

PNPT1 Antibody (Center) Blocking Peptide
Synthetic peptide
Catalog # BP17563c**Specification**

PNPT1 Antibody (Center) Blocking Peptide - Product InformationPrimary Accession [Q8TCS8](#)**PNPT1 Antibody (Center) Blocking Peptide - Additional Information****Gene ID** 87178**Other Names**

Polyribonucleotide nucleotidyltransferase 1, mitochondrial, 3'-5' RNA exonuclease OLD35, PNPase old-35, Polynucleotide phosphorylase 1, PNPase 1, Polynucleotide phosphorylase-like protein, PNPT1, PNPASE

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

PNPT1 Antibody (Center) Blocking Peptide - Protein Information**Name** PNPT1 ([HGNC:23166](#))**Synonyms** PNPASE**Function**

RNA-binding protein implicated in numerous RNA metabolic processes. Catalyzes the phosphorolysis of single-stranded polyribonucleotides processively in the 3'-to-5' direction. Mitochondrial intermembrane factor with RNA-processing exoribonuclease activity. Component of the mitochondrial degradosome (mtEXO) complex, that degrades 3' overhang double-stranded RNA with a 3'-to-5' directionality in an ATP-dependent manner. Involved in the degradation of non-coding mitochondrial transcripts (MT-ncRNA) and tRNA-like molecules (PubMed:29967381). Required for correct processing and polyadenylation of mitochondrial mRNAs. Plays a role as a cytoplasmic RNA import factor that mediates the translocation of small RNA components, like the 5S RNA, the RNA subunit of ribonuclease P and the mitochondrial RNA-processing (MRP) RNA, into the mitochondrial matrix. Plays a role in mitochondrial morphogenesis and respiration; regulates the expression of the electron transport chain (ETC) components at the mRNA and protein levels. In the cytoplasm, shows a 3'-to-5' exoribonuclease mediating mRNA degradation activity; degrades c-myc mRNA upon treatment with IFNβ1/IFN-β, resulting in a growth arrest in melanoma cells. Regulates the

stability of specific mature miRNAs in melanoma cells; specifically and selectively degrades miR-221, preferentially. Also plays a role in RNA cell surveillance by cleaning up oxidized RNAs. Binds to the RNA subunit of ribonuclease P, MRP RNA and miR-221 microRNA.

Cellular Location

Cytoplasm. Mitochondrion matrix. Mitochondrion intermembrane space; Peripheral membrane protein

PNPT1 Antibody (Center) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

PNPT1 Antibody (Center) Blocking Peptide - Images**PNPT1 Antibody (Center) Blocking Peptide - Background**

PNPT1 is a subunit of the exosome complex, which is involved in 3-prime-to-5-prime exoribonuclease activity for RNA processing and degradation (Raijmakers et al., 2002 [PubMed12419256]).

PNPT1 Antibody (Center) Blocking Peptide - References

Wang, G., et al. Cell 142(3):456-467(2010) Das, S.K., et al. Proc. Natl. Acad. Sci. U.S.A. 107(26):11948-11953(2010) Zhao, J., et al. BMC Med. Genet. 11, 96 (2010) :O'Doherty, C., et al. Pharmacogenomics 10(7):1177-1186(2009) Luczynski, W., et al. Neoplasia 56(5):428-434(2009)