

Proteinase K Powder

Store at -20°C

Desiccation recommended:

Warm to room temperature before opening.

Catalog # (P/N):	AM2542	AM2544
Amount:	100 mg	500 mg
Source:	Isolated from <i>Tritirachium album</i>	
Appearance:	Lyophilized powder	
Molecular Weight:	18.5 kD	
Caution:	Avoid contact with eyes, skin, and clothing. Wash thoroughly with water after handling.	
Storage Conditions:	Store at -20°C , with desiccation. Warm to room temperature before opening.	

USER INFORMATION

Product Description:	Proteinase K is a nonspecific serine protease that is active in the presence of SDS or urea and over a wide range of pH, salt concentrations, and temperatures. Proteinase K is used in the preparation of RNA and high molecular weight DNA suitable for pulsed field gel electrophoresis. It is also used to terminate reactions such as phosphatase or nuclease treatments, to degrade the enzyme and ensure its inactivity. Proteinase K treatment of samples with high protein concentrations facilitates subsequent phenol extractions.
Handling Instructions:	Resuspension of Proteinase K Powder Warm Proteinase K Powder to room temperature before opening. Resuspend at a stock concentration that is convenient for your experimental needs.
Applications:	Working concentrations of the enzyme range from 50–250 $\mu\text{g}/\text{mL}$. Typical extraction conditions for RNA are 0.1 M NaCl, 10 mM Tris pH 8.0, 1 mM EDTA, 0.5% SDS, and 200 $\mu\text{g}/\text{mL}$ Proteinase K incubated at 50°C for 30–60 min. The exact time of incubation and Proteinase K concentration depends on the amount of protein in the sample. For samples particularly high in nucleases, more Proteinase K should be added.

QUALITY CONTROL

Proteinase K is rigorously tested for contaminating nonspecific endonuclease, exonuclease, and RNase activity. Functionality is determined in a unit activity assay. One unit liberates 1 μmol of Folin-positive amino acids, measured as tyrosine, at 37°C , pH 7.5, using denatured bovine hemoglobin as the substrate.

OTHER INFORMATION

Material Safety Data Sheets: Material Safety Data Sheets (MSDSs) can be printed or downloaded from product-specific links on our website at the following address: www.ambion.com/techlib/msds. Alternatively, e-mail your request to MSDS_Inquiry_CCRM@appliedbiosystems.com. Specify the catalog or part number(s) of the product(s), and we will e-mail the associated MSDSs unless you specify a preference for fax delivery. For customers without access to the internet or fax, our technical service department can fulfill MSDS requests placed by telephone or postal mail. (Requests for postal delivery require 1–2 weeks for processing.)

Warranty and Liability: *For research use only. Not for use in diagnostic procedures.*

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