



## Synthesis and Characterization of New Coumarin Derivatives and Evaluating of its Biological Activity

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**Abstract :** Nine compounds of N, N substituted diquinolinone-2 were synthesized from the reaction of coumarin with diamines (4,4'-sulfonyldianiline, 6-methyl-1,3,5-triazine-2,4-diamine, 6-phenyl-1,3,5-triazine-2,4-diamine, pyridine-2,6-diamine, 4-methylbenzene-1,3-diamine, 2,6-diaminopyrimidin-4-ol, 1,2,4-triazole-3,5-diamine, 4,4'-methylenedianiline). The structural formula of the synthesized compounds was confirmed by physical and spectroscopic methods ( $^1\text{H}$ - NMR,  $^{13}\text{C}$ - NMR, I.R, UV-VIS, elemental analysis, and mass spectral data). The synthesized compounds were screened for their antibacterial activity against four microorganisms *Staphylococcus aureus*, *Bacillus subtilis*, *Escherichia Coli* and *Klebsiella pneumonia*, and they were found to exhibit good to moderate antibacterial activity.

**Keywords:** Coumarin, diamine, Antibacterial activity, *E. coli*, *K. pneumonia*, *S. aureus*, *B. subtilis*.

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