



Rabbit Anti-KPNA2 antibody

SL8622R

Product Name:	KPNA2
Chinese Name:	核蛋白相互作用蛋白2抗体
Alias:	IMA2_HUMAN; Importin alpha 1; Importin alpha 2; Importin alpha 2 subunit; Importin alpha P1; Importin subunit alpha-2; IPO A1; IPOA 1; IPOA1; Karyopherin alpha 2; Karyopherin alpha 2 RAG cohort 1; Karyopherin alpha 2 subunit; Karyopherin subunit alpha-2; KPNA 2; KPNA2; KPNA2 protein; Pendulin; QIP 2; QIP2; RAG cohort 1; RAG cohort protein 1; RCH 1; RCH1; SRP 1; SRP1 alpha; SRP1; SRP1-alpha; SRP1alpha.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Pig,Cow,Horse,Rabbit,
Applications:	WB=1:500-2000ELISA=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:	58kDa
Cellular localization:	The nucleuscytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human KPNA2:1-100/529
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 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 [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.

Subcellular Location:

Cytoplasm. Nucleus.

Tissue Specificity:

Expressed ubiquitously.

Similarity:

Belongs to the importin alpha family.

Contains 10 ARM repeats.

Contains 1 IBB domain.

SWISS:

P52292

Gene ID:

3838

Database links:

[Entrez Gene: 3838](#) Human

[Entrez Gene: 100039592](#) Mouse

[Entrez Gene: 100043906](#) Mouse

[Entrez Gene: 16647](#) Mouse

[Oimim: 600685](#) Human

[SwissProt: P52292](#) Human

[SwissProt: P52293](#) Mouse

[Unigene: 594238](#) Human

[Unigene: 12508](#) Mouse

[Unigene: 391577](#) Mouse

[Unigene: 423000](#) Mouse

Important Note:

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

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