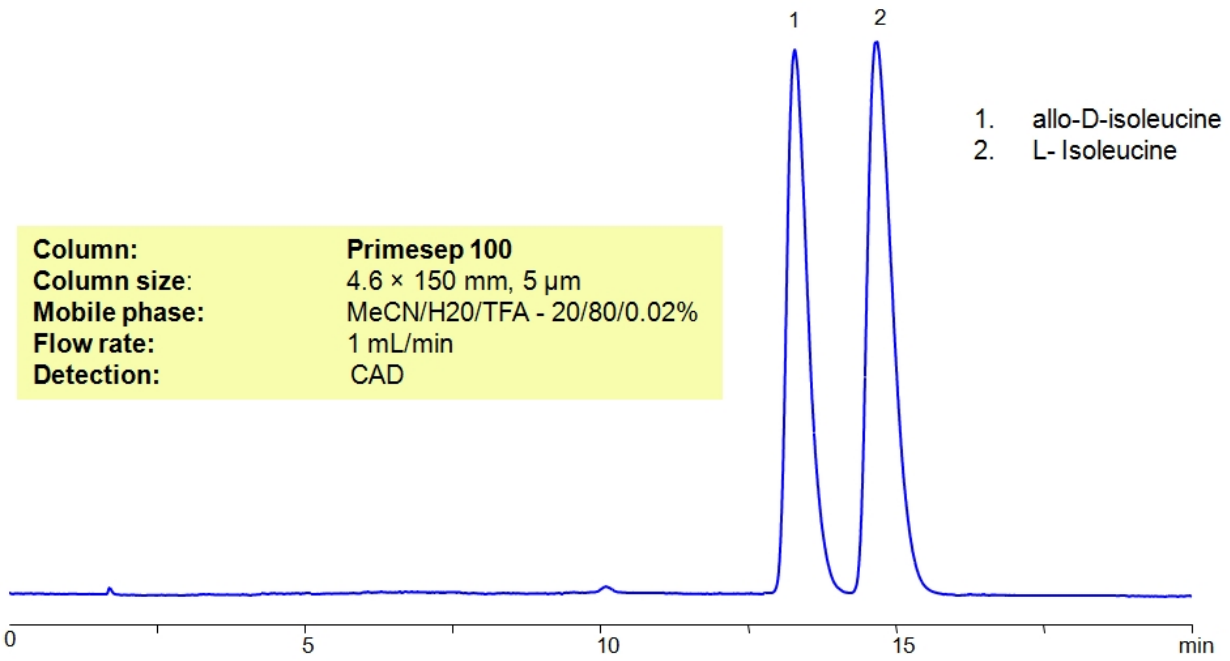
Separation of allo-D-isoleucine and L- Isoleucine on Primesep 100

https://sielc.com/separation-of-allo-d-isoleucine-and-l-isoleucine-on-primesep-100

Chromatogram



Description

High Performance Liquid Chromatography (HPLC) Method for Analysis of Isoleucine , L-Isoleucine , allo-D-isoleucine

Allo-D-isoleucine is a non-proteinogenic amino acid with C 6 H 13 NO 2 molecular formula. It is most commonly used in protein synthesis, neuroprotection, and immune modulation. It is also crucial in synthesis of peptides and can support muscle growth and recovery.

L- Isoleucine is a branched-chain amino acid with C 6 H 13 NO 2 molecular formula. During chemical reactions, it serves as a nitrogen donor. It is also involved in glucose consumption, fatty acid metabolism, and immune functions. It can be found in a variety of animal and plant products, including meat, eggs, dairy, soybeans, lentils, peas, nuts, and seeds. Healthcare providers may encourage athletes and people with muscle atrophy to take it as a supplement. Excessive consumption of it may lead to side effects including nausea, vomiting, and diarrhea.

Isoleucine , L-Isoleucine , allo-D-isoleucine can be retained and analyzed using the Primesep 100 stationary phase column. The analysis utilizes an isocratic method with a simple mobile phase consisting of water and acetonitrile (MeCN) with a trifluoroacetic acid buffer. Detection is performed using CAD.

Method Parameters

Mobile Phase	MeCN/H2O
Buffer	TFA, FA
Flow Rate	1.0 ml/min

Detection	CAD (Corona) MS- compatible mobile phase
Class of Compounds	Drug, Acid, Hydrophilic, Ionizable, Vitamin, Supplements, Amino acid
Analyzing Compounds	Allo-Isoleucine, Isoleucine, Leucine

HPLC Column Used

Primesep 100, 4.6×150 mm, 5 µm, 100A

Order this column at hplc-shop.de →