

Anti-KPNB1 antibody [3E9] ab2811

★★★★★ [19 Abreviews](#) [58 References](#) [画像数 12](#)

製品の概要

製品名	Anti-KPNB1 antibody [3E9]
製品の詳細	Mouse monoclonal [3E9] to KPNB1
由来種	Mouse
アプリケーション	適用あり: Flow Cyt, IP, WB, ICC/IF
種交差性	交差種: Mouse, Rat, Human
免疫原	Full length native protein (purified) corresponding to Cow KPNB1. Purified from Bovine erythrocytes. Database link: E1BFV0
ポジティブ・コントロール	WB: HeLa, Caco-2, NIH/3T3, U251 MG, HepG2 and C6 whole cell lysates. ICC: HMVEC cells, PTK cells. Flow Cyt: PC-12, Jurkat and NIH 3T3 cells.
特記事項	<p>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.</p> <p>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</p>

製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
バッファー	Preservative: 0.05% Sodium azide Constituent: PBS
精製度	Protein A purified
一次抗体 備考	The accumulation of proteins in the nucleus is mediated by short sequences of basic amino acids called nuclear localization sequences (NLSs). These sequences are necessary and sufficient to direct a protein or inert carrier to the nuclear interior. Nuclear protein import is accomplished by two sequential, energy dependent events. The first step, docking at the nuclear pore complex, requires a 54/56 kDa nuclear localization signal receptor (α-karyopherin, importin-α, SRP-α) and

the nuclear transport factor p97 (NTF 97, b-karyopherin, importin-b). The second step, translocation across the nuclear envelope (NE), requires the GTP-binding protein, Ran/TC4.

ポリ/モノ	モノクローナル
クローン名	3E9
アイソタイプ	IgG2a

アプリケーション

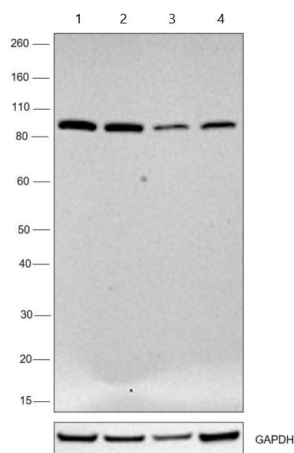
The Abpromise guarantee **Abpromise保証は、次のテスト済みアプリケーションにおけるab2811の使用に適用されます**
アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご確認ください。

アプリケーション	Abreviews	特記事項
Flow Cyt		1/100. ab170191 - Mouse monoclonal IgG2a, is suitable for use as an isotype control with this antibody.
IP		Use at an assay dependent concentration.
WB	★★★★★ (16)	1/5000. Detects a band of approximately 97 kDa (predicted molecular weight: 97 kDa).
ICC/IF	★★★★★ (3)	1/1000.

ターゲット情報

機能	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.
配列類似性	Belongs to the importin beta family. Contains 8 HEAT repeats. Contains 1 importin N-terminal domain.
細胞内局在	Cytoplasm. Nucleus envelope.

画像



Western blot - Anti-KPNB1 antibody [3E9] (ab2811)

All lanes : Anti-KPNB1 antibody [3E9] (ab2811) at 1/5000 dilution

Lane 1 : HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell lysate

Lane 2 : Caco-2 (human colorectal adenocarcinoma cell line) whole cell lysate

Lane 3 : HepG2 (human liver hepatocellular carcinoma cell line) whole cell lysate

Lane 4 : NIH/3T3 (mouse embryo fibroblast cell line) whole cell lysate

Lysates/proteins at 30 µg per lane.

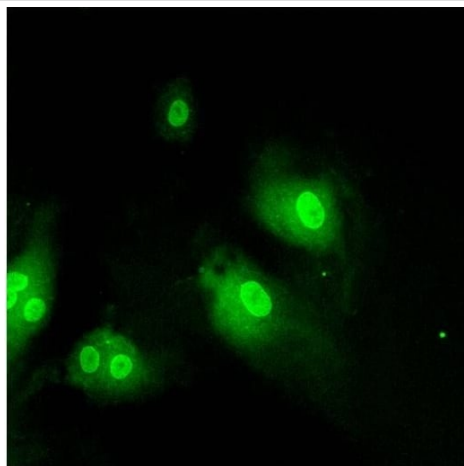
Secondary

All lanes : Goat anti-Mouse IgG H+L (HRP) at 1/4000 dilution

Developed using the ECL technique.

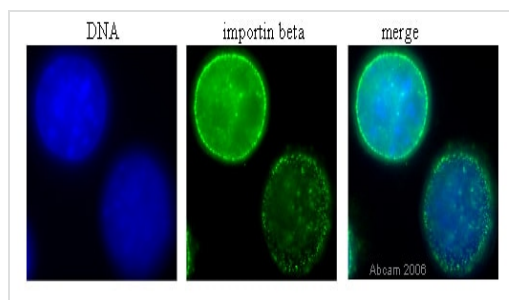
Predicted band size: 97 kDa

Observed band size: 97 kDa



Immunocytochemistry/ Immunofluorescence - Anti-KPNB1 antibody [3E9] (ab2811)

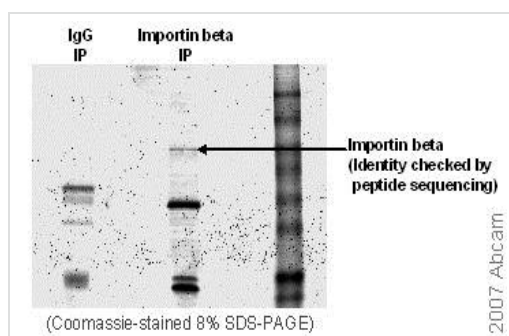
Immunofluorescent analysis of HMVEC (Human Lung Microvascular Endothelial cells) cells stained for KPNB1 using ab2811.



Immunocytochemistry/ Immunofluorescence - Anti-KPNB1 antibody [3E9] (ab2811)

This image is courtesy of Roberto Giamb Bruno, Marilena Ciciarello and Patrizia Lavia

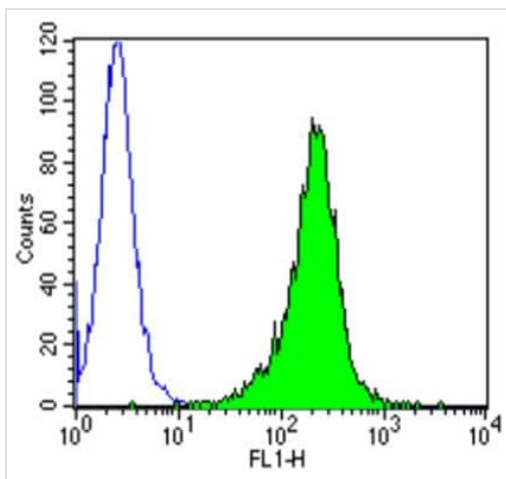
NIH/3T3 (Mouse embryo fibroblast cell line) cells were incubated for 4 minutes in PHEM/1%triton, washed for 2 minutes in 1x PHEM and fixed for 10 minutes at room temperature in 3.7% PFA containing 30mM sucrose. Following washing in PBS, the cells were incubated for 2 minutes in 100% Methanol at -20°C, then washed 3 times in PBS. The cells were then incubated with ab2811 (1/200) for 1 hour at room temperature. The image panel shows the nuclei stained with DAPI (blue) and the nuclear envelope and cytoplasm stained with ab2811 (green). 100x magnification.



Immunoprecipitation - Anti-KPNB1 antibody [3E9] (ab2811)

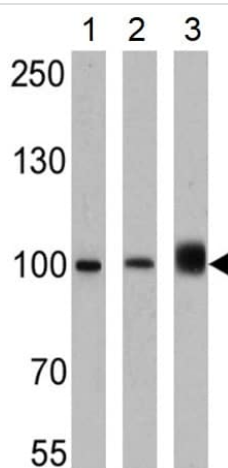
Image and protocol courtesy of Rosamaria Mangiacasale and Patrizia Lavia, University 'La Sapienza' CNR, Italy

Immunoprecipitation of Importin beta, in HeLa (Human epithelial cell line from cervix adenocarcinoma) cells, using ab2811. Coomassie-stained 8% SDS-page gel was loaded with IP fractions obtained by incubating 2 mg of pre-cleared HeLa whole cell extracts with 4µg ab2811 or 4µg IgG (control). The Importin band (see arrow) was cut out of the gel and its identity confirmed by Mass Spectrometry. Please refer to protocol tab for further experimental details.



Flow Cytometry - Anti-KPNB1 antibody [3E9]
(ab2811)

Flow cytometry analysis of KPNB1 in Jurkat (Human T cell leukemia cell line from peripheral blood) cells (green) compared to an isotype control (blue). Cells were harvested, adjusted to a concentration of $1-5 \times 10^6$ cells/ml, fixed with 2% paraformaldehyde and washed with PBS. Cells were blocked with a 2% solution of BSA-PBS for 30 min at room temperature and incubated with ab2811 (1 μ g/test) for 40 min at room temperature. Cells were then incubated for 40 min at room temperature in the dark using a Dylight 488-conjugated secondary antibody and re-suspended in PBS for FACS analysis.



Western blot - Anti-KPNB1 antibody [3E9] (ab2811)

All lanes : Anti-KPNB1 antibody [3E9] (ab2811) at 1/50 dilution

Lane 1 : U-251 MG (Human brain glioma cell line) whole cell lysate

Lane 2 : HepG2 (Human liver hepatocellular carcinoma cell line) whole cell lysate

Lane 3 : C6 (Rat glial tumor cell line) whole cell lysate

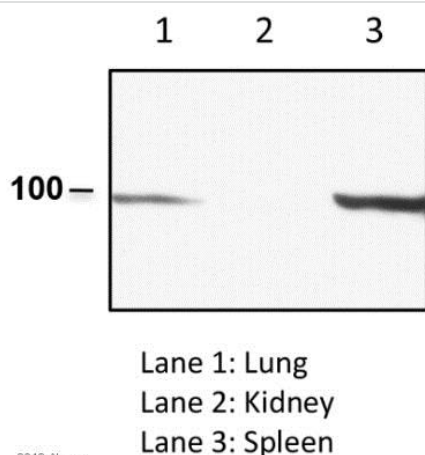
Lysates/proteins at 25 μ g per lane.

Secondary

All lanes : HRP-conjugated secondary antibody

Predicted band size: 97 kDa

Observed band size: 100 kDa



Lane 1: Lung
Lane 2: Kidney
Lane 3: Spleen

2013 Abcam

Western blot - Anti-KPNB1 antibody [3E9] (ab2811)

This image is courtesy of an anonymous Abreview

All lanes : Anti-KPNB1 antibody [3E9] (ab2811) at 1/2000 dilution

Lane 1 : Mouse lung whole tissue lysate

Lane 2 : Mouse kidney whole tissue lysate

Lane 3 : Mouse spleen whole tissue lysate

Secondary

All lanes : HRP-conjugated Goat anti-mouse IgG polyclonal at 1/5000 dilution

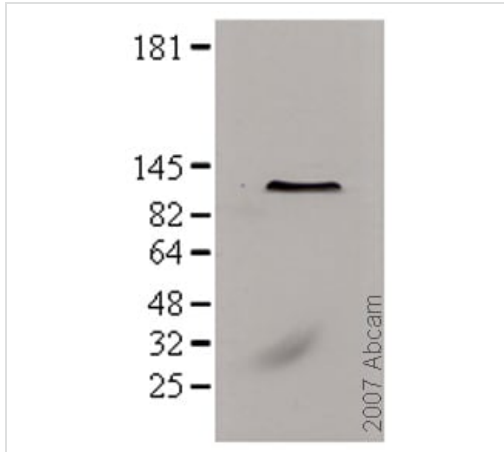
Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 97 kDa

Observed band size: 97 kDa

Exposure time: 3 minutes



Western blot - Anti-KPNB1 antibody [3E9] (ab2811)

Image and protocol courtesy of Rosamaria Mangiacasale and Patrizia Lavia, University 'La Sapienza' CNR, Italy

Anti-KPNB1 antibody [3E9] (ab2811) at 1/5000 dilution + HeLa Whole cell extract

Secondary

HRP-conjugated anti mouse IgG at 1/5000 dilution

Performed under reducing conditions.

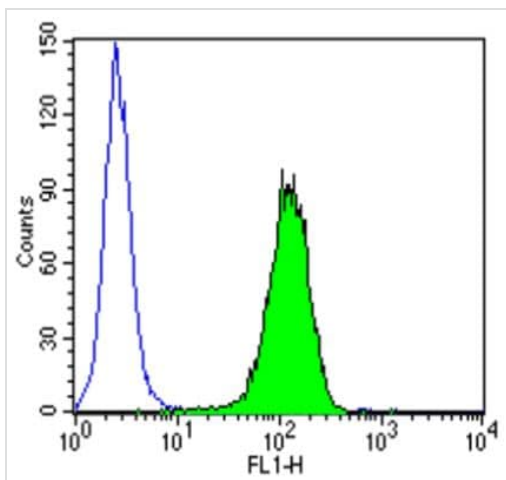
Predicted band size: 97 kDa

HeLa whole cell extract was run on a 10%SDS-PAGE and transferred to PVDF membrane. Membrane was blocked for 30 mins in TBS/0.1% Tween/ 5% Milk; ab2811 (1/5000) was incubated for 1 hr in TBS/0.1%Tween/5% Milk and followed by 3 washes in TBS/ 0.1%Tween (3x 7 mins). Secondary antibody was incubated for 30 mins in a TBS/ 0.1% Tween solution.This was followed by 3 washes with the TBST solution (3x7 mins) and one wash in TBS. Western blot developed using ECL plus (Amersham).



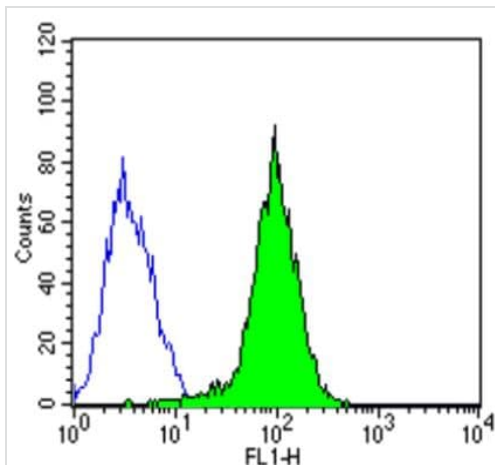
Immunocytochemistry/ Immunofluorescence - Anti-KPNB1 antibody [3E9] (ab2811)

Immunolocalization of KPNB1 in PTK (Long-nosed potoroo epithelial kidney cell line) cells using ab2811.



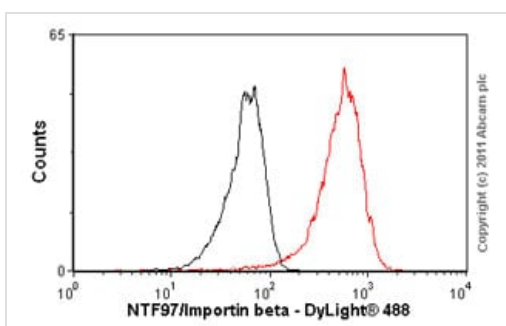
Flow Cytometry - Anti-KPNB1 antibody [3E9]
(ab2811)

Flow cytometry analysis of KPNB1 in PC-12 (Rat adrenal gland pheochromocytoma cell line) cells (green) compared to an isotype control (blue). Cells were harvested, adjusted to a concentration of $1-5 \times 10^6$ cells/ml, fixed with 2% paraformaldehyde and washed with PBS. Cells were blocked with a 2% solution of BSA-PBS for 30 min at room temperature and incubated with ab2811 (1 μ g/test) for 40 min at room temperature. Cells were then incubated for 40 min at room temperature in the dark using a Dylight 488-conjugated secondary antibody and re-suspended in PBS for FACS analysis.



Flow Cytometry - Anti-KPNB1 antibody [3E9]
(ab2811)

Flow cytometry analysis of KPNB1 in 3T3 cells (green) compared to an isotype control (blue). Cells were harvested, adjusted to a concentration of $1-5 \times 10^6$ cells/ml, fixed with 2% paraformaldehyde and washed with PBS. Cells were blocked with a 2% solution of BSA-PBS for 30 min at room temperature and incubated with ab2811 (1 μ g/test) for 40 min at room temperature. Cells were then incubated for 40 min at room temperature in the dark using a Dylight 488-conjugated secondary antibody and re-suspended in PBS for FACS analysis.



Flow Cytometry - Anti-KPNB1 antibody [3E9]
(ab2811)

Overlay histogram showing Jurkat cells stained with ab2811 (red line). The cells were fixed with 4% paraformaldehyde (10 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab2811, 1/100 dilution) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) ([ab96879](#)) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG2a [ICIGG2A] ([ab91361](#), 2 μ g/ 1×10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a positive signal in Jurkat cells fixed with methanol (5 min)/permeabilized in 0.1% PBS-Tween used under the same

conditions.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.co.jp/abpromise> or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors