



Synthesis and Antibacterial Activity of Novel (E)-N'-((2-(Naphthalen-8-yl)phenyl)methylene)Benzohydrazide Derivatives

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ABSTRACT

The present paper reports the synthesis and antibacterial activity of ten new (E)-N'-((2-(naphthalen-8-yl)phenyl)methylene)benzohydrazide derivatives **6a-j** from commercially available naphthalene-1-yl-1-boronic acid as starting material. The benzohydrazides **6a-j** have been screened against four bacterial strains such *Escherichia coli*, *Pseudomonas aeruginosa*, *Staphylococcus aureus* and *Streptococcus pyogenes*. The results of the antibacterial activity data indicated that within the (E)-N'-((2-(naphthalen-8-yl)phenyl)methylene)benzohydrazide **6a-j**, compounds incorporated with the substituent's such as 4-F, 4-OH, 3,4,5-trimethoxy, 3-NO₂ and 4-SO₂-CH₃ exhibited excellent antibacterial activity while the compounds having the substituent's H, 2-Br, 4-Br, 2-I and 4-Cl displayed moderate antibacterial activity.

Keywords: Antibacterial activity, Formylation, Suzuki reaction, Naphthalene-1-yl-boronic acid.
