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EXOSC10 antibody C-terminal region

Rabbit Polyclonal Antibody
Catalog # AI11705

Product Information

Application	WB
Primary Accession	Q01780
Other Accession	NM_001001998, NP_001001998
Reactivity	Human, Mouse, Rat, Rabbit, Pig, Dog, Horse, Bovine
Predicted	Mouse, Rabbit, Dog, Horse, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	100831

Additional Information

Gene ID	5394
Alias Symbol	PM-Scl, PM/Scl-100, PMSCL, PMSCL2, RRP6, Rrp6p, p2, p3, p4
Other Names	Exosome component 10, 3.1.13.-, Autoantigen PM/Scl 2, P100 polymyositis-scleroderma overlap syndrome-associated autoantigen, Polymyositis/scleroderma autoantigen 100 kDa, PM/Scl-100, Polymyositis/scleroderma autoantigen 2, EXOSC10, PMSCL, PMSCL2, RRP6
Format	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.
Reconstitution & Storage	Add 50 ul of distilled water. Final anti-EXOSC10 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.
Precautions	EXOSC10 antibody C-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	EXOSC10 (HGNC:9138)
Function	Catalytic component of the RNA exosome complex which has 3'->5' exoribonuclease activity and participates in a multitude of cellular RNA processing and degradation events. In the nucleus, the RNA exosome complex is involved in proper maturation of stable RNA species such as rRNA, snRNA and snoRNA, in the elimination of RNA processing by-products and non-coding 'pervasive' transcripts, such as antisense RNA species and promoter-upstream transcripts (PROMPTs), and of mRNAs with processing defects, thereby limiting or excluding their export to the cytoplasm. Part of

the small subunit (SSU) processome, first precursor of the small eukaryotic ribosomal subunit. During the assembly of the SSU processome in the nucleolus, many ribosome biogenesis factors, an RNA chaperone and ribosomal proteins associate with the nascent pre-rRNA and work in concert to generate RNA folding, modifications, rearrangements and cleavage as well as targeted degradation of pre-ribosomal RNA by the RNA exosome (PubMed:34516797). The RNA exosome may be involved in Ig class switch recombination (CSR) and/or Ig variable region somatic hypermutation (SHM) by targeting AICDA deamination activity to transcribed dsDNA substrates. In the cytoplasm, 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, and in RNA surveillance pathways, preventing translation of aberrant mRNAs. It seems to be involved in degradation of histone mRNA. EXOSC10 is required for nucleolar localization of C1D and probably mediates the association of MTREX, C1D and MPHOSPH6 with the RNA exosome involved in the maturation of 5.8S rRNA. Plays a role in the recruitment of replication protein A complex (RPA) and RAD51 to DNA double-strand breaks caused by irradiation, contributing to DNA repair by homologous recombination (PubMed:25632158, PubMed:31086179). Regulates levels of damage-induced RNAs in order to prevent DNA-RNA hybrid formation at DNA double-strand breaks and limit DNA end resection after damage (PubMed:31086179). Plays a role in oocyte development, maturation and survival (By similarity). Required for normal testis development and mitotic division of spermatogonia (By similarity). Plays a role in proper embryo development (By similarity). Required for global protein translation (PubMed:26857222, PubMed:36912080). Required for cell proliferation (PubMed:36912080). Regulates metabolism of C9orf72- derived repeat RNA that can be translated into toxic dipeptide repeat proteins (PubMed:32830871).

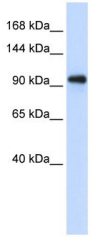
Cellular Location

Cytoplasm. Nucleus. Nucleus, nucleolus. Nucleus, nucleoplasm Note=Strongly enriched in the nucleolus and a small amount has been found in cytoplasm supporting the existence of a nucleolar RNA exosome complex form (PubMed:20531386, PubMed:34516797). Arginine-rich dipeptide repeat proteins expressed from C9orf72-derived repeat RNA cause diffuse nuclear misdistribution of EXOSC10 (PubMed:32830871) Relocates to the DNA double-strand breaks in response to irradiation (PubMed:31086179).

References

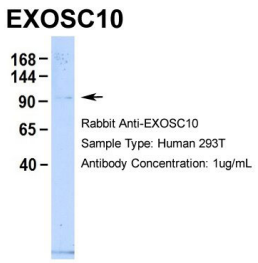
van (2007) RNA 13 (7), 1027-1035 Reconstitution and Storage:For short term use, store at 2-8C up to 1 week. For long term storage, store at -20C in small aliquots to prevent freeze-thaw cycles.

Images



WB Suggested Anti-EXOSC10 Antibody Titration: 0.2-1 µg/ml
ELISA Titer: 1:62500
Positive Control: Transfected 293T

Host:Rabbit



Target Name:EXOSC10
Sample Tissue:Human 293T
Antibody Dilution: 1.0µg/mlEXOSC10 is supported by BioGPS gene expression data to be expressed in HEK293T

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.