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Transportin 1 Rabbit pAb

Catalog # AP98934

Product Information

Application	WB, IHC-P, IHC-F, IF, E
Primary Accession	Q92973
Other Accession	Q92973
Predicted	Rat, Pig, Human, Mouse, Rabbit, Chicken
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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