

A Fast and Sensitive LC/MS/MS Method for the Measurement of Homocysteine in Plasma

Need a fast, sensitive, selective and robust LC/MS/MS method for the routine quantitative analysis of Homocysteine in Plasma.



Homocysteine is an amino acid (molecular weight = 135.1) that is produced in the body from the biosynthesis of methionine. It is widely regarded that increased serum/plasma levels of homocysteine is attributed to cardiovascular disease. Deficiencies of the vitamins folic acid (B9), pyridoxine (B6) or B12 can also lead to high homocysteine levels. LC/MS/MS can be used to measure the level of homocysteine in plasma without the need for sample derivatisation. This method provides a highly specific, sensitive and fast analytical technique allowing high sample throughput.

Agilent's 1200 HPLC and 6410B Triple Quadrupole Mass Spectrometry system delivers excellent sensitivity, selectivity and speed for homocysteine analysis. This performance enhancement is leveraged by Agilent's industry proven reliability and robustness for utmost productivity. With the use of the 6460's Jet Stream ESI Technology, this system provides the ideal LC/MS/MS platform to perform your analyses.

The industry leading MassHunter software enables a simple workflow for the routine and precise quantitation of homocysteine. Calibration curves, QCs and sample data can be quickly assessed for linearity and accuracy. Processed data can be viewed in a variety of user-defined customisable report formats or exported directly into a laboratory information management system (LIMS).



Compound

- Homocysteine

Key Benefits

- Rapid high-throughput analysis of Homocysteine in 2.5 minutes
- Two MRM transitions provides confident compound identification
- Sensitive and accurate quantification of Homocysteine
- Quick results interpretation through advanced software tools
- Provides a specific cost effective and less time consuming method compared to alternative techniques

Our measure is your success.



Performance Example

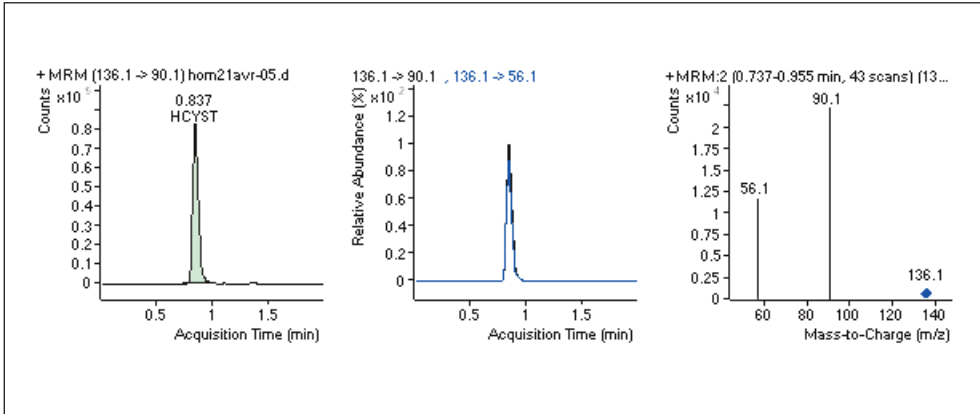


Figure 1: Chromatograms of homocysteine respectively demonstrating rapid and sensitive analysis in 2.5 minutes

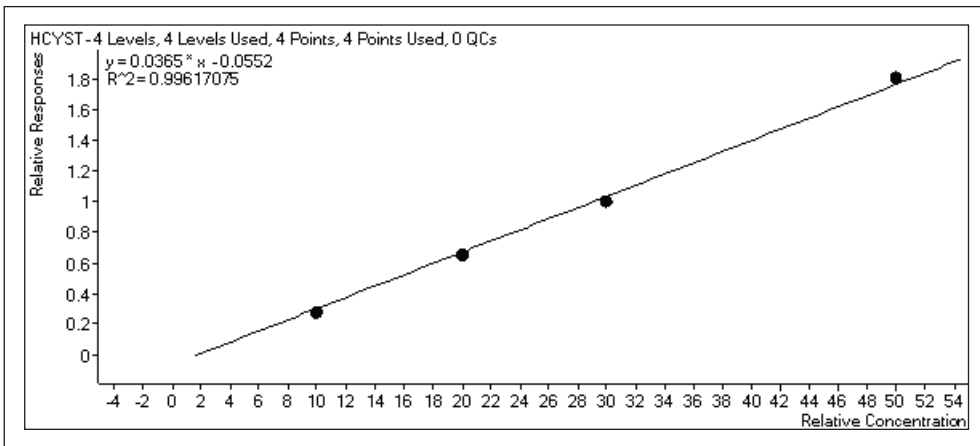


Figure 2: Calibration curve for homocysteine in plasma demonstrating excellent sensitivity and linearity

Please Note : For research purposes only and not for use in diagnostic procedures. The information described here is intended for reference and research purposes only. Agilent Technologies offers no guarantee as to the quality or suitability of this data for your specific application.

Information, descriptions and specifications in this publication are subject to change without notice.

© Agilent Technologies, Inc. 2010

April 21, 2010
5990-5785EE

Learn more:
www.agilent.com/chem

Email:
info_agilent@agilent.com

Find a customer centre in
your country:
[www.agilent.com/chem/
contactus](http://www.agilent.com/chem/contactus)

