

产品名称: Karyopherin α 2 Rabbit Polyclonal Antibody
产品货号: APRab12899



产品概述 (Summary)

产品名称 (Production Name)	Karyopherin α 2 Rabbit Polyclonal Antibody
描述 (Description)	Rabbit polyclonal Antibody
宿主 (Host)	Rabbit
应用 (Application)	WB,IHC,ICC/IF,ELISA
种属反应性 (Reactivity)	Human,Mouse,Rat

产品性能 (Performance)

偶联物 (Conjugation)	Unconjugated
修饰 (Modification)	Unmodified
同种型 (Isotype)	IgG
克隆 (Clonality)	Polyclonal
形式 (Form)	Liquid
存放说明 (Storage)	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
储存溶液 (Buffer)	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
纯化方式 (Purification)	Affinity purification

免疫原信息 (Immunogen)

基因名 (Gene Name)	KPNA2
别名 (Alternative Names)	KPNA2; RCH1; SRP1; Importin subunit alpha-2; Karyopherin subunit alpha-2; RAG cohort protein 1; SRP1-alpha
基因 ID (Gene ID)	3838.0
蛋白 ID (SwissProt ID)	P52292.Synthesized peptide derived from the N-terminal region of human Karyopherin α 2.

产品应用 (Application)

稀释比 (Dilution Ratio)	WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:50-1:200,ELISA 1:5000-1:20000
蛋白分子量 (Molecular Weight)	60kDa

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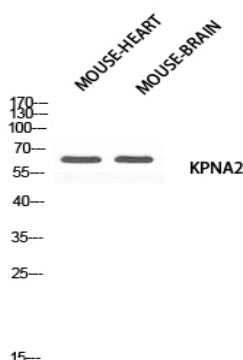
研究背景 (Background)

The import of proteins into the nucleus is a process that involves at least 2 steps. The first is an energy-independent docking of the protein to the nuclear envelope and the second is an energy-dependent translocation through the nuclear pore complex. Imported proteins require a nuclear localization sequence (NLS) which generally consists of a short region of basic amino acids or 2 such regions spaced about 10 amino acids apart. Proteins involved in the first step of nuclear import have been identified in different systems. These include the *Xenopus* protein importin and its yeast homolog, SRP1 (a suppressor of certain temperature-sensitive mutations of RNA polymerase I in *Saccharomyces cerevisiae*), which bind to the NLS. KPNA2 protein interacts with the NLSs of DNA helicase Q1 and SV40 T antigen and may be involved in the nuclear transport of proteins. KPNA2 also may play a role in V(D)J recombination. Consists of an N-terminal hydrophilic region, a hydrophobic central region composed of 10 repeats, and a short hydrophilic C-terminus. The N-terminal hydrophilic region contains the importin beta binding domain (IBB domain), which is sufficient for binding importin beta and essential for nuclear protein import. The IBB domain is thought to act as an intrasteric autoregulatory sequence by interacting with the internal autoinhibitory NLS. Binding of KPNB1 probably overlaps the internal NLS and contributes to a high affinity for cytoplasmic NLS-containing cargo substrates. After dissociation of the importin/substrate complex in the nucleus the internal autoinhibitory NLS contributes to a low affinity for nuclear NLS-containing proteins. The major and minor NLS binding sites are mainly involved in recognition of simple or bipartite NLS motifs. Structurally located within in a helical surface groove they contain several conserved Trp and Asn residues of the corresponding third helices (H3) of ARM repeats which mainly contribute to binding. 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. mass spectrometry: PubMed:11840567, similarity: Belongs to the importin alpha family. similarity: Contains 1 IBB domain. similarity: Contains 10 ARM repeats. subunit: Forms a complex with importin subunit beta-1. Found in a complex with CSE1L/XPO2, Ran and KPNA2. Interacts with CSE1L/XPO2 and NBN. Interacts with ANP32E (By similarity). Interacts with HIV-1 Vpr and PLAG1. tissue specificity: Expressed ubiquitously.

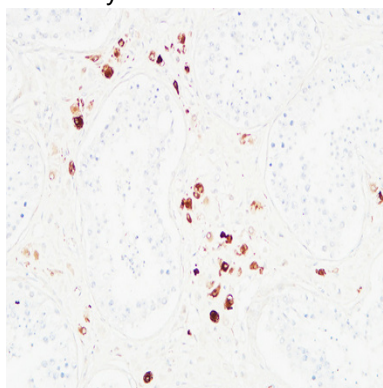
研究领域 (Research Area)

图片 (Image Data)

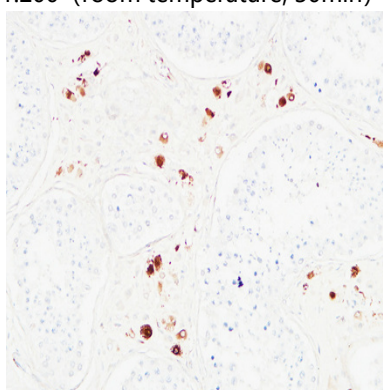
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Western blot analysis of MOUSE-HEART MOUSE-BRAIN using KPNA2 antibody. Antibody was diluted at 1:500. Secondary antibody was diluted at 1:20000

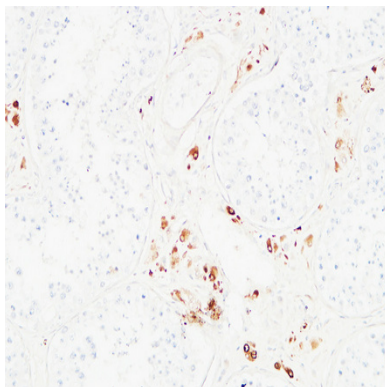


Immunohistochemical analysis of paraffin-embedded Human testis. 1, Antibody was diluted at 1:200 (4°, overnight) . 2, High-pressure and temperature EDTA, pH8.0 was used for antigen retrieval. 3, Secondary antibody was diluted at 1:200 (room temperature, 30min) .



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注意事项 (Note)

For research use only .