

Rabbit PNPT1 Polyclonal Antibody | anti-PNPT1 antibody

Anti-PNPT1 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA19306	Rabbit	Human, Mouse, Rat	Western Blot, Immunohistochemistry, Immunocytochemistry, Immunofluorescence, Flow Cytometry, Functional Assay, ELISA

PRODUCT SYNONYMS

PNPT1; Polyclonal Antibody; Anti-PNPT1 Antibody; Polyribonucleotide nucleotidyltransferase 1; mitochondrial; 3'-5' RNA exonuclease OLD35; PNPase old-35; Polynucleotide phosphorylase 1; PNPase 1; Polynucleotide phosphorylase-like protein; PNPASE; polyribonucleotide nucleotidyltransferase 1; anti-PNPT1 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Rabbit IgG polyclonal antibody for PNPT1 detection.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.01mg NaN3.
Applicable Applications for anti-PNPT1 antibody	WB (Western Blot), IHC (Immunohistochemistry), ICC (Immunocytochemistry), IF (Immunofluorescence), FCM/FACS (Flow Cytometry), ELISA (Direct ELISA)
Application Notes	WB: 0.1-0.25ug/ml Human, Mouse, Rat IHC-P: 0.5-1ug/ml Human, Rat ICC/IF: 4ug/ml Human FC/FACS/FCM: 1-3ug/1x106 cells Human Direct ELISA: 0.1-0.5ug/ml Human
Immunogen	E Coli-derived human PNPT1 recombinant protein (Position: M1-Q257).
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Recommended Detection Systems	Recommended Detection Systems
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.



FCM (Flow Cytometry)

Figure 7. Flow Cytometry analysis of THP-1 cells using anti-PNPT1 antibody (AAA19306).Overlay histogram showing THP-1 cells stained with AAA19306 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-PNPT1 Antibody (AAA19306, 1μg/1x106 cells) for 30 min at 20 degree C. DyLight®488 conjugated goat anti-rabbit IgG (5-10μg/1x106 cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1μg/1x106) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



IF (Immunofluorescence)

Figure 6. IF analysis of PNPT1 using anti-PNPT1 antibody (AAA19306).PNPT1 was detected in immunocytochemical section of A431 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 4μg/mL rabbit anti-PNPT1 Antibody (AAA19306) overnight at 4 degree C. DyLight®594 Conjugated Goat Anti-Rabbit IgG (BA1142) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37 degree C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



IHC (Immunohistochemistry)

Figure 5. IHC analysis of PNPT1 using anti-PNPT1 antibody (AAA19306).PNPT1 was detected in paraffin-embedded section of human tonsil tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1μg/ml rabbit anti-PNPT1 Antibody (AAA19306) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen.



IHC (Immunohistochemistry)

Figure 4. IHC analysis of PNPT1 using anti-PNPT1 antibody (AAA19306).PNPT1 was detected in paraffin-embedded section of human breast cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1μg/ml rabbit anti-PNPT1 Antibody (AAA19306) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen.



IHC (Immunohistochemistry)

Figure 3. IHC analysis of PNPT1 using anti-PNPT1 antibody (AAA19306).PNPT1 was detected in paraffin-embedded section of human gastric cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1μg/ml rabbit anti-PNPT1 Antibody (AAA19306) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen.



IHC (Immunohistochemistry)

Figure 2. IHC analysis of PNPT1 using anti-PNPT1 antibody (AAA19306).PNPT1 was detected in paraffin-embedded section of rat brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1μg/ml rabbit anti-PNPT1 Antibody (AAA19306) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen.

ADDITIONAL INFORMATION

Related Product Information for anti-PNPT1 antibody	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.
References	<div>1. Liu, X., Fu, R., Pan, Y., Meza-Sosa, K. F., Zhang, Z., Lieberman, J. PNPT1 release from mitochondria during apoptosis triggers decay of poly(A) RNAs. Cell 174: 187-201, 2018.</div> <div>2. Vedrenne, V., Gowher, A., De Lonlay, P., Nitschke, P., Serre, V., Boddaert, N., Altuzarra, C., Mager-Heckel, A. -M., Chretien, F., Entelis, N., Munnich, A., Tarassov, I., Rotig, A. Mutation in PNPT1, which encodes a polyribonucleotide nucleotidyltransferase, impairs RNA import into mitochondria and causes respiratory-chain deficiency. Am. J. Hum. Genet. 91: 912-918, 2012.</div> <div>3. von Ameln, S., Wang, G., Boulouiz, R., Rutherford, M. A., Smith, G. M., Li, Y., Pogoda, H. -M., Nurnberg, G., Stiller, B., Volk, A. E., Borck, G., Hong, J. S., and 12 others. A mutation in PNPT1, encoding mitochondrial-RNA-import protein PNPase, causes hereditary hearing loss. Am. J. Hum. Genet. 91: 919-927, 2012.</div>

NCBI AND UNIPROT INFORMATION

NCBI GI #	188528628
NCBI GeneID	87178
NCBI Accession #	NP_149100.2
NCBI GenBank Nucleotide #	NM_033109.4
UniProt Accession #	Q8TCS8; Q53SU0; Q68CN1; Q7Z7D1; Q8IWX1; Q96T05; Q9BRU3; Q9BVX0
Molecular Weight	85,951 Da
NCBI Official Full Name	polyribonucleotide nucleotidyltransferase 1, mitochondrial
NCBI Official Synonym Full Names	polyribonucleotide nucleotidyltransferase 1
NCBI Official Symbol	PNPT1
NCBI Official Synonym Symbols	OLD35; DFNB70; PNPASE; old-35; COXPD13
NCBI Protein Information	polyribonucleotide nucleotidyltransferase 1, mitochondrial; PNPase 1; PNPase old-35; 3'-5' RNA exonuclease OLD35; polynucleotide phosphorylase 1; polynucleotide phosphorylase-like protein
UniProt Protein Name	Polyribonucleotide nucleotidyltransferase 1, mitochondrial
UniProt Gene Name	PNPT1
UniProt Synonym Gene Names	PNPASE; PNPase 1
UniProt Entry Name	PNPT1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
Online datasheet: <https://stage.aaabiotech.com/polyclonal/pnpt1-antibody-western-blot-immunohistochemistry-immunocytochemistry-immunofluorescence-flow-cytometry-direct-elisa-elisa/19306>