ABSTRACT

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Coumarins are a class of compounds with benzopyrone ring system. In the present work 7-hydroxy-4-methyl coumarin was prepared by the reaction of resorcinol and ethylacetoacetate mixture in the presence of concentrated sulphuric acid. 7-hydroxy-4-methyl coumarin was acetylated with acetic anhydride in the presence of acetic acid. The product formed was treated with bromine in glacial acetic acid to form brominated derivative which on further treatment with different amines to form 4-methyl-2-oxo-2*H*-chromen-7yl substituted acetates. The structures of the final newly synthesized compounds were confirmed from IR, ^{1}HNMR & Mass spectra. The newly synthesized compounds were screened for their anti-inflammatory activity using carrageenan induced paw edema method and for analgesic activity using acetic-acid induced writhing in mice. Among the synthesized compounds S8 possesses good anti-inflammatory and analgesic activity when compared to that of other synthesized compounds.

Keywords: 7-hydroxy-4-methyl coumarin; anti-inflammatory; analgesic; acetic anhydride; bromine