

Extraction of Lipase Enzymes from Animals and Birds' Fats and its Activity on Margarine

Mr. Kunal Thakur¹ and Mr. Udaybhan Yadav²

Assistant Professor, Department of Microbiology, ZSCT's Thakur Shyamnarayan Degree College, Kandivali, Mumbai¹
Coordinator, ZSCT's Thakur Shyamnarayan Degree College, Kandivali, Mumbai²

Abstract: *Lipases are extremely adaptable enzymes that have caught the interest of numerous industrial processes. Animal, vegetable, and microbial sources of lipase are all possible. Long chain triglycerides are hydrolyzed by microbial lipases. The lipase enzymes' microbial origins are theoretically flexible and capable, and they also have a wide range of industrial uses in the production of modified molecules. The hydrolysis, esterification and alcoholysis reactions were all catalyzed by the special lipase (triacylglycerol acyl hydrolase) enzymes. Since immobilization has improved the performance of microbial lipases, they are now suited for a variety of reactions and required to add scent to the immobilization processes. The immobilization method and carrier type affect the immobilized enzymes. When choosing a carrier, factors including biocompatibility, chemical and thermal stability, insolubility during reactions, ease of rejuvenation and reusability, as well as with lipases serving as a multifunctional biological catalyst, it is now possible to meet the demands of a number of industries, including those that produce biodiesel, foods and beverages, leather, textiles, detergents, and medicines and medical products. This paper discusses microbiological sources of lipases, techniques of immobilization that boost output and market profitability, and logistical considerations that lessen risk to the environment and the user.*

Keywords: Lipase, Immobilization, Fats, Triglycerides