



Product Information

Lipase A

Product information for L6881:

Product Name: Recombinant lipase A

Source: *E.Coli*

Mol. Weight: 65 kDa

Form: Lyophilized powder, Immobilized powder

DESCRIPTIONS

Lipases (EC 3.1.1.3) are ubiquitous enzymes that catalyze the hydrolysis of fats and oils, playing important roles in pharmaceutical. The lipase from *Serratia marcescens* (SML) is well-known for its excellent enantioselectivity in biocatalytic hydrolysis of trans-3-(4-methoxyphenyl) glycidic acid methyl ester [(±)-MPGM] to produce (2R, 3S)-3-(4-methoxyphenyl) glycidic acid methyl ester [(-)-MPGM], a key intermediate for the synthesis of diltiazem hydrochloride.

APPLICATION

- 1) Hydrolyze trans-3-(4-methoxyphenyl) glycidic acid methyl ester [(±)-MPGM] to produce (2R,3S)-3-(4-methoxyphenyl) glycidic acid methyl ester [(-)-MPGM].
- 2) Hydrolyze (±)-naproxen methyl ester to produce (-)-naproxen.
- 3) Hydrolyze Fatty acid esters.
- 4) Catalyze tran ester reaction.
- 5) Produce biodiesel.

APPLICATION NOTES

PH-stability	pH5~10	
Thermal-stability	Be stable below 40°C, unstable at higher than 50°C.	
Stability against organic solvents	Higher activity	In 10%-50% DMSO, isopropyl ether, petroleum ether
		In 10%-25% ethanol, acetone and isopropanol,
		In 90% isopropyl ether, petroleum ether
	50% activity	In 50% acetone and isopropanol.
Selectivity to different fatty-acids derives	Priority to long-chain (> 10) fatty acids derives.	

APPLICATION EXAMPLES

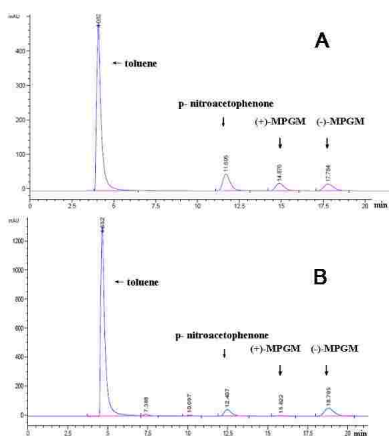


Figure 1. HPLC figure of (±)-MPGM using toluene as solvent, lipase A as catalyst. A, (±)-MPGM mixture before reaction; B, adding lipase A for 4h.

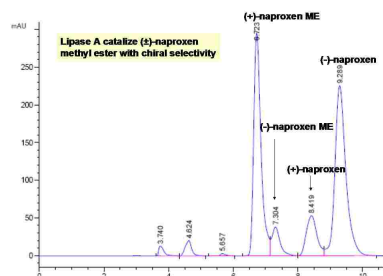


Figure 2. HPLC analysis on lipase A catalyze (±)-naproxen methyl ester with chiral selectivity

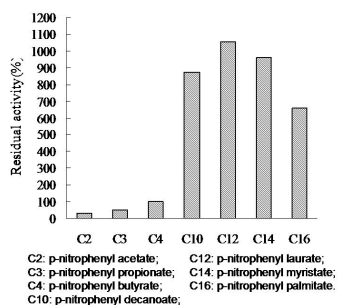


Figure 3. Selectivity of lipase A on different long-chain fatty acids p-nitrophenyl derives.



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PRODUCTS INFORMATION

Product	Cat.No	Activity	Packaging	Manufacturer
Recombinant Lipase A	RLAS063000	≥3000u/g	10mg 1g bulk	YaxinBio
	RLAS062000	≥2000u/g	10mg 1g bulk	YaxinBio
	RLAS06500	≥500u/g	250mg 10g bulk	YaxinBio

UNIT DEFINITION : Lipase was assayed using p-nitrophenyl acetate (pNPA) as a substrate.
One unit of lipase activity was defined as the amount of enzyme releasing
1.0 µmol of p-nitrophenol per minute.