

# Accepted Manuscript

Effect of food matrix and processing on release of almond protein during simulated digestion

Giuseppina Mandalari , Neil M. Rigby , Carlo Bisignano , Rosario B. Lo Curto , Fran Mulholland , Mengna Su , Mahesh Venkatachalam , Jason M. Robotham , LeAnna N. Willison , Karen Lapsley , Kenneth H. Roux , Shridhar K. Sathe

PII: S0023-6438(14)00274-6

DOI: [10.1016/j.lwt.2014.05.005](https://doi.org/10.1016/j.lwt.2014.05.005)

Reference: YFSTL 3905

To appear in: *LWT - Food Science and Technology*

Received Date: 24 December 2012

Revised Date: 18 February 2014

Accepted Date: 1 May 2014

Please cite this article as: Mandalari, G., Rigby, N.M., Bisignano, C., Lo Curto, R.B., Mulholland, F., Su, M., Venkatachalam, M., Robotham, J.M., Willison, L.N., Lapsley, K., Roux, K.H., Sathe, S.K., Effect of food matrix and processing on release of almond protein during simulated digestion, *LWT - Food Science and Technology* (2014), doi: 10.1016/j.lwt.2014.05.005.

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.



1 **Effect of food matrix and processing on release of almond protein during**  
2 **simulated digestion**

3 Giuseppina Mandalari<sup>a,b\*</sup>, Neil M. Rigby<sup>a</sup>, Carlo Bisignano<sup>b</sup>, Rosario B. Lo Curto<sup>c</sup>,  
4 Fran Mulholland<sup>a</sup>, Mengna Su<sup>d</sup>, Mahesh Venkatachalam<sup>e</sup>, Jason M. Robotham<sup>f</sup>,  
5 LeAnna N. Willison<sup>f</sup>, Karen Lapsley<sup>g</sup>, Kenneth H. Roux<sup>f</sup>, Shridhar K. Sathe<sup>d</sup>

6  
7 <sup>a</sup> Institute of Food Research, Norwich Research Park, Colney, Norwich, NR4 7UA,  
8 UK; <sup>b</sup> Department of Drug Science and Products for Health and <sup>c</sup> Biological and  
9 Environmental Science Department, University of Messina, Messina, Italy; <sup>d</sup>  
10 Department of Nutrition, Food and Exercise Sciences, Florida State University,  
11 Tallahassee, Florida 32306, USA, <sup>e</sup> The Hershey Company, Food Research and  
12 Discovery, The Hershey Company Technical Center, 1025 Reese Ave, Hershey, PA  
13 17033, <sup>f</sup> Department of Biological Science, 319 Stadium Drive, King Bldg. Rm 3062,  
14 PO Box 3064295, Florida State University, Tallahassee FL 32306-4295; <sup>g</sup> Almond  
15 Board of California, 1150 Ninth St., Ste. 1500, Modesto, CA 95354 USA;

16 **Correspondence:** Giuseppina Mandalari, Institute of Food Research, Norwich NR4  
17 7UA, UK Tel.: +44 (0) 1603 251405 Fax: +44 (0) 1603 507723

18 E-mail: [giusy.mandalari@ifr.ac.uk](mailto:giusy.mandalari@ifr.ac.uk)

19 **Abbreviations:** **NAF**, natural almond flour; **BAF**, blanched almond flour; **PC**,  
20 phosphatidylcholine; **GIT**, gastrointestinal tract; **SDS-PAGE**, sodium dodecyl  
21 sulphate polyacrylamide gel electrophoresis; **RP-HPLC**, Reverse Phase-High  
22 Performance Liquid Chromatography; **MALDI-TOF**, Matrix Assisted Laser  
23 Desorption /Ionization- Time Of Flight; **ELISA**, Enzyme Linked Immunosorbent  
24 Assay; **pAb**, polyclonal antibody; **mAb**, monoclonal antibody.

25 **Keywords:** almonds, food allergy, *in vitro* digestion, food matrix, immunoreactivity.

26

Download English Version:

<https://daneshyari.com/en/article/6403660>

Download Persian Version:

<https://daneshyari.com/article/6403660>

[Daneshyari.com](https://daneshyari.com)