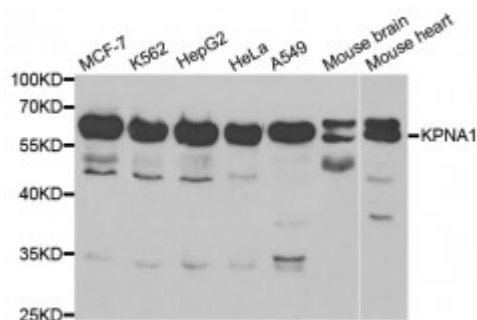


Anti-KPNA1 Antibody



Description

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.

Model	STJ115582
Host	Rabbit
Reactivity	Human, Mouse, Rat
Applications	IF, IHC, WB
Immunogen	Recombinant fusion protein containing a sequence corresponding to amino acids 1-300 of human KPNA1 (NP_002255.3).
Gene ID	3836
Gene Symbol	KPNA1
Dilution range	WB 1:500 - 1:2000 IHC 1:50 - 1:200 IF 1:50 - 1:200
Tissue Specificity	Expressed ubiquitously
Purification	Affinity purification
Note	For Research Use Only (RUO).

Protein Name	Importin subunit alpha-5 Karyopherin subunit alpha-1 Nucleoprotein interactor 1 NPI-1 RAG cohort protein 2 SRP1-beta
Molecular Weight	60.222 kDa
Clonality	Polyclonal
Conjugation	Unconjugated
Isotype	IgG
Formulation	PBS with 0.02% sodium azide, 50% glycerol, pH7.3.
Storage Instruction	Store at -20C. Avoid freeze / thaw cycles.
Database Links	HGNC:6394 OMIM:600686 Reactome:R-HSA-1169408
Alternative Names	Importin subunit alpha-5 Karyopherin subunit alpha-1 Nucleoprotein interactor 1 NPI-1 RAG cohort protein 2 SRP1-beta
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
Cellular Localization	Cytoplasm
Post-translational Modifications	Polyubiquitinated in the presence of RAG1 (in vitro),