

Candida antarctica lipase B biocatalyst, Recombinant



IMMOBILIZED
BIOCATALYST CALB_{TA} 10000

TECHNICAL DATA SHEET

BIOCATALYST CALB_{TA} 10000 is an immobilized enzyme catalyst of *Candida antarctica* lipase B expressed in yeast cells.

Product type

BIOCATALYST CALB_{TA} 10000 is based on covalent immobilization on polyacrylate beads.

Application

Resolution of chiral alcohols and amines; Synthesis of fatty-acid esters; Versatile applications in organic synthesis; Exhibit good to excellent stereo selectivity.

Description

Creamish white to white coloured regularly shaped beads with defined particle size distribution. Colour may vary from batch to batch and the colour intensity is not an indication of the product quality.

Particle size

300-500 μm > 95.0 %

Enzyme activity

NLT 2500 TBU units per g dry weight (Tributyrin hydrolysis)

NLT 10000 PLU units per g dry weight (Propyl laurate synthesis)

Dry weight

NLT 80 %

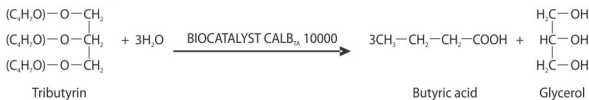
Unit definition

One TBU enzyme unit corresponds to amount of enzyme catalyzing the formation of 1 μmole of butyric acid at 40°C, pH 7.5 at 10% (v/v) Tributyrin concentration per minute per mL enzyme in the milieu of 100 mM sodium phosphate buffer.

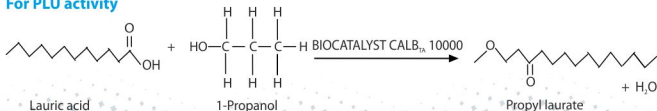
One PLU enzyme unit corresponds to synthesis of 1 μmol propyl laurate per minute per g of immobilized enzyme at 60°C from lauric acid and 1-propanol.

Reaction schematics

For TBU activity



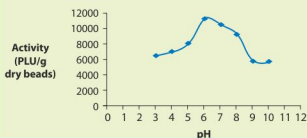
For PLU activity



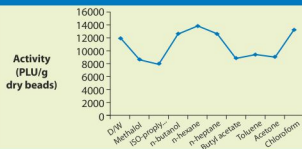
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BIOCATALYST CALB_{TA} 10000 Profile

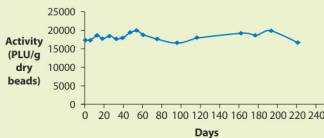
pH stability of BIOCATALYST CALB_{TA} 10000



Solvent stability of BIOCATALYST CALB_{TA} 10000



Storage stability (at 5°C) of
BIOCATALYST CALB_{TA} 10000



Advantages

- Higher activity
- Good stability

Storage & Product stability

Cool and dry conditions are recommended for storage. The recommended temperature for storing is below 10°C. When stored under these conditions, the product will maintain its declared activity for at least 12 months.

Safety

BIOCATALYST CALB_{TA} 10000 is very safe to handle, as it does not generate any aerosols. However, avoid raising dust. Avoid contact with skin and eyes. Take up the spilled dust by mechanical means. Avoid forming aerosols, wash contaminated clothing and ensure sufficient ventilation.

Material support data

- Technical data sheet
- Certificate of analysis
- Material safety data sheet
- Protocol for assay methods (PLU activity / TBU activity)

Packing size

- Minimum pack size : 1kg
- Bulk pack size : 25kg

Manufactured by :

Fermenta Biotech Limited

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