

# Recombinant human Ribonuclease A/RNASE 1 protein

Catalog Number: ATGP4051

## PRODUCT INFORMATION

---

### Expression system

HEK293

### Domain

29-156aa

### UniProt No.

P07998

### NCBI Accession No.

NP\_937878.1

### Alternative Names

RNASE1, ribonuclease A family member 1, pancreatic, RAC1, RIB1, RNS1, ribonuclease pancreatic, HP-RNase, RIB-1, RNase Upl-1, RNase 1, Ribonuclease A, RNase A

### Additional Information

N- terminal Sequence Analysis: Lys-Glu-Ser-Arg-Ala

## PRODUCT SPECIFICATION

---

### Molecular Weight

15.3kDa(134aa)

### Concentration

1mg/ml (determined by Absorbance at 280nm)

### Formulation

Liquid. In Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

### Purity

> 90% by SDS - PAGE

### Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

### Biological Activity

Specific activity is  $> 5 \times 10^4$  unit/mg, and is defined as the amount of enzyme that cleaves 1.0 pmole of RNase probe per minute at 25C.

### Tag

His-Tag

### Application

SDS-PAGE, Enzyme Activity

### Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

# Recombinant human Ribonuclease A/RNASE 1 protein

Catalog Number: ATGP4051

## BACKGROUND

### Description

RNASE1, also known as ribonuclease A, is a member of pancreatic ribonuclease enzyme family. It is a relatively small protein and is a basic protein (pI = 9.63). Also, It has four disulfide bonds in its native state. It cleaves specifically after pyrimidine nucleotides. Cleavage takes place in two steps: first, the 3',5'-phosphodiester bond is cleaved to generate a 2',3'-cyclic phosphodiester intermediate; second, the cyclic phosphodiester is hydrolyzed to a 3'-monophosphate. (For example pG-pG-pC-pA-pG will be cleaved to give pG-pG-pCp and A-pG) The highest activity is exhibited with single stranded RNA. It can also hydrolyze RNA from protein samples. RNase A can be inhibited by alkylation of His12 and His119 and activated by potassium and sodium salts. Recombinant human RNASE1, fused to His-tag at C-terminus, was expressed in HEK293 cell and purified by using conventional chromatography techniques.

### Amino acid Sequence

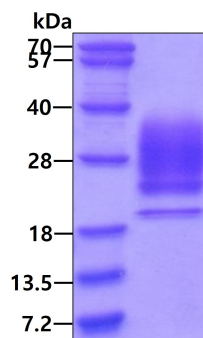
KESRAKKFQR QHMDS DSSPS SSSTYCNQMM RRRNMTQGRC KPVNTFVHEP LVDVQNVCFQ EKVTCCKNGQG  
NCYKSNSSMH ITDCRLTNGS RYPNCA YRTS PKERHIIVAC EGSPYVPVHF DASVEDST<HH HHHH>

### General References

Raines RT (1998) Chem. Rev. 98:1045-1066.  
JC Kosgey et al, (2020) Int. J. Biol. 160:1042-1049.

## DATA

### SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain