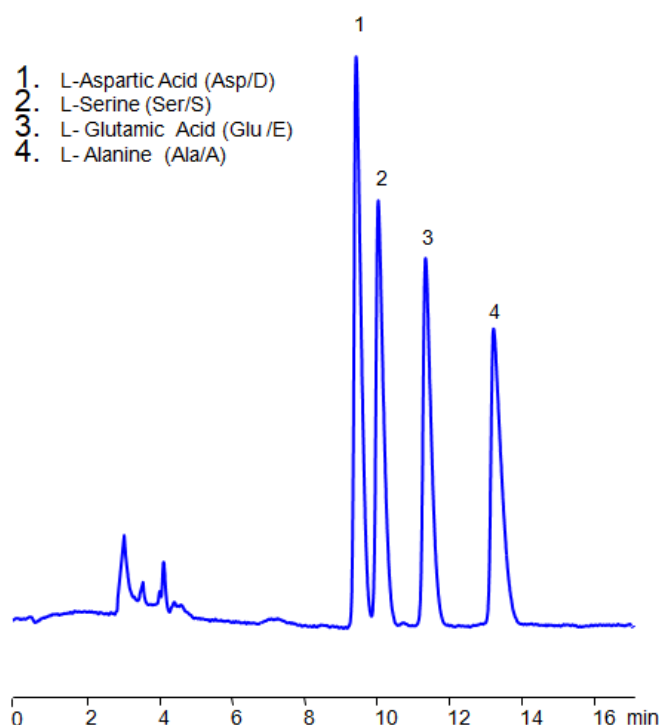


HPLC Separation of a Mixture of Non-Essential Amino Acids, such as L-Aspartic Acid, L-Serine, L-Glutamic Acid, and L-Alanine on Primesep 100 Column

Search

High Performance Liquid Chromatography (HPLC) Method for Analysis of Non-Essential Amino Acids on Primesep 100 by SIELC Technologies



Column:	Primesep 100
Column size:	4.6 × 250 mm, 5 µm
Column part number:	100-46.250.0510
Mobile phase:	MeCN /H2O – 20/80%
Buffer:	H3PO4 – 0.1%
Flow rate:	1.0 mL/min
UV detection:	200 nm

Column	Primesep 100, 4.6 x 250 mm, 5 µm, 100 Å
Mobile Phase	MeCN/H ₂ O – 20/80%
Buffer	H ₃ PO ₄ – 0.1%
Flow Rate	1.0 ml/min
Detection	UV, 200 nm

Class of Compounds	Drug, Acid, Hydrophilic, Ionizable, Vitamin, Supplements, Amino acid
Analyzing Compounds	L-Aspartic Acid (Asp/D), L-Serine (Ser/S), L-Glutamic Acid Glu(E), L-Alanine Ala(A)

Amino acids are the building blocks of proteins. Based on their dietary requirement, they are classified into essential and non-essential amino acids. Essential amino acids cannot be synthesized by the human body in sufficient quantities and must be obtained from the diet. Non-essential amino acids, on the other hand, can be synthesized by the body and are not dependent on dietary intake.

It's worth noting that while these amino acids are considered "non-essential" for adults under normal circumstances because the body can synthesize them, there are situations where some may become "conditionally essential." This means that under certain conditions like illness, stress, or trauma, the body might not produce them in sufficient quantities, and dietary intake becomes necessary. Arginine, for instance, is considered conditionally essential, especially during periods of rapid growth, illness, or trauma.

Amino acids can be retained, separated and analyzed on a Primesep 100 mixed-mode stationary phase column using an isocratic analytical method with a simple mobile phase of water, Acetonitrile (MeCN), and a phosphoric acid (H₃PO₄) as a buffer. This analysis method can be detected in the UV regime at 200 nm.

Application Column



Primesep 100

Column Diameter: 4.6 mm

Column Length: 250 mm

Particle Size: 5 µm

Pore Size: 100 Å

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Application Analytes:

[Alanine](#)

[Amino Acids](#)

[Aspartic Acid](#)

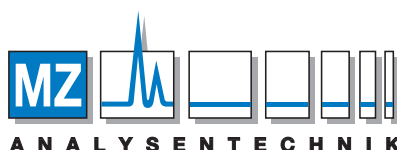
[D-Alanine](#)

[DL-Alanine](#)

[GLU \(L-Glutamic acid\)](#)

[Glutamic Acid](#)

[Serine](#)



AUTHORIZED DISTRIBUTOR

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