Indian Journal of Heterocyclic Chemistry
Vol. 35 - Number 04 (Oct-Dec 2025) 799-805
https://connectjournals.com/01951.2025.35.799
https://doi.org/10.59467/IJHC.2025.35.799

ISSN (Print) : 0971-1627
ISSN (Online) : 2456-4311

Synthesis of bacillamide analogs having fused imidazole moiety on thiazole ring: *N*-(2-(1*H*-indol-3-yl)ethyl)-6-arylimidazo[2,1-*b*]thiazole-3-carboxamides

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ABSTRACT The reaction of 2-amino-4-carbethoxythiazole (**3**), prepared by the reaction of α-bromoethyl pyruvate (**1**) with thiourea (**2**) with phenacyl bromides (**4a-d**) under solvent-free conditions, furnished the key intermediate, ethyl-6-arylimidazo[2,1-*b*]thiazole-3-carboxylates (**5a-d**). Further, reaction of 6-arylimidazo[2,1-*b*]thiazole-3-carboxylic acids (**6a-d**) (*in situ* generated by hydrolysis of corresponding compound **5a-d**) with tryptamine, catalyzed by 1-hydroxybenzotriazole and *N, N'*-dicyclohexylcarbodiimide in tetrahydrofuran afforded the targeted, *N*-(2-(1*H*-indol-3-yl)ethyl)-6-arylimidazo[2,1-*b*] thiazole-3-carboxamides, bacillamide analogs (**8a-d**).

KEY WORDS Bacillamide analogs, Imidazo[2,1-*b*]thiazoles, α-haloketones, Phenacyl bromides.

How to cite this article: Aggarwal, R. and Kumar, V. Synthesis of bacillamide analogs having fused imidazole moiety on thiazole ring: *N*-(2-(1*H*-indol-3-yl)ethyl)-6-arylimidazo[2,1-*b*]thiazole-3-carboxamides, *Indian J. Heterocycl. Chem.*, **2025**, *35*, 799–805. *https://doi.org/10.59467/IJHC.2025.35.799*