

For Research Use Only

# TNPO1 Recombinant antibody

Catalog Number: 85007-1-RR

Featured Product



## Basic Information

Catalog Number:

85007-1-RR

Size:

100ul, Concentration: 1000 µg/ml by Nanodrop;

Source:

Rabbit

Isotype:

IgG

GenBank Accession Number:

NM\_002270

GeneID (NCBI):

3842

UNIPROT ID:

Q92973

Full Name:

transportin 1

Calculated MW:

102 kDa

Observed MW:

90 kDa

Purification Method:

Protein A purification

CloneNo.:

242269B5

Recommended Dilutions:

WB 1:2000-1:10000

## Applications

Tested Applications:

WB, ELISA

Species Specificity:

human, mouse

Positive Controls:

WB : HeLa cells, HepG2 cells, HEK-293 cells

## Background Information

TNPO1, also named as KPNB2, MIP1, TRN and MIP, belongs to the importin beta family. TNPO1 functions in nuclear protein import as nuclear transport receptor. It serves as receptor for nuclear localization signals (NLS) in cargo substrates. TNPO1 is thought to 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. TNPO1 is involved in nuclear import of M9-containing proteins. In vitro, it binds directly to the M9 region of the heterogeneous nuclear ribonucleoproteins (hnRNP), A1 and A2 and mediates their nuclear import. It is involved in hnRNP A1/A2 nuclear export. TNPO1 mediates the nuclear import of ribosomal proteins RPL23A, RPS7 and RPL5. It binds to a beta-like import receptor binding (BIB) domain of RPL23A. In vitro, it mediates nuclear import of H2A, H2B, H3 and H4 histones, and SRP19. In case of HIV-1 infection, binds and mediates the nuclear import of HIV-1 Rev. The antibody is specific to TNPO1.

## Storage

Storage:

Store at -20°C. Stable for one year after shipment.

Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1% BSA

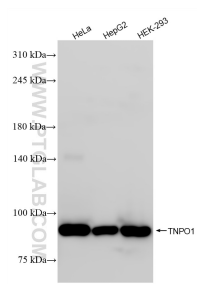
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

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## Selected Validation Data



WB result of TNPO1 antibody (85007-1-RR; 1:2000; incubated at room temperature for 1.5 hours) with sh-Control and sh-TNPO1 transfected HeLa cells.

Various lysates were subjected to SDS PAGE followed by western blot with 85007-1-RR (TNPO1 antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours.