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KPNA1 / Importin Alpha 5 Antibody (clone 2A4-1B5)

Mouse Monoclonal Antibody
Catalog # ALS14392

Specification

KPNA1 / Importin Alpha 5 Antibody (clone 2A4-1B5) - Product Information

Application	**WB, IHC**
Primary Accession	P52294
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Calculated MW	**60kDa KDa**

KPNA1 / Importin Alpha 5 Antibody (clone 2A4-1B5) - Additional Information

Gene ID 3836

Other Names
Importin subunit alpha-5, Karyopherin subunit alpha-1, Nucleoprotein interactor 1, NPI-1, RAG cohort protein 2, SRP1-beta, Importin subunit alpha-5, N-terminally processed, KPNA1, RCH2

Target/Specificity
Human Importin Alpha-1

Reconstitution & Storage
Aliquot and store at -20°C or -80°C. Avoid freeze-thaw cycles.

Precautions
KPNA1 / Importin Alpha 5 Antibody (clone 2A4-1B5) is for research use only and not for use in diagnostic or therapeutic procedures.

KPNA1 / Importin Alpha 5 Antibody (clone 2A4-1B5) - Protein Information

Name KPNA1

Synonyms RCH2

Function
Functions in nuclear protein import as an adapter protein for nuclear receptor KPNB1 (PubMed:7892216, PubMed:8692858, PubMed:27713473). Binds specifically and directly to substrates containing either a simple or bipartite NLS motif (PubMed:7892216, PubMed:8692858, PubMed:27713473). 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:7892216, PubMed:27713473). 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:7892216). 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:7892216).

Cellular Location
Cytoplasm. Nucleus

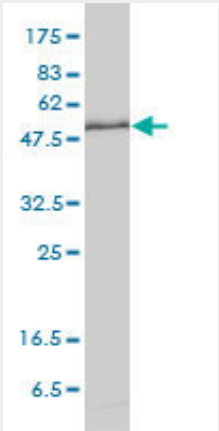
Tissue Location
Expressed ubiquitously.

KPNA1 / Importin Alpha 5 Antibody (clone 2A4-1B5) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

KPNA1 / Importin Alpha 5 Antibody (clone 2A4-1B5) - Images



Western blot of KPNA1 expression in HeLa cell lysate.

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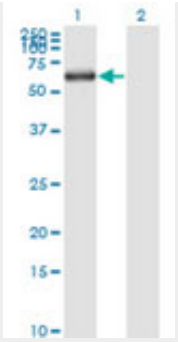
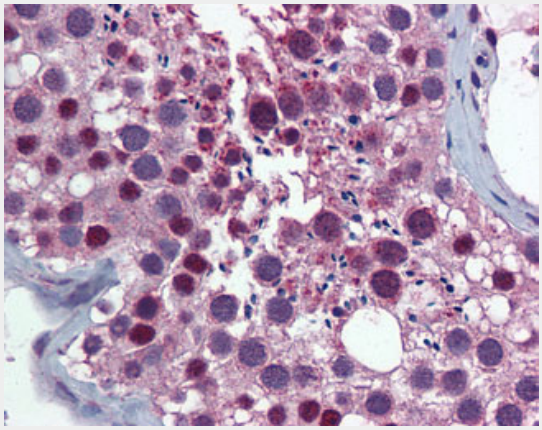


Western blot of KPNA1 expression in transfected 293T cell line by KPNA1 monoclonal antibody.



Anti-KPNA1 / SRP1 antibody IHC of human testis.

KPNA1 / Importin Alpha 5 Antibody (clone 2A4-1B5) - Background

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.

KPNA1 / Importin Alpha 5 Antibody (clone 2A4-1B5) - References

O'Neill R.E.,et al.Virology 206:116-125(1995).
Kalnine N.,et al.Submitted (OCT-2004) to the EMBL/GenBank/DDBJ databases.
Ebert L.,et al.Submitted (JUN-2004) to the EMBL/GenBank/DDBJ databases.
Muzny D.M.,et al.Nature 440:1194-1198(2006).
Mural R.J.,et al.Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.