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Antimicrobial Evaluation and Molecular docking of New 2,3- Substituted [1,3] Benzooxazin-4-one derivatives

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Journal of University of Anbar for Pure Science (JUAPS)

2020,14(2):38-46

ABSTRACT

New 2, 3-substituted benzooxazin-4-one derivatives were prepared by means of a altered step by step proceedings in which Schiff bases were substituted with salicylic acid for a ring forming reaction. The compositions of the synthesized compounds were certain via methods spectrometry as elemental analysis, FT-IR, 13C-NMR & 1H-NMR spectral analysis. The bio-activities for the prepared compounds in-vitro as antibacterial and antifungal were estimated as opposed to two races of gram-positive & two races of gram-negative bacteria as parallel to Cefotaxime sodium as regular drug and assessed versus two types of fungi. The prepared compounds were got to have antimicrobial activities spreading from middling to perfect against of the bacteria strains with good percentage mycelial growth inhibition activity against fungi. Molecular docking display the critical part while effect of variety of substituents on biological activity while mark the disadvantageous constitutional parameters in drawing medication: A different substitutions does ensure additional efficiency in bioactivity.

Keywords:

1, 3-Benzoxazines,
Schiff base, salicylic acid, Methyldopa, Dihydrofolate reductasa,
Molecular docking
Undecaprenyldiphosphate synthase,