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| Autore | Mala J. Geraldine Sandana |
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| Altri autori (Persone) | TakeuchiSatoru |
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| Nota di bibliografia | Includes bibliographical references (p. [135]-137) and index. |
| Nota di contenuto | Biotechnology : the science and origin of lipase -- Isolation strategies of microbial lipases -- Lipase production : defining the media -- Lipase purification and characterization -- Lipase structure -- Molecular cloning and overexpression -- Bioinformatics -- Lipases : biocatalysts for the future. |
| Sommario/riassunto | Lipases are triacylglycerol acylhydrolases that catalyse the hydrolysis of triglycerides to release concomitant free fatty acids and glycerol. Lipases are versatile enzymes with multiplexity of catalysis and therefore, constitute an important class of industrial enzymes of recent interests in basic and applied research. This book serves as a handbook for researchers in the Life Sciences and particularly for those who plan to investigate microbial lipases. It is also aimed to provide an updated and comprehensive review of laboratory activities on lipases, in particular from the microbial sources, thereupon, to impart good scientific perceptions to the reader in this discipline. The production characteristics are fundamental for manipulation of maximal enzyme titres. Considerable importance is also necessitated to gain genetically modified strains to enable enormous availability of the recombinant lipases for structural elucidations. Detailed descriptions on the isolation methods, production requirements, protein investigations and molecular cloning of the microbial lipases are presented. Bioinformatics approaches are also specifically discussed. Furthermore, lipase as a biocatalyst candidate is specifically included to target the application prospects of the lipase. Experimental protocols are presented for bench |

work practice. An appendix section is supplemented with significant data for the researcher as a reference tool for their routine laboratory investigations.