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(54) Title of the invention : Synthesis and characterization of a novel chalcone-piperazine hybrid compound containing 4-chlorophenyl piperazine moiety

(51) International classification	:A61K 31/495, C07D 295/088, C07D 295/096, C07D 295/08, C07D 295/135	(71)Name of Applicant : 1)Sagar Varshney Address of Applicant :School of Pharmaceutical Sciences, Faculty of Pharmacy, IFTM University, Moradabad, 244102, India Uttar Pradesh India 2)Sushil Kumar 3)Malavika P S 4)Jatin Kishore Sharma 5)Akhlesh kumari 6)Khushboo Majumdar 7)Poonam Gangwar
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(57) Abstract :

The present invention relates to a novel chalcone-piperazine hybrid compound, namely 3-(4-(3-(4-(4-chlorophenyl)piperazin-1-yl)propoxy)phenyl)-1-phenylprop-2-en-1-one, and a process for its preparation. The compound is synthesised in two steps by first reacting 3-(4-hydroxyphenyl)-1-phenylprop-2-en-1-one with 1,3-bromochloropropane in acetonitrile in the presence of anhydrous potassium carbonate under reflux to give 3-(4-(3-chloropropoxy)phenyl)-1-phenylprop-2-en-1-one, which is then coupled with 1-(4-chlorophenyl)piperazine in anhydrous acetonitrile in the presence of anhydrous potassium carbonate under reflux. The structure of the title compound is confirmed by IR and ¹H NMR spectroscopy. The compound is obtained in approximately 60% yield with an R_f value of 0.77 (n-hexane: ethyl acetate, 2:1) and is useful as a lead molecule and synthetic intermediate for further pharmacological investigation.

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