
Product Name: KD-Validated Karyopherin Subunit Alpha 2 Recombinant Rabbit Monoclonal Antibody

Catalog #: KVA01799

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC
Reactivity	Human,Mouse,Rat
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Rabbit IgG
Clonality	Rabbit mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000
Molecular Weight	Calculated MW: 57.9kDa

Antigen Information

Gene Name	KPNA2 KPNA2; Karyopherin Subunit Alpha 2; SRP1alpha; PTAC58; IPOA1; QIP2; RCH1; Karyopherin Alpha 2 (RAG Cohort 1, Importin Alpha 1); Nuclear Pore-Targeting Complex 58kD
Alternative Names	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
Gene ID	3838.0
SwissProt ID	P52292
Immunogen	A synthesized peptide derived from human KPNA2

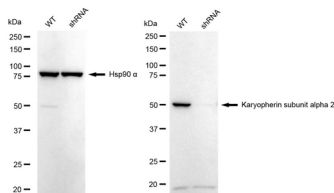
Background

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. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Feb 2016]

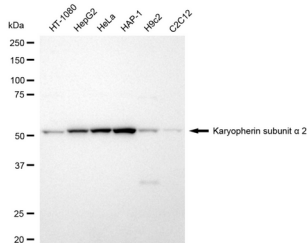
Research Area

Immunology, Signal Transduction

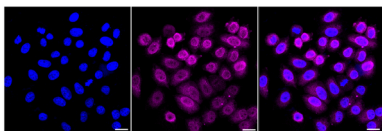
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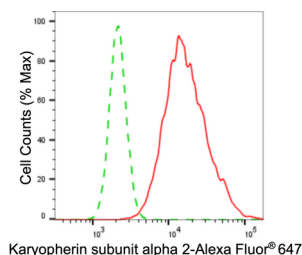
Western blotting analysis using karyopherin subunit alpha 2 antibody (KVA01799). Karyopherin subunit alpha 2 expression in wild type (WT) and karyopherin subunit alpha 2 (KPNA2) shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with karyopherin subunit alpha 2 antibody (KVA01799, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Western blotting analysis using karyopherin subunit alpha 2 antibody (KVA01799). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with karyopherin subunit alpha 2 antibody (KVA01799, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Immunocytochemical staining of HepG2 cells with karyopherin subunit alpha 2 antibody (KVA01799, 1:1,000). Nuclei were stained blue with DAPI; Karyopherin subunit alpha 2 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20 µm.



Flow cytometric analysis of karyopherin subunit alpha 2 expression in HepG2 cells using karyopherin subunit alpha 2 antibody (KVA01799, 1:2,000). Green, isotype control; red, karyopherin subunit alpha 2.