

Anti-PNPT1 Antibody
Rabbit polyclonal antibody to PNPT1
Catalog # AP60123**Specification**

Anti-PNPT1 Antibody - Product Information

Application	WB, IHC
Primary Accession	Q8TCS8
Other Accession	Q8K1R3
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	85951

Anti-PNPT1 Antibody - Additional Information**Gene ID** 87178**Other Names**

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

Target/Specificity

Recognizes endogenous levels of PNPT1 protein.

Dilution

WB~~WB (1/500 - 1/1000), IH (1/100 - 1/200)

IHC~~1:100~500

Format

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

Storage

Store at -20 °C. Stable for 12 months from date of receipt

Anti-PNPT1 Antibody - 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

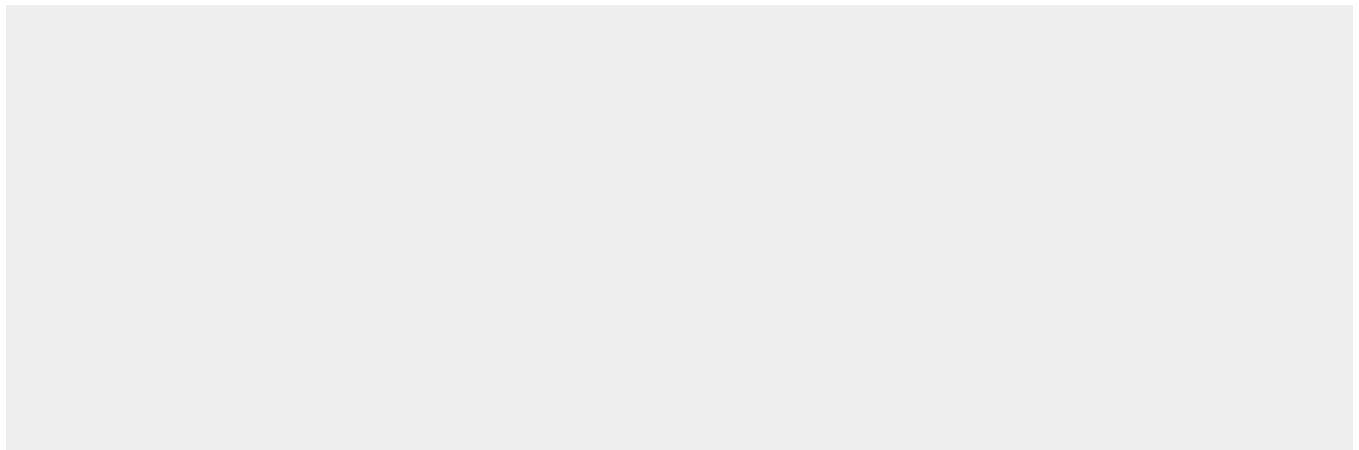
Cytoplasm. Mitochondrion matrix. Mitochondrion intermembrane space; Peripheral membrane protein

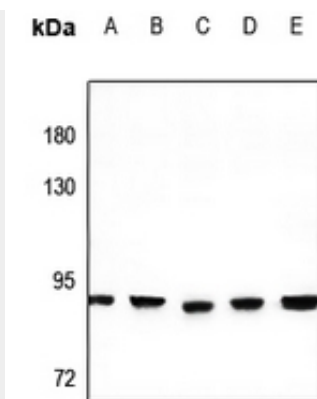
Anti-PNPT1 Antibody - Protocols

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

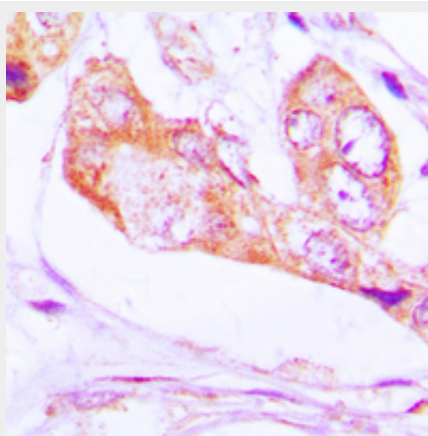
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-PNPT1 Antibody - Images





Western blot analysis of PNPT1 expression in PC12 (A), MEF (B), A549 (C), LO2 (D), HCT116 (E) whole cell lysates.



Immunohistochemical analysis of PNPT1 staining in human lung cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

Anti-PNPT1 Antibody - Background

KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human PNPT1. The exact sequence is proprietary.