abcam

Product datasheet

Anti-KPNB1 antibody [OTI6H3] ab236508

3 Images

Overview

Product name	Anti-KPNB1 antibody [OTI6H3]
Description	Mouse monoclonal [OTI6H3] to KPNB1
Host species	Mouse
Tested applications	**Suitable for:** WB, IHC-P
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Recombinant fragment corresponding to Human KPNB1 aa 1-200. (NP_002256) produced in E.coli. Database link: **Q14974**
Positive control	WB: HEK-293T transfected with pCMV6-ENTRY KPNB1; HeLa, A431, NIH/3T3 and PC-12 whole cell lysates. IHC-P: Human adult heart tissue.
General notes	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

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.30 Preservative: 0.02% Sodium azide Constituents: PBS, 1% BSA, 50% Glycerol
Purity	Affinity purified
Purification notes	Purified from cell culture supernatant.
Clonality	Monoclonal
Clone number	OTI6H3

Isotype	IgG1

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab236508 in the following tested applications.

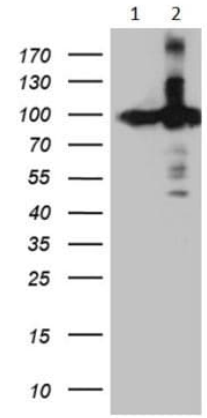
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/500 - 1/2000. Predicted molecular weight: 97 kDa.
IHC-P		1/2000. Heat-induced epitope retrieval by 1 mM EDTA in 10 mM Tris buffer (pH 8.5) at 120°C for 3 minutes

Target

Function	Functions in nuclear protein import, either in association with an adapter protein, like an importin-alpha subunit, which binds to nuclear localization signals (NLS) in cargo substrates, or by acting as autonomous nuclear transport receptor. Acting autonomously, serves itself as NLS receptor. 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 autonomously the nuclear import of ribosomal proteins RPL23A, RPS7 and RPL5. Binds to a beta-like import receptor binding (BIB) domain of RPL23A. In association with IPO7 mediates the nuclear import of H1 histone. In vitro, mediates nuclear import of H2A, H2B, H3 and H4 histones. In case of HIV-1 infection, binds and mediates the nuclear import of HIV-1 Rev. Imports PRKCI into the nucleus.
Sequence similarities	Belongs to the importin beta family. Contains 8 HEAT repeats. Contains 1 importin N-terminal domain.
Cellular localization	Cytoplasm. Nucleus envelope.

Images



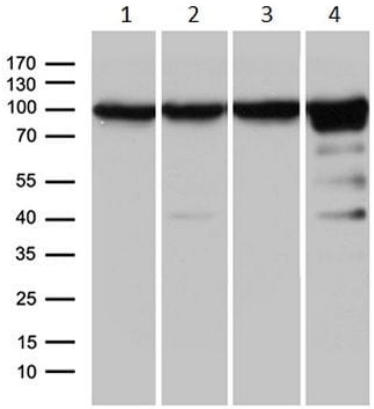
Western blot - Anti-KPNB1 antibody [OTI6H3] (ab236508)

All lanes : Anti-KPNB1 antibody [OTI6H3] (ab236508) at 1/2000 dilution

Lane 1 : HEK-293T (human epithelial cell line from embryonic kidney transformed with large T antigen) transfected with pCMV6-ENTRY control whole cell lysate
Lane 2 : HEK-293T (human epithelial cell line from embryonic kidney transformed with large T antigen) transfected with pCMV6-ENTRY KPNB1

Lysates/proteins at 5 µg per lane.

Predicted band size: 97 kDa



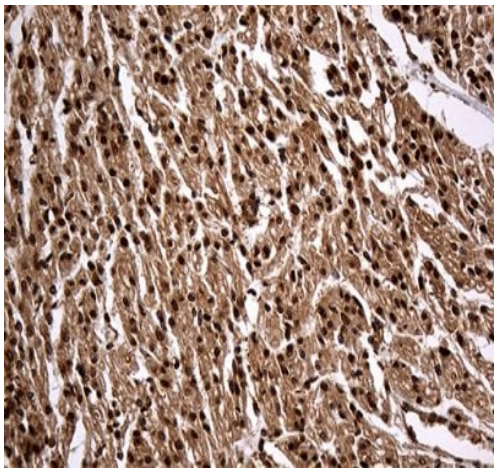
Western blot - Anti-KPNB1 antibody [OTI6H3] (ab236508)

All lanes : Anti-KPNB1 antibody [OTI6H3] (ab236508) at 1/500 dilution

Lane 1 : HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell extract
Lane 2 : A431 (human epidermoid carcinoma cell line) whole cell extract
Lane 3 : NIH/3T3 (mouse embryo fibroblast cell line) whole cell extract
Lane 4 : PC-12 (rat adrenal gland pheochromocytoma cell line) whole cell extract

Lysates/proteins at 35 µg per lane.

Predicted band size: 97 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-KPNB1 antibody [OTI6H3] (ab236508)

Paraffin-embedded human adult heart tissue stained for KPNB1 using ab236508 at 1/2000 dilution in immunohistochemical analysis.

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