Synthesis of chitosan from mushroom extract and its application in antibacterial activity

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ABSTRACT

Chitin (poly-N-acetylglucosamine) is ubiquitous biopolymers which occur naturally as a major component in the skeletal and exoskeletal structures of lower animals. Chitin is also present in the vast majority of fungi as the principal fibrillar polymer of cell wall. The deacetylated form of chitin, chitosan has unique properties which make it useful for variety of Industrial application such as viscosity control agent, adhesive, paper strengthening agent and flocculating agent. Besides their traditional usage as a source of many pharmacologically active compounds, mushrooms can be used for cheap production of medical-grade chitosan, promising biocompatible and biodegradable candidate for many medical applications. Moreover, chitosan has wound healing and haemostatic properties and can be used for controlled release of biologically active compound. In this study, we have isolated chitosan from local mushroom. Isolated Chitosan was tested for antimicrobial activity by measurement of Zone of inhibition with varying parameters such as pH and temperature.