

Proteinase K (PROK) Active Protein | PROK active protein

Recombinant Tritirachium album Proteinase K (PROK) (Active)

CATALOG #
AAA27052

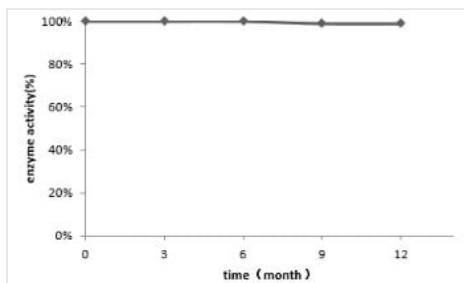
PRODUCT SYNONYMS

Proteinase K (PROK); Recombinant Tritirachium album Proteinase K (PROK) (Active); Endopeptidase K; Tritirachium alkaline proteinase; PROK active protein

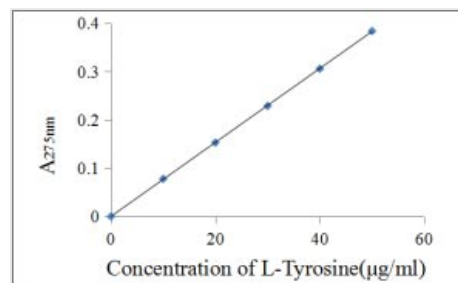
PRODUCT SPECIFICATIONS

Purity/Purification	Greater or equal to 85% purity as determined by SDS-PAGE.
Form/Format	If the delivery form is liquid, the default storage buffer is Tris/PBS-based buffer, 5%-50% glycerol. If the delivery form is lyophilized powder, the buffer before lyophilization is Tris/PBS-based buffer, 6% Trehalose, pH8.0
Species	Tritirachium album (Engyodontium album)
Biological Activity	1: Using the absorbance A275 as the vertical axis and different concentrations of tyrosine as the horizontal axis, a standard curve was drawn, and the enzyme activity was calculated >30U/mg. Unit definition: One unit is defined as the amount of enzyme that catalyzes the formation of 1 umol of tyrosine per minute at pH7.5 at 37 degree C 2: Detect Nucleic acid residue by agarose gel electrophores. 3: Detect DNase residue by agarose gel electrophores. 4: Detect RNase residue by agarose gel electrophores. 5: The Proteinase K powder was stored at 4 degree C. And its enzyme activity was assayed every month over the past year. The left chart shows how its enzyme activity changes in a year. It turns out the enzyme activity is maintained more than 95%, which indicates that proteinase K is very stable.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20 degree C/-80 degree C. Our default final concentration of glycerol is 50%. Customers could use it as reference.
Preparation and Storage	Store at -20 degrees C. For long-term storage, store at -20 degrees C or -80 degrees C. Store working aliquots at 4 degrees C for up to one week. Repeated freezing and thawing is not recommended.

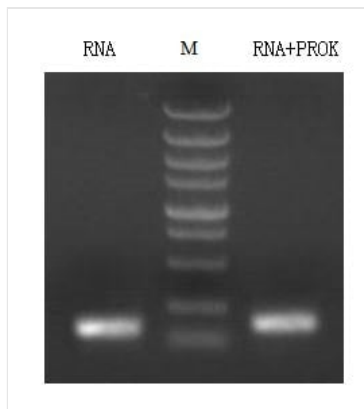
IMAGES



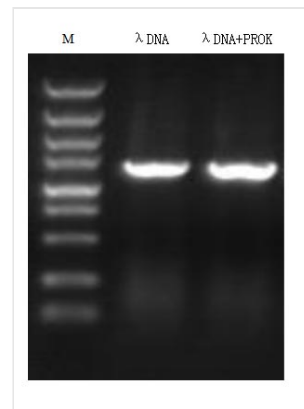
Activity



Activity



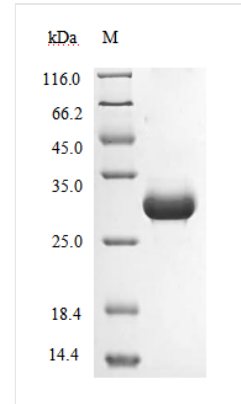
Application Data



Application Data



Application Data



SDS-PAGE

ADDITIONAL INFORMATION

Related Product Information for PROK active protein

Proteinase K, originally isolated from the mold *Tritirachium album*, is a serine protease with broad substrate specificity and relatively high proteolytic activity. It preferentially cleaves ester and peptide bonds adjacent to the C-termini of hydrophobic, aliphatic, or aromatic amino acids. CUSABIO's recombinant proteinase K is highly pure determined by SDS-PAGE and reached up to 95%. It is characterized by high purity, sterility, no bio-burden, and no presence of DNase, RNase, DNA, and RNA contaminants. Its enzyme activity was calculated >30U/mg using the absorbance A275 as the vertical axis and different concentrations of a tyrosine as the horizontal axis. The working concentration of proteinase K, usually determined by the temperature, PH, and whether the buffer used contains SDS and urea, is 20mg/mL.

Proteinase K has a wide range of applications. In nucleic acid extraction and isolation, proteinase K can be used to degrade Dnase/Rnase and DNA-bound histones and lyse cells or tissues. It also digests protein impurities especially endotoxin and separates target nucleic acids from proteins in biological samples, thus improving the purity and safety of nucleic acids and production efficiency. The nucleic acids isolated by proteinase K is often used for the amplification reaction. Denaturing agents such as SDS (1%) can increase the enzymatic activity of proteinase K. In in-situ hybridization, it removes the proteins around the target DNA to facilitate probe infiltration and improves detection sensitivity. Proteinase K is also used to analyze the membrane structure through the modification of proteins on the cell surface. The nucleic acid-based real-time reverse transcriptase-polymerase chain reaction (RT-PCR) test is the primary tool to identify the SRAS-CoV-2 infection. Proteinase K is often used to remove unwanted proteins present in the nasal/pharyngeal swab samples and inactivate nucleases that could degrade DNA or RNA during isolation and purification procedures, thus increasing the yield of extracted RNA and improving the detection of viral RNA by RT-PCR.

NCBI AND UNIPROT INFORMATION

NCBI GI #	131077
UniProt Accession #	P06873
Molecular Weight	40,300 Da

NCBI Official Full Name	Proteinase K
UniProt Protein Name	Proteinase K
UniProt Gene Name	PROK

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.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
Online datasheet: <https://stage.aaabiotech.com/active-protein/proteinase-k-prok/27052>