

**ANTIBACTERIAL ACTIVITY OF *Premna cordifolia* STEM  
AGAINST SELECTED PATHOGENIC BACTERIA**

**MUHAMMAD KHAIRUZZAMAN AMIRIN BIN ABDUL  
RAZAK**

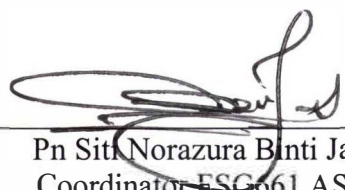
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En Mohd Syahril Bin Mohd Zan  
Supervisor  
Faculty of Applied Sciences  
Universiti Teknologi MARA (UiTM)  
Negeri Sembilan, Kampus Kuala Pilah,  
Pekan Parit Tinggi, 72000 Kuala Pilah  
Negeri Sembilan



Pn Siti Norazura Binti Jamal  
Coordinator FSG661 AS201  
Faculty of Applied Sciences  
Universiti Teknologi MARA (UiTM)  
Negeri Sembilan, Kampus Kuala Pilah,  
Pekan Parit Tinggi, 72000 Kuala Pilah  
Negeri Sembilan



Dr. Aslizah Binti Mohd Aris  
Head School of Biology  
Faculty of Applied Sciences  
Universiti Teknologi MARA (UiTM)  
Negeri Sembilan, Kampus Kuala Pilah,  
Pekan Parit Tinggi, 72000 Kuala Pilah  
Negeri Sembilan

Date: \_\_\_\_\_

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## ABSTRACT

### ANTIBACTERIAL ACTIVITY OF *Premna cordifolia* STEM AGAINST SELECTED PATHOGENIC BACTERIA

“Buas-buas” or *Premna cordifolia* plant is a shrub and herbal plant that was either consumed or commonly used as ornamental plant. The plant also traditionally believed to possess antimicrobial properties and also believed to have the ability to improve an individual health such as smoothening intestinal process, prevent osteoporosis and anemia, reducing headache and boosting body stamina. The presence of secondary metabolites such as flavonoid and alkaloid that was known to have antibacterial properties strengthen those believes. However, lack of scientific studies about the plant especially in Malaysia causing problem to justify it. Therefore, the sole purpose of this research project is to determine the antibacterial activities for the extract of *Premna cordifolia* stem against selected pathogenic bacteria which are *Escherichia coli*, *Staphylococcus aureus*, *Bacillus subtilis* and *Salmonella typhi* at several different concentration. The methods used for extraction was cold maceration and the methods used to determine the antibacterial activity was disk-diffusion method. Through these method, the result obtained showed that the most effective antimicrobial activity from *Premna cordifolia* stem extract was on *Escherichia coli* followed by *Staphylococcus aureus*. However, for *Bacillus subtilis* and *Salmonella typhi* the extract were not able to inhibit the growth of these two bacteria for a specified reason. The best concentration for antimicrobial activity of the extract was on *Escherichia coli* at 350 mg/ml. It can be concluded that *Premna cordifolia* stem extract definitely have antimicrobial properties and the abundance of the plant species all over Asia can be fully utilized and improve as an alternative source of antibacterial medicine and antiviral cure for future research.