



Proteinase K - Solution

recombinant from *Tritirachium album*
Endopeptidase K

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

Unit Definition: One unit is defined as the amount of enzyme required to hydrolyze casein to produce 1 μ mol tyrosine per minute at 37°C and pH 8.0.

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 and DNases

Form: Proteinase K solution (20 mg/ml) in 10 mM Tris-HCl, 1 mM Ca(H₃C₂O₂)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.

Hazard pictograms:



Signal word: Danger

Hazard statements:

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Precautionary statements:

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Activity:

> 600 units/ml