

Improvement of the specific activity of the extracted mycelium-bound lipase of *Aspergillus flavus*

ABSTRACT

Specific activity of lipase extracted from the mycelium of *Aspergillus flavus*, obtained from 3-day-old culture, increased nearly two times higher than from its culture supernatant. Different types of parameters were tested to optimise the extraction of mycelium-bound lipase. Highest specific activity of *A. flavus* lipase was obtained at 30 °C for 30 min with the agitation rate of 200 rev/min. Tris-HCl buffer (0.05 M) at pH 8.2 was the best extractant followed by Triton X-100 (0.1%), EDTA (0.01 M), NaCl (1 M) and Tween-80 (0.01%). The optimised conditions developed for the extraction of mycelium-bound lipase improved the purity of this lipase by 2.9 times higher than the control.

Keyword: Mycelium-bound lipase; Specific activity; Extracted lipase; Free lipase