Antibacterial Activity From Seaweeds Turbinaria ornata and Chaetomorpha antennina Against Fouling Bacteria

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Abstract	Biofouling is a serious problem for marine industries, it can damage many constructions which are submerged in the water and the bacteria are the inisiator of that problem. Commercial antifouling agents which have been using widely is not that effective regarding to the after-effect in the ecosystem. Thus, investigating on natural products which can against fouling bacteria is really essential. This research reported the potentials of seaweeds Turbinaria ornata and Chaetomorpha antennina against fouling bacteria which have been tested on the inhibition zone and phytochemical contents. The seaweed samples were extracted using various solvents such as hexane, ethyl acetate and methanol. The results showed that C. antennina had more potentials against the fouling bacteria than T. ornata regarding to the maximum inhibition zone. C. antennina extract had 6 mm at 10 mu l/disk when T. ornata only had 2 mm at 10 mu l/disk. In addition, C. antennina extracts also had more phytochemical contents (phenol, flavonoid, steroid, saponin, alkaloid and triterpenoid) than T. ornata extracts (phenol, steroid, saponin, and alkaloid). Having larger maximum inhibition zone and more phytochemical contents indicated that C. antennina can be the natural source candidate for antibacterial agent especially fouling bacteria.
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