

### **PNPase Polyclonal Antibody**

**Catalog # AP71990** 

#### **Specification**

### **PNPase Polyclonal Antibody - Product Information**

Application WB, IHC-P
Primary Accession Q8TCS8

Reactivity Human, Mouse Host Rabbit

Clonality Rabbit Polyclonal

# **PNPase Polyclonal Antibody - Additional Information**

Gene ID 87178

#### **Other Names**

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

#### **Dilution**

WB~~Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. ELISA: 1/20000. Not yet tested in other applications. IHC-P~ $\sim$ N/A

#### **Format**

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

# **Storage Conditions**

-20°C

### **PNPase Polyclonal Antibody - Protein Information**

Name PNPT1 (HGNC:23166)

Synonyms PNPASE

#### **Function**

RNA-binding protein implicated in numerous RNA metabolic processes (PubMed:<a href="http://www.uniprot.org/citations/29967381" target="\_blank">29967381</a>, PubMed:<a href="http://www.uniprot.org/citations/39019044" target="\_blank">39019044</a>). Catalyzes the phosphorolysis of single-stranded polyribonucleotides processively in the 3'-to-5' direction (PubMed:<a href="http://www.uniprot.org/citations/29967381" target="\_blank">29967381</a>, PubMed:<a href="http://www.uniprot.org/citations/39019044" target="\_blank">39019044</a>). Mitochondrial intermembrane factor with RNA-processing exoribonulease activity (PubMed:<a href="http://www.uniprot.org/citations/29967381" target="\_blank">29967381</a>, PubMed:<a href="http://www.uniprot.org/citations/29967381" target="\_blank">39019044</a>, PubMed:<a href="http://www.uniprot.org/citations/39019044" target="\_blank">39019044</a>). 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: <a href="http://www.uniprot.org/citations/29967381" target=" blank">29967381</a>, PubMed:<a href="http://www.uniprot.org/citations/39019044" target="blank">39019044</a>). Involved in the degradation of non-coding mitochondrial transcripts (MT-ncRNA) and tRNA-like molecules (PubMed:<a href="http://www.uniprot.org/citations/29967381" target=" blank">29967381</a>, PubMed:<a href="http://www.uniprot.org/citations/39019044" target="blank">39019044</a>). 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**

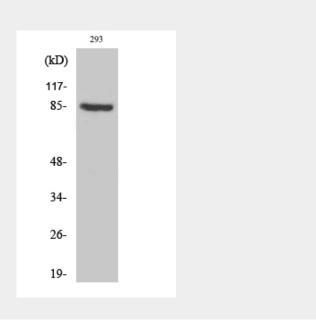
Cytoplasm. Mitochondrion matrix. Mitochondrion intermembrane space; Peripheral membrane protein

# **PNPase Polyclonal Antibody - Protocols**

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

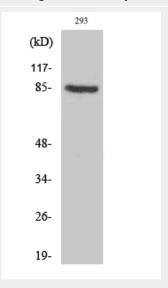
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

#### PNPase Polyclonal Antibody - Images





# Western Blot analysis of various cells using PNPase Polyclonal Antibody diluted at 1□1000



Western Blot analysis of various cells using PNPase Polyclonal Antibody diluted at 1□1000

### **PNPase Polyclonal Antibody - Background**

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. 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. Plays also 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.