

# Product datasheet

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ARG55333 anti-KPNA1 / Importin alpha 5 antibody

Package: 100 μl Store at: -20°C

#### **Summary**

Product Description Rabbit Polyclonal antibody recognizes KPNA1 / Importin alpha 5

Tested Reactivity Hu, Ms, Rat

Tested Application IHC-P, WB

Host Rabbit

**Clonality** Polyclonal

Isotype IgG

Target Name KPNA1 / Importin alpha 5

Species Human

Immunogen Recombinant protein of Human KPNA1 (NP\_002255.3)

Conjugation Un-conjugated

Alternate Names Importin subunit alpha-5; SRP1; Nucleoprotein interactor 1; IPOA5; RCH2; RAG cohort protein 2;

SRP1-beta; NPI-1; Karyopherin subunit alpha-1

## **Application Instructions**

Application table	Application	Dilution
	IHC-P	1:50 - 1:200
	WB	1:500 - 1:2000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Positive Control	A549	
Observed Size	~ 60 kDa	

### **Properties**

Form Liquid

**Purification** Affinity purification with immunogen.

Buffer PBS (pH 7.3), 0.02% Sodium azide and 50% Glycerol

Preservative 0.02% Sodium azide

Stabilizer 50% Glycerol

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. 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.

Note For laboratory research only, not for drug, diagnostic or other use.

#### Bioinformation

Database links <u>GeneID: 16646 Mouse</u>

GeneID: 3836 Human

Swiss-port # P52294 Human

Swiss-port # Q60960 Mouse

Gene Symbol KPNA1

Gene Full Name karyopherin alpha 1 (importin alpha 5)

Background 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

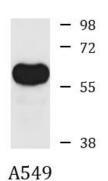
cytomegalovirus UL84 by recognizing a non-classical NLS. [UniProt]

Research Area Immune System antibody; Signaling Transduction antibody

Calculated Mw 60 kDa

PTM Polyubiquitinated in the presence of RAG1 (in vitro).

## **Images**



#### ARG55333 anti-KPNA1 / Importin alpha 5 antibody WB image

Western blot: A549 cell lysate stained with ARG55333 anti-KPNA1 / Importin alpha 5 antibody.