

IMA1 Rabbit pAb

CatalogNo: YN0804

Key Features

Host Species

- Rabbit

Reactivity

- Human, Mouse, Rat

Applications

- WB, ELISA

MW

- 59kD (Observed)

Isotype

- IgG

Recommended Dilution Ratios

WB 1:500-2000

ELISA 1:5000-20000

Storage

Storage*

-15°C to -25°C/1 year (Do not lower than -25°C)

Formulation

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Basic Information

Clonality

Polyclonal

Immunogen Information

Immunogen

Synthesized peptide derived from part region of human protein

Specificity

IMA1 Polyclonal Antibody detects endogenous levels of protein.

Target Information

Gene name

KPNA1 RCH2

Protein Name Importin subunit alpha-1 (Karyopherin subunit alpha-1) (Nucleoprotein interactor 1) (NPI-1) (RAG cohort protein 2) (SRP1-beta)

Organism	Gene ID	UniProt ID
Human	3836 ;	P52294 ;
Mouse		Q60960 ;
Rat		P83953 ;

Cellular Localization Cytoplasm . Nucleus .

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 KPNB1 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 in a helical surface groove they contain several conserved Trp and Asn residues of the corresponding third helices (H3) of ARM repeats which mainly contribute to binding.,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.,similarity:Belongs to the importin alpha family.,similarity:Contains 1 IBB domain.,similarity:Contains 10 ARM repeats.,subunit:Forms a complex with importin subunit beta-1. Interacts with ANP32E (By similarity). Interacts with the nucleoprotein of influenza A viruses. Binds to HCMV (human cytomegalovirus) UL84, HIV-1 Vpr and to ebolavirus VP24.,tissue specificity:Expressed ubiquitously.,

| Validation Data

| Contact information

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IMA1 Rabbit pAb

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