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KD-Validated Anti-Karyopherin subunit alpha 2 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1025

Product Information

Application	WB, FC, ICC
Primary Accession	P52292
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Clone Names	24GB5955
Calculated MW	57862
Gene Name	KPNA2
Aliases	KPNA2; Karyopherin Subunit Alpha 2; SRP1alpha; PTAC58; IPOA1; QIP2; RCH1; Karyopherin Alpha 2 (RAG Cohort 1, Importin Alpha 1); Nuclear Pore-Targeting Complex 58kD Component; Importin Subunit Alpha-1; RAG Cohort Protein 1; SRP1-Alpha; Karyopherin Subunit Alpha-2; Importin Subunit Alpha-2; Karyopherin Alpha 2; Importin-Alpha-P1; Importin Alpha 1; RAG Cohort 1; Pendulin; SRP1
Immunogen	A synthesized peptide derived from human KPNA2

Additional Information

Gene ID	3838
Other Names	Importin subunit alpha-1, Karyopherin subunit alpha-2, RAG cohort protein 1, SRP1-alpha, KPNA2 (HGNC:6395), RCH1, SRP1

Protein Information

Name	KPNA2 (HGNC:6395)
Synonyms	RCH1, SRP1
Function	Functions in nuclear protein import as an adapter protein for nuclear receptor KPNB1 (PubMed:28991411, PubMed:32130408, PubMed:7604027, PubMed:7754385). Binds specifically and directly to substrates containing either a simple or bipartite NLS motif (PubMed:28991411, PubMed:32130408, PubMed:7604027, PubMed:7754385). 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 (PubMed:7604027, PubMed:7754385). 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. Mediator of PR-DUB complex component BAP1 nuclear import; acts redundantly with KPNA1 and Transportin-1/TNPO1 (PubMed:35446349).
Cellular Location	Cytoplasm. Nucleus
Tissue Location	Expressed ubiquitously.

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