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**Agilent ULTRON ES**

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# Food testing and agriculture

[Misleading measures in Vitamin D analysis: A novel LC-MS/MS assay to account for epimers and isobars](#)

*Nutrition Journal*, **10** (2011)  
Iltaf Shah *et al.*

## Tags

Bond Elut SI, Bond Elut Plexa, Bond Elut LMS, Bond Elut PPL, SampliQ OPT, SampliQ DVB, ZORBAX RRHD SB-C18, Ultron ES-OVM, food testing & agriculture, dietary supplements, natural compounds & additives

## Abstract

Recently, the accuracies of many commercially available immunoassays for Vitamin D have been questioned. Liquid chromatography tandem mass spectrometry (LC- MS/MS) has been shown to facilitate accurate separation and quantification of the major circulating metabolite 25-hydroxyvitamin-D3 (25OHD3) and 25-hydroxyvitamin-D2 (25OHD2) collectively termed as 25OHD. However, among other interferents, this method may be compromised by overlapping peaks and identical masses of epimers and isobars, resulting in inaccuracies in circulating 25OHD measurements. The aim of this study was to develop a novel LC-MS/MS method that can accurately identify and quantitate 25OHD3 and 25OHD2 through chromatographic separation of 25OHD from its epimers and isobars. © The Authors.

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Printed in the UK  
October 1, 2013

5991-3048EN