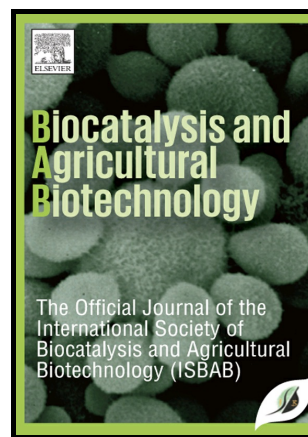


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***Artocarpus altilis* latex polypeptides: An insight into its fibrino(geno)lytic activity**

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Abstract

The proper method of harvesting breadfruit, *Artocarpus altilis* (Parkinson) Fosberg in commercial plantations often includes the process of draining the latex to avoid the staining of the epicarp. Therefore, this plant's exudate is not fully utilized and has no current agricultural use and only applied as traditional remedy for wound healing. Thus, this work focused on the purification of *A. altilis* latex and elucidation of its fibrino(geno)lytic activity. The latex was purified with HiTrap Sepharose FF column. This purification procedure had isolated a 72 kDa serine protease which was purified to homogeneity with 3-fold purity and a specific activity of 4.87 U/mg. The purified polypeptides were tested for fibrinogenolytic and fibrinolytic activities and were discovered to be a dual-action enzyme, where it was able to form fibrin clot from purified fibrinogen solution indicating the presence of thrombin-like activity and also exerting plasmin-like characteristics, where the formed clot was subsequently lysed by the protease. This protease presented a different mode of actions compared to human thrombin judging from the fibrinogen digestion patterns of SDS PAGE analysis and the peptides released based on the MALDI ToF/ToF mass spectrometry. *A.*

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