KPNA3 Blocking Peptide

PRODUCT OVERVIEW

Product Name	KPNA3, Blocking Peptide
Full Product Name	KPNA3 Peptide
Product Gene Name	KPNA3 blocking peptide
Product Synonym Names	SRP1; SRP4; IPOA4; hSRP1; SRP1gamma; QIP2; Importin subunit alpha-4; Importin alpha Q2; Qip2; karyopherin alpha 3 (importin alpha 4)
Form/Format	Liquid
Concentration	200 ug/mL (lot specific)
Preparation and Storage	Store KPNA3 peptide at -20 degree C, stable for one year.
Antibody/Peptide Pairs	KPNA3 peptide (MBS152450) is used for blocking the activity of KPNA3 antibody (MBS151270)
Molecular Weight	57,811 Da
OMIM	601892
Species	Human
Buffer	PBS pH 7.2 (10 mM NaH2PO4, 10 mM Na2HPO4, 130 mM NaCl) containing 0.1% bovine serum albumin and 0.02% sodium azide
Location	14 amino acids near the carboxy terminus of human KPNA3.
Applications Tested/Suitable for KPNA3 blocking peptide	Blocking (BL)
Application Notes for KPNA3 blocking peptide	KPNA3 peptide is used for blocking the activity of KPNA3 antibody.
Related Product Information for KPNA3 blocking peptide	MBS152450 is a blocking peptide targeting KPNA3. Also known as KPNA3 Peptide.
Other Notes	Small volumes of KPNA3 blocking peptide 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.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for KPNA3. It may not necessarily be applicable to this product.

NCBI GI #	34485722
NCBI GeneID	3839
NCBI Accession #	NP_002258
UniProt Primary Accession #	O00505
UniProt Secondary Accession #	O00191; O43195; Q5JVM9; Q96AA7
UniProt Related Accession #	O00505
GenBank Nucleotide #	NM_002267.3
NCBI Official Full Name	importin subunit alpha-4

NCBI Official Synonym Full Names	karyopherin alpha 3 (importin alpha 4)
NCBI Official Symbol	KPNA3
NCBI Official Synonym Symbols	SRP1; SRP4; IPOA4; hSRP1; SRP1gamma
UniProt Protein Name	Importin subunit alpha-4
UniProt Synonym Protein Names	Importin alpha Q2; Qip2; Karyopherin subunit alpha-3; SRP1-gamma
UniProt Gene Name	KPNA3
UniProt Synonym Gene Names	QIP2; Qip2
UniProt Entry Name	IMA4_HUMAN
NCBI Protein Information	importin subunit alpha-4; qip2; SRP1-gamma; importin alpha 4; importin alpha-3; importin alpha Q2; importin-alpha-Q2; importin subunit alpha-3; karyopherin subunit alpha-3
NCBI Summary for KPNA3	The transport of molecules between the nucleus and the cytoplasm in eukaryotic cells is mediated by the nuclear pore complex (NPC), which consists of 60-100 proteins. Small molecules (up to 70 kD) can pass through the nuclear pore by nonselective diffusion while larger molecules are transported by an active process. The protein encoded by this gene belongs to the importin alpha family, and is involved in nuclear protein import. [provided by RefSeq, Jan 2009]
UniProt Comments for KPNA3	KPNA3: Functions in nuclear protein import as an adapter protein for nuclear receptor KPNB1. Binds specifically and directly to substrates containing either a simple or bipartite NLS motif. Docking of the importin/substrate complex to the nuclear pore complex (NPC) is mediated by KPNB1 through binding to nucleoporin FxFG repeats 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 importin-beta and the three components separate and importin-alpha and -beta are re-exported from the nucleus to the cytoplasm where GTP hydrolysis releases Ran from importin. 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. In vitro, mediates the nuclear import of human cytomegalovirus UL84 by recognizing a non- classical NLS. Recognizes NLSs of influenza A virus nucleoprotein probably through ARM repeats 7-9. Belongs to the importin alpha family. Protein type: Chaperone; Nuclear import; Adaptor/scaffold; Karyopherin Chromosomal Location of Human Ortholog: 13q14.3 Cellular Component: nucleoplasm; nuclear pore; cytosol Molecular Function: protein C-terminus binding; protein binding; nuclear localization sequence binding; protein transporter activity Biological Process: entry of virus into host cell; cytokine and chemokine mediated signaling pathway; protein complex assembly; NLS-bearing substrate import into nucleus
Research Articles on KPNA3	**1.** SNP rs2273816 is significantly associated with schizophrenia, opiate dependence and alcohol dependence at the genotype and allele level
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