

ARG55273 anti-KPNA2 / IPOA1 antibody

Package: 50 µg
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes KPNA2 / IPOA1
Tested Reactivity	Hu, Rat
Predict Reactivity	Ms
Tested Application	IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	KPNA2 / IPOA1
Species	Human
Immunogen	Synthetic peptide (15 aa) within aa. 40-90 of Human KPNA2.
Conjugation	Un-conjugated
Alternate Names	Karyopherin subunit alpha-2; SRP1alpha; Importin subunit alpha-1; QIP2; RCH1; IPOA1; SRP1-alpha; RAG cohort protein 1

Application Instructions

Application table	Application	Dilution
	IHC-P	5 µg/ml
	WB	1 - 2 µg/ml
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Positive Control	Rat Heart Tissue Lysate	

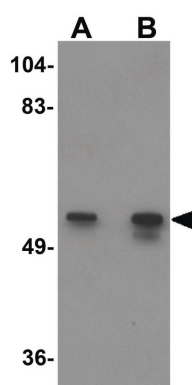
Properties

Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	PBS and 0.02% Sodium azide
Preservative	0.02% Sodium azide
Concentration	1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

Bioinformation

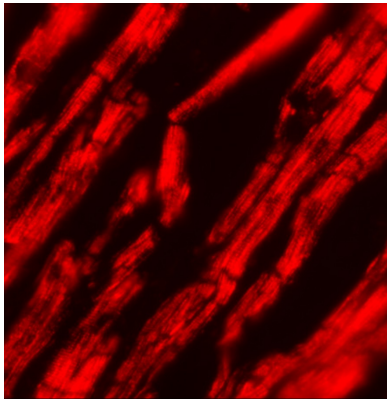
Database links	GeneID: 3838 Human Swiss-port # P52292 Human
Gene Symbol	KPNA2
Gene Full Name	karyopherin alpha 2 (RAG cohort 1, importin alpha 1)
Background	The import of proteins into the nucleus is a process that involves at least 2 steps. The first is an energy-independent docking of the protein to 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 <i>Saccharomyces cerevisiae</i>), 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 [provided by RefSeq, Jul 2008]
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. [UniProt]
Research Area	Immune System antibody; Signaling Transduction antibody
Calculated Mw	58 kDa

Images



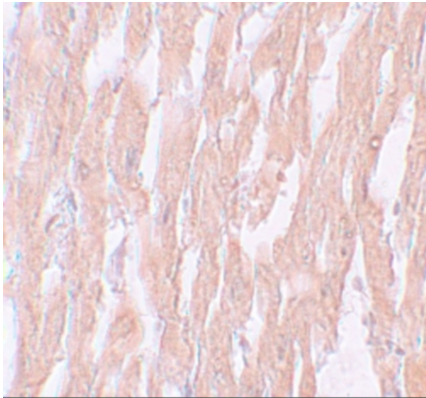
ARG55273 anti-KPNA2 / IPOA1 antibody WB image

Western blot: Rat heart tissue lysate stained with ARG55273 anti-KPNA2 / IPOA1 antibody at (A) 1 and (B) 2 µg/ml dilution.



ARG55273 anti-KPNA2 / IPOA1 antibody IHC image

Immunohistochemistry: Human heart tissue stained with ARG55273 anti-KPNA2 / IPOA1 antibody at 20 µg/ml dilution.



ARG55273 anti-KPNA2 / IPOA1 antibody IHC-P image

Immunohistochemistry: Human heart tissue stained with ARG55273 anti-KPNA2 / IPOA1 antibody at 5 µg/ml dilution.