



## Proteinase K

Cat. No: EZ0011 30 mg

Cat. No: EZ0012 5x30 mg

### Introduction

Proteinase K is a serine protease that exhibits a very broad cleavage specificity. The Protein with a molecular weight 28.900 kD cleaves peptide bonds adjacent to the carboxylic group of aliphatic and aromatic amino acids. Proteinase K is not inactivated by chelating reagents such as EDTA or detergents such as SDS and is active over a wide range of pH (4-12.5). Working temperature range is 20–65°C with optimum activity at 50–56°C.

### Features

Proteinase K isolated from *Tritirachium album* is used for protease digestion during DNA and RNA preparation. The enzyme is typically used at 50–200 µg/ml in nucleic acid preparations at pH 7.5–8.5 and 37–55°C. Incubation times vary from 30 minutes to 18 hours.

Specific Activity of > 30 units/mg protein (haemoglobin, pH 7.5, 37°C).

### Applications

- Isolation of genomic DNA from cultured cells and tissues.
- Removal of DNases and RNases during DNA and/or RNA purification.
- Determination of enzyme locations.

### Kit Contents

- |                                      |         |
|--------------------------------------|---------|
| • Proteinase K ( Lyophilized powder) | 30 mg   |
| • Proteinase K ( Lyophilized powder) | 5x30 mg |

### Storage

4 °C or -20 °C for at least 24 months, shipment at ambient temperature.

### Storage buffer

- 50 mM Tris-HCl (pH 8.0), 5 mM CaCl<sub>2</sub> for storage at 2–8°C.
- 50 mM Tris-HCl (pH 8.0), 5 mM CaCl<sub>2</sub>, 50% glycerol (v/v) for storage at -20°C.

### Unit Definition

One unit is defined as an amount of enzyme that liberates Folin-positive amino acids and peptides corresponding to 1 µmol tyrosine in 1 min at 37°C using denatured hemoglobin as substrate.

### Quality Control

Enzyme activity is assayed in the following mixture: 80 mM potassium phosphate (pH 7.5), 5 M urea, 4 mM NaCl, 3 mM CaCl<sub>2</sub> and 16.7 mg/mL haemoglobin.

The absence of endo-, exodeoxyribonucleases and ribonucleases has been confirmed in appropriate quality tests.

*(Continued on reverse page)*

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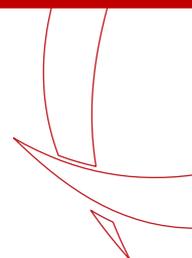
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## Notes



### PRODUCT USE LIMITATION

This product is developed, designed and sold exclusively for research purposes and in vitro use only. The product was not tested for use in diagnostics or for drug development, and is not suitable for administration to humans or animals. Please refer to [www.canvaxbiotech.com](http://www.canvaxbiotech.com) for the Material Safety Data Sheet of the product.

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