



### Proteinase K Cat: 405-010; 1000 mg

**Application:**  
- Digestion of proteins

**Description:**  
Proteinase K is a serine protease that exhibits a very broad cleavage specificity. The Protein with a molecular weight 28.900 kD cleaves peptide bonds adjacent to the carboxylic group of aliphatic and aromatic amino acids. Proteinase K is not inactivated by chelating reagents such as EDTA or detergents such as SDS and is active over a wide range of pH (4-12.5).

**Activity:** > 30 units/mg protein (haemoglobin, pH 7.5, 37°C)

**Unit definition:**  
Unit definition One unit is the amount of enzyme which releases at 37°C in 1 min as many folin-positive amino acids and peptides from haemoglobin as 1 µmol of tyrosine.

**Features:**  
Proteinase K is a highly active and stable protease with low cutting specificity. The enzyme belongs to the group of subtilisine-related serine proteases and is strongly inhibited by PMSF.

**Usage:**  
In presence of 0.5 – 1 % SDS Proteinase K inactivates DNases and RNases in eucaryotic and microbiological cell cultures. The use of Proteinase K during lysis of the cells allows the isolation of intact highly-molecular nucleic acids.

**Source:**  
Proteinase K is cloned from fungus *Engyodontium album* and produced in *Pichia pastoris*

**Quality:**  
- purified by chromatography and lyophilised  
- RNases: not detectable  
- DNases: not detectable  
- Exonucleases: not detectable

**Protocol:**  
Preparation: add appropriate amount of sterile water (not included) or recommended storage buffer (20 mM Tris pH 7.5, 1 mM CaCl<sub>2</sub>, 0.02% sodium azide, 50% glycerol (v/v) not included)

**Storage:**  
4 °C or -20 °C for at least 24 months

#### Ordering information:

Cat.-no	Description	Amount
405-002	Proteinase K	200 mg
405-010	Proteinase K	1000 mg