



Product Insert

Proteinase K Solution

Catalogue Numbers:

BIO-37084 5ml @ 20mg/ml
BIO-37085 5 x 5ml @ 20mg/ml

Features

- Broad-spectrum serine protease
- Active under denaturing conditions
- Stable at high temperatures
- Molecular biology grade
- Available as powder and stabilized stock solution

Applications

- Inactivation of RNases/DNases during nucleic acid extraction
- Protein modification
- General protein digestion
- Determination of enzyme localization

Description

Proteinase K is an enzyme used to digest most proteins in molecular-biological techniques. The enzyme may be used at 56°C for up to 4 hours, or 37°C for overnight incubations. Proteinase K is available as a powder or as a stabilized stock solution (20mg/ml). Proteinase K solution is stabilized with a specially formulated buffer, and can be used directly from the freezer.

Product Specifications:

Storage Conditions:

Proteinase K can be stored for 12 months at -20°C.

Shipping Conditions:

On Dry Ice or Blue Ice

Concentration:

20mg/ml

Characteristics:

Specific Activity: 46.1units/mg protein

Contaminants:

RNase Activity: No detectable ribonuclease activity after 16-hour incubation at 25°C

DNase Activity: No detectable nicking activity with pBR322 after 6-hour incubation at 37°C

Safety Precautions:

Irritating to eyes, respiratory system and skin. May cause sensitisation by inhalation. Please refer to the material safety data sheet for information regarding hazards and safe handling practice.



Xn: HARMFUL
Xi: IRRITANT

Unit definition:

One unit is defined as the amount of enzyme that will liberate 1µmol of tyrosine per minute at 37°C, pH 7.5.

Associated Products:

Product Name	Pack Size	Cat No
Quick-Stick Ligase	50 Reactions	BIO-27027
T4 DNA Ligase	500 Units	BIO-27026
Thermo DNA Ligase	500 Units	BIO-27045
Hyper Ladder I	200 Lanes	BIO-33025

References:

1. Bajorath, J., *et al.* The enzymatic activity of proteinase K is controlled by calcium., *Eur. J. Biochem.*, 176, 441-447, 1988.
2. Ebeling, W., *et al.* Proteinase K from *Tritirachium album* Limber, *Eur. J. Biochem.*, 47, 91-97, 1974.
3. Sambrook, J., and Russel, D. (2001) *Molecular cloning: A laboratory manual*, 3rd Ed., Cold Spring Harbr Laboratory Press, Cold Spring Harbor, NY

Product Citations:

1. Zou, J., *et al.* *C. Eur. J. Biochem.* **271**, 1913-1923 (2004).
2. Gillespie, K. M., *et al.* *Tissue Antigens* **56(6)**, 530-538 (2000).
3. Tiwari, J. *et al.* *Veterinary Parasitology* **138(3,4)**, 301-307 (2006).

Notes

1. This product insert is a declaration of analysis at the time of manufacture.
2. Research Use Only.

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