

Human RNase A / Ribonuclease A / RNASE1 Protein (His Tag)

Catalog Number: 13468-H08H



Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

RAC1; RIB1; RNS1; AI574248; Rib-1; Rib1

Protein Construction:

A DNA sequence encoding the human RNASE1 (P07998) (Met1-Thr156) was expressed with a polyhistidine tag at the C-terminus.

Source: Human

Expression Host: Human Cells

QC Testing

Purity: (81.9+12.3+4.7) % as determined by SDS-PAGE

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Lys 29

Molecular Mass:

The recombinant human RNASE1 comprises 139 amino acids and has a predicted molecular mass of 16 kDa. The apparent molecular mass of the protein is approximately 29, 26 and 22 kDa in SDS-PAGE under reducing conditions

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

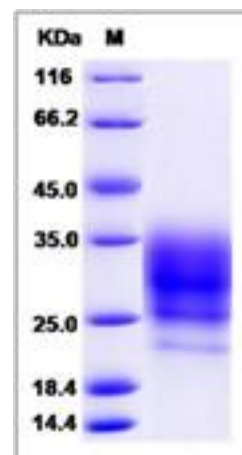
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

RNase A, also known as ribonuclease A and RNASE1, belongs to ribonuclease A superfamily. It is a pancreatic-type of secretory ribonuclease. RNase A is a basic protein and its many positive charges are consistent with its binding to RNA (a poly-anion). More generally, RNase A is unusually polar or, rather, unusually lacking in hydrophobic groups, especially aliphatic ones. As an endonuclease, RNase A cleaves internal phosphodiester RNA bonds on the 3'-side of pyrimidine bases. It prefers poly(C) as a substrate and hydrolyzes 2',3'-cyclic nucleotides, with a pH optimum near 8.0. RNase A is monomeric and more commonly acts to degrade ds-RNA over ss-RNA. Alternative splicing occurs at this locus and four transcript variants encoding the same protein have been identified.

References

1. Tubert P, *et al.* (2011) Interactions crucial for three-dimensional domain swapping in the HP-RNase variant PM8. *Biophys J.* 101(2):459-67.
2. Vinayagam A, *et al.* (2011) A directed protein interaction network for investigating intracellular signal transduction. *Sci Signal.* 4(189):rs8.
3. Fischer S, *et al.* (2011) Expression and localisation of vascular ribonucleases in endothelial cells. *Thromb Haemost.* 105(2):345-55.

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Fax : +86-10-51029969 • Tel: +86-400-890-9989 • <http://www.sinobiological.com>