Research Article

Synthesis and Antitubercular Activity of Some Novel {1[(1phenylethylidene) amino] naphtho [2,1-B]furan-2- yl}4-substituted pyrimidin-2-amine Derivatives

Riddhi Madhu[*a], N.M. Maheta[a], T.Y. Pasha[b], Sandip Patel[c]

[a] Department of Pharmaceutical Science, Jodhpur National University, Jodhpur, India.

[b]Parul institute of Pharmacy and research, Baroda, India.

[c]N.R.Vekaria institute of pharmacy and research center, Junagadh, India.

***Corresponding author's E-mail:** riddhimpharm@yahoo.co.in

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ABSTRACT

4-{1- [(1-phenylethylidene) amino] naphtha [2,1-b] furan-2-yl} 4-(4- substituted) pyrimidin-2-amine derivatives(4a-4j) were synthesized by the cyclization of guanidine and various chalcone s(3) which were synthesized by the condensation of 1-(1-{[(1*Z*)-1-phenylethylidene]amino}naphtho[2,1-*b*]furan-2-yl)ethanone (2) with various substituted aromatic aldehydes. 1-(1-{[(1*Z*)-1-phenylethylidene]amino}naphtho[2,1-*b*]furan-2-yl)ethanone (2) were synthesized by the condensation of 1-(1-aminonaphtho[2,1-*b*]furan-2-yl)ethanone (1) with acetophenone. The startingmaterial2-hydroxy-1-naphthonitrile was treated with chloroacetone and anhydrous potassium carbonate to give 1-(1-aminonaphtho[2,1-*b*]furan-2-yl)ethanone (1). All newly synthesized compounds has been developed under conventional heating and microwave irradiation. The structures of the newly synthesized compounds were established on the basis of elemental and spectral (IR, ^{1}H NMR and Mass) studies. Further newly synthesized compounds were showed moderate to potent antitubercular activity.

Keywords: Pyrimidine-2-amine, Microwave Irradiation, Antitubercular activity.