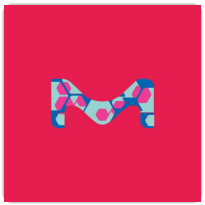


Toutes les photos (1)

Documents

FDS

COO/COA

Fiche des caractéristiques

Plus de documents »

62288 ▶ Sigma-Aldrich®

Lipase B Candida antarctica, recombinant from *Aspergillus oryzae*

☆☆☆☆☆ (0)

powder, beige, ~9 U/mg

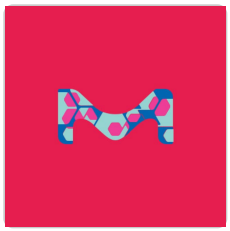
Numéro CAS:	9001-62-1	**Numéro de classification (Commission des enzymes):**	3.1.1.3 (BRENDA, IUBMB)
Numéro EC:	232-619-9	**Numéro MDL:**	MFCD00131509
NACRES:	NA.54		

Référence	Conditionnement	Disponibilité		Prix	Quantité
62288-50MG-F	50 MG	Only 1 left in stock (more on the way)	Détails...	217,00 €	− +
62288-250MG-F	250 MG	Disponible pour expédition le 05 octobre 2022	Détails...	765,00 €	− +

Demander une commande en gros

Ajouter au panier

PRODUITS RECOMMANDÉS



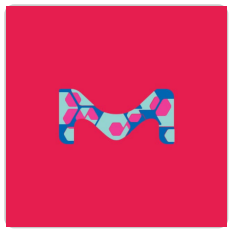
Sigma-Aldrich

52583

Lipase B Candida antarctica immobilized on Immobead 150, recombinant from yeast

≥2000 U/g

Consulter le prix et la disponibilité



Sigma-Aldrich

54326

Lipase B Candida antarctica immobilized on Immobead 150, recombinant from *Aspergillus*...

≥1800 U/g

Consulter le prix et la disponibilité

PROPRIÉTÉS

Recombinant	expressed in *Aspergillus oryzae*
Niveau de qualité	100
Forme	powder
specific activity	~9 U/mg
Poids mol.	33 kDa
Couleur	beige
Temp. de stockage	2-8°C

Vous recherchez des produits similaires ? Visit **Guide de comparaison des produits**

DESCRIPTION

Description générale

Candida antarctica lipase B (CalB) is structurally similar to several other lipases and has a flexible lid. It is made up of 317 amino acids and has a molecular weight of 33 kDa. Lipase B is a member of the alpha/beta hydrolase-fold family.

Application

Lipase B *Candida antarctica*, recombinant from *Aspergillus oryzae* has been used:

- as a standard to characterize the enzymatic properties of D5-CalB
- as an efficient biocatalyst to start the reaction to obtain (*R*)-ester via esterification of racemic secondary alcohol
- to investigate a “green” recycling route for polybutylene succinate (PBS) based on reactive extrusion
- to compare the esterification yield with adsorbed CaLB (aCaLB) and covalently immobilized CaLB (cCaLB)

Lipases are used industrially for the resolution of chiral compounds and the transesterification production of biodiesel.

Actions biochimiques/physiologiques

Lipases catalyze the hydrolysis of triacylglycerols into glycerol and free fatty acids.
Candida antarctica lipase B (CALB) possesses wide substrate specificity, high activity and high enantioselectivity, hence it is considered as a major enzyme in biotechnology. It also has the capability to perform in aqueous and non-aqueous reaction environments. CALB is used in transesterification, kinetic resolution and polymerization reactions.

Lipase B from *Candida antarctica* has been shown to be an effective catalyst for the synthesis of esters of ethyl D-glucopyranoside from fatty acids larger than octanoic acid. It has also been found to catalyze a wide variety of organic reactions including many different regio- and enantio-selective syntheses.

Définition de l'unité

1 U corresponds to the amount of enzyme which liberates 1 µmol butyric acid per minute at pH 8.0 and 40°C (tributyrin, Cat. No. 91010, as substrate)

INFORMATIONS SUR LA SÉCURITÉ

Code de la classe de stockage
11 - Combustible Solids

WGK
WGK 1

Flash Point(F)
Not applicable

Point d'éclair C
Not applicable

Équipement de protection individuelle
Eyeshields, Gloves, type N95 (US)

DOCUMENTATION

Certificat d'analyse

Saisir un numéro de lot pour rechercher un certificat d'analyse (COA).

Numéro de lot

e.g. 023J5431

Comment saisir un numéro de lot (COA)

Rechercher

Certificat d'origine

Saisir un numéro de lot pour rechercher un certificat d'origine (COO).

Numéro de lot

e.g. 023J5431

Comment saisir un numéro de lot (COO)

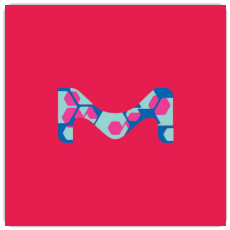
Rechercher

Plus De Documents

Enzyme Explorer

FDS

LES CLIENTS ONT ÉGALEMENT CONSULTÉ



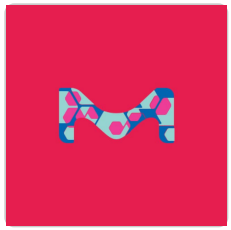
Sigma-Aldrich

L4277

Lipase from *Rhizomucor miehei*

≥20,000 U/g

Consulter le prix et la disponibilité



Sigma-Aldrich

62285

Lipase from *Aspergillus oryzae*

lyophilized, powder, white, ~50 U/mg

Consulter le prix et la disponibilité

QUESTIONS FRÉQUEMMENT POSÉES (FAQ)

Which document(s) contains shelf-life or expiration date information for a given product?

If available for a given product, the recommended re-test date or the expiration date can be found on the Certificate of Analysis.

How do I get lot-specific information or a Certificate of Analysis?

The lot specific COA document can be found by entering the lot number above under the "Documents" section.

What solvent can Lipase B Candida antarctica, recombinant from Aspergillus oryzae, Product 62288, be dissolved in?

Lipase B is expected to be soluble in water. We are able to dissolve the enzyme in water for the enzymatic assay. We also have tested the solubility of Lipase B in 0.05M potassium phosphate buffer solution (pH=7.5) during quality control at a concentration of 10mg/mL. According to the chemicals encyclopedia published by the Royal Society of Chemistry, almost all organic solvents decrease lipase activity, with the exception of petroleum ether.

Is Product 62288, Lipase B Candida antarctica, recombinant from Aspergillus oryzae, lyophilized?

This lipase is a lyophilisate and may contain Gum arabic for adjustment of activity. The amount of Gum arabic in each vial is lot dependent.

How pure is Product 62288, Lipase B Candida antarctica, recombinant from Aspergillus oryzae?

Purity is not determined for this product. As is the case with many of our enzymes, the product is assayed for enzymatic activity, not for purity.

What is the molecular weight of Lipase B Candida antarctica, recombinant from Aspergillus oryzae, Product 62288?

Unfortunately, molecular weight information is unavailable at this time.

What is Product 62288, Lipase B Candida antarctica, recombinant from Aspergillus oryzae, soluble in?

Lipase B is expected to be soluble in water. We are able to dissolve the enzyme in water for the enzymatic assay. We also have tested the solubility of Lipase B in 0.05 M potassium phosphate buffer solution (pH=7.5) during quality control at a concentration of 10 mg/mL. According to the chemicals encyclopedia published by the Royal Society of Chemistry, almost all organic solvents decrease lipase activity, with the exception of petroleum ether.

How do I find price and availability?

There are several ways to find pricing and availability for our products. Once you log onto our website, you will find the price and availability displayed on the product detail page. You can contact any of our Customer Sales and Service offices to receive a quote. USA customers: 1-800-325-3010 or view **local office numbers**.

What is the Department of Transportation shipping information for this product?

Transportation information can be found in Section 14 of the product's (M)SDS.To access the shipping information for this material, use the link on the product detail page for the product.

My question is not addressed here, how can I contact Technical Service for assistance?

Ask a Scientist **here**.

ARTICLES REVUS PAR DES PAIRS

Preparation of passion fruit-typical 2-alkyl ester enantiomers via lipase-catalyzed kinetic resolution

Strohalm H, et al.
Journal of Agricultural and Food Chemistry, 58(10), 6328-6333 (2010)

A novel self-activation mechanism of Candida antarctica lipase B

Luan B and Zhou R
Physical Chemistry Chemical Physics, 19(24), 15709-15714 (2017)

Nanonets Derived from Turnip Mosaic Virus as Scaffolds for Increased Enzymatic Activity of Immobilized Candida antarctica Lipase B.

Sol Cuenca et al.
Frontiers in plant science, 7, 464-464 (2016-05-06)

Elongated flexuous plant viral nanoparticles (VNPs) represent an interesting platform for developing different applications in nanobiotechnology. In the case of potyviruses, the virion external surface is made up of helically arrayed domains of the viral structural coat protein (CP), repeated

Insights into the Interaction between Immobilized Biocatalysts and Metal-Organic Frameworks: A Case Study of PCN-333.

Wenjie Yang et al.
JACS Au, 1(12), 2172-2181 (2022-01-04)

The immobilization of enzymes in metal-organic frameworks (MOFs) with preserved biofunctionality paves a promising way to solve problems regarding the stability and reusability of enzymes. However, the rational design of MOF-based biocomposites remains a considerable challenge as very little is

Simple amino acid tags improve both expression and secretion of Candida antarctica lipase B in recombinant Escherichia coli

Kim S K, et al.
Biotechnology and Bioengineering, 112(2), 346-355 (2015)

Afficher tous les articles scientifiques apparentés

PROTOCOLES ET ARTICLES SCIENTIFIQUES

Articles

Shvo's Catalyst

Efficient epimerization catalyst for enzyme mediated dynamic kinetic resolution (DKR).

PRODUITS CONSULTÉS RÉCEMMENT

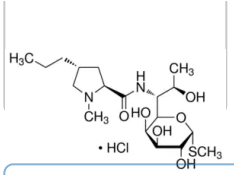
Sigma-Aldrich
62287

Sigma-Aldrich
62143

Lipase A Candida antarctica, recombinant from *Aspergillus oryzae*

powder, beige, ~2 U/mg

Consulter le prix et la disponibilité



Lincomycin hydrochloride

96.0-102.0% (HPLC)

Consulter le prix et la disponibilité

Évaluations

★★★★★

Soyez le premier à donner votre avis sur ce produit

Questions

Soyez le premier à poser une question

SERVICE TECHNIQUE

Notre équipe de scientifiques dispose d'une expérience dans tous les secteurs de la recherche, notamment en sciences de la vie, science des matériaux, synthèse chimique, chromatographie, analyse et dans de nombreux autres domaines..

Contacter notre Service technique

Le contenu de cette page vous a-t-il été utile ?*

Que pouvons-nous faire pour améliorer cette page spécifique de notre site Internet ?

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