

Isolasi, Pemurnian dan Karakterisasi Lipase Bakteri Hasil Skrining dari Tanah Tempat Pembuangan Akhir (TPA) Gunung Tugel Banyumas

Title	Isolasi, Pemurnian dan Karakterisasi Lipase Bakteri Hasil Skrining dari Tanah Tempat Pembuangan Akhir (TPA) Gunung Tugel Banyumas
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Abstract	<p>A bacterial lipase producer was isolated from garbage dump soil and was identified its genus. Lipase was extracted according to production time optimized, purified using ammonium sulfate fractionation and gel chromatograph. Determination of enzyme characteristic studied were influence of pH, temperature, various metals to lipase activity. The result of this research shows that the genus of isolated bacteria which produced lipase was <i>Acinetobacter</i> sp., the lipase optimum production time is about 18 hours with the activity is about 115 unit/mL. The highest activity of lipase fractionation using ammonium sulfate is about 45% and the highest activity of purifying with filtration gel chromatograph column using Sephadex G-150 at 24 th fraction. Lipase from crude extract and purifying product at this fraction has optimum pH 6 and optimum temperature is about 40 oC. Lipase to be classified as metalloenzyme that shows with decreasing the activity after added the EDTA. Metals ion, such as Cu²⁺ and Zn²⁺ were inhibited the lipase activity. Ca²⁺ ion could increase lipase crude extract activity but inhibited the activity of lipase purifying product. Hg²⁺ ion could increase the activity of lipase purifying product.</p>
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