

**TNPO1 Antibody (N-term)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP1934e****Specification**

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**TNPO1 Antibody (N-term) - Product Information**

Application	FC, IHC-P, WB,E
Primary Accession	<a href="#">Q92973</a>
Other Accession	<a href="#">Q8BFY9</a> , <a href="#">Q3SYU7</a>
Reactivity	Human
Predicted	Bovine, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	102355
Antigen Region	47-74

**TNPO1 Antibody (N-term) - Additional Information****Gene ID** 3842**Other Names**

Transportin-1, Importin beta-2, Karyopherin beta-2, M9 region interaction protein, MIP, TNPO1, KPNB2, MIP1, TRN

**Target/Specificity**

This TNPO1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 47-74 amino acids from the N-terminal region of human TNPO1.

**Dilution**

FC~~1:10~50

IHC-P~~1:50~100

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**

TNPO1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**TNPO1 Antibody (N-term) - Protein Information**

**Name** TNPO1

**Synonyms** KPNB2, MIP1, TRN

**Function** Functions in nuclear protein import as nuclear transport receptor. Serves as receptor for nuclear localization signals (NLS) in cargo substrates (PubMed:[24753571](#)). May mediate docking of the importin/substrate complex to the nuclear pore complex (NPC) through binding to nucleoporin and the complex is subsequently translocated through the pore by an energy requiring, Ran-dependent mechanism. At the nucleoplasmic side of the NPC, Ran binds to the importin, the importin/substrate complex dissociates and importin is re-exported from the nucleus to the cytoplasm where GTP hydrolysis releases Ran. The directionality of nuclear import is thought to be conferred by an asymmetric distribution of the GTP- and GDP-bound forms of Ran between the cytoplasm and nucleus (By similarity). Involved in nuclear import of M9-containing proteins. In vitro, binds directly to the M9 region of the heterogeneous nuclear ribonucleoproteins (hnRNP), A1 and A2 and mediates their nuclear import. Involved in hnRNP A1/A2 nuclear export. Mediates the nuclear import of ribosomal proteins RPL23A, RPS7 and RPL5 (PubMed:[11682607](#)). In vitro, mediates nuclear import of H2A, H2B, H3 and H4 histones (By similarity). In vitro, mediates nuclear import of SRP19 (PubMed:[11682607](#)). Mediates nuclear import of ADAR/ADAR1 isoform 1 and isoform 5 in a RanGTP-dependent manner (PubMed:[19124606](#), PubMed:[24753571](#)). Main mediator of PR-DUB complex component BAP1 nuclear import; acts redundantly with the karyopherins KPNA1 and KPNA2 (PubMed:[35446349](#)).

**Cellular Location**

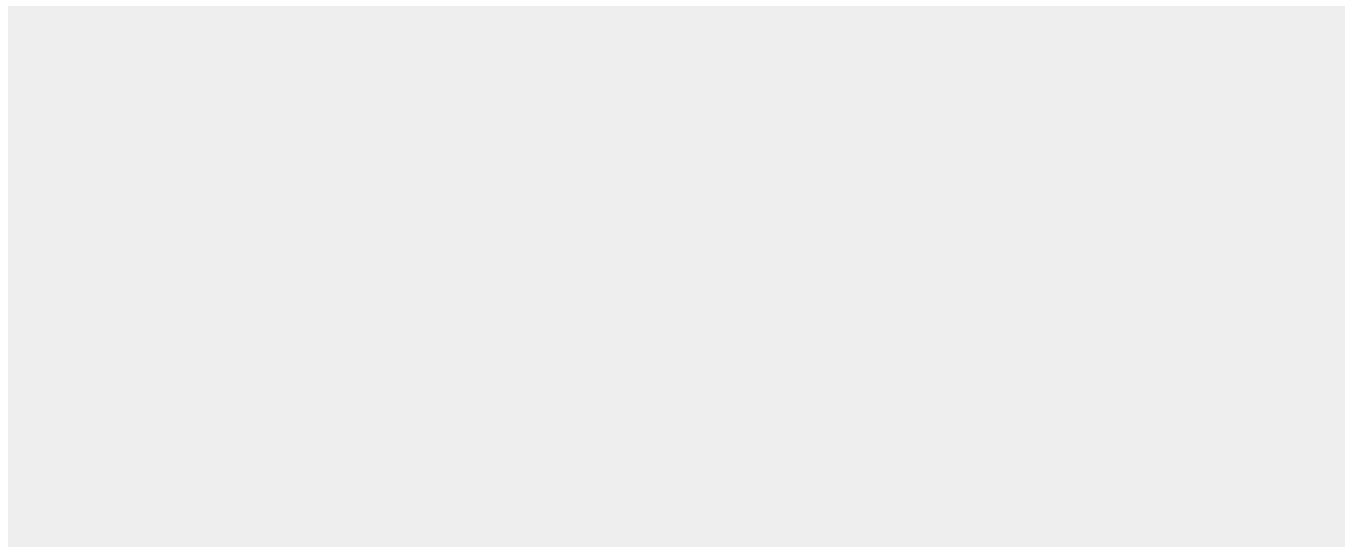
Cytoplasm. Nucleus.

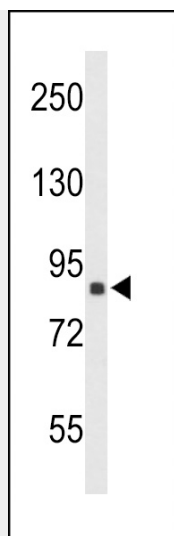
**TNPO1 Antibody (N-term) - Protocols**

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

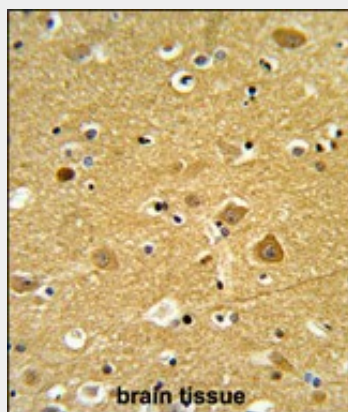
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**TNPO1 Antibody (N-term) - Images**

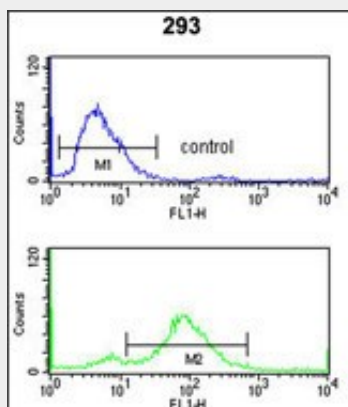




Western blot analysis of TNPO1 Antibody (N-term) (Cat. #AP1934e) in 293 cell line lysates (35ug/lane). TNPO1 (arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human brain tissue reacted with TNPO1 Antibody (N-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



TNPO1 Antibody (N-term)(Cat. #AP1934e) flow cytometry analysis of 293 cells (bottom histogram) compared to a negative control cell (top histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

#### **TNPO1 Antibody (N-term) - Background**

TNPO1 comprises the beta subunit of the karyopherin receptor complex which interacts with nuclear localization signals to target nuclear proteins to the nucleus. The karyopherin receptor complex is a heterodimer of an alpha subunit which recognizes the nuclear localization signal and a beta subunit which docks the complex at nucleoporins.

#### **TNPO1 Antibody (N-term) - References**

Fineberg, K., et al., Biochemistry 42(9):2625-2633 (2003).  
Nelson, L.M., et al., Virology 306(1):162-169 (2003).  
Le Roux, L.G., et al., J. Virol. 77(4):2330-2337 (2003).  
Limon, A., et al., J. Virol. 76(21):10598-10607 (2002).  
Dvorin, J.D., et al., J. Virol. 76(23):12087-12096 (2002).