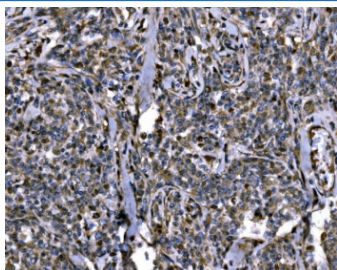


Importin subunit alpha-1 Antibody / KPNA2 (RQ6884)

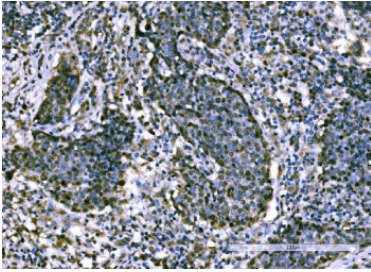
Catalog No.	Formulation	Size
RQ6884	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

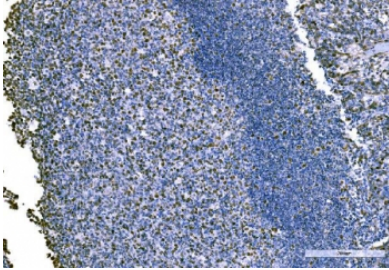
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	P52292
Localization	Cytoplasmic, nuclear
Applications	Western Blot : 1-2ug/ml Immunohistochemistry (FFPE) : 2-5ug/ml Flow Cytometry : 1-3ug/million cells Direct ELISA : 0.1-0.5ug/ml
Limitations	This Importin subunit alpha-1 antibody is available for research use only.



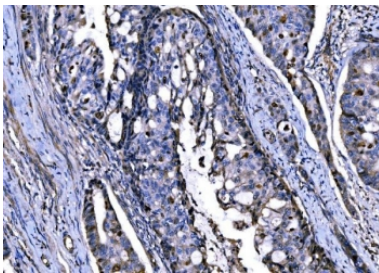
IHC staining of FFPE human lymphoma tissue with Importin subunit alpha-1 antibody.
HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



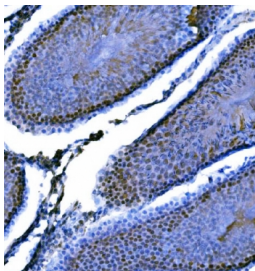
IHC staining of FFPE human lung cancer tissue with Importin subunit alpha-1 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



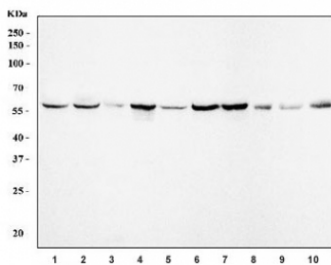
IHC staining of FFPE human tonsil tissue with Importin subunit alpha-1 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



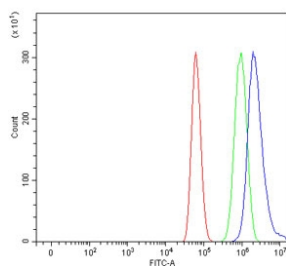
IHC staining of FFPE human adenocarcinoma of the right colon with Importin subunit alpha-1 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



IHC staining of FFPE rat testis with Importin subunit alpha-1 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Western blot testing of 1) human A549, 2) human U-251, 3) human U-2 OS, 4) human Daudi, 5) human MCF7, 6) human T-47D, 7) human Caco-2, 8) rat testis, 9) mouse testis and 10) mouse RAW264.7 cell lysate with Importin subunit alpha-1 antibody. Predicted molecular weight ~58 kDa.



Flow cytometry testing of human U-87 MG cells with Importin subunit alpha-1 antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue=Importin subunit alpha-1 antibody.

Description

Importin subunit alpha-1 is a protein that in humans is encoded by the KPNA2 gene. 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.

Application Notes

Optimal dilution of the Importin subunit alpha-1 antibody should be determined by the researcher.

Immunogen

Recombinant human protein (amino acids R51-F529) was used as the immunogen for the Importin subunit alpha-1 antibody.

Storage

After reconstitution, the Importin subunit alpha-1 antibody can be stored for up to one month at 4°C. For long-term, aliquot and store at -20°C. Avoid repeated freezing and thawing.