



## Recombinant Proteinase K

### Product Data Sheet

<b>Cat. No.:</b>	A410150020	A410150100	A410151000
	20 mg	100 mg	1 g

#### Description

*Tritirachium album* Recombinant Proteinase K, expressed in yeast, contains 285 amino acids and has a molecular weight of 29.3 kDa. The Proteinase K enzyme is purified by standard chromatography techniques.

#### Summary

Proteinase K is commonly used in molecular biology to digest protein and remove contamination from preparations of nucleic acid. Addition of Proteinase K to nucleic acid preparations rapidly inactivates nucleases that might otherwise degrade the DNA or RNA during purification. It is highly suited to this application since the enzyme is active in the presence of chemicals that denature proteins, such as SDS and urea, chelating agents such as EDTA, sulfhydryl reagents, as well as trypsin or chymotrypsin inhibitors. Proteinase K is used for the destruction of proteins in cell lysates (tissue, cell culture cells) and for the release of nucleic acids, since it very effectively inactivates DNases and RNases. Some examples for applications: Proteinase K is very useful in the isolation of highly native, undamaged DNAs or RNAs, since most microbial or mammalian DNases and RNases are rapidly inactivated by the enzyme, particularly in the presence of 0.5–1% SDS.

#### Synonyms

(EC:3.4.21.64), Endopeptidase K, *Tritirachium* alkaline proteinase, PROK, *Parengyodontium album* Proteinase-K

#### Source

Yeast

#### Formulation

Sterile-filtered lyophilized (freeze-dried) powder. The Proteinase K was lyophilized without any additives.

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### **Reconstitution**

It is recommended to reconstitute the lyophilized Proteinase-K in 20 mM Tris-HCl (pH 7.4~8.0), 1 mM CaCl<sub>2</sub>, 50% glycerol not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

### **Purity**

Greater than 95% as determined by SDS-PAGE.

### **Biological Activity**

36 Units/mg.

One unit is defined as the amount of enzyme that will hydrolyze urea-denatured hemoglobin to produce color equivalent to 1.0 mol tyrosine per min at 37° C, pH 7.5 (color by Folin-Ciocalteu reagent).

### **Shipping & Storage**

Ships at ambient temperature. Upon receipt, store the product at the temperature recommended below:

Recombinant Proteinase K, although stable at room temperature, should be stored between 2-8° C. **Do not freeze!**

### **Usage**

This product is intended for **Laboratory Research Use Only**. Not for use in diagnostic or therapeutic procedures. This product may not be used as a pharmaceutical or veterinary drug, agricultural product, or food additive.

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