

**APX263Ge51 10ug**  
**Active Proteinase K (PROK)**  
**Organism Species: Pan-species (General)**  
**Instruction manual**

FOR RESEARCH USE ONLY  
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

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1st Edition (Apr, 2016)

## **[ PROPERTIES ]**

**Source:** Eukaryotic expression.

**Host:** 293F cell

**Residues:** Ala16~Ala384

**Tags:** N-terminal His-tag

**Purity:** >95%

**Endotoxin Level:** <1.0EU per 1µg (determined by the LAL method).

**Buffer Formulation:** PBS, pH7.4, containing 5%Trehalose.

**Applications:** Cell culture; Activity Assays.

(May be suitable for use in other assays to be determined by the end user.)

**Predicted isoelectric point:** 7.1

**Predicted Molecular Mass:** 40.6kDa

**Accurate Molecular Mass:** 30kDa as determined by SDS-PAGE reducing conditions.

## **[ USAGE ]**

Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

## **[ STORAGE AND STABILITY ]**

**Storage:** Avoid repeated freeze/thaw cycles.

Store at 2-8°C for one month.

Aliquot and store at -80°C for 12 months.

**Stability Test:** The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

## [ SEQUENCE ]

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          APAVE QRSEAAPLIE ARGEMVANKY IVKFKEGSAL
SALDAAMEKI SGKPDHVKYN VFSGFAATLD ENMVRVLAH PDVEYIEQDA
VVTINAAQTN APWGLARISS TSPGTSTYYY DESAGQGSCV YVIDTGIEAS
HPEFEGRAQM VKTYYYSSRD GNGHGTHCAG TVGSRTYGVA KKTQLFGVKV
LDDNGSGQYS TIIAGMDFVA SDKNNRNCPK GVVASLSLGG GYSSSVNSAA
ARLQSSGVMV AVAAGNNAD ARNYSPASEP SVCTVGASDR YDRRSSFSNY
GSVLDIFGPG TSILSTWIGG STRSISGTSM ATPHVAGLAA YLMTLGKTTA
ASACRYIADT ANKGDLSNIP FGTVNLLAYN NYQA
    
```

## [ ACTIVITY ]

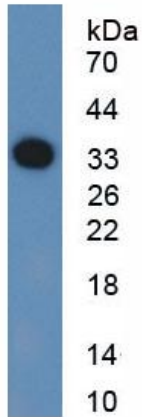
Proteinase K is a typical member of the subtilisin family of proteinases .It exhibits broad substrate specificity and degrades many proteins in the native state, even in the presence of detergents.The predominant site of cleavage is the peptide bond adjacent to the carboxyl group of aliphatic and aromatic amino acids with blocked alpha amino groups. Thus,the activity of recombinant Proteinase K measued by hydrolyzing casein.The reaction was performed in adding 200µl recombinant Proteinase K(dilued by 0.01mol/L Tris-HCL,pH 8.0) to 200µl 10g/L casein ,rapidly mixing,incubated for 5min at 55 °C ,stop the reaction with 400µl 0.4mol/L TCA.Clarity by filtration through a 0.45 m filter or by centrifugation. Read the supernatant an 275nm. The blank use 200µl 0.01mol/L Tris-HCL,pH 8.0 replace the Proteinase K. One unit is described as that amount of enzyme that liberates 1 µg of L- tyrosine within one minute at 55°C using casein as a substrate.

Calculation

$$\text{PROK activity (U/mg)} = \frac{N \times 0.8}{5 \times 0.2d}$$

N= released L- tyrosine µg/ml





**Figure 3. Western Blot**

**Sample: Recombinant PROK, General;**

**Antibody: Rabbit Anti- General PROK Ab (PAX263Ge05)**

**[ IMPORTANT NOTE ]**

The kit is designed for research use only, we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.