

## ARG43101 anti-PNPT1 antibody

Package: 50 µg  
Store at: -20°C

### Summary

Product Description	Rabbit Polyclonal antibody recognizes PNPT1
Tested Reactivity	Hu, Ms, Rat
Tested Application	FACS, ICC/IF, IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	PNPT1
Species	Human
Immunogen	Recombinant protein corresponding to M1-Q257 of Human PNPT1.
Conjugation	Un-conjugated
Alternate Names	OLD35; COXPD13; PNPASE; PNPase old-35; old-35; Polyribonucleotide nucleotidyltransferase 1, mitochondrial; Polynucleotide phosphorylase 1; EC 2.7.7.8; 3'-5' RNA exonuclease OLD35; DFNB70; PNPase 1; Polynucleotide phosphorylase-like protein

### Application Instructions

Application table	Application	Dilution
	FACS	1:150 - 1:500
	ICC/IF	1:200 - 1:1000
	IHC-P	1:200 - 1:1000
	WB	1:500 - 1:2000
Application Note	IHC-P: Antigen Retrieval: Heat mediation was performed in EDTA buffer (pH 8.0). * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Observed Size	~ 85 kDa	

### Properties

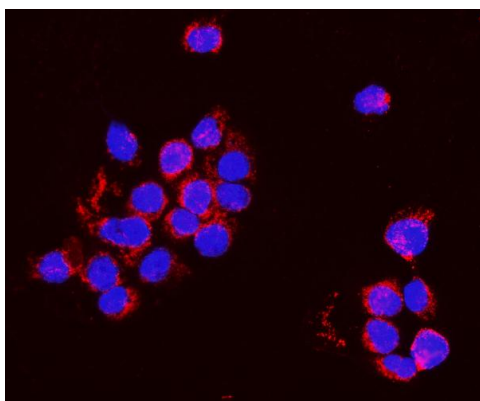
Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	0.2% Na <sub>2</sub> HPO <sub>4</sub> , 0.9% NaCl, 0.01% Sodium azide and 4% Trehalose.
Preservative	0.01% Sodium azide
Stabilizer	4% Trehalose
Concentration	0.5 mg/ml

<b>Storage instruction</b>	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
<b>Note</b>	For laboratory research only, not for drug, diagnostic or other use.

## Bioinformation

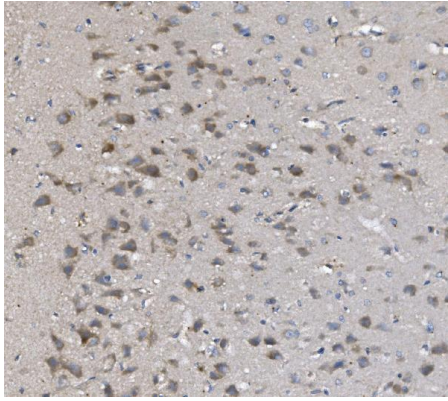
<b>Gene Symbol</b>	PNPT1
<b>Gene Full Name</b>	polyribonucleotide nucleotidyltransferase 1
<b>Background</b>	The protein encoded by this gene belongs to the evolutionary conserved polynucleotide phosphorylase family comprised of phosphate dependent 3'-to-5' exoribonucleases implicated in RNA processing and degradation. This enzyme is predominantly localized in the mitochondrial intermembrane space and is involved in import of RNA to mitochondria. Mutations in this gene have been associated with combined oxidative phosphorylation deficiency-13 and autosomal recessive nonsyndromic deafness-70. Related pseudogenes are found on chromosomes 3 and 7. [provided by RefSeq, Dec 2012]
<b>Function</b>	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-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. [UniProt]
<b>Calculated Mw</b>	86 kDa
<b>Cellular Localization</b>	Cytoplasm. Mitochondrion. Mitochondrion intermembrane space; Peripheral membrane protein. [UniProt]

## Images



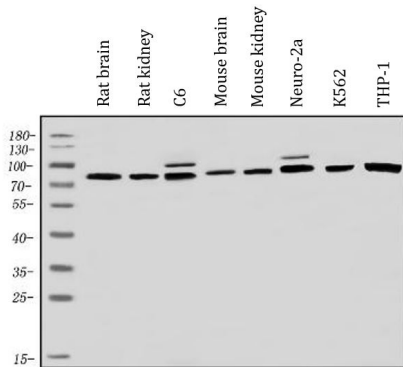
ARG43101 anti-PNPT1 antibody ICC/IF image

Immunofluorescence: A431 cells were blocked with 10% goat serum and then stained with ARG43101 anti-PNPT1 antibody (red) at 4 µg/ml dilution, overnight at 4°C. DAPI (blue) for nuclear staining.



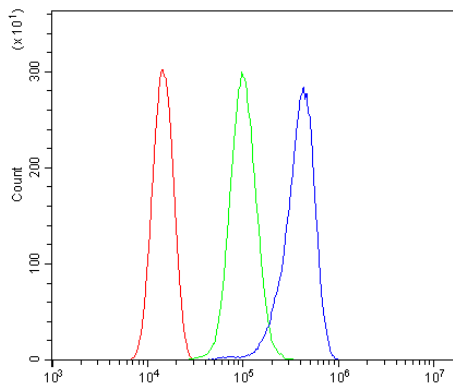
#### ARG43101 anti-PNPT1 antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Rat brain tissue. Antigen Retrieval: Heat mediation was performed in EDTA buffer (pH 8.0). The tissue section was blocked with 10% goat serum. The tissue section was then stained with ARG43101 anti-PNPT1 antibody at 1  $\mu\text{g}/\text{ml}$  dilution, overnight at 4°C.



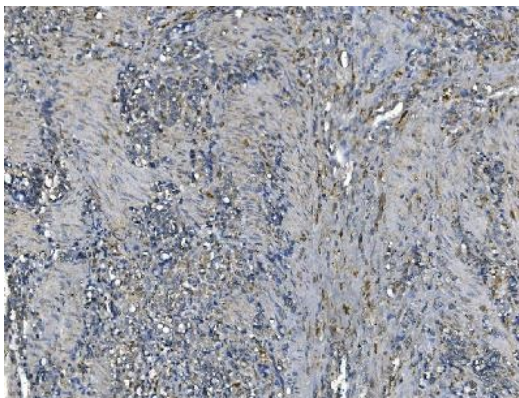
#### ARG43101 anti-PNPT1 antibody WB image

Western blot: 50  $\mu\text{g}$  of sample under reducing conditions. Rat brain, Rat kidney, C6, Mouse brain, Mouse kidney, Neuro-2a, K562 and THP-1 whole cell lysates stained with ARG43101 anti-PNPT1 antibody at 0.25  $\mu\text{g}/\text{ml}$  dilution, overnight at 4°C.



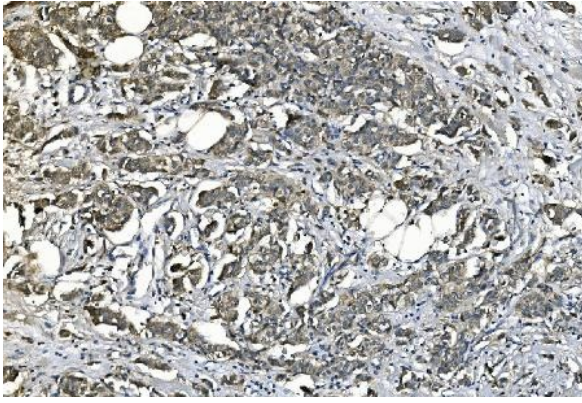
#### ARG43101 anti-PNPT1 antibody FACS image

Flow Cytometry: THP-1 cells were blocked with 10% normal goat serum and then stained with ARG43101 anti-PNPT1 antibody (blue) at 1  $\mu\text{g}/10^6$  cells for 30 min at 20°C, followed by incubation with DyLight®488 labelled secondary antibody. Isotype control antibody (green) was rabbit IgG (1  $\mu\text{g}/10^6$  cells) used under the same conditions. Unlabelled sample (red) was also used as a control.



#### ARG43101 anti-PNPT1 antibody IHC-P image

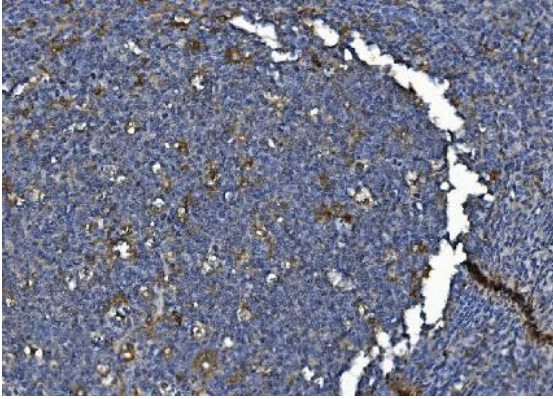
Immunohistochemistry: Paraffin-embedded Human gastric cancer tissue. Antigen Retrieval: Heat mediation was performed in EDTA buffer (pH 8.0). The tissue section was blocked with 10% goat serum. The tissue section was then stained with ARG43101 anti-PNPT1 antibody at 1  $\mu\text{g}/\text{ml}$  dilution, overnight at 4°C.



ARG43101 anti-PNPT1 antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Human breast cancer tissue. Antigen Retrieval: Heat mediation was performed in EDTA buffer (pH 8.0). The tissue section was blocked with 10% goat serum. The tissue section was then stained with ARG43101 anti-PNPT1 antibody at 1  $\mu\text{g}/\text{ml}$  dilution, overnight at 4°C.

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ARG43101 anti-PNPT1 antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Human tonsil tissue. Antigen Retrieval: Heat mediation was performed in EDTA buffer (pH 8.0). The tissue section was blocked with 10% goat serum. The tissue section was then stained with ARG43101 anti-PNPT1 antibody at 1  $\mu\text{g}/\text{ml}$  dilution, overnight at 4°C.

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