

Proteinase K

Catalogue number:

MB01901, 100 mg

MB01902, 500 mg

Description

Recombinant Proteinase K is a stable serine protease with broad substrate specificity. It degrades many proteins in the native state even in the presence of detergents (1% Triton or 0.5% SDS). Proteinase K was isolated from a fungus (*Engyodontium album*, formerly *Tritirachium album*) and expressed in *Pichia pastoris*. Is able to grow on keratin and the enzyme can digest native keratin (hair), hence, the name "Proteinase K". NZYTech Proteinase K is a highly stable enzyme with an optimum temperature of 50-56 °C (activity range 20-65 °C) and optimum pH of 7.5-8.5 (activity range 4.0-12.0). Proteinase K is frequently used in molecular biology applications to digest unwanted proteins, such as nucleases from DNA or RNA preparations from microorganisms, cultured cells, and plants.

Molecular weight

28.9 kDa monomer

Activity

≥ 30 U/mg lyophilizate

≥ 40 U/mg protein

One unit of Proteinase K hydrolyses urea-denatured haemoglobin producing colour equivalent of 1 µmol tyrosine per min at 37 °C and pH 7.5

Storage conditions

The protein (powder) remains if stored at -20 °C (please check the expiry date at the product label).

Preparation instructions

For immediate use: 50 mM Tris-HCl, pH 7.8, 3 mM CaCl₂ or water, stable if stored at 4°C up to 1 month.

For long-term storage: 50 mM Tris-HCl, pH 7.8, 3 mM CaCl₂, 50% glycerol (v/v), stable if stored at -20 °C up to 2 years.

The protein solubility is up to 20 mg/ml.

The enzyme is typically used at 50–200 µg/mL in nucleic acid preparations at pH 7.5–8.0 and 37-55 °C. Incubation times vary from 30 minutes to 18 hours.

Shipping conditions

Room temperature.

V1902

For research use only



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genes & enzymes

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