

APPLICATIONS

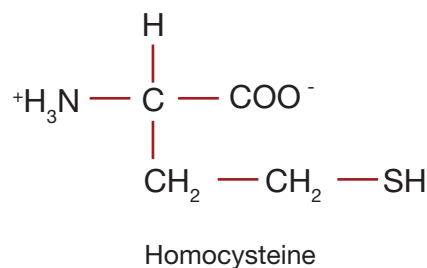


LC/MS/MS Analysis of Homocysteine using Luna[®] Omega 1.6 μm PS C18 UHPLC Column

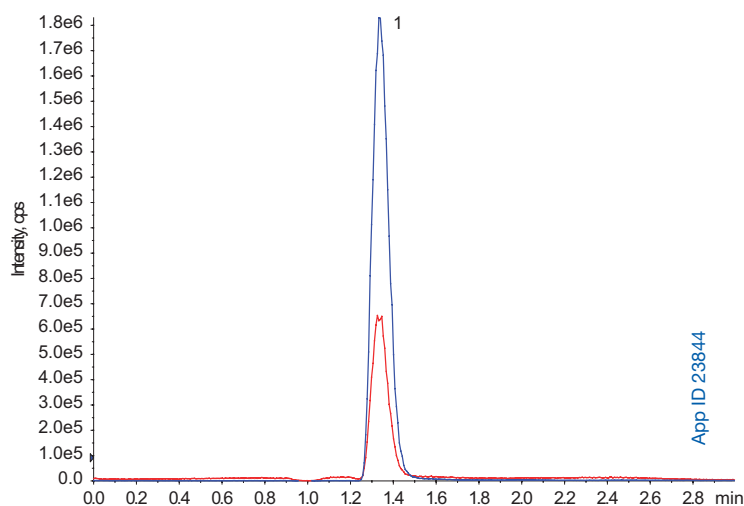
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Overview

Homocysteine is a sulphur containing amino acid (C₄H₉NO₂S) found in blood plasma and serum.¹ This application illustrates a rapid retention and resolution of Homocysteine using a Luna Omega 1.6 μm PS C18 column. Luna Omega PS C18 is a unique mixed-mode stationary phase that provides incredibly useful polar and non-polar retention. The surface of the PS C18 contains a positive charge which aids in the retention of acidic compounds through ionic interactions, while the C18 ligand promotes general reversed phase retention. This mixed-mode selectivity allows for greater separation between compounds with varying functional groups. With its positive surface (PS) the Luna Omega PS C18 provides valuable increase in retention of acids like Homocysteine through ionic/polar interactions.



Representative Chromatogram of Homocysteine



LC/MS/MS Methodology

Column: Luna Omega 1.6 μm PS C18
Dimensions: 100 x 2.1 mm
Part No.: 00D-4752-AN
Mobile Phase: A: 0.1% Formic Acid in Water
 B: 0.1% Formic Acid in Methanol

Gradient Time (min)	% B
0	2
2	30
2.01	90
2.5	90
2.51	2
3	2

Flow Rate: 0.4 mL/min
Temperature: 22 °C
Detection: MS/MS (SCIEX Triple Quad™ 4500) (600 °C)
Sample: 1. Homocysteine

Revision: 0

PHEN-RUO-00101



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Luna[®] Omega Ordering Information

1.6 µm Minibore Columns (mm)					SecurityGuard [™] ULTRA Cartridges [†]
Phases	30 x 2.1	50 x 2.1	100 x 2.1	150 x 2.1	3/pk
PS C18	00A-4752-AN	00B-4752-AN	00D-4752-AN	00F-4752-AN	AJO-9508 for 2.1 mm ID

[†] SecurityGuard ULTRA Cartridges require holder, Part No.: AJO-9000

5 µm Minibore Columns (mm)					SecurityGuard [™] Cartridges (mm)
Phases	30 x 2.1	50 x 2.1	100 x 2.1	150 x 2.1	4 x 2.0*
PS C18	00A-4753-AN	00B-4753-AN	00D-4753-AN	00F-4753-AN	AJO-7605 for ID: 2.0 - 3.0 mm

* SecurityGuard Analytical Cartridges require holder, Part No.: KJO-4282

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Reference

1. Carmel, R, Jacobsen, DW. Homocysteine in Health and Disease. Cambridge University Press, Cambridge, 2001.



If Luna analytical columns do not provide at least an equivalent separation as compared to a competing column of the same particle size, similar phase and dimensions, return the column with comparative data within 45 days for a FULL REFUND.

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