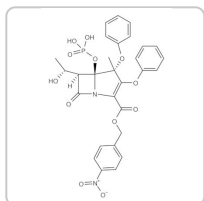


Saisir le nom du produit, le numéro de lot, etc.

[Toutes les photos \(3\)](#)

Documents

 [FDS](#) [COO/COA](#) [Fiche des caractéristiques](#)[Plus de documents](#) **P8044**  **Sigma-Aldrich**

Proteinase K from *Tritirachium album*

★★★★★ (0)

≥3.0 unit/mg solid, lyophilized powder

Synonyme(s):

Endopeptidase K

Numéro CAS: **39450-01-6**Numéro EC: **254-457-8**

eCl@ss: 32160410

Numéro de classification (Commission des enzymes): **3.4.21.64 (BRENDA, IUBMB)**Numéro MDL: **MFCD00132129**

NACRES: NA.54

Référence	Conditionnement	Disponibilité	Prix	Quantité
P8044-250MG	250 MG	 Only 2 left in stock (more on the way) Détails... Les fabricants de produits de diagnostic devraient utiliser un produit d'une autre qualité : SRE0005	142,00 €	- + 
P8044-1G	1 G	 Only 1 left in stock (more on the way) Détails...	426,00 €	- + 
P8044-5G	5 G	 Disponible pour expédition le 07 octobre 2022 Détails...	1 740,00 €	- + 

[Demander une commande en gros](#)[Ajouter au panier](#)

PRODUITS RECOMMANDÉS



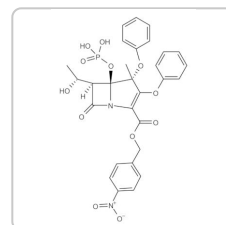
Sigma-Aldrich

P2308

Proteinase K from *Tritirachium album*

lyophilized powder, BioUltra, ≥ 30 units/mg protein, for molecular biology

[Consulter le prix et la disponibilité](#)



Sigma-Aldrich

P6556

Proteinase K from *Tritirachium album*

lyophilized powder, ≥ 30 units/mg protein

[Consulter le prix et la disponibilité](#)

PROPRIÉTÉS

Forme	lyophilized powder
Niveau de qualité	200
specific activity	≥ 3.0 unit/mg solid
Poids mol.	28.93 kDa
Composition	Protein, $\geq 15\%$ biuret
application(s)	diagnostic assay manufacturing

Temp. de stockage

-20°C

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

DESCRIPTION

Application

Proteinase K is useful for the proteolytic inactivation of nucleases during the isolation of DNA and RNA. It is used for the removal of endotoxins bound to cationic proteins such as lysozyme and ribonuclease A. It is also useful for the isolation of hepatic, yeast, and mung bean mitochondria and is used to determine enzyme localization on membranes. Furthermore, it is used for the treatment of paraffin embedded tissue sections to expose antigen binding sites and for digestion of proteins from brain tissue samples. Product P8044 is provided as a lyophilized powder.

The enzyme from Sigma has been used to degrade complex I (NADH:ubiquinone oxidoreductase) prior to extraction of ubiquinone from *Yarrowia lipolytica*. It has been used to examine the effect of Proteinase k on *Pythium ultimum*. It has also been used to maximize the variety of peptide bonds hydrolyzed in the sediment slurry without autolytic production of amino acids from the enzyme itself.

Useful for the proteolytic inactivation of nucleases during the isolation of DNA and RNA.

Removes endotoxins that bind to cationic proteins such as lysozyme and ribonuclease A.

Reported useful for the isolation of hepatic, yeast, and mung bean mitochondria

Determination of enzyme localization on membranes

Treatment of paraffin embedded tissue sections to expose antigen binding sites for antibody labeling.

Digestion of proteins from brain tissue samples for prions in Transmissible Spongiform Encephalopathies (TSE) research.

Conditionnement

250 mg in glass bottle

1, 5 g in glass bottle

Actions biochimiques/physiologiques

Proteinase K is highly active towards native proteins. It has a broad specificity and degrades many proteins even in the native state. It mainly cleaves the peptide bond adjacent to the carboxyl group of aliphatic and aromatic amino acids with blocked α -amino groups. The optimum pH is between 7.5-9.0 and the isoelectric point is 8.9. Ca^{2+} (1-5 mM) is required for activation. Proteinase K is inhibited by diisopropyl fluorophosphate (DFIP), and phenylmethanesulfonyl fluoride (PMSF).

Proteinase K is a stable and highly reactive serine protease. Evidence from crystal and molecular structure studies indicates the enzyme belongs to the subtilisin family with an active-site catalytic triad (Asp^{39} - His^{69} - Ser^{224}). It is stable in a broad range of environments: pH, buffer salts, detergents (SDS), and temperature. In the presence of 0.1-0.5% SDS, proteinase K retains activity and will digest a variety of proteins and nucleases in DNA preparations without compromising the integrity of the isolated DNA.

Définition de l'unité

One unit will hydrolyze urea-denatured hemoglobin to produce color equivalent to 1.0 μmole of tyrosine per min at pH 7.5 at 37 °C (color by Folin-Ciocalteu reagent).

INFORMATIONS SUR LA SÉCURITÉ

Pictograms



GHS08

Mention d'avertissement

Danger

Mentions de danger

H315 - H319 - H334

Conseils de prudence

P261 - P264 - P280 - P302 +
P352 - P304 + P340 + P312 -
P305 + P351 + P338

Classification des risques

Eye Irrit. 2 - Resp. Sens. 1 -
Skin Irrit. 2

Code de la classe de stockage

11 - Combustible Solids

WGK

WGK 1

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

Fiche D'informations Produit

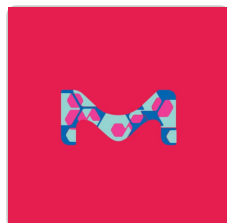
Product Information Sheet - P8044

Plus De Documents

Enzyme Explorer

FDS

LES CLIENTS ONT ÉGALEMENT CONSULTÉ



Sigma-Aldrich

1.07393

Proteinase K

(from *Tritirachium album*) solution in Tris/HCl pH 7.5;
0.01 mol/l; 600 mAnson-U/ml; for molecular biology EC...

[Consulter le prix et la disponibilité](#)



Sigma-Aldrich

P4032

Proteinase from *Aspergillus melleus*

Type XXIII, ≥3 units/mg solid

[Consulter le prix et la disponibilité](#)

ARTICLES REVUS PAR DES PAIRS

Overproduction of an inducible extracellular serine protease improves biological control of *Pythium ultimum* by *Stenotrophomonas maltophilia* strain W81.

C Dunne et al.

Microbiology (Reading, England), 146 (Pt 8), 2069-2078 (2000-08-10)

Stenotrophomonas maltophilia W81 can protect sugar beet against PYTHIUM:-mediated damping-off disease through the production of an extracellular protease. Here, the proteolytic enzyme of W81 was purified by anion-exchange chromatography and characterized as a serine protease. The purified enzyme was fungicidal

Bioavailable amino acids in sediments: A biomimetic, kinetics-based approach

Mayer LM, et al.

Limnology and Oceanography, 40(3), 511-520 (1995)

Can bovine in vitro-matured oocytes selectively process X- or Y-sorted sperm differentially?

P Bermejo-Alvarez et al.

Biology of reproduction, 79(4), 594-597 (2008-06-27)

It has been reported that the mammalian female could have a preconceptual influence on the sex of her offspring, and it has been hypothesized that this influence could go some way toward accounting for the reported lower fertility following insemination

Epigenetic regulation of ferroptosis via ETS1/miR-23a-3p/ACSL4 axis mediates sorafenib resistance in human hepatocellular carcinoma.

Yuanjun Lu et al.

Journal of experimental & clinical cancer research : CR, 41(1), 3-3 (2022-01-05)

Drug resistance to sorafenib greatly limited the benefits of treatment in patients with hepatocellular carcinoma (HCC). MicroRNAs (miRNAs) participate in the development of drug resistance. The key miRNA regulators related to the clinical outcome of sorafenib treatment and their molecular

Screening bioactive food compounds in honey bees suggests curcumin blocks alcohol-induced damage to longevity and DNA methylation.

Erik M K Rasmussen et al.

Scientific reports, 11(1), 19156-19156 (2021-09-29)

Various bioactive food compounds may confer health and longevity benefits, possibly through altering or preserving the epigenome. While bioactive food compounds are widely being marketed for human consumption as 'improving health and longevity' by counteracting harmful effects of poor nutrition

[Afficher tous les articles scientifiques apparentés](#)

PROTOCOLES ET ARTICLES SCIENTIFIQUES

Articles

Enzymatic Assay of Proteinase K with Hemoglobin Substrate

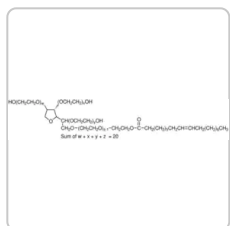
Proteinase K (EC 3.4.21.64) activity can be measured spectrophotometrically using hemoglobin as the substrate. Proteinase K hydrolyzes hemoglobin denatured with urea, and liberates Folin-positive amino acids and peptides. One unit will hydrolyze hemoglobin to produce color...

Protocoles

Enzymatic Assay of Proteinase K (EC 3.4.21.64)

Proteinase K (EC 3.4.21.64) activity can be measured spectrophotometrically using hemoglobin as the substrate. Proteinase K hydrolyzes hemoglobin denatured with urea, and liberates Folin-positive amino acids and peptides. One unit will hydrolyze hemoglobin to produce color...

PRODUITS CONSULTÉS RÉCEMMENT



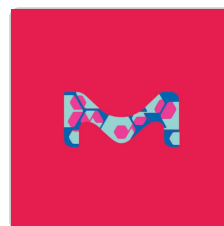
Sigma-Aldrich

P8074

TWEEN® 80

BioXtra, viscous liquid

[Consulter le prix et la disponibilité](#)



Sigma-Aldrich

P8124

Pyoverdines

from *Pseudomonas fluorescens*, >90% (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

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