10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

RANBP5 Antibody (C-term) Blocking peptide
Synthetic peptide
Catalog # BP9108b

Specification

RANBP5 Antibody (C-term) Blocking peptide - Product Information

Primary Accession	O00410
Other Accession	NP_002262

RANBP5 Antibody (C-term) Blocking peptide - Additional Information

Gene ID 3843

Other Names
Importin-5, Imp5, Importin subunit beta-3, Karyopherin beta-3, Ran-binding protein 5, RanBP5, IPO5, KPNB3, RANBP5

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.

RANBP5 Antibody (C-term) Blocking peptide - Protein Information

Name IPO5

Synonyms KPNB3, RANBP5

Function
Functions in nuclear protein import as nuclear transport receptor. Serves as receptor for nuclear localization signals (NLS) in cargo substrates. 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 (By similarity). Mediates the nuclear import of ribosomal proteins RPL23A, RPS7 and RPL5 (PubMed:11682607, PubMed:9687515). In vitro, mediates nuclear import of H2A, H2B, H3 and H4 histones. Binds to CPEB3 and mediates its nuclear import following neuronal stimulation (By similarity). In case of HIV-1 infection, binds and mediates the nuclear import of HIV-1 Rev.

Cellular Location
Cytoplasm. Nucleus. Nucleus, nucleolus. Note=Nucleus; nuclear rim. Found particularly in the nuclear rim and nucleolus

RANBP5 Antibody (C-term) Blocking peptide - Protocols

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

- Blocking Peptides

RANBP5 Antibody (C-term) Blocking peptide - Images

RANBP5 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.Interactions between importin beta and the FG repeats ofnucleoporins are essential in translocation through the porecomplex. The protein encoded by this gene is a member of theimportin beta family.

RANBP5 Antibody (C-term) Blocking peptide - References

Deane, R., et al. Mol. Cell. Biol. 17(9):5087-5096(1997)Yaseen, N.R., et al. Proc. Natl. Acad. Sci. U.S.A. 94(9):4451-4456(1997)Bukrinsky, M.I., et al. Nature 365(6447):666-669(1993)Bukrinsky, M.I., et al. Proc. Natl. Acad. Sci. U.S.A. 89(14):6580-6584(1992)