[Toutes les photos \(6\)](#)

Documents

[FDS](#)[COO/COA](#)[Fiche des caractéristiques](#)[Plus de documents »](#)**P6887** ▶ **Sigma-Aldrich.**

Pepsin from porcine gastric mucosa

★★★★★ (0)

lyophilized powder, ≥3,200 units/mg protein

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

NACRES:

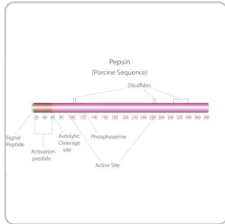
NA.54

Référence	Conditionnement	Disponibilité	Prix	Quantité
P6887-250MG	250 MG	 Disponible pour expédition le 07 octobre 2022 Les fabricants de produits de diagnostic devraient utiliser un produit d'une autre qualité : SRE0001	83,90 €	- +
P6887-1G	1 G	 Only 6 left in stock (more on the way)	239,00 €	- +
P6887-5G	5 G	 Only 5 left in stock (more on the way)	681,00 €	- +
P6887-10G	10 G	 Only 4 left in stock (more on the way)	1 190,00 €	- +

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PRODUITS RECOMMANDÉS



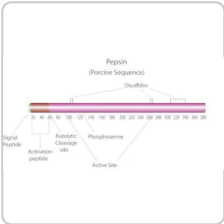
Sigma-Aldrich

P7012

Pepsin from porcine gastric mucosa

lyophilized powder, ≥2,500 units/mg protein (E1%/280)

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Sigma-Aldrich

P7000

Pepsin from porcine gastric mucosa

powder, ≥250 units/mg solid

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PROPRIÉTÉS

Source biologique Porcine gastric mucosa

Niveau de qualité 300

Forme lyophilized powder

specific activity ≥3,200 units/mg protein

Poids mol. 35 kDa

Impuretés	salt, essentially free
Couleur	white to off-white
Solubilité	deionized water: soluble 10 mg/mL 10 mM HCl: soluble 4.0 mg/mL (Cold)
N° d'accèsion UniProt	P00791
application(s)	diagnostic assay manufacturing
Expédié(e)(s) dans	wet ice
Temp. de stockage	-20°C
Gene Information	pig ... LOC396892(396892)

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

Catégories apparentées

[Proteases](#)

DESCRIPTION

Application

Pepsin from Sigma has been used along with other enzymes for the determination of enzyme-resistant starch (RS) in bread. It has also been used to simulate *in vitro* gastrointestinal digestion of pea or whey protein isolates.

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 P6887 is provided as a lyophilized powder and has been used to digest protein during dietary fiber analysis.

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

Conditionnement

250 mg in glass bottle

1, 5, 10 g in glass bottle

Actions biochimiques/physiologiques

Unlike many other peptidases, pepsin hydrolyzes only peptide bonds, not amide or ester linkages. The cleavage specificity includes peptides with an aromatic acid on either side of the peptide bond, especially if the other residue is also an aromatic or a dicarboxylic amino acid. Increased susceptibility to hydrolysis occurs if there is a sulfur-containing amino acid close to the peptide bond, which has an aromatic amino acid. Pepsin will also preferentially cleave at the carboxyl side of phenylalanine and leucine, and to a lesser extent at the carboxyl side of glutamic acid residues. It does not cleave at valine, alanine, or glycine linkages. Z-L-tyrosyl-L-phenylalanine, Z-L-glutamyl-L-tyrosine, or 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 = 16 ml. Light path = 1 cm.)

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.

Protein determined by E1%/280

Autres remarques

View more information on [pepsin](https://www.sigma-aldrich.com/enzymeexplorer) at www.sigma-aldrich.com/enzymeexplorer.

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)

Not applicable

Point d'éclair C

Not applicable

**Équipement de protection
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

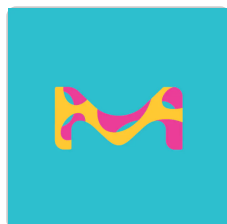
Comment saisir un numéro de lot (COO)

[Rechercher](#)

Plus De Documents

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

LES CLIENTS ONT ÉGALEMENT CONSULTÉ



USP

1510051**Pepsin for assay**

United States Pharmacopeia (USP) Reference Standard

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Sigma-Aldrich

P0609**Pepsin-Agarose from porcine gastric mucosa**

lyophilized powder, ≥30 units/mg dry solid

[Consulter le prix et la disponibilité](#)

ARTICLES REVUS PAR DES PAIRS

Enzyme-resistant starch. III. The quality of straight-dough bread containing varying levels of enzyme-resistant starch.**Eerlingen, R. C., et al.***Cereal Chem.*, 71(2), 165-169 (1994)

The impact of fermentation and in vitro digestion on the formation of angiotensin-I-converting enzyme inhibitory activity from pea and whey protein.

V Vermeirssen et al.

Journal of dairy science, 86(2), 429-438 (2003-03-22)

Pea and whey protein were fermented by *Lactobacillus helveticus* and *Saccharomyces cerevisiae* in monoculture and in combination at 28 and 37 degrees C in order to release angiotensin-I-converting enzyme (ACE) inhibitory peptides. The fermentation products were subjected to in vitro

Recovery of soluble dietary fiber is dependent on the method of analysis.

J A Marlett et al.

The American journal of clinical nutrition, 50(3), 479-485 (1989-09-01)

The effects of different methods on the distribution of total neutral sugars (TNS), uronic acids (UA), and beta-glucans (beta G) between the soluble (S) and insoluble (I) fractions of dietary fiber (DF) were determined for peas, kidney beans, oat bran

Enzymes of Molecular Biology

Sweeney, P.J., and Walker, J.M.

Methods in Molecular Biology, 290-291 (1993)

Exploring the Relationship between Structural and Air-Water Interfacial Properties of Wheat (*Triticum aestivum* L.) Gluten Hydrolysates in a Food System Relevant pH Range.

Arno G B Wouters et al.

Journal of agricultural and food chemistry, 65(6), 1263-1271 (2017-01-27)

The relationship between structural and foaming properties of two tryptic and two peptic wheat gluten hydrolysates was studied at different pH conditions. The impact of pH on foam stability (FS) of the samples heavily depended on the peptidase used and

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PROTOCOLES ET ARTICLES SCIENTIFIQUES

Articles

Fluorescent *in situ* Hybridization (FISH)

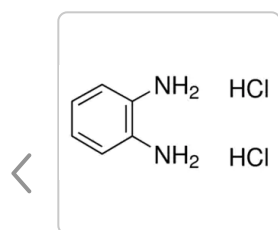
Available Fluorescent in situ hybridization (FISH) procedures, reagents and equipment.

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



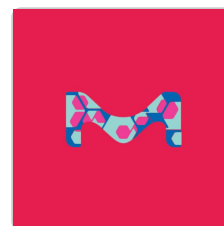
Sigma-Aldrich

P6787

α -Phenylenediamine dihydrochloride

tablet, 2 mg substrate per tablet

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Sigma-Aldrich

P6793

Phytamax™ Orchid Multiplication Medium

powder, suitable for plant cell culture

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Évaluations



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Questions

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