metronidazole twin ester prodrugs : synthesis , physicchemical properties , hydrolysis kinetic and antigardial activity

aAhmed diab, Tarek aboel fasdel and Nadea M. mohafoz

Abstract:

A series of identical twin esters 3a-e of metronidazole was synthesized and evaluated as potential prodrugs with improved physicochemical and pharmacokinetic properties. The synthesis of the twin esters 3a-e was achieved by interaction of metronidazole with the respective dicarboxylic acid anhydride or their dichloride. Their structures were verified by elemental and spectroscopic analyses. The lipophilicity of metronidazole and the prodrugs 3a-e, expressed as Rmvalues, were determined using reversed-phase TLC and revealed

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