

Saisir le nom du produit, le numéro de lot, etc.

[Toutes les photos](#) (2)

Documents

[↓ FDS](#)[🔍 COO/COA](#)[📄 Fiche des caractéristiques](#)[Plus de documents](#) »**E3019** ▶ **Sigma-Aldrich.**

Esterase from porcine liver

★★★★★ (0)

lyophilized powder, ≥15 units/mg solid

Synonyme(s):

Carboxyl esterase, Carboxylic-ester hydrolase, PLE

Numéro CAS: **9016-18-6**Numéro EC: **232-773-7**

NACRES: NA.54

Numéro de classification
(Commission des enzymes):**3.1.1.1 (BRENDA, IUBMB)**

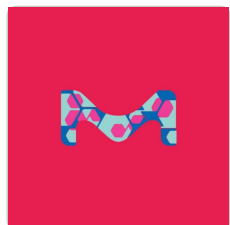
Numéro MDL:

MFCD00131030

Référence	Conditionnement	Disponibilité	Prix	Quantité
E3019-3.5KU	3500 UNITS	✓ Only 4 left in stock (more on the way) Détails...	47,50 €	- + i
E3019-20KU	20000 UNITS	✓ Only 3 left in stock (more on the way) Détails...	173,00 €	- + i
E3019-100KU	100000 UNITS	✓ Date d'expédition estimée le 10 novembre 2022	308,00 €	- + i

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PRODUITS RECOMMANDÉS



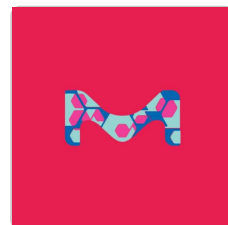
Sigma-Aldrich

E2884

Esterase from porcine liver

ammonium sulfate suspension, ≥ 150 units/mg protein (biuret)

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Sigma-Aldrich

46058

Esterase from porcine liver

lyophilized, powder, slightly beige, ≥ 50 U/mg

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PROPRIÉTÉS

Forme	lyophilized powder
Niveau de qualité	300
specific activity	≥ 15 units/mg solid
Poids mol.	168 kDa
application(s)	diagnostic assay manufacturing
Temp. de stockage	-20°C

Vous recherchez des produits similaires ? Visitez [Guide de comparaison des produits](#)

DESCRIPTION

Application

Esterase from porcine liver has been used in a study to assess the effect of 5-aminolaevulinic acid peptide prodrugs on photosensitization for photodynamic therapy. Esterase from porcine liver has also been used in a study to investigate how site-specific atherogenic gene expression correlates with subsequent variable lesion development in coronary and peripheral vasculature.

The enzyme from Sigma has been immobilised in hollow fibre ultrafiltration membrane and used for the asymmetric hydrolysis of a meso-diester. Esterase from Sigma has been used to investigate its effect on the release of methacrylic acid (MAA) and 2-hydroxyethyl methacrylate (HEMA) from adhesives formulated under conditions simulating wet bonding. It has been used to examine the ability of carboxylesterase activity to remove permethrin- and bifenthrin-associated toxicity to *Ceriodaphnia dubia* and *Hyalella azteca* in a variety of matrices.

Porcine liver esterase is used to catalyze the hydrolysis of pentaacetyl catechin and epicatechin for use in pharmaceutical and industrial applications.

Pig liver esterase is commonly used for kinetic resolutions and asymmetric synthesis in organic chemistry.

Conditionnement

3500, 20000, 100000 units in poly bottle

Actions biochimiques/physiologiques

Esterase acts on water-soluble carboxyl esters containing short chain fatty acids. Its functionality is attributed to the catalytic triad of Ser, His and Asp/Glu.

Pig liver esterase catalyzes enantioselective conversion of an ester to a carboxylic acid. The molecular weight is found to be 168 kDa. It is a serine enzyme with two active sites on each molecule, which dissociates into active half-molecules in the presence of dilute acid or concentrated salts.

Définition de l'unité

One unit will hydrolyze 1.0 μ mole of ethyl butyrate to butyric acid and ethanol per min at pH 8.0 at 25 °C.

PRODUITS APPARENTÉS

Substrat

N8000

1-Naphthyl butyrate, esterase substrate

[View Pricing](#)

B4377

5-Bromo-4-chloro-3-indolyl acetate, esterase substrate

[View Pricing](#)

I3500

Indoxyl acetate, $\geq 95\%$ (GC)

[View Pricing](#)

N8130

4-Nitrophenyl acetate, esterase substrate

[View Pricing](#)

N0758

Naphthol AS-D chloroacetate, esterase substrate

[View Pricing](#)

INFORMATIONS SUR LA SÉCURITÉ

Code de la classe de stockage

13 - Non 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

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[Rechercher](#)

Certificat d'origine

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

Numéro de lot

e.g. 023J5431

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[Rechercher](#)

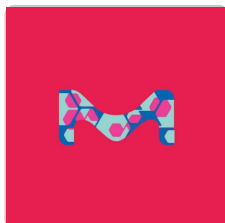
Plus De Documents

[Enzyme Explorer](#)

[Spectra for FT-IR Raman](#)

[FDS](#)

LES CLIENTS ONT ÉGALEMENT CONSULTÉ

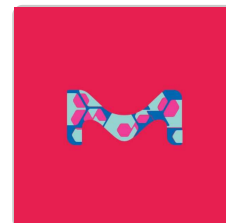


Sigma-Aldrich

80712

**Esterase Methylobacterium populi,
recombinant**

recombinant, expressed in *E. coli*, ≥ 0.5 U/mg



Sigma-Aldrich

E0287

Carboxylesterase 1 isoform b human

recombinant, expressed in baculovirus infected BTI
insect cells

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ARTICLES REVUS PAR DES PAIRS

Use of carboxylesterase activity to remove pyrethroid-associated toxicity to *Ceriodaphnia dubia* and *Hyaella azteca* in toxicity identification evaluations.

Craig E Wheelock et al.

Environmental toxicology and chemistry, 25(4), 973-984 (2006-04-25)

Increases in the use and application of pyrethroid insecticides have resulted in concern regarding potential effects on aquatic ecosystems. Methods for the detection of pyrethroids in receiving waters are required to monitor environmental levels of these insecticides. One method employed

Stereospecific and regioselective hydrolysis of cannabinoid esters by ES46.5K, an esterase from mouse hepatic microsomes, and its differences from carboxylesterases of rabbit and porcine liver.

Kazuhiro Watanabe et al.

Biological & pharmaceutical bulletin, 28(9), 1743-1747 (2005-09-06)

The properties of ES46.5K, an esterase from mouse hepatic microsomes, were compared with those of carboxylesterases from rabbit and porcine liver. The inhibitory profile with a serine hydrolase inhibitor (bis-p-nitrophenylphosphate) and detergents (sodium dodecylsulfate, Emulgen 911) was different between ES46.5K

Asymmetric hydrolysis of a meso-diester using pig liver esterase immobilised in hollow fibre ultrafiltration membrane.

Sousa HA, et al.

Tetrahedron Asymmetry, 11(4), 929-934 (2000)

The environment shapes microbial enzymes: five cold-active and salt-resistant carboxylesterases from marine metagenomes.

Anatoli Tchigvintsev et al.

Applied microbiology and biotechnology, 99(5), 2165-2178 (2014-09-10)

Most of the Earth's biosphere is cold and is populated by cold-adapted microorganisms. To explore the natural enzyme diversity of these environments and identify new carboxylesterases, we have screened three marine metagenome gene libraries for esterase activity. The screens identified

Enzymatic biodegradation of HEMA/bisGMA adhesives formulated with different water content.

Elisabet L Kostoryz et al.

Journal of biomedical materials research. Part B, Applied biomaterials, 88(2), 394-401 (2008-04-09)

Dentin adhesives may undergo phase separation when bonding to wet demineralized dentin. We hypothesized that adhesives exhibiting phase separation will experience enhanced biodegradation of methacrylate ester groups. The objective of this project was to study the effect of enzyme-exposure on

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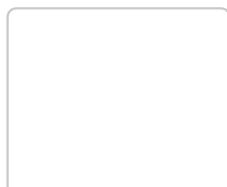
PROTOCOLES ET ARTICLES SCIENTIFIQUES

Protocoles

Enzymatic Assay of Esterase

Objective: To standardize a procedure for the enzymatic determination of Esterase activity using Ethyl Butyrate as a substrate.

PRODUITS CONSULTÉS RÉCEMMENT

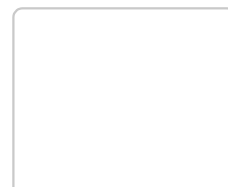


Sigma-Aldrich

E3004

Extract-N-Amp™ PCR ReadyMix™

Amplifications to support Extract-N-Amp Plant and



Sigma-Aldrich

E2888

Earle's Balanced Salts

With sodium bicarbonate, liquid, sterile-filtered, suitable

Extract-N-Amp Tissue

for cell culture

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Évaluations

★★★★★

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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..

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