Accepted Manuscript

Physicochemical, antioxidant, DNA cleaving properties and antimicrobial activity of fisetin-copper chelates

Elżbieta Łodyga-Chruscińska, Maria Pilo, Antonio Zucca, Eugenio Garribba, Elżbieta Klewicka, Magdalena Rowińska-Żyrek, Marzena Symonowicz, Longin Chrusciński, Vitalij T. Cheshchevik



PII: S0162-0134(17)30749-3

DOI: doi:10.1016/j.jinorgbio.2017.12.006

Reference: JIB 10393

To appear in: *Journal of Inorganic Biochemistry*

Received date: 30 October 2017
Revised date: 22 November 2017
Accepted date: 5 December 2017

Please cite this article as: Elżbieta Łodyga-Chruscińska, Maria Pilo, Antonio Zucca, Eugenio Garribba, Elżbieta Klewicka, Magdalena Rowińska-Żyrek, Marzena Symonowicz, Longin Chrusciński, Vitalij T. Cheshchevik, Physicochemical, antioxidant, DNA cleaving properties and antimicrobial activity of fisetin-copper chelates. The address for the corresponding author was captured as affiliation for all authors. Please check if appropriate. Jib(2017), doi:10.1016/j.jinorgbio.2017.12.006

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

Physicochemical, antioxidant, DNA cleaving properties and antimicrobial activity of fisetin-copper chelates

Elżbieta Łodyga-Chruscińska^{a*}, Maria Pilo^b, Antonio Zucca^b, Eugenio Garribba^b, Elżbieta Klewicka^a, Magdalena Rowińska-Żyrek^c, Marzena Symonowicz^a, Longin Chrusciński^d, Vitalij T. Cheshchevik^e

^aFaculty of Biotechnology and Food Chemistry, Lodz University of Technology,

Stefanowskiego Street 4/10, 90-924 Lodz, Poland

^bDipartimento di Chimica e Farmacia, Università di Sassari, via Vienna 2, I-07100 Sassari, Italy

^cDepartment of Chemistry, University of Wroclaw, F. Joliot-Curie Street 14, 50-383 Wroclaw, Poland

^dFaculty of Process an Environmental Engineering, Lodz University of Technology, ul.

Wólczańska 175, 90-924 Lodz, Poland

^ePolessky State University, Str. Dnieper flotilla 23, 225710 Pinsk, Republic of Belarus

Key words: fisetin, copper complexes, antioxidant activity, mitochondria, antimicrobial activity

Abstract

Fisetin (3,3',4',7-tetrahydroxyflavone) metal chelates are of interest as this plant polyphenol has revealed broad prospects for its use as natural medicine in the treatment of various diseases. Metal interactions may change or enhance fisetin biological properties so understanding fisetin metal chelation is important for its application not only in medicine but also as a food additive in nutritional supplements. This work was aimed to determine and

^{a*} Corresponding author: Elżbieta Łodyga-Chruscińska email: <u>elalodyg@p.lodz.pl</u>, Fax: +48 42 6362860. (*Lodz University of Technology, Stefanowskiego Street 4/10, 90-924 Lodz, Poland*)

Download English Version:

https://daneshyari.com/en/article/7754090

Download Persian Version:

https://daneshyari.com/article/7754090

<u>Daneshyari.com</u>