abcam

Product datasheet

Anti-KPNA3 antibody ab6038

20 References 3 图像

概述

产品名称	Anti-KPNA3抗体
描述	**山羊多克隆抗体**to KPNA3
宿主	Goat
经测试应用	**适用于:** Flow Cyt, ICC/IF, WB
种属反应性	**与反应:** Human **预测可用于:** Dog
免疫原	Synthetic peptide: DPTANLQTKEFNF, corresponding to C terminal amino acids 509-521 of Human KPNA3. Run BLAST with ExPASy Run BLAST with NCBI
阳性对照	WB: CaCo-2 cell lysate, MCF-7 cell lysate, HEK293 cell lysate. Flow Cyt: A431 cells ICC/IF: A431 cells
常规说明	GenBank Accession Number – NP_002258. The transport of molecules between the nucleus and the cytoplasm in eukaryotic cells is mediated by the nuclear pore complex (NPC) which consists of 60-100 proteins and is probably 120 million daltons in molecular size. Small molecules (up to 70 kD) can pass through the nuclear pore by nonselective diffusion; larger molecules are transported by an active process. Most nuclear proteins contain short basic amino acid sequences known as nuclear localization signals (NLSs). KPNA3, encodes a protein similar to certain nuclear transport proteins of Xenopus and human. The predicted amino acid sequence shows similarity to Xenopus importin, yeast SRP1, and human RCH1 (KPNA2), respectively. The similarities among these proteins suggests that karyopherin alpha-3 may be involved in the nuclear transport system. The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

性能

形式	Liquid
存放说明	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
存储溶液	pH: 7.30 Preservative: 0.02% Sodium azide Constituents: Tris buffered saline, 0.5% BSA
纯度	Immunogen affinity purified
纯化说明	Purified from goat serum by ammonium sulphate precipitation followed by antigen affinity chromatography using the immunizing peptide.
Primary antibody说明	The transport of molecules between the nucleus and the cytoplasm in eukaryotic cells is mediated by the nuclear pore complex (NPC) which consists of 60-100 proteins and is probably 120 million daltons in molecular size. Small molecules (up to 70 kD) can pass through the nuclear pore by nonselective diffusion; larger molecules are transported by an active process. Most nuclear proteins contain short basic amino acid sequences known as nuclear localization signals (NLSs). KPNA3, encodes a protein similar to certain nuclear transport proteins of Xenopus and human. The predicted amino acid sequence shows similarity to Xenopus importin, yeast SRP1, and human RCH1 (KPNA2), respectively. The similarities among these proteins suggests that karyopherin alpha-3 may be involved in the nuclear transport system.
克隆	多克隆
同种型	IgG

应用

The Abpromise guarantee Abpromise™承诺保证使用ab6038于以下的经测试应用

"应用说明"部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

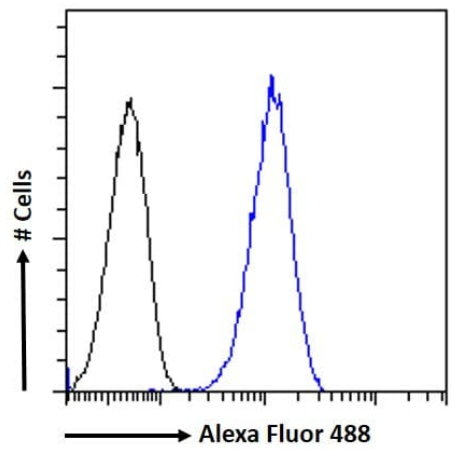
应用	Ab评论	说明
Flow Cyt		Use a concentration of 10 µg/ml.
ICC/IF		Use a concentration of 10 µg/ml.
WB		Use a concentration of 0.1 - 0.5 µg/ml. Detects a band of approximately 55-60 kDa (predicted molecular weight: 58 kDa). A 1 hour primary incubation is recommended for this product.

靶标

功能	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

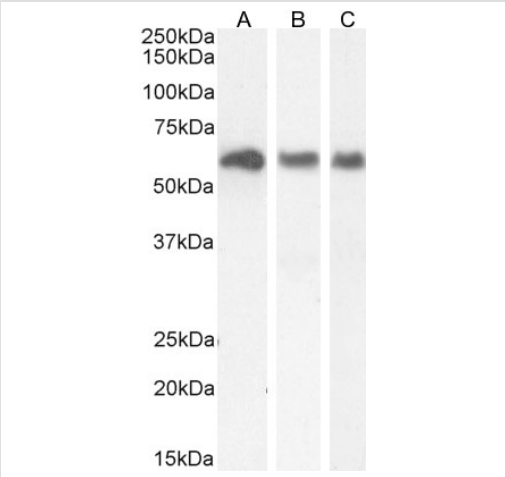
	nuclear import of human cytomegalovirus UL84 by recognizing a non-classical NLS. Recognizes NLSs of influenza A virus nucleoprotein probably through ARM repeats 7-9.
组织特异性	Ubiquitous. Highest levels in heart and skeletal muscle.
序列相似性	Belongs to the importin alpha family. Contains 10 ARM repeats. Contains 1 IBB domain.
结构域	Consists of an N-terminal hydrophilic region, a hydrophobic central region composed of 10 repeats, and a short hydrophilic C-terminus. The N-terminal hydrophilic region contains the importin beta binding domain (IBB domain), which is sufficient for binding importin beta and essential for nuclear protein import. The IBB domain is thought to act as an intrasteric autoregulatory sequence by interacting with the internal autoinhibitory NLS. Binding of KPNB1 probably overlaps the internal NLS and contributes to a high affinity for cytoplasmic NLS-containing cargo substrates. After dissociation of the importin/substrate complex in the nucleus the internal autohibitory NLS contributes to a low affinity for nuclear NLS-containing proteins. The major and minor NLS binding sites are mainly involved in recognition of simple or bipartite NLS motifs. Structurally located within in a helical surface groove they contain several conserved Trp and Asn residues of the corresponding third helices (H3) of ARM repeats which mainly contribute to binding.
细胞定位	Cytoplasm. Nucleus.

图片



Flow Cytometry - Anti-KPNA3 antibody (ab6038)

Flow cytometric analysis of paraformaldehyde fixed A431 cells (blue line), permeabilized with 0.5% Triton. Primary incubation 1hr (10µg/mL) followed by Alexa Fluor 488 secondary antibody (1µg/mL). IgG control: Unimmunized goat IgG (black line) followed by Alexa Fluor 488 secondary antibody.



Western blot - Anti-KPNA3 antibody (ab6038)

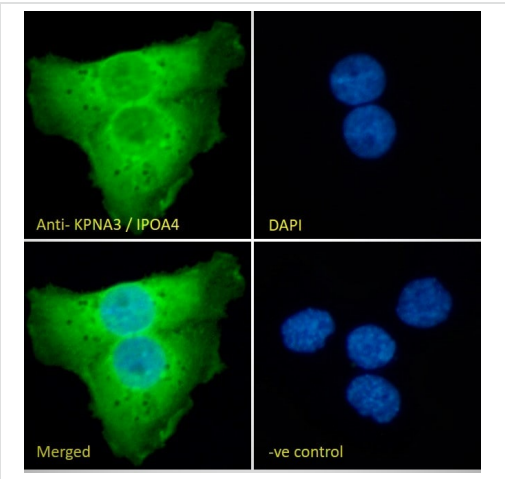
Lanes 1-2 : Anti-KPNA3 antibody (ab6038) at 0.03 µg/ml
Lane 3 : Anti-KPNA3 antibody (ab6038) at 0.01 µg/ml

Lane 1 : CaCo-2 cell lysate
Lane 2 : HEK293 cell lysate
Lane 3 : MCF-7 cell lysate

Lysates/proteins at 35 µg per lane.

Predicted band size: 58 kDa

Detected by chemiluminescence.



Immunocytochemistry/ Immunofluorescence - Anti-KPNA3 antibody (ab6038)

Immunocytochemistry/Immunofluorescence analysis of paraformaldehyde fixed A431 cells, permeabilized with 0.15% Triton. Primary incubation 1hr (10µg/mL) followed by Alexa Fluor 488 secondary antibody (2µg/mL), showing cytoplasmic and nuclear staining. The nuclear stain is DAPI (blue). Negative control: Unimmunized goat IgG (10µg/mL) followed by Alexa Fluor 488 secondary antibody (2µg/mL).

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