

KPNA6 Antibody
Catalog # ASC11210**Specification**

KPNA6 Antibody - Product Information

Application	WB, IF
Primary Accession	O60684
Other Accession	CAH71948 , 55664992
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Application Notes	KPNA6 antibody can be used for detection of KPNA6 by Western blot at 1 µg/mL. Antibody can also be used for immunofluorescence starting at 20 µg/mL. For immunofluorescence start at 20 µg/mL.

KPNA6 Antibody - Additional Information

Gene ID	23633
Target/Specificity	
KPNA6;	

Reconstitution & Storage

KPNA6 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

Precautions

KPNA6 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

KPNA6 Antibody - Protein Information

Name KPNA6

Synonyms IPOA7

Function

Functions in nuclear protein import as an adapter protein for nuclear receptor KPNB1. Binds specifically and directly to substrates containing either a simple or bipartite NLS motif. Docking of the importin/substrate complex to the nuclear pore complex (NPC) is mediated by KPNB1 through binding to nucleoporin FxFG repeats 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 importin-beta and the three components separate and importin-alpha and -beta are re-exported from the nucleus to the cytoplasm where GTP hydrolysis releases Ran from importin. 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.

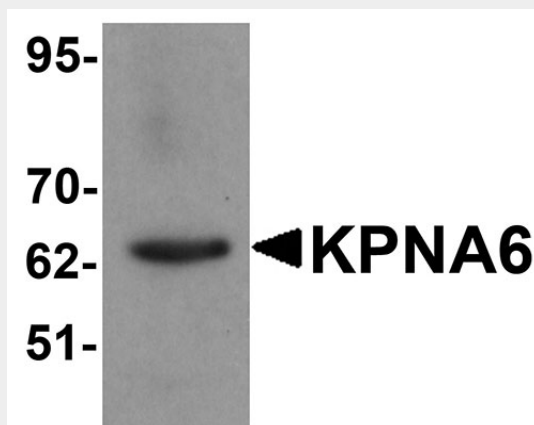
Tissue Location

Widely expressed..

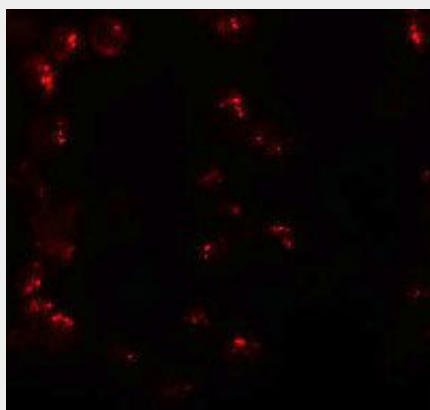
KPNA6 Antibody - Protocols

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

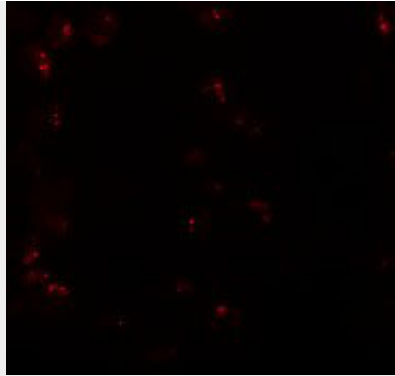
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

KPNA6 Antibody - Images

Western blot analysis of KPNA6 in 293 cell lysate with KPNA6 antibody at 1 μ g/mL.



Immunofluorescence of KPNA6 in 293 cells with KPNA6 antibody at 20 μ g/mL.



Immunofluorescence of KPNA6 in 293 cells with KPNA6 antibody at 20 µg/mL.

KPNA6 Antibody - Background

KPNA6 Antibody: Karyopherin, a cytosolic and heterodimeric protein complex consisting of alpha and beta subunits, is responsible for targeting proteins with nuclear localization signals to the nuclear pore complex (NPC) by an energy requiring, Ran-dependent mechanism. The alpha subunit and imported substrate enter the nucleus and accumulate in the nucleoplasm, while the beta subunit accumulates at the NPC. KPNA6 belongs to a subfamily within the KPNA family that also includes IPOA5&6. Down-regulation of KPNA6 by RNAi expression in HeLa cells strongly inhibited cell proliferation, possibly due to blocking the nuclear import of specific factors essential for cell growth and proliferation. KPNA6 also interacts with the Rev protein of HIV-1 and promote its nuclear import.

KPNA6 Antibody - References

Moroianu J. Molecular mechanisms of nuclear protein transport. Crit. Rev. Eukaryot. Gene Expr.1997; 7:61-72.
Gilchrist D and Rexach M. Molecular basis for the rapid dissociation of nuclear localization signals from karyopherin alpha in the nucleoplasm. J. Biol. Chem.2003; 278: 51937-49.
Kohler MC, Fiebler M, Hartwig S, et al. Evidence for distinct substrate specificity of importin alpha family members in nuclear protein import. Mol. Cell. Biol.1999; 19:7782-91.
Quensal C, Friedrich B, Sommer T, et al. In vivo analysis of importin a proteins reveals cellular proliferation inhibition and substrate specificity. Mol. Cell. Biol.2004; 24:10246-55.