

Toutes les photos (1)

Documents

- [FDS](#)
- [COO/COA](#)
- [Fiche des caractéristiques](#)

D4693 ▶ Sigma-Aldrich.

Dispase® II

★★★★★ (0)

protease
Synonyme(s):
Protease from *Bacillus polymyxa*

Numéro CAS:

42613-33-2

Numéro EC:

255-914-4

Numéro MDL:

MFCD02253017

NACRES:

NA.54

Référence	Conditionnement	Disponibilité	Prix	Quantité
D4693-1G	1 G	Only 5 left in stock (more on the way) Détails...	216,00 €	- +

[Demander une commande en gros](#)

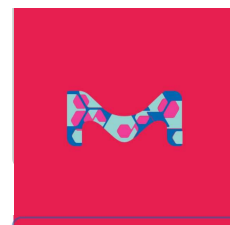
[Ajouter au panier](#)

PRODUITS RECOMMANDÉS



**04942078001****Dispase® II (neutral protease, grade II)**

lyophilized, from bacterial, Roche, pkg of 5 × 1 g

[Consulter le prix et la disponibilité](#)**D4818****Dispase® I**

protease

[Consulter le prix et la disponibilité](#)

PROPRIÉTÉS

Niveau de qualité	100
Forme	lyophilized solid
specific activity	≥0.5 units/mg solid
Solubilité	10 mM NaAc (pH 7.5) and 5 mM CaAc: soluble
Temp. de stockage	2-8°C

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

Catégories apparentées

[Tissue Dissociation](#)

DESCRIPTION

Application

The enzyme from Sigma has been used in developing a protocol for *ex vivo* culture of mouse embryonic mammary buds. It has been used in the treatment of rat heart pieces during the isolation of mitochondria from rat heart. It has also been used for the isolation of dental pulp stem cells (DPSCs) by enzymatic hydrolysis. These cells have been compared with DPSCs isolated by explant method to analyse their stem cell and differentiation properties.

Dispase[®] II has been used for Fluorescence-Activated Cell Sorting (FACS). It has also been used for separating visceral yolk sac layers.

Actions biochimiques/physiologiques

Dispase[®] II is a neutral protease that hydrolyzes the N-terminal peptide bonds of non-polar amino acid residues. It may be used for separating many tissues and cells grown in vitro. The enzyme is very gentle and does not damage cell membranes. It can also be used to prevent clumping in suspension cultures. This protease cleaves fibronectin and type IV collagen, but not laminin, type V collagen, serum albumin, or transferrin. Dispase[®] II is specific for the cleavage of Leucine-Phenylalanine bonds. Ca^{2+} , Mg^{2+} , Mn^{2+} , Fe^{2+} , Fe^{3+} and Al^{3+} activate the enzyme. EDTA, EGTA, Hg^{2+} and other heavy metals inhibit the enzyme activity. The enzyme contains 1g-atom of zinc per g-mol of purified enzyme. If this zinc component is removed by chelating agents such as EDTA or EGTA, an inactive apoenzyme is obtained. The enzyme is not inhibited by serum.

Définition de l'unité

One unit will hydrolyze casein to produce color equivalent to 1.0 μmole (181 μg) of tyrosine per min at pH 7.5 at 37 °C (color by Folin-Ciocalteu reagent), unless otherwise indicated.

Forme physique

lyophilized powder containing calcium acetate and milk sugar

Notes préparatoires

A 50 U/mL stock solution may be prepared by dissolving the powder in a buffer containing 10 mM NaAc (pH 7.5) and 5 mM CaAc. It should be stored at 4 °C.

Remarque sur l'analyse

The enzyme can be initially dissolved in 50 mM Hepes/KOH pH 7.4, 150 mM NaCl at 10 mg/ml. Further dilutions should be made in the cell culture media most appropriate for the cells being dissociated. Dispase is a metalloproteinase and is activated by divalent cations including Ca^{2+} , Mg^{2+} , Mn^{2+} and Fe^{2+} .

Informations légales

Dispase is a registered trademark of Godo Shusei Co., Ltd.

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

LES CLIENTS ONT ÉGALEMENT CONSULTÉ



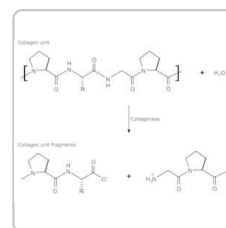
USP

1148090

Collagenase II

United States Pharmacopeia (USP) Reference Standard

[Consulter le prix et la disponibilité](#)



Sigma-Aldrich

C5138

Collagenase from *Clostridium histolyticum*

suitable for release of physiologically active rat hepatocytes, Type IV, 0.5-5.0 FALGPA units/mg solid,...

[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.

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

[Effect of isolation methodology on stem cell properties and multilineage differentiation potential of human dental pulp stem cells.](#)

P Hilkens et al.

Cell and tissue research, 353(1), 65-78 (2013-05-30)

Dental pulp stem cells (DPSCs) are an attractive alternative mesenchymal stem cell (MSC) source because of their isolation simplicity compared with the more invasive methods associated with harvesting other MSC sources. However, the isolation method to be favored for obtaining

Protocol: ex vivo culture of mouse embryonic mammary buds.

Maria Voutilainen et al.

Journal of mammary gland biology and neoplasia, 18(2), 239-245 (2013-05-16)

The explant culture techniques of embryonic tissues allow continuous monitoring of organ growth and morphogenesis ex vivo. The effect of growth factors and other soluble molecules can be examined by applying them to the culture medium. Relatively few studies have

Resorcyldene aminoguanidine (RAG) improves cardiac mitochondrial bioenergetics impaired by hyperglycaemia in a model of experimental diabetes.

Magdalena Labieniec-Watala et al.

International journal of molecular sciences, 12(11), 8013-8026 (2011-12-17)

Diabetes is associated with a mitochondrial dysfunction. Hyperglycaemia is also clearly recognized as the primary culprit in the pathogenesis of cardiac complications. In response to glycation and oxidative stress, cardiac mitochondria undergo cumulative alterations, often leading to heart deterioration. There

Some properties of a protease from *Bacillus polymyxa*.

P J Griffin et al.

The Biochemical journal, 125(4), 109P-109P (1971-12-01)

Upregulation of SOCS3 in lung CD4+ T cells in a mouse model of chronic PA lung infection and suppression of Th17-mediated neutrophil recruitment in exogenous SOCS3 transfer in vitro.

Feng-Ming Ding et al.

Molecular medicine reports, 16(1), 778-786 (2017-06-01)

Neutrophilic airway inflammation in chronic lung infections caused by *Pseudomonas aeruginosa* (PA) is associated with T helper (Th)17 responses. Suppressor of cytokine signaling 3 (SOCS3) is the major negative modulator of Th17 function through the suppression of signal transducer and activator

Afficher tous les articles scientifiques apparentés

PROTOCOLES ET ARTICLES SCIENTIFIQUES

Articles

Tissue Dissociation Enzymes: Collagenase, Dispase, and Liberase

Enzyme Explorer Key Resource: Collagenase Guide. Collagenases, enzymes that break down the native collagen that holds animal tissues together, are made by a variety of microorganisms and by many different animal cells.

3D Organoid Culture: New In Vitro Models of Development and Disease

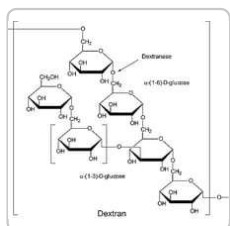
Organoid culture products to generate tissue and stem cell derived 3D brain, intestinal, gut, lung and cancer tumor organoid models.

Contenu apparenté

Tissue Dissociation Guide: Collagenase, Dispase, and Liberase Enzyme Types

Collagenase Guide. Collagenases, enzymes that break down the native collagen that holds animal tissues together, are made by a variety of microorganisms and by many different animal cells.

PRODUITS CONSULTÉS RÉCEMMENT



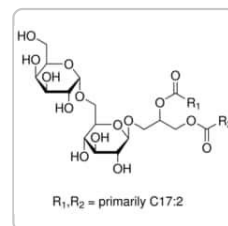
Sigma-Aldrich

D4668

Dextranase from *Penicillium* sp.

lyophilized powder, 100-250 units/mg protein

[Consulter le prix et la disponibilité](#)



Sigma-Aldrich

D4651

Digalactosyl diglyceride

≥93% (TLC), from whole wheat flour, lyophilized powder

[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..

Contacter notre Service technique

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