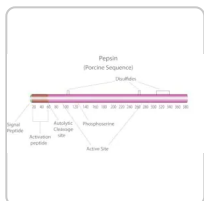


Saisir le nom du produit, le numéro de lot, etc.



Toutes les
photos (4)

Documents



FDS



COO/COA



Fiche des
caractéristiques

Plus de
documents »

P7000 ▶ **Sigma-Aldrich.**

Pepsin from porcine gastric mucosa

★★★★★ (0)

powder, ≥250 units/mg solid

Synonyme(s):

Pepsin A, Pepsin from hog stomach

Numéro CAS: **9001-75-6**

Numéro EC: **232-629-3**

eCl@ss: 42010127

Numéro de classification
(Commission des enzymes):

3.4.23.1 (BRENDA, IUBMB)

Numéro MDL:

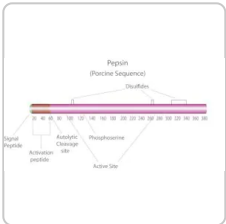
MFCD00081840

Référence	Conditionnement	Disponibilité	Prix	Quantité
P7000-25G	25 G	✓ Disponible pour expédition le 07 octobre 2022 Les fabricants de produits de diagnostic devraient utiliser un produit d'une autre qualité : SRE0001 Détails...	80,70 €	- + i
P7000-100G	100 G	✓ Disponible pour expédition le 07 octobre 2022 Détails...	240,00 €	- + i
P7000-1KG	1 KG	✓ Disponible pour expédition le 07 octobre 2022 Détails...	1 370,00 €	- + i

[Demander une commande en gros](#)

[Ajouter au panier](#)

PRODUITS RECOMMANDÉS



Sigma-Aldrich
P7012
Pepsin from porcine gastric mucosa
lyophilized powder, ≥2,500 units/mg protein (E1%/280)

Consulter le prix et la disponibilité



Sigma-Aldrich
P7545
Pancreatin from porcine pancreas
8 × USP specifications

Consulter le prix et la disponibilité

PROPRIÉTÉS

Source biologique	Porcine gastric mucosa
Niveau de qualité	200
Forme	powder
specific activity	≥250 units/mg solid
Poids mol.	35 kDa
N° d'accession UniProt	P00791

application(s)	diagnostic assay manufacturing
Expédié(e)(s) dans	wet ice
Temp. de stockage	2-8°C
Gene Information	pig ... LOC396892(396892)

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

Catégories apparentées

[Proteases](#)

DESCRIPTION

Application

Pepsin is a peptidase used to digest proteins and is commonly used in the preparation of Fab fragments from antibodies. Pepsin, from porcine gastric mucosa, has been used to hydrolyze dry cervical samples in mice. Product P7000 is provided as a powder and has been used to treat epithelial cells from a single feline mammary carcinoma.

The enzyme from Sigma has been used to simulate *in vitro* gastric digestion of cooked cod. It has been used to simulate *in vitro* gastric digestion of cocoa mass and supplemented dietary fiber. It has also been used to increase the fraction of extractable soluble collagen and to lower the immunogenicity of the resulting collagen from bovine dermal tissue.

Pepsin cleavage can be used to produce F(ab')₂ fragments of antibodies. [pepsin](#) at www.sigma-aldrich.com/enzymeexplorer.

Conditionnement

25, 100 g in poly bottle

1 kg in poly bottle

Actions biochimiques/physiologiques

Pepsin hydrolyzes peptide bonds, not amide or ester linkages. Pepsin cleaves peptides with an aromatic acid on either side of the peptide bond. Sulfur-containing amino acids increase susceptibility to hydrolysis when they are close to the peptide bond. Pepsin preferentially cleaves at the carboxyl side of phenylalanine and leucine and at the carboxyl side of glutamic acid residues. Cleaves Phe-Val, Gln-His, Glu-Ala, Ala-Leu, Leu-Tyr, Tyr-Leu, Gly-Phe, Phe-Phe and Phe-Tyr bonds in the β chain of insulin

Pepsin is the major proteolytic enzyme produced in the stomach. It digests proteins through the cleavage of interior peptide linkages..

The enzyme does not cleave at valine, alanine, or glycine linkages. Z-L-tyrosyl-L-phenylalanine, Z-L-glutamyl-L-tyrosine, and Z-L-methionyl-L-tyrosine may be used as substrates for pepsin digestion. Pepsin is inhibited by several phenylalanine-containing peptides.

Preferential cleavage: hydrophobic and aromatic residues in P1 and P1' positions. Cleaves Phe-Val, Gln-His, Glu-Ala, Ala-Leu, Leu-Tyr, Tyr-Leu, Gly-Phe, Phe-Phe and Phe-Tyr bonds in the β chain of insulin

Définition de l'unité

One unit will produce a ΔA_{280} of 0.001 per min at pH 2.0 at 37 °C, measured as TCA-soluble products using hemoglobin as substrate. (Final volume = 16ml. Light path = 1cm.)

Remarque sur l'analyse

Optimum pH is 2-4. Active in 4 M urea and 3 M guanidine HCl. Stable at 60 °C. Pepsin is irreversibly inactivated at pH 8.0 - 8.5.

Autres remarques

View more information on [pepsin](https://www.sigmaaldrich.com/FR/fr/product/sigma/p7000) at [www.sigmaaldrich.com/enzymeexplorer](https://www.sigmaaldrich.com/FR/fr/product/sigma/p7000).

PRODUITS APPARENTÉS

Inhibiteur

P5318

Pepstatin A, microbial, ≥90% (HPLC)

[View Pricing](#)

P7626

Phenylmethanesulfonyl fluoride, ≥98.5% (GC)

[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 1

Flash Point(F)

Point d'éclair C

Équipement de protection

Not applicable

Not applicable

individuelle

dust mask type N95 (US),
Eyeshields, Faceshields,
Gloves

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

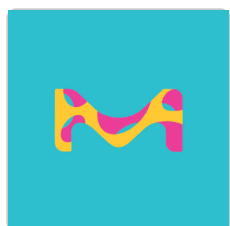
Comment saisir un numéro de lot (COO)

Rechercher

Plus De Documents

[Enzyme Explorer](#)[FDS](#)

LES CLIENTS ONT ÉGALEMENT CONSULTÉ



USP

1510051**Pepsin for assay**

United States Pharmacopeia (USP) Reference Standard

[Consulter le prix et la disponibilité](#)

Sigma-Aldrich

P1750**Pancreatin from porcine pancreas**

4 × USP specifications

[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.

I've seen the term "1:10000" used to define Product P7000, Pepsin from porcine gastric mucosa (Pepsin A). What does that mean?

A historical measurement of pepsin activity was the ratio of pepsin to coagulated egg white that the pepsin would digest. Thus 1:10,000 would refer to one part pepsin to 10,000 parts coagulated egg white. More recent analyses use hemoglobin as a substrate, in place of coagulated egg white.

Can I freeze stock solutions of Product P7000, Pepsin from porcine gastric mucosa (Pepsin A)?

Solutions of the enzyme at pH 4.4 should be stable at -20 °C for 2-3 months.

Product P7000, Pepsin from porcine gastric mucosa (Pepsin A), can be stored at room temperature, but other pepsins are stored in the cooler or freezer. Why is this?

This relates to autodigestion of pepsin. P7000 is a relatively "crude" pepsin, where other proteins that are present would be more likely digestion targets. With more purified pepsin, the risk of autodigestion increases, and storage at colder temperatures reduces that risk.

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

[Effects of hydroxyapatite reinforcement on the architecture and mechanical properties of freeze-dried collagen scaffolds.](#)

Robert J Kane et al.

Journal of the mechanical behavior of biomedical materials, 7, 41-49 (2012-02-22)

Freeze-dried collagen scaffolds reinforced with hydroxyapatite (HA) are of clinical interest for synthetic bone graft substitutes and tissue engineering scaffolds, but a systematic evaluation of the effects of the HA reinforcement weight fraction and morphology on the mechanical properties is

The effect of cocoa and polydextrose on bacterial fermentation in gastrointestinal tract simulations.

Harri Mäkituokko et al.

Bioscience, biotechnology, and biochemistry, 71(8), 1834-1843 (2007-08-11)

Effects of cocoa mass and supplemented dietary fiber (polydextrose) on microbial fermentation were studied by combining digestion simulations of stomach and small intestine with multi-staged colon simulations. During the four phases of digestion, concentrations of available soluble proteins and reducing

Investigation of selenium speciation in *in vitro* gastrointestinal extracts of cooked cod by high-performance liquid chromatography-inductively coupled plasma mass spectrometry and electrospray mass spectrometry.

JohnaLewis, D.

Journal of Analytical Atomic Spectrometry, 11(12), 1177-1182 (1177)

Isolation of two distinct epithelial cell lines from a single feline mammary carcinoma with different tumorigenic potential in nude mice and expressing different levels of epidermal growth factor receptors.

JM Minke et al.

Cancer research, 51(15), 4028-4037 (1991-08-01)

From a single spontaneous feline mammary carcinoma, two subpopulations of epithelial tumor cells have been isolated. The variant cells were established as cell lines designated K248C and K248P. DNA ploidy analysis showed that the two cell lines represented cell populations

Uterine and placental distribution of selected extracellular matrix (ECM) components in the dog.

Felix R Graubner et al.

Reproduction (Cambridge, England), 155(5), 403-421 (2018-02-14)

For many years, modifications of the uterine extracellular matrix (ECM) during gestation have not been considered as critical for successful canine (*Canis lupus familiaris*) pregnancy. However, previous reports indicated an effect of free-floating blastocysts on the composition of the uterine

Afficher tous les articles scientifiques apparentés

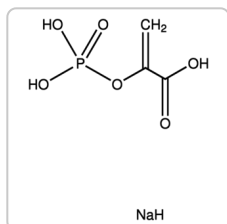
PROTOCOLES ET ARTICLES SCIENTIFIQUES

Protocoles

Enzymatic Assay of Pepsin (3.4.23.1)

This procedure may be used for determination of Pepsin activity using hemoglobin as the substrate. It is a spectrophotometric stop rate determination.

PRODUITS CONSULTÉS RÉCEMMENT



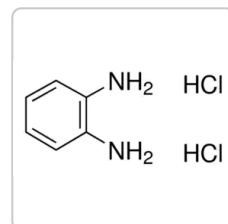
Sigma-Aldrich

P7002

Phospho(enol)pyruvic acid trisodium salt hydrate

≥97% (enzymatic)

[Consulter le prix et la disponibilité](#)



Sigma-Aldrich

P6912

o-Phenylenediamine dihydrochloride

tablet, 5 mg substrate per tablet

[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..

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