



## ANTI-MICROBIAL ACTIVITY OF GUGO (*ENTADA PHASEOLOIDES*) CRUDE BARK EXTRACT AGAINST *PSEUDOMONAS AERUGINOSA* ATCC 7644 BACTERIA

Aris Jay G. Sarmiento  
Pasay City National Science High School, Philippines.  
Corresponding Email: [robertjaylopez@gmail.com](mailto:robertjaylopez@gmail.com)

---

### Abstract

The practice of using plants against diseases is presumed to be as old as human history. Traditional medication using plant extracts continues to provide health coverage for over 80% of the world's population, especially in emerging countries. To this day, there is still an increasing interest by scientists to define the secrets of these traditional herbal medicines; thus, making the search for new antimicrobial agents extremely relevant, due to the fact that extensive bacterial resistance to current antimicrobial agents is becoming more prevalent. The researchers took this chance to conduct a related study, through disk diffusion method, of the likelihood of crude extract of Gugo (*Entada Phaseoloides*) bark as a potential antimicrobial agent for *Pseudomonas aeruginosa*. Ethanolic extracts showed a positive result, displaying a complete inhibitory effect against the bacteria *P. aeruginosa* and phytochemical analysis was conducted in order to determine the phytoconstituents of the bark sample. Samples were tested on 30%, 50%, 70%, and 90% respectively to identify the optimal concentration of the extract of Gugo (*Entada Phaseoloides*). Analysis of Variance (ANOVA) was used to obtain the results from different concentrations.

**Keywords:** Gugo Bark, *Entada Phaseoloides*, *Pseudomonas Aeruginosa*, Anti-Microbial, Plants, Phytochemical Analysis, Disease, Antimicrobial Agent.

---