



Synthesis and Evaluation of Antimicrobial, Antioxidant Activities of Pyridopyrazolo Pyrimido Benzothiazole Derivatives

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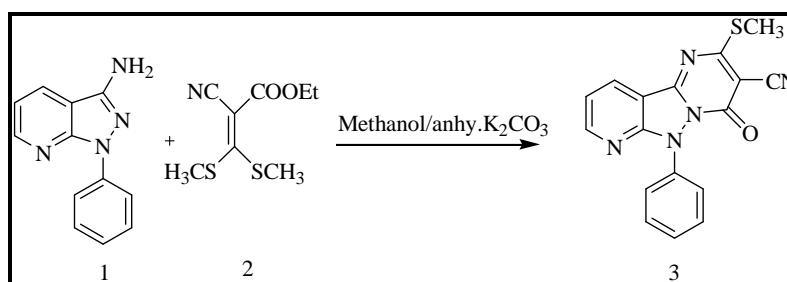
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ABSTRACT

The objective of the present investigation was to synthesize 3-cyano-4-oxo-2-(methylthio)-6-N-phenyl pyrido[3,2-d] pyrazolo[3,2-b]pyrimidine (3) by condensation of 1-phenyl-1H-pyrazolo[3,4-b]pyridine-3-amine (1) with ethyl cyano bis(methylthio) acrylate (2). Which on further condensation with various 2-amino 1/2/3/4-substituted benzothiazoles(4a-f) gives 15-imino-14-oxo-12-N-phenyl pyrido [3,2-d] pyrazolo [3,2-b]-4H-pyrimido[5,6-e]-4H-pyrimido[2,3-b]benzothiazole and their 1/3 substituted derivatives (5a-f). These newly synthesized compounds were further screened for antimicrobial and antioxidant properties.

Graphical Abstract



Synthesis of 3cyano-4-oxo2-(methylthio)-6-phenylpyrido[3,2-d]pyrimidine

Keywords: Pyrido pyrazolo pyrimidine, Ethyl cyano bis(methylthio)acrylate, Anhydrous K₂CO₃.