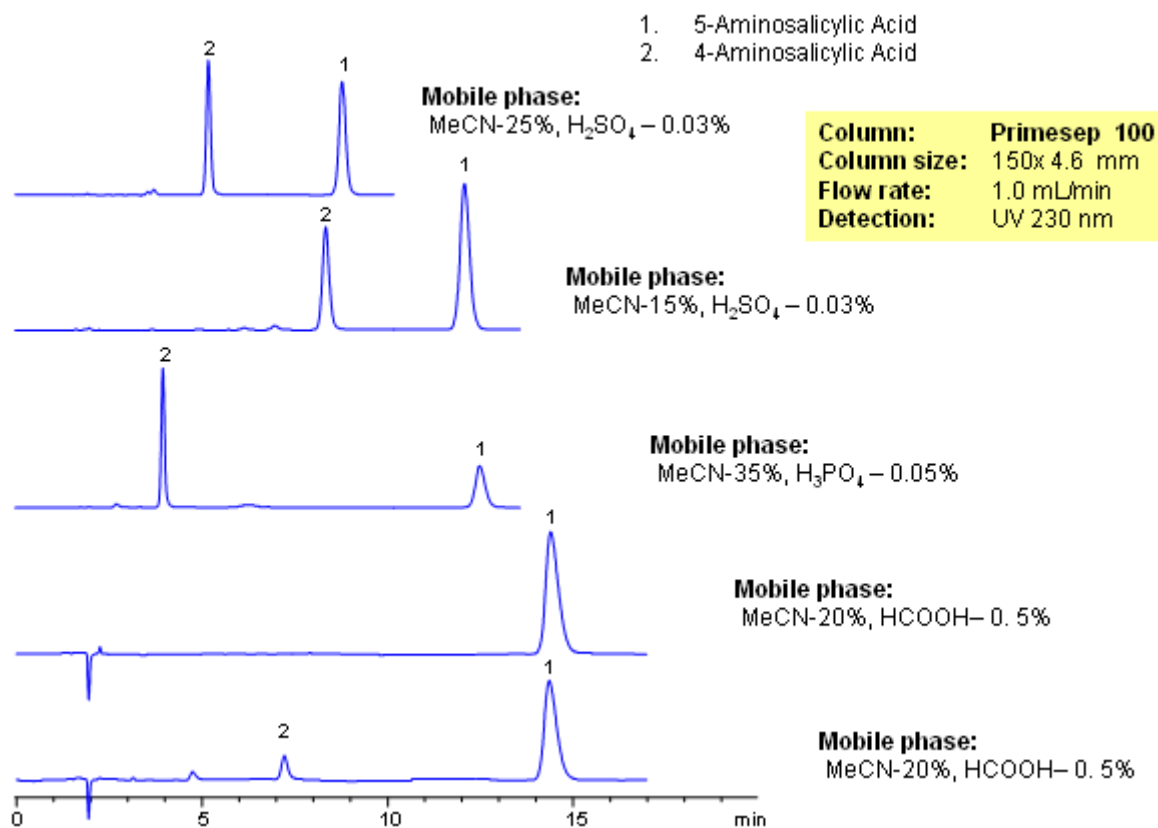


HPLC Separation of Isomers of Amino Salicylic Acid

<https://sielc.com/Application-HPLC-Separation-of-Isomers-of-Amino-Salicylic-Acid>

Chromatogram



Description

4-Aminosalicylic acid (PAS) is an antibiotic used in treatment of tuberculosis. It is a polar amino acid with limited retention on traditional C18 (reversed-phase) columns. Other isomers of aminosalicylic acid exist, but the main impurity in PAS is 5-Aminosalicylic acid, which also serves as anti-inflammatory drug. Both compounds are isomers with similar empirical structure and properties. These two isomers were separated on a Primesep 100 column with UV, ELSD and LC/MS compatible mobile phase. Method can be used a generic approach for separation of isomers of basic and zwitter ionic compounds. Isomers are retained and separated based on reversed-phase and cation-exchange properties. Retention time is controlled by the amount of acetonitrile, buffer concentration and buffer pH. Buffer pH is affecting ionization of these two compounds and thus serves as a powerful tool to adjust selectivity of separation.

Method Parameters

| | |
|----------------------------|--|
| Mobile Phase | MeCN/H ₂ O - 50/50% |
| Buffer | AmFm pH 3.0- 40 mM |
| Flow Rate | 1.0 ml/min |
| Detection | UV 256 nm, MS-compatible mobile phase |
| Class of Compounds | Acids |
| Analyzing Compounds | 5-aminosalicylic acid, 4-aminosalicylic acid |

HPLC Column Used

Newcrom A, 4.6×150 mm, 5 µm, 100A

[Order this column at hplc-shop.de →](http://hplc-shop.de)