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Fungal pectinases: Applications in textile and ethanol industries

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Pectinases are a group of enzymes that break down complex polysaccharides of plant tissues into simple molecules such as galacturonic acid. These enzymes hold a leading position in commercialization for industrial applications. Current commercial pectinases are obtained from microbial sources, which result in ecofriendly tools with more specific and energy saving for various industries such as textile and biofuel. Identified enzymes are classified based on their catalytic activities to pectin or its derivatives. The presentation will cover the discovery and isolation methods of pectinases from microbial sources, as well as the use of molecular biology to overexpress the enzymes. The enzyme production, based on DOE method for cost-effective mixture, will also be discussed.

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