

Proteinase K (PROK) Enzyme | PROK enzyme

Proteinase K (PROK) Recombinant Protein

CATALOG # AAA233469	HOST Recombination	APPLICATIONS Immunohistochemistry
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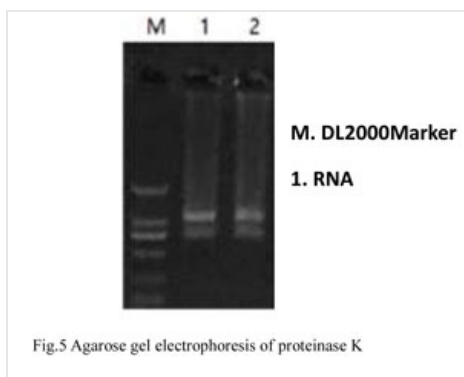
PRODUCT SYNONYMS

Proteinase K (PROK); Proteinase K (PROK) Recombinant Protein; PROK enzyme

PRODUCT SPECIFICATIONS

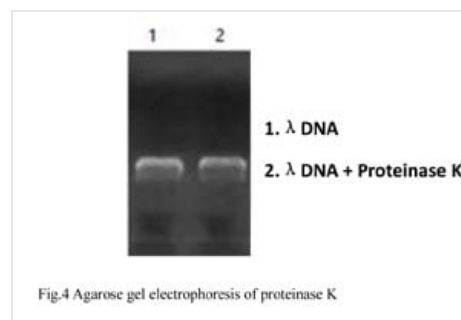
Host	Recombination
Purity/Purification	90% ± 5% by SDS-PAGE
Form/Format	Liquid, dissolved in Tris-HCl, pH 7.5, 10%glycerol?0.02%NaN3
Applicable Applications for PROK enzyme	IHC (Immunohistochemistry)
Valid Point	2-8°C for 12 months, -20°C for 18 months
Preparation and Storage	Aliquot and store at<= -20°C. Avoid repeated freeze / thaw cycles

IMAGES



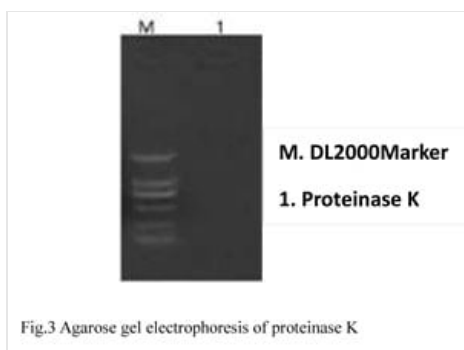
Application Data

Agarose gel electrophoresis was performed to check whether there was residual RNase. Figure 5 shows AAA233469 produced proteinase K without RNase residue after 16h of incubated at 25°C (Fig.5).



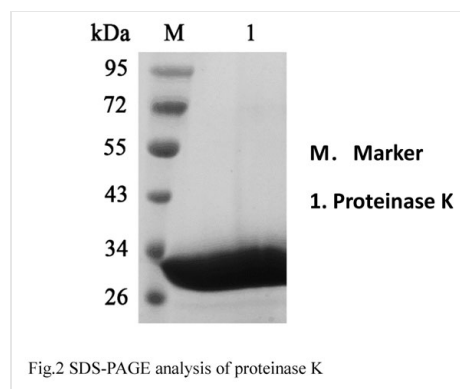
Detection of DNase Residue

DNases remained in lyophilized powder were detected by agarose gel electrophoresis, figure 4 shows AAA233469 produced proteinase K without DNase residue after 6h of incubation at 37°C (Fig.4).



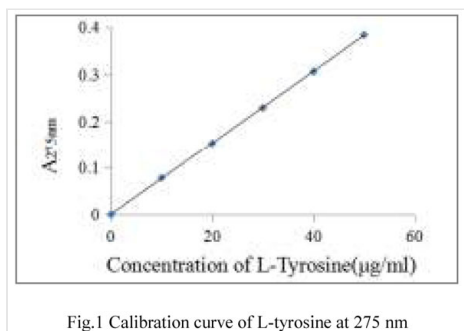
Detection of Nucleic Acid Residue

By agarose gel electrophoresis to detect nucleic acid, figure 3 shows AAA233469 produced proteinase K without RNA, DNA residues (Fig.3).



Application Data

The purity and the molecular weight of AAA233469 proteinase K were over 95% and 28.9 kDa by SDS-PAGE, respectively (Fig.2).



Calibration Curve

According to the absorbance A_{275} for the vertical axis, the different concentrations of tyrosine as the horizontal axis, the standard curve was drawn. Then, the enzyme activity was 30U/mg by calculating (Fig.1). Unit definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 μ mol of tyrosine per minute at pH 7.5 at 37°C

ADDITIONAL INFORMATION

Related Product Information for PROK enzyme

Proteinase K is an extracellular serine endoprotease produced by *Tritirachium album* Limber. Proteinase K belongs to the peptidase family S8. Its predominant cleavage site is the peptide bond adjacent to the carboxyl group of aliphatic and aromatic amino acids with blocked α -amino groups. Proteinase K is a broad-spectrum protease that functions at wide pH and temperature ranges. The optimum pH and temperature for the activity of this protease were approximately pH 7.5-8.0 and 55°C, respectively. In addition, 0.2-1% sodium dodecyl sulfate (SDS) and 10mM carbamide can activate its activity.

The combination of these unique features makes Proteinase K as an important tool in scientific research. Proteinase K can be used in the preparation of biological macromolecules by degrading the constitutive proteins of cells and removing nucleases such as DNases and RNases for RT-PCR. In nucleic acid vaccine and molecular identification, it is also widely used for degrading proteinaceous impurities during the isolation of nucleic acids from biological samples.

The latest launch of high quality of Proteinase K shows its high purity and high enzyme activity by biochemical platform testing. Through repeated inspection, all the data show our company produced Proteinase K without RNA, DNA, RNase and DNase residues.

Product Categories/Family for PROK enzyme

[Raw Materials Assay Development](#)

NCBI AND UNIPROT INFORMATION

UniProt Accession #	P06873
NCBI Official Full Name	proteinase K
UniProt Protein Name	Proteinase K

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/recombination-enzyme/proteinase-k-prok/233469>