

RANBP5 Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP9108a**Specification**

RANBP5 Antibody (N-term) Blocking Peptide - Product InformationPrimary Accession [O00410](#)**RANBP5 Antibody (N-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

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP9108a](/products/AP9108a) was selected from the N-term region of human RANBP5. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

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 (N-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:9687515, PubMed:11682607). 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, nucleolus. Note=Nucleus; nuclear rim. Found particularly in the nuclear rim and nucleolus

RANBP5 Antibody (N-term) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

RANBP5 Antibody (N-term) Blocking Peptide - Images

RANBP5 Antibody (N-term) Blocking Peptide - Background

RANBP5 takes place through nuclear pore complexes embedded in the nuclear envelope. The import of proteins containing a nuclear localization signal (NLS) requires the NLS import receptor, a heterodimer of importin alpha and beta subunits also known as karyopherins. Importin alpha binds the NLS-containing cargo in the cytoplasm and importin beta docks the complex at the cytoplasmic side of the nuclear pore complex. In the presence of nucleoside triphosphates and the small GTP binding protein Ran, the complex moves into the nuclear pore complex and the importin subunits dissociate. Importin alpha enters the nucleoplasm with its passenger protein and importin beta remains at the pore.

RANBP5 Antibody (N-term) Blocking Peptide - References

Komlodi-Pasztor,E., et.al., Oncogene 28 (35), 3111-3120 (2009) Chung,K.M., et.al., Mol. Cells 26 (3), 291-298 (2008)