(IN VITRO) ANTIBACTERIAL ACTIVITY OF THE SUPERNATANT OF SHRIMP POND ISOLATE Bacillus subtilis AGAINST Aeromonas hydrophila AND Staphylococcus aureus

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ABSTRACT

The aim of this study was to know the antibacterial activity of supernatant of shrimp pond isolate Bacillus subtilis against Aeromonas hydrophila as Gram negative bacteria and Staphylococcus aureus as Gram positive bacteria. Microdilution method was used to evaluate the antibacterial activity of the supernatant of Bacillus subtilis by determining Minimum Inhibition Concentration (MIC) and Minimum Bactericidal Concentration (MBC). Concentration range was from 100-10% and Oxytetracycline was used as positive control. The result showed the range of MIC and MBC values against Staphylococcus aureus were 50-80% and 60-70% respectively. Meanwhile, the range of MIC and MBC values against Aeromonas hydrophila were 70-80% and 80-90% respectively. Statistical analysis by t test with 95% certainty showed that there was no significant difference of antibacterial activity of supernatant of Bacillus subtilis shrimp pond isolate against Aeromonas hydrophila as Gram negative and Staphylococcus aureus as Gram positive bacteria.

Keyword: antibacterial activity, Aeromonas hydrophila, Bacillus subtilis, Staphylococcus aureus,