RNASEK Protein, Human (Cell-Free, His)

Cat. No.:	HY-P702424
Synonyms:	Ribonuclease kappa; V-type proton ATPase subunit f; V-ATPase subunit f
Species:	Human
Source:	E. coli Cell-free
Accession:	Q6P5S7 (M1-R137)
Gene ID:	440400
Molecular Weight:	21.5 kDa

PROPERTIES

AA Sequence	M G W L R P G P R P L C P P A R A S W A F S H R F P S P L A P R R S P T P F F M A S L L C C G P K L A A C G I V L S A W G V I M L I M L G I F F N V H S A V L I E D V P F T E K D F E N G P Q N I Y N L Y E Q V S Y N C F I A A G L Y L L L G G F S F C Q V R L N K R K E Y M V R
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 μm filtered solution of Tris/PBS-based buffer, 6% Trehalose, pH 8.0.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O. For long term storage it is recommended to add 5-50% of glycerol (final concentration). Our default final concentration of glycerol is 50%. Customers could use it as reference.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	RNASEK Protein functions as an endoribonuclease with a preference for cleaving ApU and ApG phosphodiester bonds, demonstrating a lower rate of hydrolysis for UpU bonds. Beyond its ribonuclease activity, RNASEK plays a crucial regulatory role in the activity of vacuolar (H+)-ATPase (V-ATPase), responsible for maintaining intracellular compartment pH. Moreover, RNASEK is essential at an early stage of receptor-mediated endocytosis, influencing the intricate processes involved in cellular uptake. In the context of microbial infection, RNASEK emerges as a critical player in the early stages of both clathrin-mediated and clathrin-independent endocytic uptake of various viruses, encompassing notable pathogens such as dengue, West Nile, Sindbis, Rift Valley Fever, influenza, and human rhinoviruses. The diverse functionality of RNASEK highlights its

	significant contributions to cellular processes, ranging from RNA cleavage to the regulation of endocytosis, and positions it as a key factor in the cellular response to viral infections.

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