**In vitro ANTIBACTERIAL EFFECTIVENESS OF JARAK PAGAR LEAVES (Jatropha curcas L.) INFUSION IN Escherichia coli**

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**ABSTRACT**

**Background:** A research has been done to test the in vitro antibacterial effectiveness of jarak pagar leaves (Jatropha curcas L.) infusion toward Escherichia coli ATCC 25922.

**Methods:** A test on the antibacterial activity was done by using liquid dilution method, the minimum inhibitory concentration (MIC) and minimum bactericidal concentration (MBC) of jarak pagar leaves infusion against *E. coli*. The concentration infuse in sterile aquadest water using to test the antibacterial activity toward *E. coli* were 80%, 70%, 60%, 50%, and 40% w/v. This research was done using a real laboratory experimental design with jarak pagar leaves infusion and *E. coli* microbes as the research objects. Data have been obtained by calculating amount of died *E. coli* at each concentration. Through the data, IC₅₀ and IC₁₀₀ value was analyzed by probit analysis using SPSS 21 for windows.

**Results:** Mean *E. coli* death in the concentration of 80%, 70%, 60%, 50%, and 40% consecutively were 4, 2, 0, 0, and 0. The result of probit analysis indicated that value of leaves infusion of jarak pagar of IC₅₀ was 68.987% and IC₁₀₀ was 78.677%.

**Conclusion:** Infusion of jarak pagar leaves (Jatropha curcas L.) has bacteriocid activity against *Escherichia coli* ATCC 25922 profil. It’s indicated by IC₁₀₀ was 78.677%.

Keyword : Antibacterial, jarak pagar leaves (Jatropha curcas L.), Escherichia coli