ABSTRACT

The Antimicrobial Activity of *n*-Hexane, Ethyl Acetate And Ethanol 96% Extract of *Caulerpa racemosa* from Mamburit Island Kangean Sumenep against *Eschericia coli*, *Staphylococcus aureus* and *Candida albicans*

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Marine organism such as seaweed or algae, are known as the source of bioactive metabolites especially *Caulerpa racemosa*. Previous studies showed that extract of *C. racemosa* from various seas in the world, including Indonesia has antimicrobial activity. The aim of this study is to investigate the antimicrobial activity of the ethanol 96%, ethyl acetate, and *n*-hexane extract of *Caulerpa racemosa* from Mamburit Island Kangean Sumenep against *Eschericia coli* ATCC 8739, *Stahylococcus aureus* ATCC 6538 and *Candida albicans* ATCC 10231. The antimicrobial activity was determined using disc diffusion and microdilution methods. MTT (3-(4,5-dimetiltiazol-2-il)-2-5-difenil tetrazolium bromide) reagent was added in the microdilution method to visualize the presence of living organism. The results showed that only ethyl acetate extract of *C. racemosa* inhibited the growth of *E. coli* ATCC 8739, *S. aureus* ATCC 6538 and *C. albicans* ATCC 10231 at concentration 5000 ppm (100 µg/disk) and 1000 ppm (20 µg/disk). The minimum inhibitory concentration (MIC) against *E. coli* ATCC 8739 and *C. albicans* ATCC 10231 were 500 ppm (50 µg/well), while *S. aureus* ATCC 6538 was 1000 ppm (100 µg/well). Phytochemical screening showed *Caulerpa racemosa* contained terpenoid, polyphenols, flavonoid. Antioxidant activity was positive.

Keyword : Antimicrobial activity, *Caulerpa racemosa*, diffusion method, MIC.