abcam

Product datasheet

Anti-Transportin 1 antibody [D45] ab10303

★★★★★ 3 Abreviews　18 References　画像数 5

製品の概要

製品名	Anti-Transportin 1 antibody [D45]
製品の詳細	Mouse monoclonal [D45] to Transportin 1
由来種	Mouse
アプリケーション	**適用あり:** Flow Cyt, ICC/IF, IHC-P, ELISA, WB, IP
種交差性	**交差種:** Mouse, Rabbit, Human, Monkey
免疫原	Recombinant his-Transportin 1 (Human)
特記事項	Heterogeneous nuclear ribonucleoprotein hnRNPA1 is an abundant nuclear protein that plays an important role in pre-mRNA processing and mRNA export from the nucleus. A1 shuttles rapidly between the nucleus and the cytoplasm, and a 38-amino acid domain, M9, serves as the bi-directional transport signal of A1. Recently, a 90-kD protein, transportin, was identified as the mediator of A1 nuclear import. Transportin mediates the nuclear import of additional hnRNP proteins, including hnRNPF. The nuclear localization of A1 is dependent on ongoing RNA polymerase II transcription.

製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
バッファー	Preservative: 0.1% Sodium azide Constituent: PBS
精製度	Protein A purified
特記事項（精製）	Protein A purified from tissue culture supernatant.
一次抗体 備考	Heterogeneous nuclear ribonucleoprotein hnRNPA1 is an abundant nuclear protein that plays an important role in pre-mRNA processing and mRNA export from the nucleus. A1 shuttles rapidly between the nucleus and the cytoplasm, and a 38-amino acid domain, M9, serves as the bi-directional transport signal of A1. Recently, a 90-kD protein, transportin, was identified as the mediator of A1 nuclear import. Transportin mediates the nuclear import of additional hnRNP proteins, including hnRNPF. The nuclear localization of A1 is dependent on ongoing RNA polymerase II transcription.

ポリ/モノ	**モノクローナル**
クローン名	D45
ミエローマ	Sp2/0
アイソタイプ	IgG1

アプリケーション

Our Abpromise guarantee covers the use of **ab10303** in the following tested applications.

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

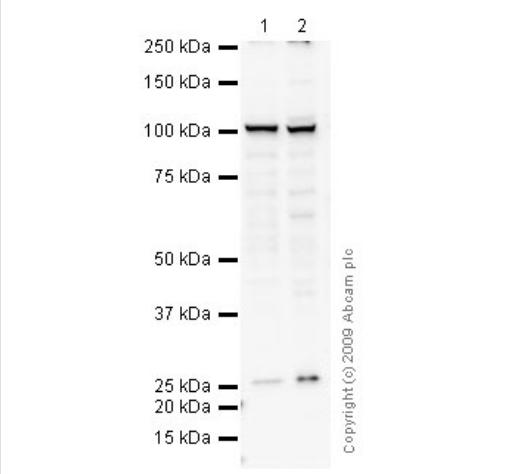
アプリケーション	Abreviews	特記事項
Flow Cyt		Use 1µg for 10^6 cells. ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.
ICC/IF	★★★★☆	Use a concentration of 5 µg/ml.
IHC-P		Use a concentration of 1 µg/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
ELISA		Use at an assay dependent concentration.
WB	★★★★★	Use at an assay dependent concentration. Detects a band of approximately 93 kDa (predicted molecular weight: 107 kDa).
IP	★★★★★	Use at an assay dependent concentration.

ターゲット情報

機能	Functions in nuclear protein import as nuclear transport receptor. Serves as receptor for nuclear localization signals (NLS) in cargo substrates. Is thought to mediate docking of the importin/substrate complex to the nuclear pore complex (NPC) through binding to nucleoporin 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 the importin, the importin/substrate complex dissociates and importin is re-exported from the nucleus to the cytoplasm where GTP hydrolysis releases Ran. 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 (By similarity). Involved in nuclear import of M9-containing proteins. In vitro, binds directly to the M9 region of the heterogeneous nuclear ribonucleoproteins (hnRNP), A1 and A2 and mediates their nuclear import. Appears also to be involved in hnRNP A1/A2 nuclear export. Mediates the nuclear import of ribosomal proteins RPL23A, RPS7 and RPL5. Binds to a beta-like import receptor binding (BIB) domain of RPL23A. In vitro, mediates nuclear import of H2A, H2B, H3 and H4 histones, and SRP19. In case of HIV-1 infection, binds and mediates the nuclear import of HIV-1 Rev.
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.

画像



Western blot - Anti-Transportin 1 antibody [D45] (ab10303)

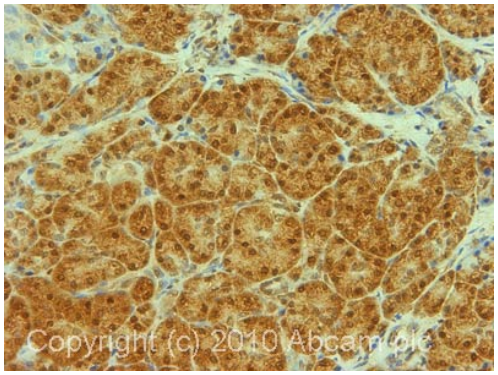
All lanes : Anti-Transportin 1 antibody [D45] (ab10303) at 5 µg/ml

Lane 1 : HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate
Lane 2 : SW480 (Human colon adenocarcinoma cell line) Whole Cell Lysate

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : Goat polyclonal to Mouse IgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

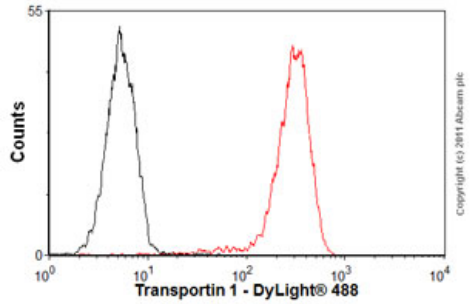
Predicted band size: 107 kDa
Observed band size: 107 kDa
Additional bands at: 25 kDa. We are unsure as to the identity of these extra bands.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Transportin 1 antibody [D45] (ab10303)

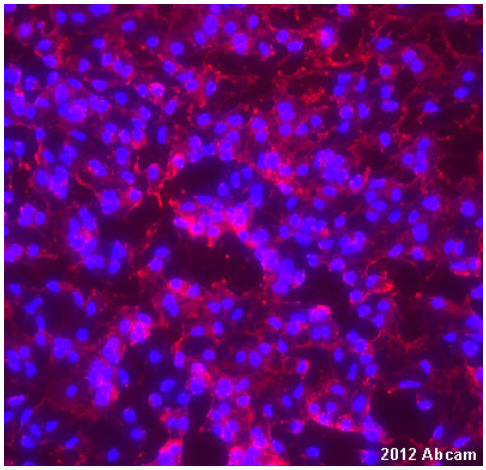
IHC image of ab10303 staining in human pancreas formalin fixed paraffin embedded tissue section, performed on a Leica Bond™ system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab10303, 1µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.



Flow Cytometry - Anti-Transportin 1 antibody [D45] (ab10303)

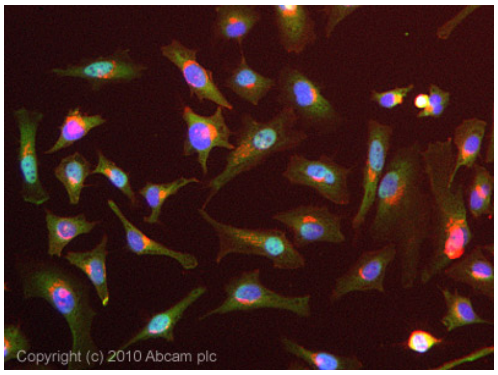
Overlay histogram showing HeLa cells stained with ab10303 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab10303, 1µg/1x10^6 cells) for 30 min at 22ºC. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (ab96879) at 1/500 dilution for 30 min at 22ºC. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] (ab91353, 2µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed.



Immunocytochemistry/ Immunofluorescence - Anti-Transportin 1 antibody [D45] (ab10303)

This image is courtesy of an Abreview submitted by Ruma Raha-Chowdhury

ab10303 staining cultured P0 mouse neurons by ICC/IF. The cultured neurons were fixed with 4% formaldehyde for 5 minutes and blocked with 10% donkey serum in 0.1% PBS-0.3% Triton X for 30 minutes at 24°C. The cultured neurons were then stained with ab10303 at 1/1000 in 0.3% TritonX with 0.1x PBS and 10% donkey serum for 4h at 24°C. An Alexa Fluro 568 donkey anti-mouse polyclonal antibody at 1/1000 was used as the secondary antibody. Hoechst was used to stain the cell nuclei (blue) at a concentration of 1.43µM



Immunocytochemistry/ Immunofluorescence - Anti-Transportin 1 antibody [D45] (ab10303)

ICC/IF image of ab10303 stained HeLa cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab10303, 5µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-mouse IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

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