

Investigation of Potential Antifouling agents from Marine Crude extracts and their Biological activities

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Abstract

Marine organisms are taxonomically diverse yet unique, hence they are considered as a reservoir of potential bioactive secondary metabolites. Many of these marine secondary metabolites have already been successfully developed for medicinal usages based on the chemical interactions between marine organisms initially. In our ongoing study to search new antimicrobial agents from marine resources by the established bioassays of antimicrobial activity and anti-biofilm formation, we have screened 65 crude extracts toward *Staphylococcus aureus*. Among them, 18 extracts showed positive effects against *S. aureus*. Furthermore, we tried to isolate the bioactive components from three crude extracts (010E, 07E and 03M) by the bioassay-guided fractionation isolation. One major compound from 010E, metachromin C (120 mg) possess good activities in antimicrobial and anti-biofilm assay, which, interestingly, has not reported in any literature yet. More investigation on other bioactive crude extracts (07E and 03M) is still going on.

Key words: Marine crude extract, Metachromin C, Biological activities