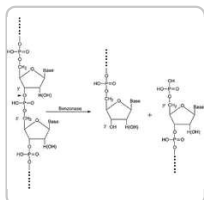


Saisir le nom du produit, le numéro de lot, etc.



Toutes les
photos (1)

Documents

FDS

COO/COA

 Fiche des
caractéristiques

Plus de
documents »

E8263 ► Sigma-Aldrich.

Benzonase® Nuclease, ultrapure

★★★★★ (0)

≥250 units/μL, ≥99% (SDS-PAGE), recombinant, expressed in *E. coli*, buffered aqueous glycerol solution, ultrapure grade

Synonyme(s):

Endonuclease from *Serratia marcescens*

Numéro CAS: 9025-65-4

Numéro de classification
(Commission des enzymes):

3.1.30.2 (BRENDA, IUBMB)

Numéro MDL: MFCD00131010

NACRES:

NA.54

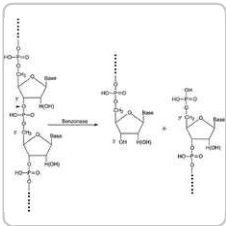
Référence	Conditionnement	Disponibilité	Prix	Quantité
E8263-5KU	5000 UNITS	Only 3 left in stock (more on the way)	Détails... 405,00 €	− +
E8263-25KU	25000 UNITS	Only 3 left in stock (more on the way)	Détails... 1 420,00 €	− +

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PRODUITS RECOMMANDÉS



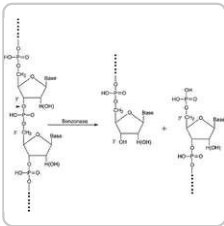
Millipore

E1014

Benzonase® Nuclease

≥250 units/μL, ≥90% (SDS-PAGE), recombinant, expressed in *E. coli*, buffered aqueous glycerol solution

Consulter le prix et la disponibilité



Millipore

70664

Benzonase® Nuclease, Purity > 99%

Effective viscosity reduction and removal of nucleic acids from protein solutions

Consulter le prix et la disponibilité

PROPRIÉTÉS

Recombinant	expressed in <i>E. coli</i>
Niveau de qualité	200
Qualité	ultrapure grade
Essai/Dosage	≥99% (SDS-PAGE)
Forme	buffered aqueous glycerol solution
Poids mol.	30 kDa
Concentration	≥250 units/μL
Expédié(e)s dans	wet ice

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Temp. de stockage

-20°C

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

Catégories apparentées

[Whole Cell Lysis Reagents & Enhancers](#)

DESCRIPTION

Application

The enzyme has been used for an assay to detect the amount of Tf1 RNA that is protected from degradation by the nuclease, Benzonase. The Tf1 element of *Schizosaccharomyces pombe* is a long terminal repeat-containing retrotransposon that encodes functional protease, reverse transcriptase, and integrase proteins. It has also been used in the fractionation of nuclear pellet and nuclear extract obtained from cell lysates.

Ultrapure benzonase nuclease, or Endonuclease from *Serratia marcescens*, has been used in a study to assess the effect of sodium dodecylbenzenesulfonate and antifoaming agents on the endonuclease activity of *Serratia marcescens*. Endonuclease from *Serratia marcescens* has also been used in a study to investigate the structure of chromatin subunits.

Used for the removal of nucleic acid from protein samples.

Actions biochimiques/physiologiques

Benzonase® is a genetically engineered endonuclease from *Serratia marcescens*. The protein is a dimer of 30 kDa subunits with two essential disulfide bonds. This endonuclease attacks and degrades all forms of DNA and RNA (single stranded, double stranded, linear and circular) and is effective over a wide range of operating conditions. It completely digests nucleic acids to 5'-monophosphate terminated oligonucleotides 3 to 5 bases in length. This is ideal for the removal of nucleic acids from recombinant proteins. It can also be used for applications where complete digestion of nucleic acids is desirable. It also reduces viscosity in


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protein extracts and prevents cell clumping. Pre-treatment of a protein sample with this enzyme improves its resolution on 2D gel electrophoresis by eliminating any bound nucleic acids. The optimum pH for enzyme activity is found to be 8.0-9.2.

Digests native or heat-denatured DNA and RNA.

Définition de l'unité

One unit will digest sonicated salmon sperm DNA to acid-soluble oligonucleotides equivalent to a ΔA_{260} of 1.0 in 30 min at pH 8.0 at 37 °C (reaction volume 2.625 ml).

Forme physique

Solution in 50% glycerol containing 20 mM Tris HCl, pH 8.0, 2 mM $MgCl_2$, and 20 mM NaCl.

Informations légales

Benzonase[®] Nuclease is supplied by Merck KGaA, Darmstadt, Germany and/or its affiliates.

Benzonase is a registered trademark of Merck KGaA, Darmstadt, Germany

INFORMATIONS SUR LA SÉCURITÉ

Code de la classe de stockage

10 - Combustible liquids

WGK

WGK 1

Flash Point(F)

Not applicable

Point d'éclair C

Not applicable

Équipement de protection individuelle

Eyeshields, Gloves


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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

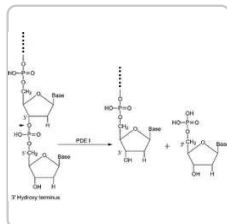
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[FDS](#)

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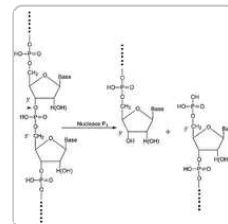


Sigma-Aldrich

P3243

Phosphodiesterase I from *Crotalus adamanteus* venom

vial of ≥100 units, Purified

[Consulter le prix et la disponibilité](#)


Sigma-Aldrich

N8630

Nuclease P1 from *Penicillium citrinum*

lyophilized powder, ≥200 units/mg protein (E1%/280, 3'-5'-Phosphodiesterase)

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ARTICLES REVUS PAR DES PAIRS

Nucleus-specific linker histones Hho1 and Mlh1 form distinct protein interactions during growth, starvation and development in *Tetrahymena thermophila*.

Syed Nabeel-Shah et al.

Scientific reports, 10(1), 168-168 (2020-01-15)

Chromatin organization influences most aspects of gene expression regulation. The linker histone H1, along with the core histones, is a key component of eukaryotic chromatin. Despite its critical roles in chromatin structure and function and gene regulation, studies regarding the

A long terminal repeat-containing retrotransposon of *Schizosaccharomyces pombe* expresses a Gag-like protein that assembles into virus-like particles which mediate reverse transcription.

Laure Teyssset et al.

Journal of virology, 77(9), 5451-5463 (2003-04-15)

The Tf1 element of *Schizosaccharomyces pombe* is a long terminal repeat-containing retrotransposon that encodes functional protease, reverse transcriptase, and integrase proteins. Although these proteins are known to be necessary for protein processing, reverse transcription, and integration, respectively, the function of

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Disulfide bonds are required for *Serratia marcescens* nuclease activity.

T K Ball et al.*Nucleic acids research*, 20(19), 4971-4974 (1992-10-11)

The role of the two disulfide bonds found in the *Serratia marcescens* nuclease were tested by site directed mutagenesis and were found essential for nuclease activity, although slight residual activity remained. The requirement for disulfide bond formation may play a

The extracellular nuclease gene of *Serratia marcescens* and its secretion from *Escherichia coli*.

T K Ball et al.*Gene*, 57(2-3), 183-192 (1987-01-01)

We are studying exoproteins of the enteric bacterium *Serratia marcescens* as a model system for the release of extracellular proteins from the cell. In this work we report the cloning of the gene for a secreted nuclease from *S. marcescens*

A procedure for renaturation and purification of the extracellular *Serratia marcescens* nuclease from genetically engineered *Escherichia coli*.

P Friedhoff et al.*Protein expression and purification*, 5(1), 37-43 (1994-02-01)

Overproduction of the extracellular *Serratia marcescens* nuclease in *Escherichia coli* results in aggregation and sequestration of a large amount of the protein in inclusion bodies. Only a relatively small amount is secreted into the medium from which it can be

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PROTOCOLES ET ARTICLES SCIENTIFIQUES

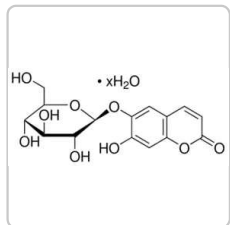
Articles

Benzonase® Nuclease Q&A

This page lists nine frequently asked questions and answers about Benzonase® Nuclease.


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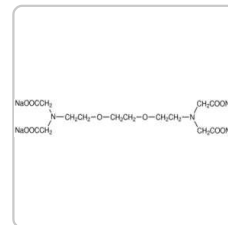


Sigma-Aldrich

E8250

Esculin hydrate

≥98%

[Consulter le prix et la disponibilité](#)

Sigma-Aldrich

E8145Ethylene glycol-bis(beta-aminoethyl ether)-
N,N,N',N'-tetraacetic acid tetrasodium salt

≥97%

[Consulter le prix et la disponibilité](#)

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[Soyez le premier à donner votre avis sur ce produit](#)

Questions

[Soyez le premier à poser une question](#)[^
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