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IPO9 Antibody (N-term)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP5564a

Specification

IPO9 Antibody (N-term) - Product Information

Application	**FC, IHC-P, WB,E**
Primary Accession	Q96P70
Other Accession	Q91YE6, NP_060555.2
Reactivity	**Human, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**115963**
Antigen Region	**79-106**

IPO9 Antibody (N-term) - Additional Information

Gene ID 55705

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

Target/Specificity
This IPO9 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 79-106 amino acids from the N-terminal region of human IPO9.

Dilution
FC~~1:10~50
IHC-P~~1:50~100
WB~~1:1000
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
IPO9 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

IPO9 Antibody (N-term) - 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).

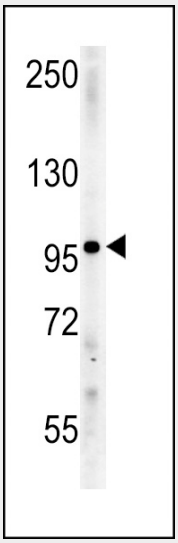
Cellular Location
Cytoplasm. Nucleus

IPO9 Antibody (N-term) - 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 Antibody (N-term) - Images



IPO9 Antibody (N-term) (Cat. #AP5564a) western blot analysis in mouse Neuro-2a cell line lysates (15ug/lane).This demonstrates the IPO9 antibody detected the IPO9 protein (arrow).

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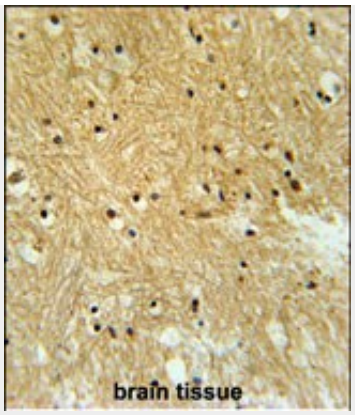
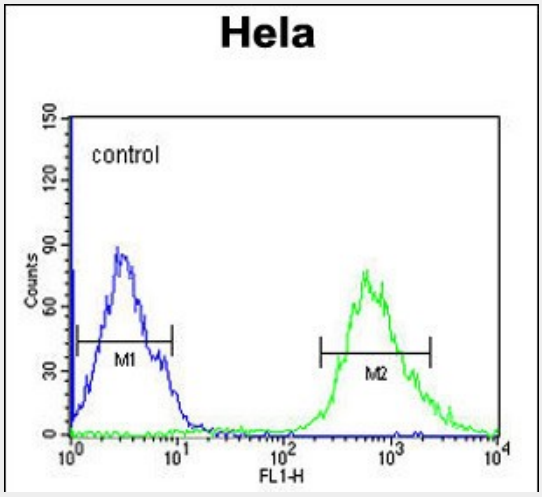


IPO9 Antibody (N-term) (Cat. #AP5564a) immunohistochemistry analysis in formalin fixed and paraffin embedded human brain tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the IPO9 Antibody (N-term) for immunohistochemistry. Clinical relevance has not been evaluated.



IPO9 Antibody (N-term) (Cat. #AP5564a) flow cytometric analysis of Hela cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

IPO9 Antibody (N-term) - 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) - 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)

Muhlhausser, P., et al. EMBO Rep. 2(8):690-696(2001)