

A Fast and Sensitive LC/MS/MS Method for the Analysis of Cortisol in Urine

Need a fast, sensitive, selective and robust LC/MS/MS method for the routine quantitative analysis of cortisol in urine?



Cortisol, a corticosteroid hormone, plays a major role in regulating many of the body's homeostasis-related functions, including blood pressure, glucose metabolism, immune and inflammatory responses. Frequent and prolonged cortisol secretion (potentially resulting from Cushing's syndrome) can lead to impaired cognitive performance, decreased bone density and muscle tissue, increased blood pressure, lowered immunity and blood sugar imbalances.

The analysis of cortisol in a clinical environment requires a quick and simple analytical method for rapid sample turnaround. LC/MS/MS is ideal in this role due to its fast analysis time and high throughput capabilities.

Agilent's 1200 HPLC and 6460 Triple Quadrupole Mass Spectrometry system delivers excellent sensitivity and speed. This performance enhancement is leveraged by Agilent's industry proven reliability and robustness for utmost productivity.

The industry leading MassHunter software enables a simple workflow for the routine and precise quantitation cortisol. 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

- Cortisol

Key Benefits

- Rapid high throughput LC/MS/MS method within 3 minutes
- LOD of 43 pMol/L and linear calibration over expected endogenous levels of 80-700 nMol/L
- Quick results, interpretation through advanced software tools
- Provides a cost effective method compared to alternative techniques

Our measure is your success.



Performance Example

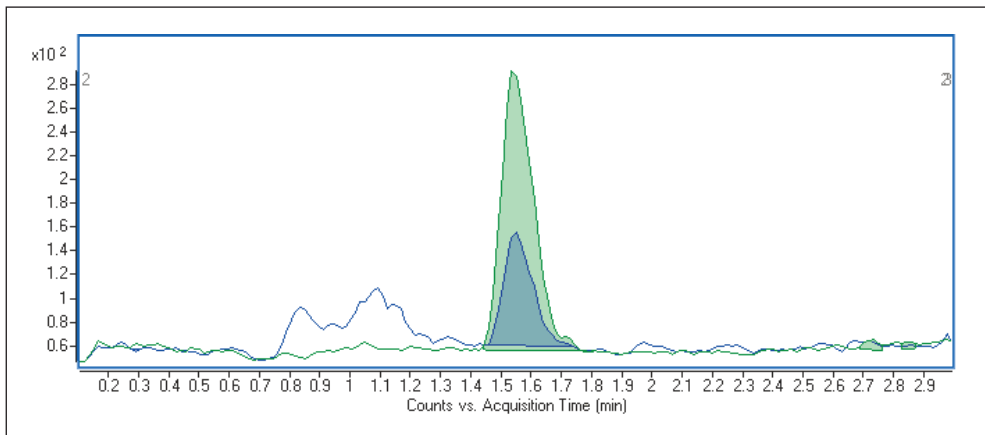


Figure 1: Sensitive and accurate detection of cortisol and its qualifier ion from urine

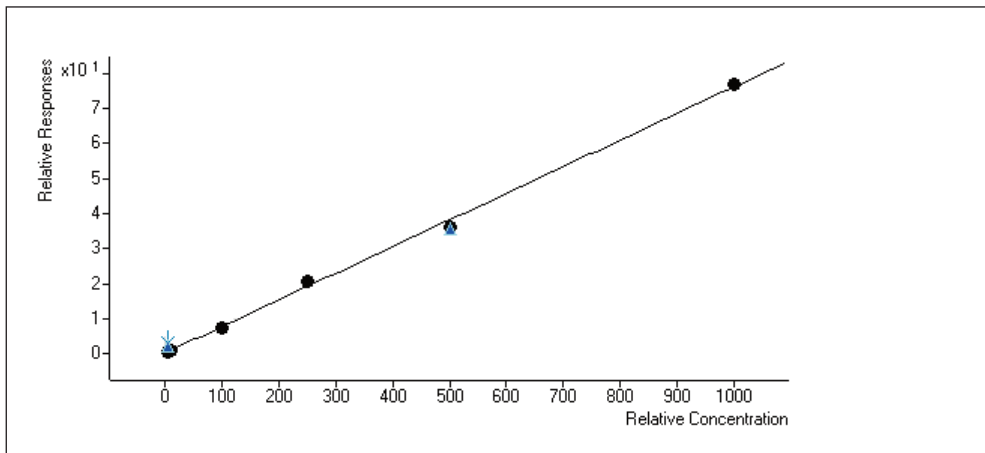


Figure 2: Excellent linearity and sensitivity allows the accurate quantification of cortisol

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.

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