

PRODUCT DATASHEET

Tritirachium album Proteinase-K Recombinant

Cat. No.: RP1791015100
Type: Recombinant protein
Size: 1 g
Source: Yeast
Species: Tritirachium album

Description

Recombinant Tritirachium album Proteinase-K expressed in yeast containing 285 amino acids having a Mw of 29.3 kDa is purified by standard chromatography techniques. The biological activity is 34 Units/mg protein.

Other names

Endopeptidase K, Tritirachium alkaline proteinase, Engyodontium album proteinase, Parengyodontium album proteinase, PROK

Introduction to the molecule

The Proteinase K enzyme is a member of the Peptidase family S8. Proteinase K is a broad-spectrum serine protease. Proteinase K is capable of digesting hair (keratin), henceforth, the name "Proteinase K". Proteinase K is activated by calcium, the enzyme digests proteins especially after hydrophobic amino acids (aliphatic, aromatic and other hydrophobic amino acids). Proteinase K is frequently utilized in molecular biology to digest protein and remove contamination from preparations of nucleic acid. Addition of Proteinase K to nucleic acid preparations rapidly inactivates nucleases which may otherwise degrade the DNA or RNA during purification. Proteinase K is greatly fitting to this application as the enzyme is active in the presence of chemicals which denature proteins, such as SDS and urea, chelating agents such as EDTA, sulfhydryl reagents, as well as trypsin or chymotrypsin inhibitors. Proteinase K is utilized for the destruction of proteins in cell lysates (tissue, cell culture cells) and for the release of nucleic acids, given that it quite effectively inactivates DNases and RNases.

Purity

Greater than 99% as determined by SDS-PAGE.

Biological activity

34 Units/mg protein.

One unit is defined as the amount of enzyme that will hydrolyze urea-denatured hemoglobin to produce color equivalent to 1.0 mol tyrosine per min at 37°C, pH 7.5 (color by Folin-Ciocalteu reagent).

Formulation:

The Proteinase-K was lyophilized without any additives.

Reconstituion:

It is recommended to reconstitute the lyophilized Proteinase-K in 20mM Tris-HCl (pH 7.4~8.0), 1mM CaCl₂, 50% glycerol not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

Shipping

At ambient temperature. Upon receipt, store the product at the temperature recommended below.

Storage, Stability/Shelf Life

Recombinant Proteinase-K although stable at room temp for 1 week, should be stored desiccated below -18°C.

For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

Please prevent freeze-thaw cycles.

Applications

Biologically active protein

Note

This BioVendor product is furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

