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

Specification

PNPT1 Antibody (Center) Blocking Peptide - Product Information

Primary 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 exoribonulease 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 IFNB1/IFN-beta, 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 isinvolved in 3-prime-to-5-prime exoribonuclease activity for RNAprocessing 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. Neoplasma 56(5):428-434(2009)