International conference on
Food Science and Nutraceuticals
February 08-09, 2024 | Paris, France
Volume: 15

Evaluation of in vitro antioxidant activity of some new α, α Diamino-esters carboxylic

Karai Oumaima
Sidi Mohamed Ben Abdellah University, Morocco

Considering the richness of heterocyclic chemistry, and the diversity of applications it possesses, in the present work we were interested in preparing new polyfunctional α,α-diaminodiesters derived from glycine, via the N-alkylation reaction of methyl 2-azido-2- benzamidoacetate with a series of heterocyclic and non heterocyclic carboxylic aminoesters, using different bases. The structures of the synthesized molecules were characterized by 1D and 2D NMR spectroscopy, mass (MS-ESI) and elemental analysis. Two compounds from this series were isolated as single crystals and their chemical structures were determined by X-ray diffraction. The antioxidant effect of the synthesized compounds was tested in vitro using the free radical scavenging power (DPPH) and reducing power (FRAP) tests. The results show that the different extracts tested have a relatively high antioxidant power compared to the positive control considered, especially for the compound methyl 2-benzamido-2-(2- methoxy-2-oxo-1-phenylethyl)amino)acetate, which showed a very strong antiradical power and reducing power.

Biography

Oumaima Karai was born in Fez, Morocco, in 1990. She obtained her Bachelor's and master's degree in chemistry at Sidi Mohammed Ben Abdellah University Faculty of Sciences and technologies, Fez, Morocco, in 2011 and 2013. She is a doctor in organic chemistry since 2020 from Sidi Mohammed Ben Abdellah University Faculty of Sciences Dhar El Mahraz, Fez, Morocco. Her research interests include Synthesis and spectroscopic study of new compounds derived from heterocyclic and nonheterocyclic carboxylic α,α-diamino-diesters, and on the study of their biological and antioxydant activities. Her research has been the subject of several publications (indexed journals, and conferences).