

2-5A-dependent Rnase Protein, Human, Recombinant (Myc)

General Information

Synonyms:	Ribonuclease 4;2-5A-dependent RNase;Ribonuclease L (RNase L);RNASEL;RNS4;2-5A-dependent ribonuclease
Protein Construction:	1-741 aa
Species:	Human
Expression Host:	E. coli
Accession:	Q05823
Molecular Weight:	85.1 kDa (predicted)
AA Sequence:	MESRDHNNPQEGPTSSSGRRAAVEDNHLLIKAVQNEVDVLVQQLLEGGANVNFQEEEGGWTPHNAVQM SREDIVELLRRHGADPVLRRKNGATPFILAAIAGSVKLLKLFSLKGADVNECDFYGFTAFMEAAVYGKVKALKF LYKRGANVNLRRKTKEDQERLRKGGATALMDAAEKGHVEVLKILLDEMGADVACDNMGRNALIHALLSSD DSDVEAITHLLLDHGADVNVVRGERGKTPILAVEKHLGLVQRLLQEHEIINDTSDGKTALLLAVELKLLKIA ELLCKRGASTDCGLVMTARRNYDHSLVKLLSHGAKEDFHPPAEDWKPQSSHWGAALKDLHRIYRPMIGK LKFFIDEKYKIADTSEGGIYLGFEYKQEVAVKTFCEGSPRAQREVSLQSSRENSHLVTFYGSESHRGHLFVCVT LCEQTLEACLDVHRGEDVENEDEFARNVLSSIFKAVQELHLSCGYTHQDLQPQNILIDSKAAHLADFDKSIK WAGDPQEVKRDLEDLGRVLVYVVKKGSISFEDLKAQSNEEVVQLSPDEETKDLIHLRFHPGEHVRDCLSDLLG HPFFWTWESRYRTLNRVGNESDIKTRKSESEILRLLQPGPSEHSKSFDKWTTKINECVMMKMNKFYEKRGNFY QNTVGDLLKFIENLGEHIDEEKHKKMMLKIGDPSLYFQKTFPDLVIYVYTKLQNTTEYRKHFQTHSPNKPQCDG AGGASGLASPGC

QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 85% as determined by SDS-PAGE.
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	If the delivery form is liquid, the default storage buffer is Tris/PBS-based buffer, 5%-50% glycerol. If the delivery form is lyophilized powder, the buffer before lyophilization is Tris/PBS-based buffer, 6% Trehalose, pH 8.0.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in sterile deionized water. The product concentration should not be less than 100 μg/mL. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Endoribonuclease that functions in the interferon (IFN) antiviral response. In INF treated and virus infected cells, RNASEL probably mediates its antiviral effects through a combination of direct cleavage of single-stranded viral RNAs, inhibition of protein synthesis through the degradation of rRNA, induction of apoptosis, and induction of other antiviral genes. RNASEL mediated apoptosis is the result of a JNK-dependent stress-response pathway leading to cytochrome c release from mitochondria and caspase-dependent apoptosis. Therefore, activation of RNASEL could lead to elimination of virus infected cells under some circumstances. In the crosstalk between autophagy and apoptosis proposed to induce autophagy as an early stress response to small double-stranded RNA and at later stages of prolonged stress to activate caspase-dependent proteolytic cleavage of BECN1 to terminate autophagy and promote apoptosis. Might play a central role in the regulation of mRNA turnover. Cleaves 3' of UpNp dimers, with preference for UU and UA sequences, to sets of discrete products ranging from between 4 and 22 nucleotides in length.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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