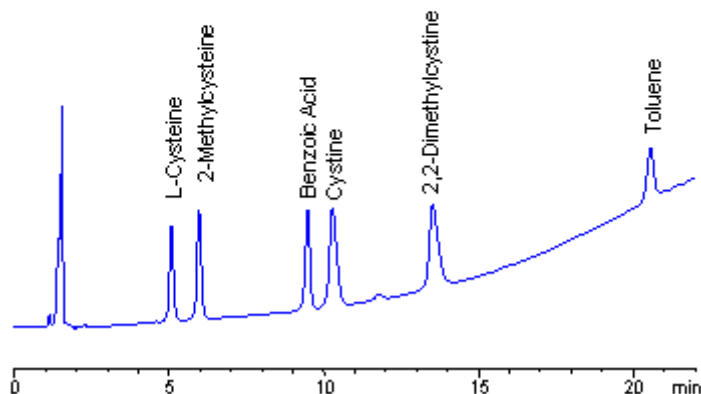


# HPLC Application for Simultaneous Separation of Amino Acids, Hydrophilic Acidic and Hydrophobic Neutral Compounds

<https://sielc.com/Application-HPLC-Application-For-Simultaneous-Separation-of-Amino-Acids-Hydrophilic-Acidic-and-Hydrophobic-Neutral-Compounds>

## Chromatogram

**Column:** Primesep 100  
**Column Size:** 150x4.6 mm  
**Flow rate:** 1.0 mL/min.  
**Mobile phase:**  
Water/MeCN/H<sub>2</sub>SO<sub>4</sub> -85/15/0.06 to  
55/45/0.06 in 20 min + 5 min hold.  
**Detection:** UV 210 nm



## Description

Mixed-mode chromatography allows separating, in single run, compounds with vastly different properties. A method for separation of amino acids (cysteine, methylcysteine, cystine and dimethylcysteine) in the presence of carboxylic acid (benzoic) and hydrophobic neutral compounds was developed on Primesep 100 mixed-mode column. At lower pH ionization of carboxylic acids is suppressed. Amino acids are retained as basic compound based on reverse phase and cation exchange mechanisms. Carboxylic acids are retained on this column based on weak reverse phase mechanisms. Neutral compounds are retained by reverse phase mechanism as on any other column. Retention time of basic, zwitter-ionic and hydrophobic compound can be adjusted by manipulation of mobile phase composition. ELSD, UV or LC/MS detection can be used based on the properties of analytes and mobile phase selection.

## Method Parameters

<b>Mobile Phase</b>	MeCN/H <sub>2</sub> O
<b>Buffer</b>	H <sub>2</sub> SO <sub>4</sub>
<b>Flow Rate</b>	1.0 ml/min
<b>Detection</b>	UV, 210 nm
<b>Class of Compounds</b>	Drug, Acid, Hydrophilic, Ionizable, Vitamin, Supplements, Amino acid
<b>Analyzing Compounds</b>	Cysteine, Methylcysteine, Cystine, Dimethylcysteine, Benzoic acid, Toluene,

## HPLC Column Used

**Primesep 100, 4.6x150 mm, 5 µm, 100A**

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