



Rabbit Anti-KPNA1 antibody

SL8864R

Product Name:	KPNA1
Chinese Name:	核蛋白相互作用蛋白1抗体
Alias:	KPNA1; RCH2; SRP1; IMA5_HUMAN; Importin subunit alpha-5; Karyopherin subunit alpha-1; Nucleoprotein interactor 1; NPI-1; RAG cohort protein 2; SRP1-beta; Importin subunit alpha-5, N-terminally processed.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Dog,Pig,Cow,Horse,Rabbit,Sheep,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	60kDa
Cellular localization:	The nucleuscytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human SRP1-beta:81-180/538
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	The transport of molecules between the nucleus and the cytoplasm in eukaryotic cells is mediated by the nuclear pore complex (NPC), which consists of 60-100 proteins. Small molecules (up to 70 kD) can pass through the nuclear pore by nonselective diffusion while larger molecules are transported by an active process. The protein encoded by this gene belongs to the importin alpha family, and is involved in nuclear protein import.

This protein interacts with the recombination activating gene 1 (RAG1) protein and is a putative substrate of the RAG1 ubiquitin ligase. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Nov 2012].

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. In vitro, mediates the nuclear import of human cytomegalovirus UL84 by recognizing a non-classical NLS.

Subunit:

Heterodimer; with KPNB1. Interacts with ANP32E. Interacts with ZIC3 (By similarity). Interacts with the nucleoprotein of influenza A viruses. Binds to HCMV (human cytomegalovirus) UL84, HIV-1 Vpr and to ebolavirus VP24. Interacts with APEX1 and RAG1. Interacts with CTNNB1 (via its N-terminal). Interacts with AICDA (via its NLS).

Subcellular Location:

Cytoplasm. Nucleus.

Tissue Specificity:

Expressed ubiquitously.

Post-translational modifications:

Polyubiquitinated in the presence of RAG1 (in vitro).

Similarity:

Belongs to the importin alpha family.
Contains 10 ARM repeats.
Contains 1 IBB domain.

SWISS:

P52294

Gene ID:

3836

Database links:

[Entrez Gene: 3836](#)Human

[Entrez Gene: 16646](#)Mouse

[Entrez Gene: 288064](#)Rat

[Omim: 600686](#)Human

[SwissProt: P52294](#)Human

[SwissProt: Q60960](#)Mouse

[SwissProt: P83953](#)Rat

[Unigene: 161008](#)Human

[Unigene: 6952](#)Mouse

[Unigene: 6272](#)Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.