

## **Effect of temperature on *Candida antartica* lipase B activity in the kinetic resolution of acebutolol**

### **Abstract**

Thermodynamic studies of free *Candida antartica* lipase B in kinetic resolution of acebutolol have been carried out to characterize the temperature effects towards enzyme stability and activity. A decreased in reaction rate was observed in temperature above 40°C. Thermodynamic studies on lipase deactivation exhibited a first-order kinetic pattern. The activation and deactivation energies were 39.63 kJ/mol and 54.90 kJ/mol, respectively. The enthalpy and entropy of the lipase deactivation were found to be 52.12 kJ/mol and -0.18 kJ/mol, respectively.