APA297Hu01 5mg
Active Ribonuclease A (RNase A)
Organism Species: ***Homo sapiens (Human)***
Instruction manual

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

[PROPERTIES]

Source: Prokaryotic expression.
Host: *E. coli*
Residues: Lys29~Thr156
Tags: N-terminal His-tag
Traits: Liquid
Original Concentration: 500μg/mL
Volume： 10mL
Endotoxin Level: <1.0EU per 1μg (determined by the LAL method).
Buffer Formulation: 10mM Tris，15mM NaCl，pH 7.5.
Applications: Cell culture; Activity Assays.
(May be suitable for use in other assays to be determined by the end user.)
Predicted isoelectric point: 8.8
Predicted Molecular Mass: 16.1kDa
Accurate Molecular Mass: 18kDa as determined by SDS-PAGE reducing conditions.

[USAGE]

[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 37ºC 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]

KE SRAKKFQRQH MDSDSSPSSS
STYCNQMMRR RNMTQGRCKP VNTFVHEPLV DVQNVCFQEK VTCKNGQGNC
YKSNSSMHIT DCRLTNGSRY PNCAYRTSPK ERHIIVACEG SPYVPVHFDA
SVEDST

[ACTIVITY]

Ribonuclease A (RNASEA) is a member of the pancreatic-type of secretory ribonucleases, a subset of the ribonuclease A superfamily. RNASEA cleaves RNA on the 3' side of pyrimidine nucleotides. The protein acts to degrade ds-RNA over ss-RNA. The activity of recombinant human RNASEA measured by cleaving yeast RNA. One unit of the enzyme causes an increase in absorbance of 0.001 at 260 nm in 15 min when yeast RNA is hydrolyzed at 50°C and pH 5.0. Pipette 50ulof respective recombinant human RNASEA dilution into 100ul 0.1M sodium acetate buffer, pH 5.0, then add 150ul of 0.15mg/ml yeast RNA. The blank tube use 50ul ultrapure water instead of enzyme dilution. All the all tubes Incubate at 50°C for 15 minutes. Read A260 versus blank.

Calculation

$$\text{Units/mg}=\frac{\triangle 260\times 1000\times N}{15\,\text{mg enzyme}}$$

1000=Absorbance conversion factor with 0.001；

N=Absorbance conversion factor；

15= Time of assay (inminutes)

The specific activity of recombinant human RNASEA is 1.3×10^4U/mg

[IDENTIFICATION]

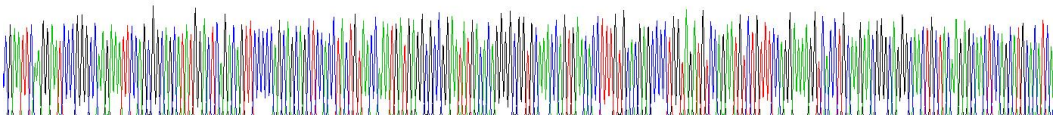

Figure 1. Gene Sequencing (extract)

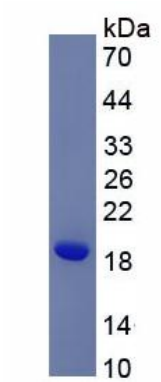

Figure 2. SDS-PAGE

Sample: Active recombinant RNASEA, Human

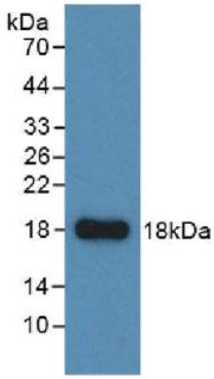

Figure 3. Western Blot

Sample: Recombinant RNASEA, Human;

Antibody: Rabbit Anti-Hu RNASEA Ab (PAA297Hu01)

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