

IPO9 Antibody (N-term) Blocking peptide
Synthetic peptide
Catalog # BP5564a**Specification**

IPO9 Antibody (N-term) Blocking peptide - Product Information

Primary Accession [O96P70](#)
Other Accession [NP_060555.2](#)

IPO9 Antibody (N-term) Blocking peptide - Additional Information

Gene ID 55705

Other Names

Importin-9, Imp9, Ran-binding protein 9, RanBP9, IPO9, IMP9, KIAA1192, RANBP9

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.

IPO9 Antibody (N-term) Blocking peptide - Protein Information

Name IPO9 {ECO:0000303|PubMed:30855230, ECO:0000312|HGNC:HGNC:19425}

Function

Nuclear transport receptor that mediates nuclear import of proteins, such as histones, proteasome and actin (PubMed:11823430, PubMed:34711951, PubMed:30855230). Serves as receptor for nuclear localization signals (NLS) in cargo substrates (PubMed:11823430). 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 (PubMed:11823430). 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 (PubMed:11823430). 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 (PubMed:11823430). Mediates the import of pre-assembled proteasomes into the

nucleus; AKIRIN2 acts as a molecular bridge between IPO9 and the proteasome complex (PubMed:11823430, PubMed:34711951). Mediates the nuclear import of histones H2A, H2B, H4 and H4 (PubMed:11823430, PubMed:30855230). In addition to nuclear import, also acts as a chaperone for histones by preventing inappropriate non-nucleosomal interactions (PubMed:30855230). Mediates the nuclear import of actin (By similarity).

Cellular Location

Cytoplasm. Nucleus

IPO9 Antibody (N-term) Blocking peptide - Protocols

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

- [Blocking Peptides](#)

IPO9 Antibody (N-term) Blocking peptide - Images

IPO9 Antibody (N-term) Blocking peptide - Background

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 H2B histone (By similarity), RPS7 and RPL18A. Prevents the cytoplasmic aggregation of RPS7 and RPL18A by shielding exposed basic domains. May also import H2A, H3, H4 histones (By similarity), RPL4 and RPL6.

IPO9 Antibody (N-term) Blocking peptide - References

King, F.W., et al. Mol. Cell. Biol. 24(16):7091-7101(2004)Lubert, E.J., et al. Biochem. Biophys. Res. Commun. 303(3):908-913(2003)Jakel, S., et al. EMBO J. 21(3):377-386(2002)Muhlhaussner, P., et al. EMBO Rep. 2(8):690-696(2001)