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In Vitro Antimicrobial Activity of Some New Thiazolidinone Derivatives Containing Imidazole and Triazole Moiety

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SUMMARY. 2-(1H-hetero-1-yl)-N-(5-methyl-4-oxo-2-arylthiazolidin-3-yl)acetamide derivatives (**4a-4h**) were synthesized and screened for antibacterial and antifungal activities. All the synthesized compounds (4a-4h) were characterized by IR, ^{1}HNMR, ^{13}CNMR, and Mass spectral data. The title compounds were screened against *Staphylococcus aureus,* and *Escherichia coli* for antibacterial activity, and *Aspergillus niger* for antifungal activity. Amikacin was used as the standard drug for antibacterial and antifungal activity. The result showed that all the title compounds were exhibited antibacterial and antifungal activity less than standard drugs.

RESUMEN. Los derivados de 2-(1H-hetero-1-il)-N-(5-metil-4-oxo-2-ariltiazolidin-3-il)acetamida (**4a-4h**) se sintetizaron y examinaron en busca de actividades antibacterianas y antifúngicas. Todos los compuestos sintetizados (4a-4h) se caracterizaron por IR, 1HNMR, 13CNMR y datos espectrales de masas. Los compuestos del título se cribaron frente a *Staphylococcus aureus* y *Escherichia coli* en cuanto a actividad antibacteriana, y *Aspergillus niger* en cuanto a actividad antifúngica. La amikacina se usó como el fármaco estándar para la actividad antibacteriana y antifúngica. El resultado mostró que todos los compuestos del título exhibieron menos actividad antibacteriana y antifúngica que los fármacos estándar.

KEY WORDS: antibacterial, antifungal, synthesis, thiazolidinone, thiolactic acid.

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