

Proteinase K, Recombinant, NGS Grade

ALTERNATE NAMES: Protease K, Endopeptidase K, *Tritirachium* alkaline proteinase, NGS Grade Proteinase K, NGS Grade Protease K

CATALOG NO.: 9247-100, 500, 1G, 10G

AMOUNT: 100 mg, 500 mg, 1 g, 10 g

SOURCE: *Tritirachium album* gene (*Parengyodontium album*), recombinant

MOL. WEIGHT: 28.9 kDa

FORM: White Lyophilized powder

SOLUBILITY: ≥ 50 mg/ml

ACTIVITY: ≥ 35 U/mg

UNIT DEFINITION: One unit of Proteinase K hydrolyzes urea-denatured hemoglobin producing color equivalent of 1 μmol tyrosine per 1 min at 37°C and pH = 7.5 (Folin & Ciocalteu's method), 1 U = 1 mAnsonU.

PURITY: This recombinant enzyme undergoes extensive purification to yield the highest quality product. An extra purification step results in significantly increased solubility (2.5 fold), increased specific activity, and decreased DNA content as compared to our Molecular Biology Grade product.

DNAses and RNAses: Not detected

DNA CONTENT: The amount of total DNA in recombinant molecular biology grade, Proteinase K is less than ≤ 0.1 pg/mg by qPCR.

RECONSTITUTION: Soluble in 50 mM Tris-HCl (pH 7.5), 3 mM CaCl₂, 50% Glycerol yielding a clear colorless solution.

STORAGE CONDITIONS: Store the lyophilized protein at -20°C. Aliquot the product after reconstitution to avoid repeated freezing/thawing cycles.

DESCRIPTION: Proteinase K is a broad-spectrum serine protease. Our NGS grade recombinant Proteinase K is extensively purified to give highly active formulation free of any detectable nuclease activities. It is fully active up to 56°C and under denaturing conditions (e.g. in the presence of urea and/or SDS), what makes it ideal for digesting proteins in variety of applications.

HANDLING: Do not take internally. Wear gloves and mask when handling the product! Avoid contact by all modes of exposure.

RELATED PRODUCTS:

- Protease Activity Assay kit (**Cat. No. K781-100**)
- Protease Inhibitor Cocktail (**Cat. No. K271-500**)
- EZBlock Protease Inhibitor Cocktail, EDTA-Free (**Cat. No. K272-1EA**)
- EZBlock™ Protease Inhibitor Cocktail II (**Cat. No. K277-1EA**)
- EZBlock™ Protease Inhibitor Cocktail III (**Cat. No. K278-1EA**)
- EZBlock™ Protease Inhibitor Cocktail IV (**Cat. No. K279-1**)
- EZBlock™ Protease Inhibitor Cocktail IV (**Cat. No. K279-1EA**)
- EZBlock™ Protease Inhibitor Cocktail, EDTA-Free (**Cat. No. K272-1,5**)
- EZBlock™ Universal Protease & Phosphatase Inhibitor Cocktail (**Cat. No. K283-1**)
- EZBlock™ Universal Protease & Phosphatase Inhibitor Cocktail (**Cat. No. K283-1EA**)
- EZBlock™ Universal Protease & Phosphatase Inhibitor Cocktail, EDTA-Free (**Cat. No. K284-1**)
- EZBlock™ Universal Protease & Phosphatase Inhibitor Cocktail, EDTA-Free (**Cat. No. K284-1EA**)
- Mini Brochure: Protease & Phosphatase Inhibitor Cocktails (**Cat # BVBPPIC-2011**)

FOR RESEARCH USE ONLY! Not to be used on humans.