

Antibacterial potential of the symbiont red algae *Eucheuma cottonii* originated from Banten Bay Waters, Indonesia

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ABSTRACT:

Symbiotic bacteria are microorganisms that host plants with mutualistic symbiosis enabling them to produce compounds, especially antibacterial compounds. This research aimed to isolate and select symbiont producing antibacterial compound. Researchers conducted an examination to determine antibacterial activity using paper disc diffusion method. Symbiotic bacteria's antibacterial activity examination result exhibited zone of inhibition up to 2.55 mm against *Escherichia coli*. On the other hand, zone of inhibition against *Staphylococcus aureus* was 7.21 mm. Microscopic observations and biochemical examinations of the isolate EU-A revealed Gram-positive, rod-shaped and acid resistant bacteria that do not form endospore. Molecular analysis results on 16S rDNA revealed genus *Lactobacillus* in species *Lactobacillus plantarum*.

Keywords:

Eucheuma cottonii, Symbiont bacteria, Antibacterial activity.