

## Lipases: introduction

### Abstract

Lipases differ greatly with regard to their origins and their properties. Lipases can be obtained from microorganism, plant and animal. They can catalyze the hydrolysis or synthesis of a wide range of different substances. Microbial lipases are widely diversified in their enzymatic properties and substrates specificity which make them attractive for many industrial applications including detergents, food, flavor industry, ester and amino acid derivatives, baking, fine chemical, bioremediation, hard surface cleaning, leather and paper industry. Lipases stand amongst the most important biocatalysts due to their ability to utilize a wide spectrum of substrates, high stability towards extremes of temperature, pH and organic solvents, and chemo-, regio- and enantioselectivity. The enantioselective and regionselective nature of lipases have been utilized for the resolution of chiral drugs, fat modification, synthesis of cocoa butter substituents, biofuels, and for the synthesis of personal care products and flavor enhancers.