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**The novel bioactive compound of phenazine derivative produced by endophytic actinomycetes from *Neesia altissima* (Malvaceae)****Rina Hidayati Pratiwi**

Universitas Indraprasta PGRI, Indonesia

Endophytic actinomycetes have been known as a promising source of new antibiotics against susceptible and resistant forms of microorganisms. In this study, we isolated, identified endophytic actinomycetes that isolated from *Neesia altissima* based on phylogenetic analysis of DNA sequence. The antibacterial bioactive compounds were also isolated from the endophytic actinomycetes based on elucidation of the structure. The endophytic actinomycetes isolated from roots, barks and fresh leaves of *Neesia altissima* collected from Halimun-Salak Mount were screened for their potential against pathogenic bacteria using crude extract dilution and diffusion disc methods and then identified. The crude extracts obtained from two endophytic actinomycetes that exhibited potential antibacterial activity by showing clear zone surrounding the pathogenic bacteria. Phylogenetic tree was constructed using a nearly complete sequence within the 16S rRNA gene. Isolation and identification of bioactive compounds were carried out using TLC, NMR and MS analyses. Identification of the potential endophytic actinomycetes based on phylogenetic analysis of DNA sequence generated from 16S rRNA region determined as *Streptomyces* sp. UICC B-92. Crude extract of *Streptomyces* sp. UICC B-92 showed antagonistic activity against Gram positive bacteria, *Bacillus cereus* ATCC 10876 and *Staphylococcus aureus* ATCC 25923. The bioactive compound that isolated from endophytic actinomycetes was phenazine derivative. The novel bioactive compound of phenazine derivative would be expedient to modify the same in view of another implication, such as anticancer, antifungal and antioxidant.

**Biography**

Rina Hidayati Pratiwi is a Lecturer at Department of Biological Education, Faculty of Technics, Mathematics and Natural Sciences, Universitas Indraprasta PGRI and a Researcher at University of Indonesia. She has obtained her Doctorate degree in Microbiology from Universitas Indonesia and Master of Science degree in Microbial Biotechnology from Bogor Agricultural University, Indonesia. Her previous experience involved being a Member of the research team at Research Center for Chemistry, Indonesian Institute of Sciences about bioactive compounds from endophytic microbial of endemic plants.

rina.hp2012@gmail.com, rina\_hp2003@yahoo.com

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