

ABSTRACT

ANTIBACTERIAL ACTIVITY OF SEAGRASS AND SEVERAL ALGA AGAINST ACNE BACTERIAS

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The aim of this study was to investigate the antibacterial activity of the methanolic extracts of several alga including *Sargassum oligocystum*, *Turbinaria decurrens*, *Galaxaura rugosa*, *Padina minor*, and seagrass *Halodule* sp. In this study, antibacterial activity of the extracts were determined using the microdilution method against *Staphylococcus epidermidis* ATCC 14990 and *Staphylococcus aureus* ATCC 6538. The coloring reagent, *P-iodonitrotetrazolium chloride* reagent was added into the solutions to help visualizing the presence of living bacteria. In the microdilution method, the Minimum Inhibitory Concentration (MIC) was determined as the lowest concentration of sample that gives antibacterial activity, meanwhile the Minimum Bactericidal Concentration (MBC) as the lowest concentration of antimicrobial that will prevent the growth of an organism after subculture on to antibiotic-free media. The results showed that the methanolic extract of *Halodule* sp. gave MIC and MBC values at concentration 1000µg/mL against both *S. aureus* and *S. epidermidis*. There were no antibacterial activities observed for alga *S. oligocystum*, *T. decurrens*, *G. rugosa*, and *P. minor*.

Keyword : Antibacterial activity, MIC, MBC, Alga, Seagrass, Microdilution