

**STUDY OF *Anadara ferruginea* (Reeve, 1844) AS A SOURCE OF  
ANTIBACTERIAL AGENTS AGAINST PATHOGENIC BACTERIA**

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**ABSTRACT:** The development of multi-drug resistant bacteria has increased the demand for new compounds which possess antibacterial characteristics. Among marine invertebrates many of these have various compounds with these traits. This research aims to determine the antibacterial activity of fractions extracted from *Anadara ferruginea*. The extraction method was thin-layer chromatography (TLC). Open Column Chromatography (OCT) was used as a fractionation method and nine fractions were revealed. The antibacterial sensitivity test was carried out by the Kirby-Bauer disk diffusion method. The antibacterial ability was tested by using the bacteria species *Bacillus cereus*, *Escherichia coli*, *Pseudomonas aeruginosa* and *Staphylococcus aureus* and the development of the inhibition zone was followed during four days. All nine fractions possessed antibacterial agents against the four pathogenic test species. Fraction III was during the four days found to be the most active on *B. cereus*, *E. coli* and *S. aureus* with each average inhibition zone width of: 7.03 mm; 6.97 mm; 6.13 mm respectively. However, fraction IX showed the highest antibacterial activity on *P. aeruginosa* with an inhibition zone of 7.00 mm.

**Keywords:** *Anadara ferruginea*, extraction, antibacterial activity, pathogenic bacteria

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