www.real-biotech.com

Lyophilized Proteinase K

Molecular Biology Grade

Store at 2~8°C

Cat. No. YPK11
Proteinase K : 11 mg
Cat. No. YPK65
Proteinase K : 65 mg
Cat. No. YPK100
Proteinase K : 100 mg
Cat. No. YPK500
Proteinase K : 500 mg
Cat. No. YPK1G
Proteinase K : 1 g

Format: Lyophilized powder
Source: Tritirachium album limber (Recombinant)
Purity: Over 99.5% (Native-PAGE and laser scan assay)
Activity: >30 units/mg protein (hemoglobin, pH7.5, 37°C)

Unit definition

One unit liberates Folin-positive amino acids and peptides corresponding to 1 μmol tyrosine in 1 minute at 37°C using denatured hemoglobin as substrate.

Storage Conditions

Lyopholized Proteinase K shall be stored at 4°C in a constant refrigerator and protected from moisture. Proteinase K solutions are stable at 2-8°C for 6 months. Store lyopholized Proteinase K at -20°C for long-term storage.

Description

Proteinase K is a stable and highly reactive serine protease. It is active with SDS, urea and EDTA and it is strongly inhibited by PMSF. Proteinase K remains active in detergents and reagents over a broad pH range (4.0-12.5, optimum pH8.0) and is also stable over the temperature range of 25°C to 65°C during use. Proteinase K is useful for protein digestion and contamination removal during nucleic acid purification to prepare RNA and high molecular weight DNA for subsequent reactions.

Preparation Instructions:

1. Carefully open the Proteinase K vial.
2. Add sterilized ddH$_2$O as indicated on the vial label.
3. Gently mix to dissolve the Proteinase K powder.
4. Store the Proteinase K solution at 2-8°C.
5. Transfer up to 25 mg of animal tissue to a 1.5 ml microcentrifuge tube.
6. Add 200 μl of lysis buffer (e.g. 30 mM Tris-Cl, 10 mM EDTA, 1% SDS) to the sample.
7. Add 20 μl of Proteinase K solution to the sample then mix by vortex.
8. Incubate the sample at 60°C for 2-3 hours or until the sample lysate becomes clear.

Note

Maintaining consistent storage conditions is essential as temperature fluctuations can affect product stability. For optimal performance, prepare Proteinase K just prior to use.

Applications

Proteinase K is active over the pH range 4~12. It can be used in:
(1) Proteolytic inactivation of nucleases during the isolation of DNA/RNA,
(2) Inactivation of RNases, DNases and enzymes in reactions,
(3) Improving cloning efficiency of PCR products,
(4) Preparation of tissue sections for in situ hybridization...etc.

Quality Control

DNases / RNases / Exonucleases: (not detected).

Related Products

YRI001 RNAarmor™ RNase Inhibitor (2,000 U)
YRD100 RNAarmor™ RNase/DNase Removal Reagent (100 ml)
YRD500 RNAarmor™ RNase/DNase Removal Reagent (500 ml)
YRE500 RNAarmor™ RNase Removal Reagent (500 ml)
YRS100 RNAstill™ RNA Stabilization Reagent (100 ml)
YRS250 RNAstill™ RNA Stabilization Reagent (250 ml)
YRS500 RNAstill™ RNA Stabilization Reagent (500 ml)
YRR001 RNAstill™ RNA Storage Solution (1 ml)
YRR010 RNAstill™ RNA Storage Solution (10 ml)

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YRS250 RNAstill™ RNA Stabilization Reagent (250 ml)
YRS500 RNAstill™ RNA Stabilization Reagent (500 ml)
YRR001 RNAstill™ RNA Storage Solution (1 ml)
YRR010 RNAstill™ RNA Storage Solution (10 ml)

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For research use only.
Not intended for any animal or human therapeutic or diagnostic use.
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