

## **Characterization of membrane-bound lipase from a thermophilic *Rhizopus oryzae* isolated from palm oil mill effluent**

### **ABSTRACT**

The characteristics of the membrane-bound lipase from a thermophilic *Rhizopus oryzae* were studied. The pH and temperature optima for lipase activity were at 7.0 and 37°C, respectively. The enzyme was stable under acidic conditions, retaining more than 80% of its initial activity at pH 4.0 after 30 min incubation. It was stable up to 50°C with 70% of initial activity retained after 3 h incubation. The enzyme is 1,3 specific and exhibits substrate preference. Monoacid triglyceride substrates were hydrolyzed better than methyl esters, polyoxysorbitan and sorbitan substrates.

**Keyword:** Characterization; Lipase; Membrane-bound lipase; *Rhizopus oryzae*