
Product Data Sheet

Product Name: RNASE1 Human
 Cat. No.: GP26177
 Batch No.: 1

Product Data

Purity >98% Source HEK293 Cells.

Physical Appearance solid Shipping Condition withIcePacks

Synonyms 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, Ribonuclease 1.

Amino Acid Sequence KESRAKKFQR QHMDS DSSPS SSSTYCNQMM RRRNMTQGRC KPVNTFVHEP
 LVDVQNVCFQ EKVTCKNGQG NCYKSNSSMH ITDCRLTNGS RYPNCAYRTS
 PKERHIIVAC EGSPYVPVHF DASVEDSTHH HHHH

Formulation The RNASE1 solution (1mg/ml) contains 10% Glycerol and Phosphate-Buffered Saline (pH 7.4).

Introduction

Ribonuclease 1R (RNASE1) is a small protein which is a part of pancreatic ribonuclease enzyme family. RNASE1 has 4 disulfide bonds in its native state and cleaves specially after pyrimidine nucleotides. Cleavage takes place in 2 steps: first, the 3',5'-phosphodiester bond is cleaved to create a 2',3'-cyclic phosphodiester intermediate; then, the cyclic phosphodiester is hydrolyzed to a 3'-monophosphate. RNASE1 is activated the most with single stranded RNA. RNASE1 inhibited by alkylation of His12 and His119 and activated by potassium and sodium salts. RNASE1 hydrolyzes RNA from protein samples.

Biological Activity

Specific activity is $> 3 \times 10^6$ unit/mg. Defined by the amount of enzyme that hydrolyzes 1nmole of RNA per minute at 25°C.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1%

Caution: Product has not been fully validated for medical applications. For research use only.

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HSA or BSA). Avoid multiple freeze-thaw cycles.

Background

RNASE1 Human Recombinant produced in HEK cells is a single, glycosylated, polypeptide chain (29-156 a.a) containing a total of 134 amino acids, having a molecular mass of 15.3kDa. RNASE1 is fused to a 6 amino acid His-tag at C-terminus, and is purified by proprietary chromatographic techniques.

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