Recombinant Proteinase K

REF: EG15312S

Storage Condition

-20℃

Components

Component	Amount
Recombinant Proteinase K	1 g

Description

Recombinant Proteinase K is a non-specific serine protease, which exhibits activity in environments such as SDS and urea, and can tolerate a wide range of pH values and salt concentrations.

Recombinant Proteinase K is capable of cleaving the carboxy-terminal peptide bonds of aliphatic and aromatic amino acids and is commonly used for pretreatment of RNA or large molecular weight DNA prior to pulsed electrophoresis, as well as to terminate certain enzymatic reactions, such as phosphorylation and nuclease treatments, to degrade enzymes in the reaction system and ensure that they are inactivated.

After strict quality control, this product does not contain non-specific endonucleases, exonucleases, ribonucleases, or host DNA contamination.

Definition of Activity Unit

At 37℃ and pH7.5, the amount of enzyme required to generate 1 μmol of tyrosine from the hydrolysis of casein in 1 minute is defined as 1 unit of enzyme activity.

Quality Control Assays

Endonuclease Activity

A 20 μl reaction containing 200 ng of supercoiled plasmid and 1 μg of Recombinant Proteinase K incubated for 4 hours at 37℃ results in <10% conversion to the nicked or linearized form as determined by agarose gel electrophoresis.

Non-specific Nuclease Activity

A 20 μl reaction containing 15 ng of dsDNA fragments and 1 μg of Recombinant Proteinase K incubated for 16 hours at 37℃ results in no detectable degradation of the dsDNA fragments as determined by agarose gel electrophoresis.

RNase Activity

A 10 μl reaction containing 500 ng of RNA and 1 μg of Recombinant Proteinase K incubated for 1 hours at 37℃ results in >90% of the substrate RNA remains intact as determined by agarose.

Residual Host DNA

The product was tested by TaqMan qPCR, and the results show that the host DNA residues less than 10 copies.

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