

Importin 9 / RANBP9 Antibody

Rabbit mAb Catalog # AP92894

Product Information

Application WB, IHC **Primary Accession Q96P70** Reactivity Human Clonality Monoclonal

Other Names Imp9; Imp9a; Imp9b; Ipo9; RanBP9;

Isotype Rabbit IgG Host Rabbit 115963 Calculated MW

Additional Information

Dilution WB 1:500~1:2000 IHC 1:50~1:200

Purification Affinity-chromatography

Immunogen A synthesized peptide derived from human Importin 9 / RANBP9

Functions in nuclear protein import as nuclear transport receptor. Serves as **Description**

> 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.

Storage Condition and Buffer Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium

azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term.

Avoid freeze / thaw cycle.

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: 30855230, PubMed:34711951). 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

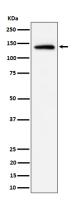
(PubMed: 11823430). At the nucleoplasmic side of the NPC, Ran binds to the importin, the importin/substrate complex dissociates and importin is re-exported from the nucleus to the cytoplasm where GTP hydrolysis releases Ran (PubMed: 11823430). The directionality of nuclear import is thought to be conferred 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:<u>11823430</u>, PubMed:<u>34711951</u>). Mediates the nuclear import of histones H2A, H2B, H4 and H4 (PubMed:<u>11823430</u>, PubMed:<u>30855230</u>). In addition to nuclear import, also acts as a chaperone for histones by preventing inappropriate non-nucleosomal interactions (PubMed:<u>30855230</u>). Mediates the nuclear import of actin (By similarity).

Cellular Location

Cytoplasm. Nucleus

Images



Western blot analysis of Importin 9 / RANBP9 expression in HeLa cell lysate.

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