

RNASET2 Protein, Human (sf9, His)

Cat. No.:	HY-P76006
Synonyms:	Ribonuclease T2; Ribonuclease 6; RNASET2; RNASE6PL
Species:	Human
Source:	Sf9 insect cells
Accession:	O00584 (D25-H256)
Gene ID:	8635
Molecular Weight:	Approximately 35 kDa

PROPERTIES

Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Solution.
Formulation	Supplied as a 0.2 µm filtered solution of 20 mM Tris, 500 mM NaCl, pH 7.4, 10% gly.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	N/A.
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

DESCRIPTION

Background

The RNASET2 protein functions as a ribonuclease, playing a vital role in the innate immune response by recognizing and degrading RNAs from microbial pathogens, subsequently sensed by TLR8. This ribonuclease exhibits a preferential cleavage of single-stranded RNA molecules between purine and uridine residues, a process crucial for the supply of catabolic uridine and the generation of purine-2',3'-cyclophosphate-terminated oligoribonucleotides. These RNase T2 degradation products, in turn, actively promote the RNA-dependent activation of TLR8. Beyond its role in immune response, RNASET2 also plays a key role in the degradation of mitochondrial RNA and the processing of non-coding RNA imported from the cytosol into mitochondria. Additionally, it participates in the degradation of mitochondrion-associated cytosolic rRNAs, emphasizing its multifaceted involvement in RNA metabolism and immune regulation.

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

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