



Karyopherin α 2 Monoclonal Antibody

Catalog No	YP-mAb-00777
Isotype	IgG
Reactivity	Human;Mouse;Rat
Applications	WB
Gene Name	KPNA2
Immunogen	Synthesized peptide derived from the N-terminal region of human Karyopherin α 2.
Specificity	Karyopherin α 2 Monoclonal Antibody detects endogenous levels of Karyopherin α 2 protein.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Monoclonal, Mouse,IgG
Purification	The antibody was affinity-purified from mouse antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB 1:500-1:2000
Concentration	1 mg/ml
Purity	$\geq 90\%$
Storage Stability	-20°C/1 year
Synonyms	Importin subunit alpha-1;IPO A1;IPOA 1;IPOA1;Karyopherin subunit alpha-2; Karyopherin α 2;KPNA2;Importin subunit alpha-2;RCH1;SRP1;RAG cohort protein 1;SRP1-alpha
Observed Band	60kD
Calculated Molecular Weight	60kD
Cell Pathway	Cytoplasm . Nucleus .; Endoplasmic reticulum membrane. Golgi apparatus membrane . (Microbial infection) Retained in ER/Golgi membranes upon interaction with SARS-COV virus ORF6 protein. .
Tissue Specificity	Expressed ubiquitously.
Function	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. 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 various cells using Karyopherin α 2 Monoclonal Antibody

