



## Proteinase K - Solution

from *Tritirachium album*  
Endopeptidase K

Cat. No.	Amount
EN-178S	2 x 1 ml
EN-178L	10 x 1 ml

**Unit Definition:** One unit of Proteinase K hydrolyzes urea-denatured hemoglobin producing color equivalent of 1  $\mu$ mol tyrosine per 1 min at 37°C and pH 7.5 (Folin & Ciocalteu's method), 1 U = 1 mAnsonU.

**For general laboratory use.**

**Shipping:** shipped on gel packs

**Storage Conditions:** store at -20 °C

**Additional Storage Conditions:** avoid freeze/thaw cycles

**Shelf Life:** 12 months

**Molecular Weight:** 28.9 kDa

**CAS#:** 39450-01-6

**EC number:** 254-457-8

**Purity:** free of RNases, DNases and Exonucleases

**Form:** Proteinase K solution in 10 mM Tris-HCl, 1 mM  $\text{Ca}(\text{H}_3\text{C}_2\text{O}_2)_2$ , 10 % (v/v) Glycerol, pH 7.8 (22°C)

**Concentration:** 20 mg/ml

### Applications:

Digestion of proteins during DNA and RNA preparation.

### Description:

Proteinase K is a serine protease that exhibits a very broad cleavage specificity. The Protein with a molecular weight of 28.9 kDa cleaves peptide bonds adjacent to the carboxylic group of aliphatic and aromatic amino acids. Proteinase K is not inactivated by metal chelating reagents such as EDTA or detergents such as SDS and is active over a wide range of pH (4 - 12.5).

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.

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.



### Activity:

> 600 mAnsonU/ml