

Proteinase K

Shipping: On Dry/Blue Ice Catalog numbers
Exp. Date: See vial BIO-37037: 100mg
Batch No.: See vial BIO-37039: 1000mg



A Meridian Life Science® Company

Store at -20°C

Storage and stability:

The Proteinase K is shipped on Dry/Blue Ice. It should be stored at -20°C upon receipt. Excessive freeze/thawing is not recommended. When stored under optimum conditions, the reagents are stable for a minimum of 12 months from date of purchase.

Safety precautions:

Harmful if swallowed. Irritating to eyes, respiratory system and skin. Please refer to the material safety data sheet for further information.

CAS Number:

39450-01-6



Xn: HARMFUL

Notes:

For Research Use Only.

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.

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

Characteristics

EC Number:	3.4.21.14
Physical Appearance:	Lyophilized Powder. Lyophilized from calcium acetate
Molecular Weight:	28,500
Activity (Dry Weight):	≥30.0 units/mg
Specific Activity:	≥40.0 units/mg protein
Solubility:	50mM Tris-HCl, 2mM calcium acetate, pH 8.0
Contaminants:	RNase Activity: No detectable ribonuclease activity detected with MS2RNA after 6-hour incubation at 37°C
	DNase Activity: No detectable nicking activity detected with pBR322 after 6-hour incubation at 37°C
Unit definition:	One unit is defined as the amount of enzyme that will liberate 1.0µmol of tyrosine per minute at 37°C, pH 7.5.

Recommendations for Use:

- Dissolve to 20mg/ml in 50mM Tris-HCl, 2mM calcium acetate, pH 8.0
- Proteinase K may be used at 56°C for up to 4 hours, or 37°C for overnight incubations
- Proteinase K has an optimal pH of 7.5-12.0
- To remove common contaminants from nucleic acid preparations use at a working concentration of 5mg/ml

Associated products

Product Name	Pack size	Cat. No.
Quick-Stick Ligase	50 Reactions	BIO-27027
T4 DNA Ligase	500 Units	BIO-27026
HyperLadder I	200 Lanes	BIO-33025

Citations:

1. Thaler, A. D., *et al.* *Cons. Gene. Res.* **2(1)**, 101-103 (2010).
2. Teague, B., *et al.* *PNAS* **107(24)**, 10848-10853 (2010).
3. Rolfsmeier, M. L., *et al.* *J. Bacteriol.* **192(19)**, 4954-4962 (2010).
4. Arpanahi, A., *et al.* *Genome Res.* **19**, 1338-1349 (2009).
5. Schwenkenbecher, J.M., *et al.* *J. Medical Entomol.* **46(3)**, 610-614 (2009).
6. Jo, K., *et al.* *Meth. Mol. Biol.* **544**, 29-42 (2009).

Bioline Reagents Ltd
UNITED KINGDOM

Tel: +44(0)20 8830 5300
Fax: +44 (0)20 8452 2822

Bioline USA Inc.
USA

Tel: +1 508 880 8990
Fax: +1 508 880 8993

Bioline GmbH
GERMANY

Tel: +49(0)33 7168 1229
Fax: +49 (0)337168 1244

Bioline (Aust) Pty. Ltd
AUSTRALIA

Tel: +61 (0)2 9209 4180
Fax: +61 (0)2 9209 4763