

Transportin 1 Rabbit pAb

Catalog # AP98934

Product Information

Application	WB, IHC-P, IHC-F, IF, E
Primary Accession	Q92973
Other Accession	Q92973
Host	Rabbit
Clonality	Polyclonal
Calculated MW	102355
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human Transportin 1
Epitope Specificity	1-100/898
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the importin beta family. Contains 8 HEAT repeats. Contains 1 importin N-terminal domain.
SUBUNIT	Binds HNRPA1, HNRPA2, HNRPDL, RPL23A, RPS7, RPL5, RAN and SRP19. Interacts with H2A, H2B, H3 and H4 histones. Binds to HIV-1 Rev.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Transportin 1 is the beta subunit of the karyopherin receptor complex which interacts with nuclear localization signals to target 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. Alternate splicing of this gene results in two transcript variants encoding different proteins. In cases of HIV-1 infections, transportin 1 is known to bind and mediate the nuclear import of HIV-1 Rev.

Additional Information

Gene ID	3842
Other Names	IPO2; KPNB2; MIP; MIP1; TRN; D13Ertd688e; TNPO1_HUMAN; TNPO1; Importin beta-2; Karyopherin beta-2; M9 region interaction protein (MIP); TNPO1_MOUSE; transportin 1; karyopherin (importin) beta 2; importin 2
Dilution	WB=1:500-2000, IHC-P=1:100-500, IHC-F=1:100-500, IF=1:100-500, ELISA=1:5000-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

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.

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