Transportin-1 (TNPO1) Human Recombinant Protein

PRODUCT OVERVIEW

Product Name	Transportin-1 (TNPO1), Recombinant Protein
Full Product Name	Recombinant Human Transportin-1 (TNPO1) , partial
Product Gene Name	TNPO1 recombinant protein
Product Synonym Gene Name	TNPO1
Sequence	MVWDRQTKME YEWKPDEQGL QQILQLLKES QSPDTTIQRT VQQKLEQLNQ YPDFNNYLIF VLTKLKSEDE PTRSLSGLIL KNNVKAHFQN FPNGVTDFIK SECLNNIGDS
Host	E Coli or Yeast or Baculovirus or Mammalian Cell
Form/Format	Lyophilized or liquid (Format to be determined during the manufacturing process)
Purity/Purification	Greater or equal to 85% purity as determined by SDS-PAGE. (lot specific)
Preparation and Storage	Store at -20 degrees C. For long-term storage, store at -20 degrees C or -80 degrees C. Store working aliquots at 4 degrees C for up to one week. Repeated freezing and thawing is not recommended.
Molecular Weight	96,901 Da
Sequence Positions	1-110aa; Partial
Tag Information	This protein contains an N-terminal tag and may also contain a C-terminal tag. Tag types are determined by various factors including tag-protein stability, please inquire for tag information.
Sterility	Sterile filter available upon request.
Endotoxin	Low endotoxin available upon request.
OMIM	602901
3D Structure	ModBase 3D Structure for Q92973
Species	Human
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for TNPO1 recombinant protein	This gene encodes 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. Alternate splicing of this gene results in two transcript variants encoding different proteins.
Other Notes	Small volumes of TNPO1 recombinant protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for TNPO1 purchase	MBS1358331 is a recombinant protein targeting TNPO1. Also known as Recombinant Human Transportin-1 (TNPO1) , partial. Host: E Coli or Yeast or Baculovirus or Mammalian Cell.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for TNPO1. It may not necessarily be applicable to this product.

NCBI GI #	133925811
NCBI GeneID	3842
NCBI Accession #	NP_002261.3

UniProt Primary Accession #	Q92973
UniProt Secondary Accession #	Q92957; Q92975; B4DVC6
UniProt Related Accession #	Q92973
GenBank Nucleotide #	NM_002270.3
NCBI Official Full Name	transportin-1 isoform 1
NCBI Official Synonym Full Names	transportin 1
NCBI Official Symbol	TNPO1
NCBI Official Synonym Symbols	MIP; TRN; IPO2; MIP1; KPNB2
UniProt Protein Name	Transportin-1
UniProt Synonym Protein Names	Importin beta-2; Karyopherin beta-2; M9 region interaction protein; MIP
UniProt Gene Name	TNPO1
UniProt Synonym Gene Names	KPNB2; MIP1; TRN; MIP
NCBI Protein Information	transportin-1
UniProt Comments for TNPO1	Functions in nuclear protein import as nuclear transport receptor. Serves as receptor for nuclear localization signals (NLS) in cargo substrates (PubMed:24753571). 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 (). 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. Appears also to be involved in hnRNP A1/A2 nuclear export. Mediates the nuclear import of ribosomal proteins RPL23A, RPS7 and RPL5. Binds to a beta-like import receptor binding (BIB) domain of RPL23A. In vitro, mediates nuclear import of H2A, H2B, H3 and H4 histones, and SRP19 (). Mediates nuclear import of ADAR/ADAR1 isoform 1 and isoform 5 in a RanGTP-dependent manner (PubMed:19124606, PubMed:24753571).
Research Articles on TNPO1	**1.** Data suggest that micoRNA-128 targets the 3prime-untranslated region of nuclear import factor transportin 1 (TNPO1) mRNA.
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