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Inhibitory activity of bio-active compounds isolated from *Anadara granosa* in shrimp health management

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Shrimp aquaculture production in the world is depressed mainly by diseases. Usage of antibiotics in aquaculture was banned as a precautionary measure to protect from bacterial resistance and bioaccumulation. In view of the above consequences, an alternate chemical or compound is essential to protect the stock. Hence, an intertidal mollusc i.e. *Anadara granosa* (Bivalve) has been selected for the isolation of bio active compounds. The crude extract was isolated from the muscle of *A. granosa* and concentrated. It was tested against two pathogenic bacteria of the shrimp and fish viz. *Vibrio harveyi* and *Staphylococcus aureus* respectively by agar well diffusion method and maximum activity was shown against *Vibrio harveyi* by methanol and chloroform (9:1) extract. The crude extract was further subjected to contact bioautography guided screening to find out number of compounds showing antibacterial activity. Based on the results obtained in the above studies, the crude extract was also subjected to column chromatography studies to separate various fractions responsible for the antibacterial activity. 12 fractions were obtained from the column chromatography and tested for their antibacterial activity. Out of 12, five fractions have shown highest antibacterial activity and further run on column chromatography for purity. Each pure sub-fraction was subjected to NMR to observe the proton, C13 and H1-H1 correlation for the structure elucidation studies.

Biography

Sunil Kumar Duddu has obtained his MSc degree in Marine Biotechnology from Andhra University, Visakhapatnam, India in the year 2012 and continuing for PhD degree in the same University. He is currently working on the bioactive compounds of marine origin for shrimp health management. He has published 6 research papers in national and international journals.

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