

Importin alpha-3 (KPNA4)Antibody (C-term)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1968a**Specification**

Importin alpha-3 (KPNA4)Antibody (C-term) - Product Information

Application	WB,E
Primary Accession	O00629
Other Accession	O35343
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	1-30

Importin alpha-3 (KPNA4)Antibody (C-term) - Additional Information**Gene ID** 3840**Other Names**

Importin subunit alpha-3, Importin alpha Q1, Qip1, Karyopherin subunit alpha-4, KPNA4, QIP1

Target/Specificity

This Importin alpha-3 (KPNA4) antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the C-terminal region of human Importin alpha-3 (KPNA4).

Dilution

WB~~1:1000

E~~Use at an assay dependent concentration.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Importin alpha-3 (KPNA4)Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Importin alpha-3 (KPNA4)Antibody (C-term) - Protein Information**Name** KPNA4 {ECO:0000303|PubMed:38512451, ECO:0000312|HGNC:HGNC:6397}**Function** Functions in nuclear protein import as an adapter protein for nuclear receptor KPNB1

(PubMed:[10567565](#), PubMed:[20818336](#), PubMed:[28760339](#), PubMed:[29042532](#), PubMed:[38512451](#)). Binds specifically and directly to substrates containing either a simple or bipartite NLS motif (PubMed:[20818336](#), PubMed:[28760339](#), PubMed:[29042532](#), PubMed:[38512451](#)). 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:[20818336](#), PubMed:[28760339](#), PubMed:[29042532](#), PubMed:[38512451](#)). 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 (PubMed:[20818336](#), PubMed:[28760339](#), PubMed:[29042532](#), PubMed:[38512451](#)). 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 (PubMed:[20818336](#), PubMed:[28760339](#), PubMed:[29042532](#), PubMed:[38512451](#)). Mediates nuclear import of AARS1, MRTFA and RANBP3 (PubMed:[10567565](#), PubMed:[20818336](#), PubMed:[28760339](#), PubMed:[38512451](#)).

Cellular Location

Cytoplasm. Nucleus

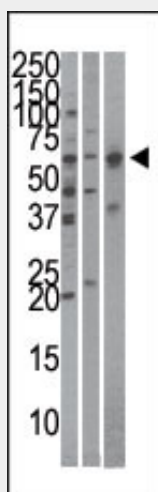
Tissue Location

Highly expressed in testis, ovary, small intestine, heart, skeletal muscle, lung and pancreas, but barely detectable in kidney, thymus, colon and peripheral blood leukocytes

Importin alpha-3 (KPNA4)Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Importin alpha-3 (KPNA4)Antibody (C-term) - Images

The anti-Importin alpha-3 Pab (Cat. #AP1968a) is used in Western blot to detect Importin alpha-3 in Hela (left), mouse brain (middle), and HepG2 (right) cell line/tissue lysates.

Importin alpha-3 (KPNA4)Antibody (C-term) - Background

The nuclear import of karyophilic proteins is directed by short amino acid sequences termed nuclear localization signals (NLSs). Karyopherins, or importins, are cytoplasmic proteins that recognize NLSs and dock NLS-containing proteins to the nuclear pore complex. The protein encoded by this gene shares the sequence similarity with *Xenopus* importin-alpha and *Saccharomyces cerevisiae* Srp1. This protein is found to interact with the NLSs of DNA helicase Q1 and SV40 T antigen.

Importin alpha-3 (KPNA4)Antibody (C-term) - References

Dvorin, J.D., et al., J. Virol. 76(23):12087-12096 (2002).
Limon, A., et al., J. Virol. 76(21):10598-10607 (2002).
Hariton-Gazal, E., et al., Biochim. Biophys. Acta 1594(2):234-242 (2002).
Depienne, C., et al., J. Biol. Chem. 276(21):18102-18107 (2001).
Bouyac-Bertoia, M., et al., Mol. Cell 7(5):1025-1035 (2001).