

# **KPNA5 Antibody (N-Terminus)**

Rabbit Polyclonal Antibody Catalog # ALS15881

## **Specification**

# **KPNA5 Antibody (N-Terminus) - Product Information**

Application IHC, ICC, IF, WB

Primary Accession <u>O15131</u>

Reactivity Human, Mouse

Host Rabbit
Clonality Polyclonal
Calculated MW 60kDa KDa

# **KPNA5** Antibody (N-Terminus) - Additional Information

#### **Gene ID 3841**

#### **Other Names**

Importin subunit alpha-6, Karyopherin subunit alpha-5, KPNA5

# Target/Specificity

Human KPNA5. KPNA5 antibody is predicted to not cross-react with other Importin alpha family members.

## **Reconstitution & Storage**

Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles. Store undiluted.

#### Precautions

KPNA5 Antibody (N-Terminus) is for research use only and not for use in diagnostic or therapeutic procedures.

# **KPNA5 Antibody (N-Terminus) - Protein Information**

# Name KPNA5 (HGNC:6398)

### **Function**

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. Mediates nuclear import of STAT1 homodimers and STAT1/STAT2 heterodimers by recognizing non-classical NLSs of STAT1 and STAT2 through ARM repeats 8-9. Recognizes influenza A virus nucleoprotein through ARM repeat 7-9 In vitro, mediates the nuclear import of human cytomegalovirus UL84 by recognizing a



non-classical NLS.

**Cellular Location** Cytoplasm.

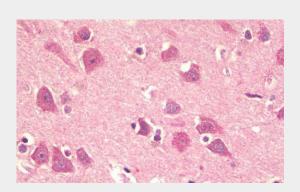
**Tissue Location** Testis.

# **KPNA5 Antibody (N-Terminus) - Protocols**

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

- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- <u>Immunofluorescence</u>
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

# **KPNA5 Antibody (N-Terminus) - Images**

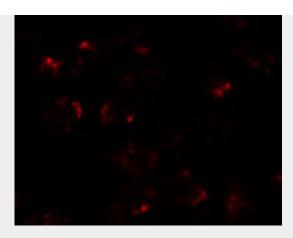


Anti-KPNA5 antibody IHC staining of human brain, cortex.

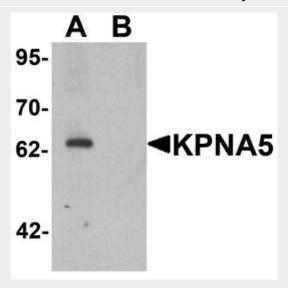


Immunocytochemistry of KPNA5 in EL4 cells with KPNA5 antibody at 5 μg/mL.





Immunofluorescence of KPNA5 in EL4 cells with KPNA5 antibody at 20 µg/mL.



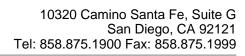
Western blot analysis of KPNA6 in EL4 cell lysate with KPNA5 antibody at 1 ug/ml in (A) the...

# **KPNA5 Antibody (N-Terminus) - 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. Mediates nuclear import of STAT1 homodimers and STAT1/STAT2 heterodimers by recognizing non- classical NLSs of STAT1 and STAT2 through ARM repeats 8-9. Recognizes influenza A virus nucleoprotein through ARM repeat 7-9 In vitro, mediates the nuclear import of human cytomegalovirus UL84 by recognizing a non-classical NLS.

#### **KPNA5 Antibody (N-Terminus) - References**

Koehler M., et al. FEBS Lett. 417:104-108(1997).
Ota T., et al. Nat. Genet. 36:40-45(2004).
Mungall A.J., et al. Nature 425:805-811(2003).
Mural R.J., et al. Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.





Melen K., et al.J. Biol. Chem. 278:28193-28200(2003).