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Product datasheet

Anti-Transportin 1/MIP antibody [D45] ab10303

★★★★★ 7 Abreviews 32 References 5 图像

概述

产品名称 Anti-Transportin 1/MIP抗体[D45]

小鼠单**克隆抗体**[D45] to Transportin 1/MIP

宿主 Mouse

经测试应用 适用于: Flow Cyt, ICC/IF, IHC-P, WB

种属反应性 与反应: Human

免疫原 Recombinant fragment corresponding to Human Transportin 1/MIP.

Database link: Q92973

阳性对照 WB: HeLa and SW480 whole cell lysate. IHC-P: Human pancreas tissue. Flow Cyt: HeLa cells.

ICC/IF: HeLa cells.

常规说明 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.

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 Preservative: 0.1% Sodium azide

Constituent: PBS

1

纯**度** Protein A purified

纯**化**说明 Protein A purified from tissue culture supernatant.

Primary antibody说明

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 bidirectional 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.

 克隆
 单克隆

 克隆编号
 D45

 骨髓瘤
 Sp2/0

 同种型
 IgG1

应用

The Abpromise guarantee Abpromise™承诺保证使用ab10303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 1µg for 10 ⁶ cells. ab170190 - Mouse monoclonal lgG1, is suitable for use as an isotype control with this antibody.
ICC/IF	★★★★ <u>(2)</u>	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.
WB	★★★★★ (3)	Use at an assay dependent concentration. Detects a band of approximately 93 kDa (predicted molecular weight: 107 kDa).

靶标

功能

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.

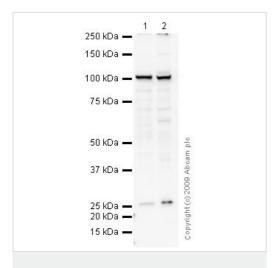
序列相似性 Belongs to the importin beta family.

Contains 8 HEAT repeats.

Contains 1 importin N-terminal domain.

细胞定位 Cytoplasm. Nucleus.

图片



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

All lanes : Anti-Transportin 1/MIP antibody [D45] (ab10303) at 5 $\mu g/ml$

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.

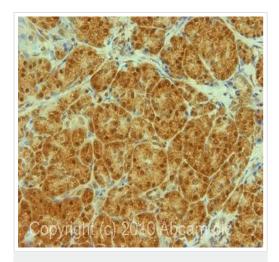
Secondary

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

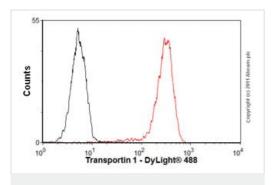
these extra bands.



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

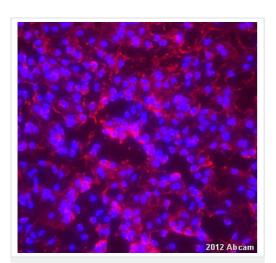
IHC image of ab10303 staining in human pancreas formalin fixed paraffin embedded tissue section, performed on a Leica BondTM system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. 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/MIP antibody [D45] (ab10303)

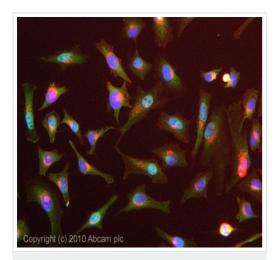
Overlay histogram showing HeLa cells stained with ab10303 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab10303, 1 μ g/1x10⁶ cells) 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 IgG1 [ICIGG1] (ab91353, 2 μ g/1x10⁶ cells) used under the same conditions. Acquisition of >5,000 events was performed.



Immunocytochemistry/ Immunofluorescence - Anti-Transportin 1/MIP 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 antimouse polyclonal antibody at 1/1000 was used as the secondary antibody. Hoechst was used to stain the cell nuclei (blue) at a concentration of $1.43\mu M$



Immunocytochemistry/ Immunofluorescence - Anti-Transportin 1/MIP 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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