

Synthesis and Docking Studies of Novel Series of Pyridazin[6,1-C][1,2,4] Triazines

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ABSTRACT: The potential use of phosphodiesterase inhibitors (PDE4) as anti-inflammatory agents for the treatment of asthma and other inflammatory disorders has generated greater interest in this area. In our present work we have synthesized a novel series of 7-(substituted phenyl)-8,9-dihydro-2H-pyridazino[6,1-c][1,2,4]triazin-3(4H)-ones and 7-(substituted phenyl)-2H-pyridazino[6,1-c][1,2,4]triazin-3(4H)-ones. Molecular Docking studies of these compounds were performed to evaluate the binding affinities of the compounds with phosphodiesterase type4B enzyme (PDB ID IXMU). The current results showed good correlation in enzyme inhibitory activity with roflumilast (co-crystallized ligand).

KEYWORDS: Phosphodiesterase inhibitors; Pyridazines; synthesis; docking.
