

## 32-6900: PROK *Tritirachium album*

**Application :** Functional Assay

### Description

Source: Yeast

Sterile Filtered lyophilized powder.

The Proteinase K enzyme is a member of the Peptidase family S8. Proteinase K is a broad-spectrum serine protease. Proteinase K is capable of digesting hair (keratin), henceforth, the name "Proteinase K". Proteinase K is activated by calcium, the enzyme digests proteins especially after hydrophobic amino acids (aliphatic, aromatic and other hydrophobic amino acids). Proteinase K is frequently utilized 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 which may otherwise degrade the DNA or RNA during purification. Proteinase K is greatly fitting to this application as the enzyme is active in the presence of chemicals which denature proteins, such as SDS and urea, chelating agents such as EDTA, sulfhydryl reagents, as well as trypsin or chymotrypsin inhibitors. Proteinase K is utilized for the destruction of proteins in cell lysates (tissue, cell culture cells) and for the release of nucleic acids, given that it quite effectively inactivates DNases and RNases.

Recombinant *Tritirachium album* Proteinase-K expressed in yeast containing 285 amino acids having a Mw of 29.3 kDa is purified by standard chromatography techniques.

### Product Info

**Amount :** 20 mg / 100 mg

**Purification :** Greater than 95% as determined by SDS-PAGE.

**Content :** The Proteinase-K was lyophilized without any additives.  
It is recommended to reconstitute the lyophilized Proteinase-K in 20mM Tris-HCl (pH 7.4~8.0), 1mM CaCl<sub>2</sub>, 50% glycerol not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

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

### Application Note

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).