

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

[Toutes les photos](#) (3)

Documents

 [FDS](#) [COO/COA](#) [Fiche des caractéristiques](#)[Plus de documents](#) »**E0258** ▶ **Sigma-Aldrich.**

Elastase from porcine pancreas

★★★★★ (0)

Type IV, Protein 50-90 %, lyophilized powder, ≥4.0 units/mg protein (biuret)

Synonyme(s):

Elastase from hog pancreas, Pancreatopeptidase E

Numéro CAS: **39445-21-1**Numéro EC: **254-453-6**

NACRES: NA.54

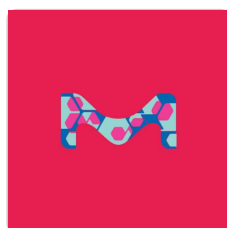
Numéro de classification
(Commission des enzymes): **3.4.21.36 (BRENDA, IUBMB)**Numéro MDL: **MFCD00130998**

Référence	Conditionnement	Disponibilité	Prix	Quantité
E0258-1MG	1 MG	✓ Only 2 left in stock (more on the way) Détails...	85,00 €	- + 
E0258-5MG	5 MG	✓ Date d'expédition estimée le 16 novembre 2022	253,00 €	- + 
E0258-10MG	10 MG	✓ Only 4 left in stock (more on the way) Détails...	443,00 €	- + 
E0258-20MG	20 MG	✓ Date d'expédition estimée le 16 novembre 2022	761,00 €	- + 
E0258-50MG	50 MG	✓ Only 1 left in stock (more on the way) Détails...	832,00 €	- + 

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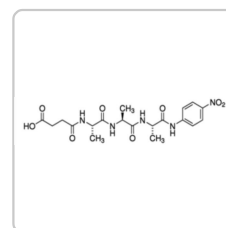
PRODUITS RECOMMANDÉS



Sigma-Aldrich

E1250**Elastase from porcine pancreas**

Type I, ≥4.0 units/mg protein

[Consulter le prix et la disponibilité](#)

Sigma-Aldrich

S4760**N-Succinyl-Ala-Ala-Ala- *p*-nitroanilide**

elastase substrate

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PROPRIÉTÉS

Source biologique	Porcine pancreas
Niveau de qualité	200
Type	Type IV
Forme	lyophilized powder
specific activity	≥4.0 units/mg protein (biuret)

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Composition	Protein, 50-90%
Activité étrangère	trypsin ≤ 50 BAEE units/mg protein
Temp. de stockage	-20°C

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

Catégories apparentées

[Proteases](#)

DESCRIPTION

Description générale

Elastase is a single polypeptide chain of 240 amino acid residues and contains four disulfide bridges. The molecular mass is approximately 25.9 kDa. The enzyme is synthesized as an inactive zymogen, proelastase, which is converted to the active form by limited proteolysis at the N-terminal by trypsin.

Application

Elastase from Sigma has been used to examine the extent of proteolytic degradation of BSA that is treated with hydroxyl radicals. Elastase has also been used to purify elastase-inhibitory lipid derivative from a cyanobacterium, *Microcystis* Ku2.

Elastase from porcine pancreas has been used in a study to assess the molecular bases for human leucocyte elastase inhibition. Elastase from porcine pancreas has also been used in a study to investigate the molecular cloning and expression of serum calcium-decreasing factor (caldecrin).

Elastase from porcine pancreas has been used:

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- to treat vero cells to study its effects on syncytium formation
- as a positive control in protease assays
- as a component in RPMI 1640 to isolate human aortic smooth muscle cells (HASMCs) from the aortic tissue

Conditionnement

1, 5, 10, 20, 50 mg in glass bottle

Package size based on protein content

Actions biochimiques/physiologiques

Elastase is a serine protease with broad specificity as it cleaves protein at the carboxyl side of small hydrophobic amino acids such as Ile, Gly, Ala, Ser, Val and Leu. The enzyme also hydrolyzes amides and esters such as N-Benzoyl-L-alanine methyl ester. The pH optimum is found to be 8.0-8.5. It does not require any activator, but it is inhibited by diisopropyl fluorophosphate, phenylmethanesulfonyl fluoride, α 2-macroglobulin, α 1-antitrypsin, sulfonyl fluorides and p-dinitrophenyl diethylphosphate and high salt concentrations. It is extensively used in tissue and cell dissociation procedures. Elastase is effective in the isolation of Type II lung cells. Elastase hydrolyses elastin, the specific protein of elastic fibers, and digests hemoglobin, casein and fibrin.

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Définition de l'unité

One unit will hydrolyze 1.0 μ mole of N-succinyl-L-Ala-Ala-Ala-p-nitroanilide per min, pH 8.0 at 25 °C.



Forme physique

Contains sodium carbonate.

Notes préparatoires

A further purification of Type III, E 0127, by affinity chromatography to reduce trypsin activity

PRODUITS APPARENTÉS

Application

G001833

HPLC Analysis of Elastase on Discovery® BIO PolyMA-SCX, Ion Exchange, application for HPLC

[View Pricing](#)

Inhibiteur

M6159

α 2-Macroglobulin from human plasma, BioUltra, $\geq 98\%$ (SDS-PAGE)

[View Pricing](#)

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D7910

3,4-Dichloroisocoumarin, serine protease inhibitor

[View Pricing](#)

D0879

Diisopropylfluorophosphate

[View Pricing](#)

A9024

α 1-Antitrypsin from human plasma, salt-free, lyophilized powder

[View Pricing](#)

A6150

α 1-Antitrypsin from human plasma, salt-free, lyophilized powder

[View Pricing](#)

Substrat

M9771

N-Methoxysuccinyl-Ala-Ala-Pro-Val-7-amido-4-methylcoumarin, elastase substrate

[View Pricing](#)



S4760

N-Succinyl-Ala-Ala-Ala- *p*-nitroanilide, elastase substrate

[View Pricing](#)

S8511

N-Succinyl-Ala-Ala-Pro-Leu p-nitroanilide, protease substrate

[View Pricing](#)

INFORMATIONS SUR LA SÉCURITÉ

Pictograms**GHS07,GHS08****Mention d'avertissement**

Danger

Mentions de danger**H315 - H319 - H334 - H335****Conseils de prudence****P261 - P264 - P271 - P280 -
P302 + P352 - P305 + P351 +
P338****Classification des risques**Eye Irrit. 2 - Resp. Sens. 1 -
Skin Irrit. 2 - STOT SE 3**Organes cibles**

Respiratory system

**Code de la classe de
stockage**

11 - Combustible Solids

WGK

WGK 3

Flash Point(F)

Not applicable

Point d'éclair C

Not applicable

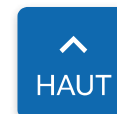
DOCUMENTATION

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)

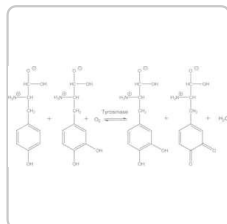
Rechercher

Plus De Documents

[Enzyme Explorer](#)

[FDS](#)

LES CLIENTS ONT ÉGALEMENT CONSULTÉ



Sigma-Aldrich

T3824

Tyrosinase from mushroom

lyophilized powder, ≥1000 unit/mg solid



Sigma-Aldrich

C3142

α-Chymotrypsin from bovine pancreas

(TLCK treated to inactivate residual trypsin activity),
Type VII, essentially salt-free, lyophilized powder,...

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ARTICLES REVUS PAR DES PAIRS

Cloning and overexpression of extracellular elastase from *Pseudomonas aeruginosa*

Raftari M, et al.

European journal of inflammation, 11(1), 55-60 (2013)

Partial Purification and Characterization of an Elastase-inhibitory Lipid Derivative from a Cyanobacterium, *Microcystis Ku2*.

Suvendra Nath Bagchi et al.

Indian journal of microbiology, 51(4), 496-500 (2012-10-02)

A unicyanobacterial isolate of cyanobacterium, identified as *Microcystis Ku2*, produced a mammalian elastase-inhibitory lipid derivative. Protease inhibitors in cyanobacteria are unequivocally peptides. Since this metabolite appeared in lipid phase, we worked on a hypothesis that whether metabolite other than peptides

Lipid binding and activating properties of porcine pancreatic colipase split at the Ile79-Thr80 bond.

N Rugani et al.

Biochimica et biophysica acta, 1247(2), 185-194 (1995-03-15)

Porcine colipase, the protein cofactor of pancreatic lipase, was isolated from pancreas freshly collected on animals and from a side fraction from the production of insulin (Novo Nordisk A/S). Samples of purified colipase were analyzed for homogeneity by polyacrylamide gel

Digestive enzymes and stylet morphology of *Deraeocoris nebulosus* (Hemiptera: Miridae), a predacious plant bug

Boyd DW, et al.

Annals of the Entomological Society of America, 395-401 (2002)

Regulation of human aortic endothelial cell-derived mesenchymal growth factors by allogeneic lymphocytes in vitro. A potential mechanism for cardiac allograft vasculopathy.

Wagner CR, et al.


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[Afficher tous les articles scientifiques apparentés](#)

PROTOCOLES ET ARTICLES SCIENTIFIQUES

Protocoles

[Enzymatic Assay of Elastase \(EC 3.4.21.36\)](#)

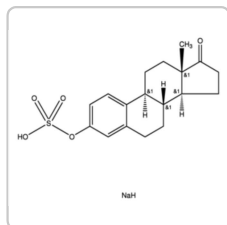
Enzymatic Assay of Elastase (EC 3.4.21.36), a continuous spectrophotometric rate determination.

Chromatograms

[HPLC Analysis of Elastase on Discovery® BIO PolyMA-SCX, Ion Exchange](#)

application for HPLC

PRODUITS CONSULTÉS RÉCEMMENT

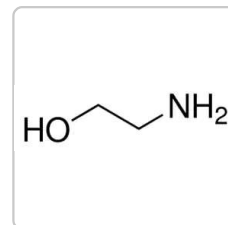


Sigma-Aldrich

E0251

Estrone 3-sulfate sodium salt
contains ~35% Tris as stabilizer

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Sigma-Aldrich

E0135

Ethanolamine
liquid, BioReagent, suitable for cell culture, ≥98%

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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..

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