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**COLLD-RO Roche**

## Collagenase D

from *Clostridium histolyticum*

Synonyme(s):

collagenase

Numéro de classification  
(Commission des enzymes):

**3.4.24.3 (BRENDA, IUBMB)**

| Référence   | Conditionnement | Disponibilité                                                                                                                                               | Prix     | Quantité                                                                                                                  |
|-------------|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------------------------------------------------------------------------------------------------------------------------|
| 11088858001 | 100 MG          |  Date d'expédition estimée le 03 octobre 2022 <a href="#">Détails...</a>   | 84,50 €  | <div><div>—</div><div>+</div></div>    |
| 11088866001 | 500 MG          |  Date d'expédition estimée le 03 octobre 2022 <a href="#">Détails...</a>   | 313,00 € | <div><div>—</div><div>+</div></div>    |
| 11088882001 | 2.5 G           |  Date d'expédition estimée le 03 octobre 2022 <a href="#">Détails...</a> | 890,00 € | <div><div>—</div><div>+</div></div>  |

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## PRODUITS RECOMMANDÉS



Roche  
**10104159001**  
**DNase I**  
grade II, from bovine pancreas

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Roche  
**COLLA-RO**  
**Collagenase A**  
from *Clostridium histolyticum*

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PROPRIÉTÉS

|                        |                                                                                          |
|------------------------|------------------------------------------------------------------------------------------|
| Niveau de qualité      | 100                                                                                      |
| Stérilité              | non-sterile                                                                              |
| Forme                  | lyophilized                                                                              |
| Conditionnement        | pkg of 100 mg (11088858001)<br>pkg of 2.5 g (11088882001)<br>pkg of 500 mg (11088866001) |
| manufacturer/tradename | Roche                                                                                    |
| Concentration          | (working concentration: 0.5 - 2.5 mg/ml)                                                 |
| pH optimal             | 6.0-8.0                                                                                  |
| Expédié(e)s dans       | wet ice                                                                                  |
| Temp. de stockage      | 2-8°C                                                                                    |

## Catégories apparentées

Roche® Life Science Products

Tissue Dissociation

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## DESCRIPTION

### Description générale

Collagenase D is prepared from *Clostridium histolyticum* cultures by filtration, ammonium sulfate precipitation, dialysis, and lyophilization.

### Spécificité

Collagenase degrades native collagen. Clostripain, trypsin-like enzymes, and neutral proteases degrade other proteins as well.

### Application

Collagenase from *C. histolyticum* is widely used for the disaggregation of many types of tissues (e.g., lung, heart, muscle, bone, adipose tissue, liver, kidney, cartilage, mammary gland, placentae, blood vessels, brain, tumors) and for the preparation of single cell suspensions for the establishment of primary cell culture systems. Collagenase D is recommended when functionality and integrity of cell-surface proteins are important.

*Clostridium* collagenase from Roche has been used to prepare cells from many types of tissue, such as hepatocytes, adipocytes, pancreatic islets, epithelial cells, muscle cells, endothelial cells, etc. However, suitability of each lot of the enzyme for disruption of a particular tissue should be determined empirically.

### Caractéristiques et avantages

## Contents

Lyophilizate, nonsterile

## Définition de l'unité

Collagenase from Roche is assayed in WÅ¼nsch units (1 µmol of product formed per minute at +25 °C with WÅ¼nsch substrate).

Frequently, collagenase activities are given in Mandl units (1 µmol leucine liberated from collagen in 5 hours at +37 °C).

Unfortunately, there is no consistent conversion factor between the two units of activity, since the Mandl unit depends, in part, on the concentration of contaminating proteases in the collagenase preparation, an indefinable variable. A purer collagenase preparation would actually give a lower specific activity in Mandl units than a crude preparation. *Clostridium* preparations typically give conversion factors of approximately 1:1800 (e.g., a particular lot of *Clostridium* collagenase contained approximately 0.15 WÅ¼nsch U/mg and 250 Mandl U/mg).

## Forme physique

Lyophilizate, nonsterile.

## Notes préparatoires

**Activator:** Ca<sup>2+</sup>

**Working concentration:** 0.5 - 2.5mg/ml

**Storage conditions (working solution):** -15 to -25°C

Roche recommends reconstituting only the amount of lyophilizate needed for immediate use. The reconstituted solution can be stored at -15 to -25°C for up to one week. Avoid repeated freezing and thawing since activity decreases after reconstitution.

### Inhibitors:

Collagenase inhibitors: EDTA, EGTA, Cys, His, DTT, 2-mercaptoethanol

Collagenase is not inhibited by serum.

Clostripain inhibitors: TLCK

Trypsin inhibitors: aprotinin, trypsin inhibitor (egg white, soybean)

## Enzyme activity:

Collagenase activity: >0.15 U/mg (according to Wünsch) (+25°C, 4-phenyl-azobenzyl-oxycarbonyl-Pro-Leu-Gly-Pro-D-Arg as the substrate)

Contaminating enzyme activities: trypsin, clostripain, and total proteolytic activity

Collagenase D has a normal to high collagenase activity and very low tryptic activity (usually <0.2 units/mg, BAEE as substrate).

## Reconstitution

Reconstitution in any balanced salt solution (*e.g.*, HBSS)

## Autres remarques

For life science research only. Not for use in diagnostic procedures.

## INFORMATIONS SUR LA SÉCURITÉ

### Pictograms



GHS07,GHS08

### Mention d'avertissement

Danger

### Mentions de danger

H315 - H319 - H334 - H335

### Conseils de prudence

P261 - P264 - P280 - P284 -  
P304 + P340 + P312 - P342 +  
P311

### 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)

does not flash

### Point d'éclair C

does not flash

## 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](#)

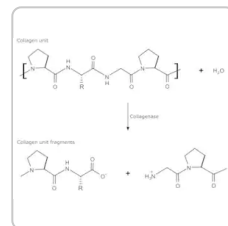
[FDS](#)

## LES CLIENTS ONT ÉGALEMENT CONSULTÉ

USP

**1148089****Collagenase I**

United States Pharmacopeia (USP) Reference Standard

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Sigma-Aldrich

**C2139****Collagenase from *Clostridium histolyticum***

suitable for release of physiologically active rat epididymal adipocytes and hepatocytes, Type VIII, 0.5-...

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## ARTICLES REVUS PAR DES PAIRS

### Isolation of Infiltrating Leukocytes from Mouse Skin Using Enzymatic Digest and Gradient Separation.

**Charles J Benck et al.***Journal of visualized experiments : JoVE*, (107)(107), e53638-e53638 (2016-02-11)

Dissociating murine skin into a single cell suspension is essential for downstream cellular analysis such as the characterization of infiltrating immune cells in rodent models of skin inflammation. Here, we describe a protocol for the digestion of mouse skin in

### Low intraprostatic DHT promotes the infiltration of CD8+ T cells in BPH tissues via modulation of CCL5 secretion.

**Yu Fan et al.***Mediators of inflammation*, 2014, 397815-397815 (2014-05-09)

Clinical studies suggested that androgen might be associated with infiltrating T cells in prostate of benign prostatic hyperplasia (BPH) patients, but detail of T-cell subset and mechanism still remained unclear. The present study tested the hypothesis that intraprostatic 5  $\alpha$  - dihydrotestosterone

### Functional xenobiotic metabolism and efflux transporters in trout hepatocyte spheroid cultures.

**Chibuzor Uchea et al.***Toxicology research*, 4(2), 494-507 (2015-04-22)

Prediction of xenobiotic fate in fish is important for the regulatory assessment of chemicals under current legislation. Trout hepatocyte spheroids are a promising

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### **CD16/32-specific biotinylated 2.4G2 single-chain Fv complexed with avidin-FITC enhances FITC-specific humoral immune response in vivo in a CD16-dependent manner.**

**Adrienn Angyal et al.**

*International immunology*, 22(2), 71-80 (2009-12-03)

Fcgamma receptors (FcgammaRs) play an essential role in the regulation of immune response due to their ability to bind immune complexes. Activating FcgammaRs may facilitate antigen presentation and dendritic-cell maturation, while in the late phase of the immune response, the

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## **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.

### **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.

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## **PRODUITS CONSULTÉS RÉCEMMENT**





Roche

**COLLB-RO****Collagenase B**from *Clostridium histolyticum*[Consulter le prix et la disponibilité](#)

Roche

**COLLA-RO****Collagenase A**from *Clostridium histolyticum*[Consulter le prix et la disponibilité](#)

## 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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