

BIOCHEMICAL CHARACTERIZATION OF MANNANASE PRODUCED BY *CLADOSPORIUM VELOX* SD02 USING PLAM KERNAL MEAL AS CULTURE MEDIUM

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Plam kernal meal is a good kind of feed with high content of mannan which is an antinutritional factor. β -mannanases, produced by a variety of fungi, could degrade mannan polysaccharides and improve the nutritional value of feed. A strain, designated as *Cladosporium velox* SD02, was isolated from soil of the campus of Yunnan Normal University. The strain could be grown in fluid nutrient medium using plam kernal meal as a sole carbon source. Mannanase activity was detected in the fermented supernatant. Biochemical characterization showed that the mannanase from *C. velox* SD02 had apparently optimal pH at 5.5 and 10.0 and apparently optimal temperature at 75 °C using locust bean gum as substrate. The enzyme was

stable in the pH range from 4.0–10.0 and at 50°C or below. It displayed activity toward konjac glucomannan, guar gum, barley β -glucan, and 4-nitrophenyl- α -D-galactopyranoside. These results suggested that the mannanase from *C. velox* SD02 was an attractive candidate in various industrial applications, such as feed and food industries.

Biography

Yuelin Mu is an Associate Professor in the School of Life Sciences, Yunnan Normal University, interested in enzyme catalysis.

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