

PNPT1 Antibody (Center)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP17563c

Specification

PNPT1 Antibody (Center) - Product Information

Application	WB,E
Primary Accession	O8TCS8
Other Accession	O8K1R3 , NP_149100.2
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	85951
Antigen Region	284-311

PNPT1 Antibody (Center) - 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

Target/Specificity

This PNPT1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 284-311 amino acids from the Central region of human PNPT1.

Dilution

WB~~1:1000

E~~Use at an assay dependent concentration.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

PNPT1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

PNPT1 Antibody (Center) - Protein Information

Name PNPT1 ([HGNC:23166](#))

Synonyms PNPASE

Function RNA-binding protein implicated in numerous RNA metabolic processes (PubMed:[29967381](#), PubMed:[39019044](#)). Catalyzes the phosphorolysis of single-stranded polyribonucleotides processively in the 3'-to-5' direction (PubMed:[29967381](#), PubMed:[39019044](#)). Mitochondrial intermembrane factor with RNA-processing exoribonuclease activity (PubMed:[29967381](#), PubMed:[39019044](#)). 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 (PubMed:[29967381](#), PubMed:[39019044](#)). Involved in the degradation of non-coding mitochondrial transcripts (MT-ncRNA) and tRNA-like molecules (PubMed:[29967381](#), PubMed:[39019044](#)). 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

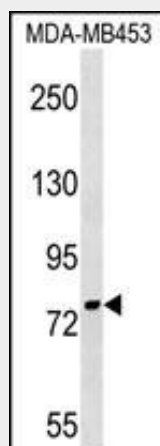
Cytoplasm. Mitochondrion matrix. Mitochondrion intermembrane space; Peripheral membrane protein

PNPT1 Antibody (Center) - Protocols

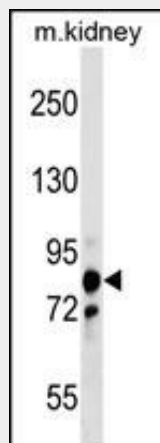
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

PNPT1 Antibody (Center) - Images



PNPT1 Antibody (Center) (Cat. #AP17563c) western blot analysis in MDA-MB453 cell line lysates (35ug/lane). This demonstrates the PNPT1 antibody detected the PNPT1 protein (arrow).



PNPT1 Antibody (Center) (Cat. #AP17563c) western blot analysis in mouse kidney tissue lysates (35ug/lane). This demonstrates the PNPT1 antibody detected the PNPT1 protein (arrow).

PNPT1 Antibody (Center) - 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 [PubMed 12419256]).

PNPT1 Antibody (Center) - 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)