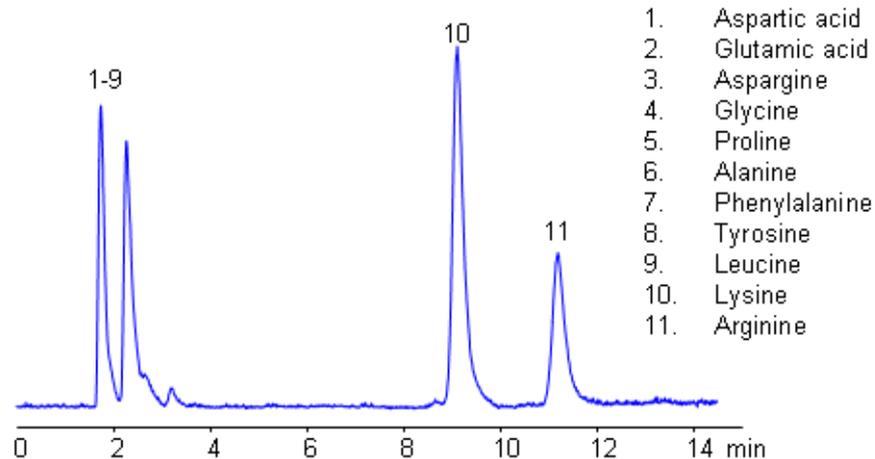


## HPLC Separation of Lysine and Arginine from Other Amino Acids

**Column:** Primesep C  
**Size:** 4.6 x 150 mm  
**Mobile phase:** MeCN 15% with 15 mM AmAc pH 5.0  
**Flow:** 1.0 mL/min  
**Detection:** ELSD



**Application Notes:** Amino acids are polar ionic compounds which are not retained on reversed-phase column without ion-pairing reagent. In our application, lysine and arginine can be separated from other amino acids. Amino acids with a pH between 3 and 5 and with one basic and one acidic group become very polar. Therefore these amino acids don't have strong ion-exchange interaction with Primesep C stationary phase. Amino acids with two amino groups still carry positive net charge and can interact with stationary phase by cations-exchange mechanism. pH variation of the mobile phase can be an effective tool to adjust selectivity of separation for zwitter-ionic, basic and acidic compounds. This method can be used for separation of mono-charged compounds from compounds having an extra charge.

**Application Columns:** Primesep C **Application compounds:** Aspartic acid, Glutamic acid, Asparagine, Glycine, Proline, Alanine, Phenylalanine, Tyrosine, Leucine, Lysine, Arginine **Detection technique:** UV, LC/MS, ELSD/CAD

### Method Parameters

<b>Column</b>	Primesep C, 4.6x150 mm, 5 µm, 100 Å
<b>Mobile Phase</b>	MeCN – 15%
<b>Buffer</b>	AmAc pH 5.0- 15 mM
<b>Flow Rate</b>	1.0 mL/min
<b>Detection</b>	ELSD

Quelle: <https://sielc.com/Application-HPLC-Separation-of-Lysine-and-Arginine-from-Other-Amino-Acids>