Asia Pacific Journal of Research
A peer reviewed international Journal
IMPACT FACTOR : 6.58
Print -ISSN -2320 - 5504
Online-E-ISSN - 2347 - 4793
University Grants Commission
Approved Journal S.N.45797

Antibacterial potential of isolated marine fungal species against Human bacterial Pathogens

Anusha Mayavan[1] and Sangeetha .D[2] *

[1]Research scholar,
Department of Microbiology,
Faculty of Science, Annamalai University.

[2]Assistant professor
Department of microbiology, Annamalai University,Annamalai Nagar,
Tamil Nadu, India.

ABSTRACT

Marine fungi are the potential and promising sources for biologically active secondary metabolite productions. Secondary metabolites are the chemical compounds that are produced during the stationary phase of the organism. Many years of study revealed that marine fungi are excellent sources for novel bioactive secondary metabolites. The main objective of the present study was to screen bioactive metabolites from marine fungal isolates and test against human pathogenic bacteria. In the primary screening by cross streaking method out of 40 isolates, 14 isolates exhibited highest activities which were identified based on their morphological and microscopical characteristics. In secondary screening agar well method was used, in which the antibacterial activity of fungal isolates was examined by testing the effect of their crude extracts on growth of the human bacterial pathogens was carried out. The best activity was observed against Pseudomonas aeruginosa and Escherichiya coli by fungal isolate Pestalotiopsis sp (FS14) at a concentration of 300µg (23 ± 0.3) followed by Aspergillus sp (FS6) (20 ± 0.2) and Aspergillus sp (FS34) (18 ± 0.2). While the same time the minimum zone of inhibition was recorded against Salmonella typhi. Hence the isolates FS6, FS14 and FS34 have been selected for further studies which having significant antibacterial activity.

Key words: *Marine fungi, Neopestalotiopsis sp, Screening, cross streaking*