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Proline: Trans-4-Hydroxy-L-Proline by LCMS – AppNote

Rapid, High Efficiency Method by LCMS

This method is highly specific, efficient and fast for the analysis detection, small volumes of the reaction mixture can be injected and of *trans*-4-hydroxy-L-proline. Due to the high specificity of the the amount of the produced compound can be determined. No derivatization is required for the detection of this important compound.



Peak: Trans-4-Hydroxy-L-Proline 132.0655 m/z (M + H)+

Method Conditions

Column: Cogent Diamond Hydride™, 4µm, 100Å

Catalog No.: 70000-05P-2

Dimensions: 2.1 x 50mm

Mobile Phase:

A: 50% Methanol / 50% DI Water / 0.05% Acetic Acid

B: 97% Acetonitrile / 3% DI Water / 0.05% Acetic Acid

Gradient:

Time (minutes)	%B
0	95
10	30
11	30
12	95

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Post Time: 5 minutes
Flow rate: 0.4 mL / minute
Detection: ESI - POS - Agilent 6210 MSD TOF Mass Spectrometer
Injection vol.: 1μL
Sample Preparation:
Stock Solution: 1 mg / mL in Methanol diluent.
Working Solution: Stock alignet was diluted using 50% Solvent A

Working Solution: Stock aliquot was diluted using 50% Solvent A and 50% Solvent B mixture for the final concentration 0.5 mg / L. Before injection, solution was filtered using a 0.45µm Nylon Syringe Filter (MicroSolv Tech Corp.).

Note: Isomers of Hydroxyproline have been found in nature. Trans-4-Hydroxy-L-Proline is the major component of Collagen, Gelatin, plant wall Proteins, etc. It is a useful material for synthesis of pharmaceuticals such as Angiotensin converting enzyme inhibitors and Carbapenem antibiotics.



Attachment

No 131 Trans-4-Hydroxy-L-Proline by LCMS pdf 0.2 Mb Download File

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