

Accepted Manuscript

Q-TOF LC/MS identification and UHPLC-Online ABTS antioxidant activity guided mapping of barley polyphenols

Shiwangni Rao, Abishek B. Santhakumar, Kenneth A. Chinkwo, Christopher L. Blanchard

PII: S0308-8146(18)30975-0

DOI: <https://doi.org/10.1016/j.foodchem.2018.06.011>

Reference: FOCH 22972

To appear in: *Food Chemistry*

Received Date: 14 March 2018

Revised Date: 2 June 2018

Accepted Date: 4 June 2018

Please cite this article as: Rao, S., Santhakumar, A.B., Chinkwo, K.A., Blanchard, C.L., Q-TOF LC/MS identification and UHPLC-Online ABTS antioxidant activity guided mapping of barley polyphenols, *Food Chemistry* (2018), doi: <https://doi.org/10.1016/j.foodchem.2018.06.011>

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.



Q-TOF LC/MS identification and UHPLC-Online ABTS antioxidant activity guided mapping of barley polyphenols

Shiwangni RAO^{ab}, Abishek B. SANTHAKUMAR^{ab*}, Kenneth A. CHINKWO^{ab}, and Christopher L. BLANCHARD^{ab}

^a School of Biomedical Sciences, Charles Sturt University, Wagga Wagga, 2650, New South Wales, Australia

^b Australian Research Council (ARC) Industrial Transformation Training Centre (ITTC) for Functional Grains, Graham Centre for Agricultural Innovation, Charles Sturt University, Wagga Wagga, 2650, New South Wales, Australia

* indicates corresponding author.

Correspondence:

Dr. Abishek B. Santhakumar BMedSc, MMedSc (MLS), GCTE, PhD

Lecturer in Haematology | School of Biomedical Sciences

Discipline Leader and Researcher | ARC ITTC for Functional Grains

Charles Sturt University, Locked Bag 588, Bldg. 288, Room 238

Wagga Wagga, NSW 2678, Australia

Tel: +61 2 6933 2678

Email: asanthakumar@csu.edu.au

Co-Author email address:

Shiwangni Rao (srao@csu.edu.au)

Kenneth A. Chinkwo (kchinkwo@csu.edu.au)

Christopher L. Blanchard (CBlanchard@csu.edu.au)

Abbreviations:

2,2'-Azino-bis (3-ethylbenzothiazoline-6-sulfonic acid), ABTS; 2,4,6- Catechin equivalents, CE; 2,2-diphenyl-1-picrylhydrazyl, DPPH; Ferric reducing ability of plasma assay, FRAP; Gallic acid equivalents, GAE; Reactive oxygen species, ROS; Total anthocyanin content, TAC; Trolox equivalents, TE; Total phenolic content, TPC; Total proanthocyanidin content, TPAC; Tris(2-pyridyl)-s-triazine, TPTZ; Quad Time of flight liquid chromatography mass spectra, Q-TOF LC/MS; Ultra-high performance liquid chromatography, UHPLC

Download English Version:

<https://daneshyari.com/en/article/7584534>

Download Persian Version:

<https://daneshyari.com/article/7584534>

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