

Proteinase K solution

Product Number: PK02**Solution****Molecular bio grade**

Shipping and Storage

Proteinase K solution suggest ship with blue ice.

After opening the package, if keep at 2-8°C for more than one week, it is recommended to sterilize by filtration. PES or PVDF membranes with low protein binding are recommended in sterile filtration.

Description

Proteinase K is a broad-spectrum serine protease originally isolated from fungus *Engyodontium album*. Proteinase K is commonly used in molecular biological and biopharmaceutical applications to remove protein contamination from preparations of highly native undamaged nucleic acid because it rapidly and effectively inactivate nuclease that might degrade the DNA or RNA even in the presence of denaturing reagents. MEBEP recombinant proteinase K is a mutant to the native protease that result in improved specific activity, higher yield and wider range of pH/temperature with optimal activity. The large scale recombinant preparation has advantages in lot-to-lot consistency, superior purity and cost-efficiency. DNA-free nature of recombinant Proteinase K made it well-suited in isolating DNA and RNA templates. Recombinant proteinase K is widely used for general digestion of proteins and Chemo-enzymatic peptide synthesis in molecular biology, molecular diagnostic and biopharmaceutical applications. Proteinase K is one of important enzymes in various industries like leather, cosmetics, food and feed etc.

EC 3.4.21.64

CAS 39450-01-6

Form Colorless or light yellow transparent solution.

Molecular Weight 29,300 D

Source Mutated gene from *Tritirachium limber*, Expressed in recombinant yeast.

Specific Activity $\geq 680\text{U/ml}(20\text{mg/ml})$

Unit Definitions One unit is defined as the amount of enzyme that will liberate 1 μmol of tyrosine per minute at 37°C, pH7.5.

Package size 1ml, 10ml, 50ml, 100ml or customized.

Expiration 1 year, 2-8°C.

Dilution Buffer 20 mM Tris-Cl (pH 7.4), 1 mM CaCl_2 , 2% glycerol.

Storage Buffer 20 mM Tris-Cl (pH 7.4), 1 mM CaCl_2 , 50% glycerol.

Quality Control

1. DNase Activity: none detectable enzyme activity with λ DNA after 6 hours incubation at 37°C.
2. RNase Activity: none detectable of ribonuclease activity after 16 hours incubation at 25°C.
3. Protein Purity: > 95% (Native-PAGE and SDS-PAGE assay).