

Scientists identify a source of lipase from high altitude region of Sikkim

Researchers from the Department of Biotechnology's Institute of Bioresources and Sustainable Development (DBT- IBSD) and Council of Scientific and Industrial Research's National Institute for Interdisciplinary Science and Technology (CSIR - NIIST), Thiruvananthapuram have identified a novel source of lipase which has a broad temperature range of activity.

This work was carried out in the biodiversity hot spot region of Sikkim, which is least explored for industrial application. Among the isolates, *Pseudomonas helmanticensis* HS6 isolated from a soil sample collected from East Sikkim at altitude of 10,614 ft showed activity at a wide range of temperatures and was selected for lipase production. The lipase was purified. It was found active over a temperature range of 5 degrees celsius to 80 degree celsius and had optimum activity at 50 degree celsius.

More interestingly, the lipase activity remained even after 3 hours of incubation with commercial detergents at 5 and 30°C showing a high potential of this source for a lipase that would be useful in detergent industry.

Loreni C Phukon, Rounak Chourasia, Megha Kumari, Godan TK, Dinabandhu Sahoo, Binod Parameswaran, Amit K Rai.

Production and characterisation of lipase for application in detergent industry from a novel Pseudomonas helmanticensis HS6. Bioresour Technol. 2020 Apr

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