Antifungal activities of amino acid ester functional pyrazolyl compounds against *Fusarium oxysporum* f.sp. *albedinis* and *Saccharomyces cerevisiae yeast*

Nouria Boussalah[a], Rachid Touzani [b,c], Faiza Souna[d], Iman Himri[d], Mohammed Bouakka[d], Abdelkader Hakkou[d,*], Said Ghalem[a] and Sghir El Kadiri[b]

[a]Laboratoire des Substances Naturelles et Bioactives, Département de Chimie, Faculté des Sciences, Université Abou Bekr Belkaid- Tlemcen, BP:119, Tlemcen 13000, Algeria.
[b]Laboratoire de Chimie Appliquée et Environnement, URAC18, Faculté des Sciences, Université Mohamed 1er, BP:524, 60000 Oujda, Morocco.
[c]Faculté Pluridisciplinaire de Nador, BP:300, Selouane 62700, Nador, Morocco.
[d]Laboratoire de Biochimie, Département de Biologie, Faculté des Sciences, Université Mohamed 1er, BP:524, 60000 Oujda, Morocco. Tel : (212)0536531414; fax: (212)0536531919.

*Corresponding Author. E-mail: kadahakkou@yahoo.fr

Abstract: Series of functional multidendate ligands based on pyrazole and amino acid derivatives were prepared in good and excellent yields (75-85%) by condensation of one equivalent of amino acid ester hydrochloride substrates with two equivalents of (3,5-dimethyl-1*H*–pyrazol-1-yl)methanol. These tridentate functionalized compounds and their starting materials were screened for their antifungal activities against *Fusarium oxysporum* f.sp. *albedinis* and the yeast of *Saccharomyces cerevisiae.* Considerable activities were recorded with respect to the two studied microorganisms.

Keywords

Multidentate ligands; Pyrazole; amino acid ester hydrochlorides; antifungal activities.