



International Journal of Advanced Research in Biology, Engineering, Science and Technology (IJARBEST)

Vol. 2, Special Issue 8, February 2016 in association with

KAMARAJ COLLEGE OF ENGINEERING AND TECHNOLOGY, VIRUDHUNAGAR

DEPARTMENT OF BIOTECHNOLOGY

ORGANIZES

DBT, NEW DELHI SPONSORED NATIONAL LEVEL CONFERENCE ON CONTEMPORARY TRENDS IN
BIOENERGY AND GREEN TECHNOLOGY: CHALLENGES AND OPPORTUNITIES [ORA-2016]

(25-26TH FEBRUARY 2016)

Target Studies of Potential Antibacterial Compounds from Actinomycetes: A Computer Aided Approach

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Abstract

The increasing concerns about the development of antimicrobial resistance among pathogenic bacteria have created a need for alternative strategies against pathogens. Hence the current medical scenario put stress on the discovery of new antimicrobial agents with diverse chemical structures and novel pharmacological responses. Bioactive secondary metabolites from actinomycetes have extensive application in clinical with different mechanism of actions. In the present study, antibacterial compounds from actinomycetes were selected using different actinomycetes databases and literatures. An *insilico* screening was performed based on different parameters such as drug likeness, ADMET properties. The docking analysis was also performed using the selected lead molecules against different bacterial targets especially that of methicillin resistant *Staphylococcus aureus*. (MRSA)

Key words: Actinomycetes, antibacterial compounds, MRSA, drug resistance, docking

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