

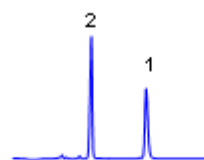
HPLC Analysis of Pseudoephedrine and Citric Acid on Primesep Column

<https://sielc.com/Application-HPLC-Analysis-of-Pseudoephedrine-and-Citric-Acid-on-Primesep-Column>

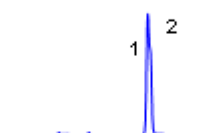
Chromatogram

1. Pseudoephedrine
2. Citric acid

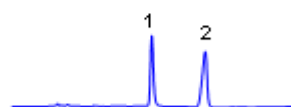
Column: Primesep N
Column size: 150 x 4.6 mm
Flow: 1.0 mL/min
Detection: UV 210 nm



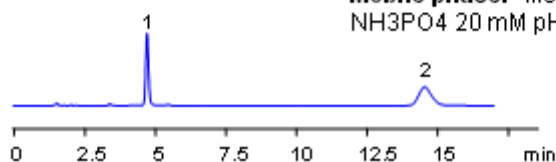
Mobile phase: MeCN -60%,
NH₃PO₄ 20 mM pH 7.0



Mobile phase: MeCN -65%,
NH₃PO₄ 20 mM pH 7.0



Mobile phase: MeCN -67%,
NH₃PO₄ 20 mM pH 7.0



Mobile phase: MeCN -70%,
NH₃PO₄ 20 mM pH 6.5

Description

Pseudoephedrine is a drug used in cough and cold compositions. One of the preservatives in solutions of pseudoephedrine is citric acid. Both compounds are hydrophilic in nature, with pseudoephedrine being a basic compound and citric acid an acidic compound. Separation of these two compounds is achieved on a Primesep N column. Compounds are separated by combination of HILIC, cation-exchange and anion-exclusion mechanisms. Pseudoephedrine and citric acid are monitored by UV. This HPLC method can be adopted as generic approach for analysis of pseudoephedrine and other hydrophilic drugs and preservatives in mixtures.