

**THE EVALUATION ON ANTIBACTERIAL AND  
ANTI-INFLAMMATORY ACTIVITIES OF *Azadirachta indica***

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**AUGUST 2022**

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ACTIVITIES OF *Azadirachta indica***

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**FINAL YEAR PROJECT REPORT SUBMITTED IN  
PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE  
DEGREE OF BACHELOR OF SCIENCE (HONS.) BIOLOGY  
IN THE FACULTY OF APPLIED SCIENCES  
UNIVERSITI TEKNOLOGI MARA**

**AUGUST 2022**

The Final Year Project Report entitled “The Evaluation on Antibacterial and Anti-inflammatory Activities of *Azadirachta indica*” was submitted by Nur Haida Natasha Binti Shamsuddin in partial fulfillment of the requirements for the Degree of Bachelor of Science (Hons.) Biology, in the Faculty of Applied Sciences, and was approved by

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## ABSTRACT

*Azadirachta indica* possesses significant medicinal properties and has been extensively used as a health care remedy to treat skin infection, chicken pox and many more in many countries. Therefore, this study is aimed to evaluate the potential of *Azadirachta indica* as antibacterial and anti-inflammatory. In this study, 50 g of *A.indica* leaves was used and extracted using different percentage of ethanol which is 50% and 95%. We prepared the extract of *A.indica* from different percentage of ethanol of 95% and 50% through maceration method for 3 days. In antibacterial bioactivity, disc-diffusion method was utilized. Extracts at all concentration of 50mg/ml, 25g/ml and 12.5 mg/ml are not susceptible to both *E.coli* and *B. licheniformis*. Meanwhile for anti-inflammatory bioactivity, heat-induced protein denaturation method against egg albumin was utilized. The results shows 95% ethanol extract of *A.indica* shows better protein denaturation (55.35% at 1mg/ml) compared to 50% ethanol extract (30.35% at 1mg/ml). The results was compared to the standard drugs of diclofenac. The results was insignificantly  $P < 0.9$ . The qualitative phytochemical test give positive results for the present of alkaloid, saponin, and flavonoid in *A.indica* leaves extract. Therefore, in this study, the 95% and 50% ethanol extract of *Azadirachta indica* leaves do not show antibacterial activity toward *E.coli* and *B.licheniformis* but it shows potential as anti-inflammatory.