

**IDENTIFICATION AND ANTIBIOTIC RESISTANCE OF
Pseudomonas sp.**

NORAMALINA BINTI AB HAMED

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This Final Year Project Report entitled “**Identification and Antibiotic Resistance of *Pseudomonas* sp.**” was submitted by Noramalina Binti Ab Hamed, in partial fulfilment of the requirements for the Degree of Bachelor of Science (Hons.) Biology, in the Faculty of Applied Sciences, and was approved by

Nur Azimah Binti Osman
Supervisor
B. Sc. (Hons.) Biology
Faculty of Applied Sciences
University Teknologi MARA
72000 Kuala Pilah Negeri Sembilan

Lili Syahani Binti Rusli
Project Coordinator
B. Sc. (Hons.) Biology
Faculty of Applied Sciences
University Teknologi MARA
72000 Kuala Pilah
Negeri Sembilan

Dr. Nor'aishah Binti Abu Shah
Head of Programme
B. Sc. (Hons.) Biology
Faculty of Applied Sciences
University Teknologi MARA
72000 Kuala Pilah
Negeri Sembilan

Date : _____

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ABSTRACT

IDENTIFICATION AND ANTIBIOTIC RESISTANCE OF *Pseudomonas* sp.

Pseudomonas sp. is one of the opportunistic pathogens and human pathogens. The evolution and spread of antibiotic resistance has been identified as a global threat to human, animal, and environmental health. The aims of this study were to identify the *Pseudomonas* sp. by using polymerase chain reaction (PCR) method and to identify the antibiotics resistance of *Pseudomonas* sp. In this study, ten types of antibiotics were used and differentiated by their mechanisms of action. The antibiotics used are aminoglycosides' amikacin and streptomycin, cephalosporin's cephalotine and ceftazidime, fluoroquinolones' ciprofloxacin and norfloxacin, macrolide's erythromycin and clindamycin, and penicillin's penicillin and ampicillin. Next, *Pseudomonas* sp. was identified by using PCR method. For the identification of *Pseudomonas* sp., the bacteria showed bands with 251 bp sizes and parallel with the positive control of *Pseudomonas* sp. pure culture. While for the antibiotics resistance test, disc diffusion method was used. The bacteria are resistant to streptomycin, cephalotine, erythromycin, clindamycin, penicillin, and ampicillin. In contrast, the bacteria are susceptible to amikacin, ceftazidime, ciprofloxacin and norfloxacin. The MAR index shows high value, which are between 0.5 and 0.6. Thus, *Pseudomonas* sp. is categorized under highly risk bacteria.