

Proteinase K

Cat.No.	Size	
HB0451	100 MG	

Basic Information:

Cat.#:	HB0451
Form:	White Powder, Lyophilized from purified liquid enzyme or liquid
Specific Activity:	≥ 30 U/mg dry weights
Package:	100 mg/bottle (Standard) .
Source:	<i>Pichia Pastoris</i> with a mutant cloned gene from <i>Tritirachium album limber</i>
Molecular Weight:	29,300

Preparation Instructions

Proteinase K dissolves in water at 1 mg/ml to give a clear colorless solution.

Storage Conditions:

Store below 4°C.

Expiration: Expiration date is 3 years for powder and one year for liquid.

Dilution Buffer: 20 mM Tris-Cl (pH 7.4), 1 mM CaCl₂, 50% glycerol.

QC Assays:

Unit Definition: One unit is defined as the amount of enzyme that will liberate 1 μmol of tyrosine per minute from casein at 37°C at pH 7.5.

DNase Activity: None detectable after incubation with λ DNA for 6 hours at 37°C.

RNase Activity: None detectable after incubation with RNA for 16 hours at 25°C.

Protein Purity: Over 99% (Native-PAGE and SDS-PAGE assay)

Applications:

The application of this Mutant Proteinase K is similar with wild type Proteinase K. But this mutant one has higher specific activity and more stable at room temperature. It is a non-specific serine proteinase with broad substrates. It is active over the pH range from 4 to 12. It can be used at any situation to digest native and denatured proteins. For instance, it is used for isolating mRNA or genomic DNA from different tissues and modifying glycoprotein for structure studies. Mutant Proteinase K is active with SDS, urea and EDTA and active between 15°C and 75°C.