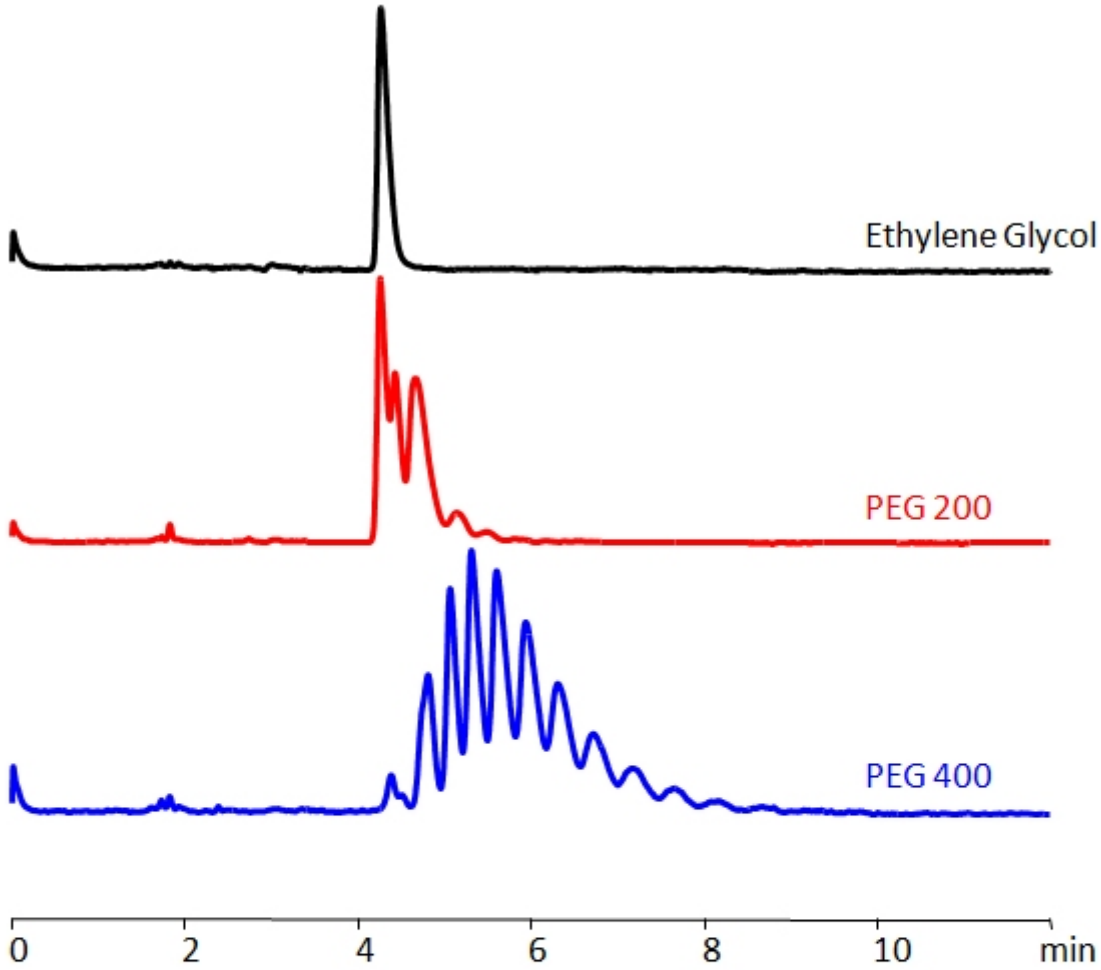
HPLC Method For Analysis of Ethylene Glycol and Polyethylene Glycol (PEG) on Primesep AP Column

https://sielc.com/hplc-method-for-analysis-of-ethylene-glycol-and-polyethylene-glycol-peg

Chromatogram



Column:	Primesep AP
Column size:	4.6 × 150 mm, 5 µm
Column part number:	AP-46.150.0510
Mobile phase:	MeCN/H_2O – 95/5%
Buffer:	No
Flow rate:	1.0 mL/min
Detection:	UV 200 nm, RI

Description

High Performance Liquid Chromatography (HPLC) Method for Analysis of Ethylene glycol, PEG 200, PEG 400.

Polyethylene glycol (PEG) has a low toxicity and is used in a variety of products (creams, laxatives, lubricants). When attached to various protein medications, polyethylene glycol allows a slowed clearance of the carried protein from the blood. This makes

for a longer acting medicinal effect, reduces toxicity, and allows longer dosing intervals.

HILIC separation can be used to determine polyethylene glycol content in various formulations using ELSD, RI detection, or LC/MS detection. HPLC separation of oligomers can be achieved by changing the amount of acetonitrile.

Method Parameters

Mobile Phase	MeCN/H2O – 95/5%
Buffer	No
Flow Rate	1.0 ml/min
Detection	UV, 200 nm, RI
LOD*	Ethylene glycol 6 ppm (UV)
Class of Compounds	Diol
Analyzing Compounds	Ethylene Glycol,Polyethylene Glycol

HPLC Column Used

Primesep AP, 4.6 x 150 mm, 5 µm, 100 A, dual ended

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