Agilent Technologies

Agilent Bond Elut SI

A collection of citations to advance your research

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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 and agriculture, dietary supplements, natural compounds and 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.

Analysis of free and bound phenolics in wine and grapes by GC–MS after automated SPE

Analytical and Bioanalytical Chemistry **405**, 9869-9877 (2013)
David Allen *et al.*

Tags
HP-5ms UI, Bond Elut PPL, Bond Elut SI, food testing and agriculture, food processing

Abstract
After extraction using Agilent Bond Elut sample prep cartridges, an Agilent J&W HP-5ms Ultra Inert GC column was used to separate phenolics in wine and grapes. Published by Springer.

Vitamin K Contents of Meat, Dairy, and Fast Food in the U.S. Diet

Journal of Agricultural and Food Chemistry, **54**, 463-467 (2006)
Sonya J. Elder *et al.*

Tags
Bond Elut SI, food testing and agriculture, dietary supplements, natural compounds and additives

Abstract
The purpose of this study was to determine the contents of three forms of vitamin K [phylloquinone, dihydrophylloquinone, and menaquinone-4 (MK-4)] in representative samples (including different samples within the same food category) of meat (n = 128), dairy and eggs (n = 24), and fast foods (n = 169) common to the U.S. diet. The findings of our analysis indicate that no single food item in these categories is a rich dietary source of any one form of vitamin K. However, these foods are often consumed in large quantities; hence, they may be of importance in overall contribution to total vitamin K intake. The presence of MK-4 in meat, eggs, and dairy foods could be important as physiologic functions unique to MK-4 are identified. Reprinted with permission from the Journal of Agricultural and Food Analytical Chemistry © 2006 American Chemical Society

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