

Extract and Naphthoquinone Derivatives from in vitro Culture of an Ascomycetous Marine Fungus with Antibacterial Activity

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Abstract : Because of the evolving resistance of microorganisms to existing antibiotics, there is an increasing need for new antibiotics not only in human but also in veterinary medicine. As part of our ongoing work on the secondary metabolites produced by marine fungi, the organic extract of the culture filtrate of an Ascomycetous fungus, which was found on driftwood collected from the coast of the Greifswalder Bodden, Baltic Sea, Germany displayed antimicrobial activity against some fish and human pathogenic bacteria. Bioactivity-guided column chromatographic separation led to the isolation of 6-Deoxybostrycoidin. The structure was determined from the interpretation of spectroscopic data (UV, MS, and NMR). 6-Deoxybostrycoidin exhibited in vitro activity against *Bacillus subtilis*, *Staphylococcus aureus* and *Flexibacter maritimus* with minimal inhibitory concentrations of 25, 12.5 and 12.5 µg/ml respectively.

Keywords : marine fungi, fish pathogenic bacteria, microorganism, medicine

Conference Title : ICPPNP 2014 : International Conference on Pharmacognosy, Phytochemistry and Natural Products

Conference Location : Istanbul, Türkiye

Conference Dates : November 28-29, 2014