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IPO9 / Importin 9 Antibody (aa950-1000)

Rabbit Polyclonal Antibody
Catalog # ALS11906

Specification

IPO9 / Importin 9 Antibody (aa950-1000) - Product Information

Application	**WB, IHC-P**
Primary Accession	Q96P70
Reactivity	**Human, Mouse, Rat, Monkey, Chicken, Bovine**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**116kDa KDa**
Dilution	**WB~~1:1000** **IHC-P~~N/A**

IPO9 / Importin 9 Antibody (aa950-1000) - Additional Information

Gene ID 55705

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

Target/Specificity
A portion of amino acids 950-1000 of human Importin-9

Reconstitution & Storage
Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles.

Precautions
IPO9 / Importin 9 Antibody (aa950-1000) is for research use only and not for use in diagnostic or therapeutic procedures.

IPO9 / Importin 9 Antibody (aa950-1000) - 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: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).

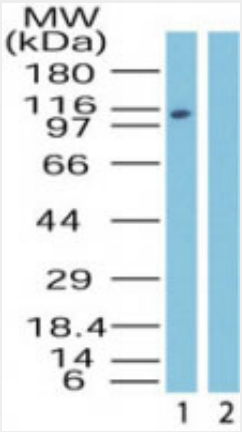
Cellular Location
Cytoplasm. Nucleus

IPO9 / Importin 9 Antibody (aa950-1000) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

IPO9 / Importin 9 Antibody (aa950-1000) - Images



Western blot of Importin-9 in HeLa lysate in the 1) absence and 2) presence of immunizing...

IPO9 / Importin 9 Antibody (aa950-1000) - 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 / Importin 9 Antibody (aa950-1000) - References

Jaekel S.,et al.EMBO J. 21:377-386(2002).
Gregory S.G.,et al.Nature 441:315-321(2006).
Mural R.J.,et al.Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Bienvenut W.V.,et al.Submitted (JUN-2005) to UniProtKB.