Accepted Manuscript

Analytical Methods

Rapid immunochemical analysis of the sulfonamide-sugar conjugated fraction of antibiotic contaminated honey samples

A. Muriano, V. Chabottaux, J.-M. Diserens, B. Granier, F. Sanchez Baeza, M.-P. Marco

PII:	S0308-8146(15)00039-4
DOI:	http://dx.doi.org/10.1016/j.foodchem.2015.01.037
Reference:	FOCH 16988
To appear in:	Food Chemistry
Received Date:	7 August 2013
Revised Date:	21 October 2014
Accepted Date:	3 January 2015

D
TRY
n

Please cite this article as: Muriano, A., Chabottaux, V., Diserens, J.-M., Granier, B., Sanchez Baeza, F., Marco, M.-P., Rapid immunochemical analysis of the sulfonamide-sugar conjugated fraction of antibiotic contaminated honey samples, *Food Chemistry* (2015), doi: http://dx.doi.org/10.1016/j.foodchem.2015.01.037

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

ACCEPTED MANUSCRIPT

Rapid Immunochemical Analysis of the Sulfonamide-Sugar Conjugated Fraction of Antibiotic ContaminatedHoney Samples

A. Muriano^{1, 2}, V. Chabottaux³, J-M. Diserens⁴, B. Granier³, F. Sanchez Baeza^{1, 2,d} and M.-P. Marco^{1, 2*}

¹ Nanobiotechnology for Diagnostics group (Nb4D), IQAC-CSIC

²CIBER de Bioingenieria, Biotemateriales y Nanomedicina(CIBER-BBN) http://www.ciber-bbn-es, Barcelona.

³UNISENSOR, Liege Wandre, Belgium, www.usisensor.be/

⁴Nestle Research Center, Lausanne, Switzerland, <u>www.research.nestle.com</u>

^dDedicated to the memory of Francisco Sanchez-Baeza
*To whom correspondence should be sent.
Phone: 0034 934006100.
Fax: 0034 932045904.
E-mail:*pilar.marco@cid.csic.es*

ABSTRACT

A rapid high-throughput immunochemical screening (HtiS) procedure for the analysis of the sulfonamide (SA)-sugar conjugated fraction of antibiotic contaminated honey samples has been developed. Studies performed with this matrix have indicated that sulfonamide antibiotics are conjugated to sugars rapidly and quantitatively, providing samples with very low SA immunoreactivity. Therefore, sulfonamides must be first released before the analysis, and for this purpose, a simple and fast sample preparation procedure has been established consisting of hydrolyzing the sample for 5 Download English Version:

https://daneshyari.com/en/article/7592631

Download Persian Version:

https://daneshyari.com/article/7592631

Daneshyari.com