

KPNA6 Antibody

Catalog # ASC11210

Product Information

Application	WB, IF, E
Primary Accession	O60684
Other Accession	CAH71948 , 55664992
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	60030
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	KPNA6 antibody can be used for detection of KPNA6 by Western blot at 1 μ g/mL. Antibody can also be used for immunofluorescence starting at 20 μ g/mL. For immunofluorescence start at 20 μ g/mL.

Additional Information

Gene ID	23633
Other Names	Importin subunit alpha-7, Karyopherin subunit alpha-6, KPNA6, IPOA7
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.

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..

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.

References

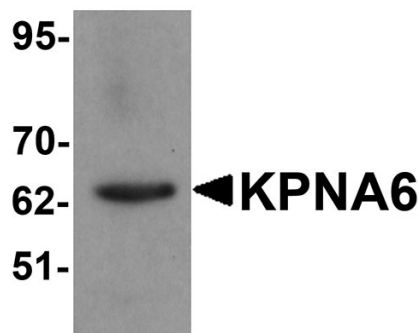
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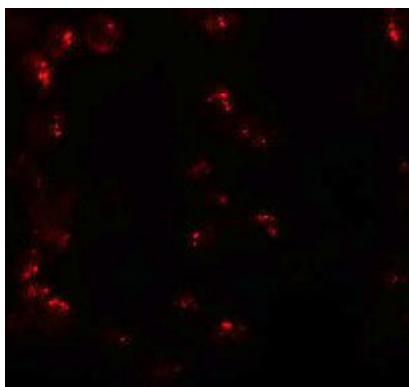
Kohler MC, Fiebler M, Hartwig S, et al. Evidence for distinct substrate specificity of importin alpha family members in nuclear protein import. Mol. Cell. Biol.1999; 19:7782-91.

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.

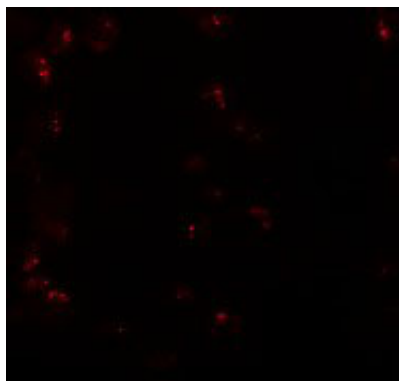
Images



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



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



Immunofluorescence of KPNA6 in 293 cells with KPNA6 antibody at 20 $\mu\text{g/mL}$.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.