

EXOSC8 Protein, Human

Cat. No.:	HY-P701879
Synonyms:	EXOSC8; Exosome complex component RRP43; Exosome component 8; Opa-interacting protein 2; OIP-2; Ribosomal RNA-processing protein 43; p9
Species:	Human
Source:	E. coli
Accession:	Q96B26 (M1-K276)
Gene ID:	11340
Molecular Weight:	

PROPERTIES

Appearance	Solution.
Formulation	Supplied as a 0.22 µm filtered solution of 50 mM Tris-HCl, pH7.5, 200 mM NaCl, 20% glycerol.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	Please use rapid thawing with running water to thaw the protein.
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

EXOSC8, a non-catalytic component of the RNA exosome complex, plays a crucial role in 3'→5' exoribonuclease activity and participates in various cellular RNA processing and degradation events. Within the nucleus, the RNA exosome complex is integral to the maturation of stable RNA species like rRNA, snRNA, and snoRNA, while simultaneously eliminating RNA processing by-products, non-coding 'pervasive' transcripts such as antisense RNA species and promoter-upstream transcripts (PROMPTs), and mRNAs with processing defects, preventing their export to the cytoplasm. The RNA exosome may contribute to Ig class switch recombination (CSR) and/or Ig variable region somatic hypermutation (SHM) by directing AICDA deamination activity toward transcribed dsDNA substrates. In the cytoplasm, EXOSC8, as part of the RNA exosome complex, is involved in general mRNA turnover and specifically degrades inherently unstable mRNAs containing AU-rich elements (AREs) within their 3' untranslated regions. Additionally, it participates in RNA surveillance pathways, preventing the translation of aberrant mRNAs, and appears to play a role in the degradation of histone mRNA. The catalytically inactive RNA exosome core complex of 9 subunits (Exo-9) is suggested to play a pivotal role in binding and presenting RNA for ribonucleolysis, serving as a scaffold for the association with catalytic subunits and accessory proteins or complexes. EXOSC8 specifically binds to ARE-containing RNAs, emphasizing its diverse roles in RNA-related processes. Furthermore, it has been identified to interact with the outer membrane protein opap from *Neisseria gonorrhoeae*.

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

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