

ABSTRACT

SCREENING OF FIBRINOLYTIC ENZYME-PRODUCING'S FUNGI FROM MANGROVE ECOTOURISM WONOREJO, SURABAYA

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Research conducted on twenty soil samples originating from Mangrove Eco Tourism Wonorejo, Surabaya taken from ten locations. Sample was diluted to 10^{-3} , cultured on media Potatoes Dextrose Agar (PDA) and tested the proteolytic activity on the media Skim Milk Agar (SMA) 2%. Thirteen of twenty samples were tested gave positive results, it is shown by a clear zone around the colonies of mold growing. Fungus that gives positive results cultured on PDA slant as stocks of proteolytic fungi isolate.

The fungus that gives proteolytic activity then tested fibrinolytic activity on fibrin media plate made of fibrin 0.3% and 1.7% agarose and Methylene Blue 400 μ L. Nine samples gave positive fibrinolytic activity. Fibrinolytic enzyme activity index was measured by calculating diameter of the clear zone divided by diameter of the colony. Furthermore, fungal isolates that shown fibrinolytic activity chosen to characterize.

Characterization of macroscopic fungi by looking directly form of fungal colonies reverse side method. Characterization of microscopic fungus seen in magnification 400-1000x and identified with references Pictorial Atlas of Soil and Seed Fungi (Watanabe, 2002). Pengenalan Kapang Tropik Umum (Gandjar *et al.*, 1999), Illustrated Genera of Imperfect Fungi (Barnett and Hunter, 1998). There are two genera of fungi, *Aspergillus* and *Penicillium*, from Mangrove Eco Tourism Wonorejo, Surabaya, which is capable of producing fibrinolytic enzyme.

Keywords : Screening, Soil, Fungi, Proteolytic, Fibrinolytic, Mangrove, *Aspergillus*, *Penicillium*