Datasheet for ABIN967998

anti-KPNA2 antibody (AA 254-497)

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Overview

Quantity:	50 µg
Target:	KPNA2
Binding Specificity:	AA 254-497
Reactivity:	Human, Mouse, Rat, Dog, Blow Fly
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This KPNA2 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunofluorescence (IF), Immunoprecipitation (IP)

Product Details

Immunogen:	Human Rch-1 aa. 254-497
Clone:	2-Karyopherin alpha
Isotype:	IgG1
Cross-Reactivity:	Mouse (Murine), Rat (Rattus), Dog (Canine), Fruit Fly (Drosophila melanogaster)
Characteristics:	1. Since applications vary, each investigator should titrate the reagent to obtain optimal results. 2. Please refer to us for technical protocols. 3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing. 4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

Product Details

Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Target Details

Target:	KPNA2
Alternative Name:	Karyopherin alpha 2 (KPNA2 Products)
Background:	The two step process of importing proteins into the nucleus involves the binding and interaction of several cytosolic and nuclear pore proteins. Proteins to be translocated into the nucleus contain a nuclear localization sequence (NLS) which is recognized and bound by carrier proteins in the cytosol. Heterodimers belonging to a highly conserved family of proteins called karyopherins are required for successful nuclear localization of cytosolic proteins. The alpha-subunits appear to function in the binding of NLS (both simple and bitartite NLS motifs), but both alpha- and beta-subunits are required for successful docking to the nuclear envelope. ATP is required for complete translocation of proteins into the nucleus. Karyopherin alpha2 was first identified as Rch-1, an NLS receptor which interacts with the RAG-1 recombination-activating protein in developing B and T cells. Rch-1 has been reported to be 44% identical to karyopherin alpha1 (hSRP-1 /NPI-1). This antibody is routinely tested by western blot analysis. Synonyms: Rch-1
Molecular Weight:	58 kDa
Pathways:	M Phase, Protein targeting to Nucleus

Application Details

Comment:	Related Products: ABIN968535, ABIN967389
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	250 µg/mL
Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which

Handling

	should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store undiluted at -20° C.

Publications

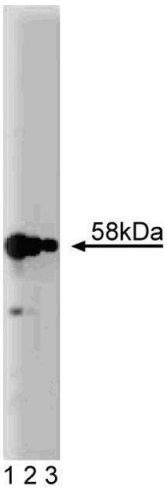
Product cited in:

Grozinger, Schreiber: "Regulation of histone deacetylase 4 and 5 and transcriptional activity by 14-3-3-dependent cellular localization." in: **Proceedings of the National Academy of Sciences of the United States of America**, Vol. 97, Issue 14, pp. 7835-40, (2000) (PubMed).

Moroianu, Hijikata, Blobel, Radu: "Mammalian karyopherin alpha 1 beta and alpha 2 beta heterodimers: alpha 1 or alpha 2 subunit binds nuclear localization signal and beta subunit interacts with peptide repeat-containing nucleoporins." in: **Proceedings of the National Academy of Sciences of the United States of America**, Vol. 92, Issue 14, pp. 6532-6, (1995) (PubMed).

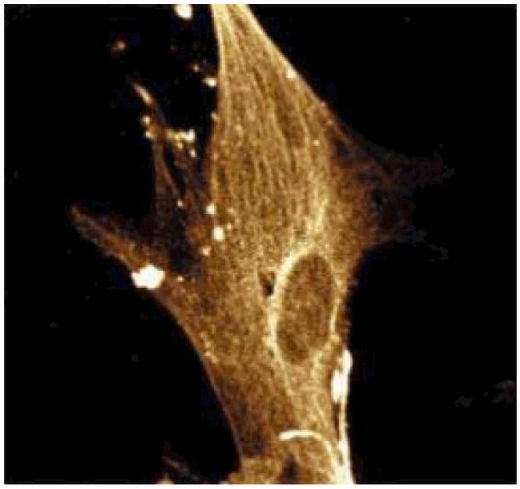
Weis, Mattaj, Lamond: "Identification of hSRP1 alpha as a functional receptor for nuclear localization sequences." in: **Science (New York, N.Y.)**, Vol. 268, Issue 5213, pp. 1049-53, (1995) (PubMed).

Images



Western Blotting

Image 1. Western blot analysis of Karyopherin alpha on a HeLa cell lysate (Human cervical epitheloid carcinoma, ATCC CCL-2.2). Lane 1: 1:2500, lane 2: 1:5000, lane 3: 1:10,000 dilution of the mouse anti-karyopherin antibody.



Immunofluorescence

Image 2. Immunofluorescence staining of WI-38 cells (Human lung fibroblasts, ATCC CCL-75).

