



# Karyopherin $\alpha$ 2 Polyclonal Antibody

<b>Catalog No</b>	YP-Ab-00777
<b>Isotype</b>	IgG
<b>Reactivity</b>	Human;Mouse;Rat
<b>Applications</b>	WB;IHC;IF;ELISA
<b>Gene Name</b>	KPNA2
<b>Protein Name</b>	Importin subunit alpha-2
<b>Immunogen</b>	Synthesized peptide derived from the N-terminal region of human Karyopherin $\alpha$ 2.
<b>Specificity</b>	Karyopherin $\alpha$ 2 Polyclonal Antibody detects endogenous levels of Karyopherin $\alpha$ 2 protein.
<b>Formulation</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
<b>Source</b>	Polyclonal, Rabbit,IgG
<b>Purification</b>	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
<b>Dilution</b>	IHC-p: 100-300.WB: 1/500 - 1/2000. ELISA: 1/10000.. IF 1:50-200
<b>Concentration</b>	1 mg/ml
<b>Purity</b>	$\geq 90\%$
<b>Storage Stability</b>	-20°C/1 year
<b>Synonyms</b>	KPNA2; RCH1; SRP1; Importin subunit alpha-2; Karyopherin subunit alpha-2; RAG cohort protein 1; SRP1-alpha
<b>Observed Band</b>	60kD
<b>Cell Pathway</b>	Cytoplasm . Nucleus .; Endoplasmic reticulum membrane. Golgi apparatus membrane . (Microbial infection) Retained in ER/Golgi membranes upon interaction with SARS-COV virus ORF6 protein. .
<b>Tissue Specificity</b>	Expressed ubiquitously.
<b>Function</b>	domain: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.,domain:The IBB domain is thought to act as an intrasteric autoregulatory sequence by interacting with the internal autoinhibitory NLS. Binding of KPNA1 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.,domain:The major and minor NLS binding sites are mainly involved in recognition of simple or bipartite NLS motifs. Structurally located within i

**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 re

**matters needing attention**

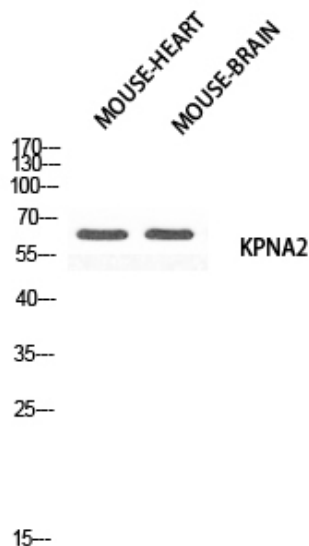
Avoid repeated freezing and thawing!

**Usage suggestions**

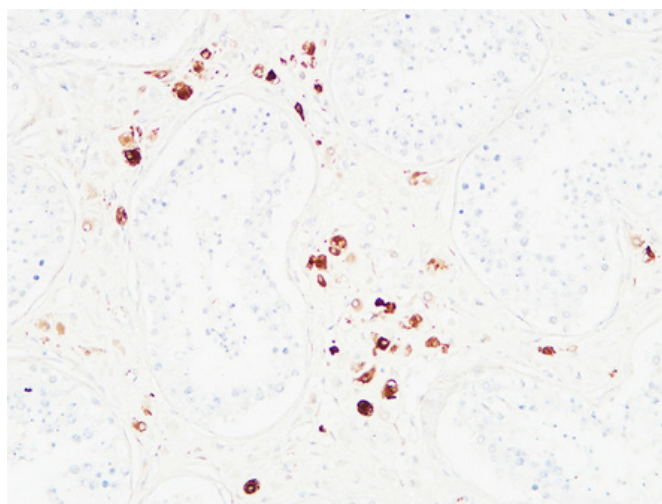
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



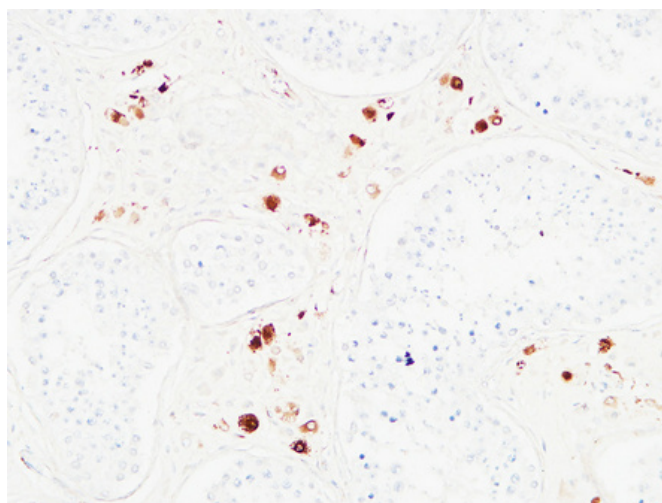
## Products Images



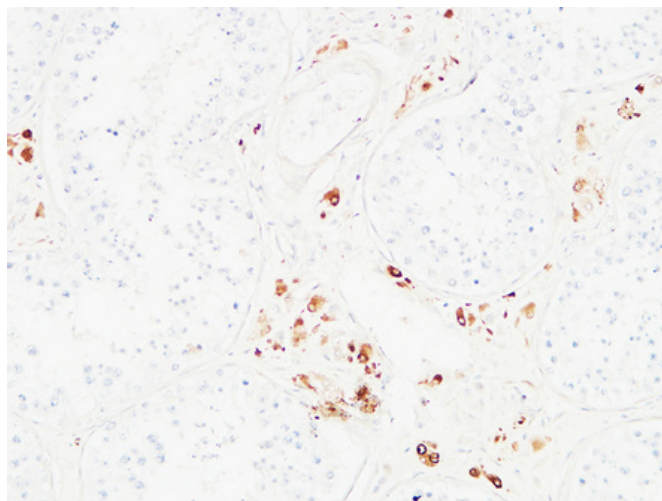
Western blot analysis of MOUSE-HEART  
MOUSE-BRAIN using KPNA2 antibody. Antibody was  
diluted at 1:500. Secondary  
antibody(catalog#:RS0002) was diluted at 1:20000



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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