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KPNA6 Antibody (C-term) Blocking peptide

Synthetic peptide
Catalog # BP12228b

Specification

KPNA6 Antibody (C-term) Blocking peptide - Product Information

Primary Accession O60684

KPNA6 Antibody (C-term) Blocking peptide - Additional Information

Gene ID 23633

Other Names
Importin subunit alpha-7, Karyopherin subunit alpha-6, KPNA6, IPOA7

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

KPNA6 Antibody (C-term) Blocking peptide - Protein Information

Name KPNA6

Synonyms IPOA7

Function
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.

Tissue Location
Widely expressed..

KPNA6 Antibody (C-term) Blocking peptide - Protocols

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Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

KPNA6 Antibody (C-term) Blocking peptide - Images

KPNA6 Antibody (C-term) Blocking peptide - Background

Nucleocytoplasmic transport, a signal- andenergy-dependent process, takes place through nuclear porecomplexes embedded in the nuclear envelope. The import of proteinscontaining a nuclear localization signal (NLS) requires the NLSimport receptor, a heterodimer of importin alpha and beta subunitsalso known as karyopherins. Importin alpha binds the NLS-containingcargo in the cytoplasm and importin beta docks the complex at thecytoplasmic side of the nuclear pore complex. In the presence ofnucleoside triphosphates and the small GTP binding protein Ran, thecomplex moves into the nuclear pore complex and the importinsubunits dissociate. Importin alpha enters the nucleoplasm with itspassenger protein and importin beta remains at the pore. Theprotein encoded by this gene is a member of the importin alphafamily.

KPNA6 Antibody (C-term) Blocking peptide - References

Singh, A.P., et al. Cell 131(3):492-504(2007)Ewing, R.M., et al. Mol. Syst. Biol. 3, 89 (2007) :Ma, J., et al. Cell. Signal. 18(8):1117-1126(2006)Lim, J., et al. Cell 125(4):801-814(2006)Bouwmeester, T., et al. Nat. Cell Biol. 6(2):97-105(2004)