ISOLATION of ACTINOMYCETES from MANGROVE SEDIMENT UJUNG PANGKAH in GRESIK

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ABSTRACT

This research was conducted to get actinomycetes isolate from mangrove sediment Ujung Pangkah in Gresik. Samples sediment were taken from mangrove rhizosfer in Ujung Pangkah on 3 different location sampling areas. Ten gram of soil sample was accurately weighed and transferred to ad 100 mL of sterile NaCL physiologic mixed well for 10 minuts. The resultant solution was serially diluted up to 10^{-10} (10^{-3}, 10^{-4} until 10^{-12}) with NaCl physiologic. One millilitre of each intermediate dilution (10^{-3}, 10^{-4} until 10^{-12}) was added to 10 mL of sterile molten *Starch Casein Agar* medium wich has been supplemented using both *chloramphenicol* and *griseofulvin* each one 0.05 ppm individually in separate flasks. The plates were incubated for the growth of actinomycetes colonies at 28 °C and observed intermittently during incubation. After 7 days of incubation, the colonies showing the characteristics of actinomycetes (rough, chalky, powdery appearance radiating growth and leathery texture) were observed. Identification of actinomycetes isolates was conducted by observing macroscopic characteristic of the colony, microscopic of conidial, bacterial cell and the ability of bacteria to resist from acid alcohol. Identification was done based on *Bergey's manual of determinatif bacteriology*. The result of this research obtained 9 different isolates actinomycetes. The 9 isolat was identified as 3 genera from actinomycetes. The genera of isolate obtained are Micromonospora, Nocardia and Streptomycetes.

Keyword : Actinomycetes, sediment, mangrove, Ujung Pangkah, *Starch-Casein Agar.*