abcam

Product datasheet

Anti-PRAS40 antibody [EPR6263(2)] ab151719



ייבער RabMAb

5 References 画像数5

製品の概要

製品名 Anti-PRAS40 antibody [EPR6263(2)]

製品の詳細 Rabbit monoclonal [EPR6263(2)] to PRAS40

由来種 Rabbit

アプリケーション 適用あり: WB, IHC-P, Flow Cyt (Intra)

適用なし: ICC/IF

種交差性 交差種: Mouse, Human

免疫原 Synthetic peptide within Human PRAS40 aa 150-250. The exact sequence is proprietary.

Database link: Q96B36

ポジティブ・コントロール 293T, SHSY5Y, HeLa and NIH 3T3 cell lysates; Human liver tissue; 293T cells.

特記事項 This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility

- Improved sensitivity and specificity

- Long-term security of supply

- Animal-free production

For more information see here.

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

Rat: We have preliminary internal testing data to indicate this antibody may not react with this

species. Please contact us for more information.

製品の特性

製品の状態 Liquid

保存方法 Shipped at 4°C. Store at -20°C.

バッファー pH: 7.2

Preservative: 0.01% Sodium azide

Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.5% BSA

精製度 Protein A purified ポリ/モノ モノクローナル

クローン名

EPR6263(2)

アイソタイプ

lgG

アプリケーション

The Abpromise guarantee <u>Abpromise保証は、</u>次のテスト済みアプリケーションにおけるab151719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検討ください。

アプリケーション	Abreviews	特記事項
WB		1/1000 - 1/10000. Detects a band of approximately 40 kDa (predicted molecular weight: 27 kDa).
IHC-P		1/50 - 1/100. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
Flow Cyt (Intra)		1/10 - 1/100. ab172730 - Rabbit monoclonal lgG, is suitable for use as an isotype control with this antibody.

追加情報

Is unsuitable for ICC/IF.

ターゲット情報

機能

Subunit of mTORC1, which regulates cell growth and survival in response to nutrient and hormonal signals. mTORC1 is activated in response to growth factors or amino-acids. Growth factorstimulated mTORC1 activation involves a AKT1-mediated phosphorylation of TSC1-TSC2, which leads to the activation of the RHEB GTPase that potently activates the protein kinase activity of mTORC1. Amino-acid-signaling to mTORC1 requires its relocalization to the lysosomes mediated by the Ragulator complex and the Rag GTPases. Activated mTORC1 up-regulates protein synthesis by phosphorylating key regulators of mRNA translation and ribosome synthesis. mTORC1 phosphorylates EIF4EBP1 and releases it from inhibiting the elongation initiation factor 4E (eiF4E). mTORC1 phosphorylates and activates S6K1 at 'Thr-389', which then promotes protein synthesis by phosphorylating PDCD4 and targeting it for degradation. Within mTORC1, AKT1S1 negatively regulates mTOR activity in a manner that is dependent on its phosphorylation state and binding to 14-3-3 proteins. Inhibits RHEB-GTP-dependent mTORC1 activation. Substrate for AKT1 phosphorylation, but can also be activated by AKT1-independent mechanisms. May also play a role in nerve growth factor-mediated neuroprotection.

組織特異性

Widely expressed with highest levels of expression in liver and heart. Expressed at higher levels in cancer cell lines (e.g. A549 and HeLa) than in normal cell lines (e.g. HEK293).

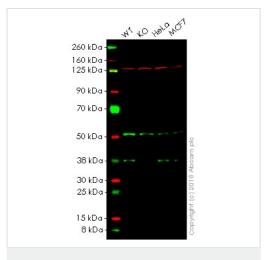
翻訳後修飾

Phosphorylated by AKT1. Phosphorylation relieves inhibitory function on mTORC1.

細胞内局在

Cytoplasm > cytosol. Found in the cytosolic fraction of the brain.

画像



Western blot - Anti-PRAS40 antibody [EPR6263(2)] (ab151719)

All lanes : Anti-PRAS40 antibody [EPR6263(2)] (ab151719) at 1/1000 dilution

Lane 1: Wild-type HAP1 whole cell lysate

Lane 2: AKT1S1 knockout HAP1 whole cell lysate

Lane 3 : HeLa whole cell lysate

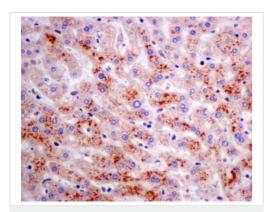
Lane 4: MCF-7 whole cell lysate

Lysates/proteins at 20 µg per lane.

Predicted band size: 27 kDa Observed band size: 40 kDa

Lanes 1 - 4: Merged signal (red and green). Green - ab151719 observed at 27 kDa. Red - loading control, <u>ab130007</u>, observed at 124 kDa.

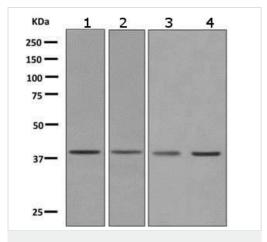
ab151719 was shown to recognize PRAS40 in wild-type HAP1 cells as signal was lost at the expected MW in AKT1S1 knockout cells. Additional cross-reactive bands were observed in the wild-type and knockout cells. Wild-type and AKT1S1 knockout samples were subjected to SDS-PAGE. Ab151719 and ab130007 (Mouse anti-Vinculin loading control) were incubated overnight at 4°C at 1/1000 dilution and 1/20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed ab216773 and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed ab216776 secondary antibodies at 1/20000 dilution for 1 hour at room temperature before imaging.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-PRAS40 antibody
[EPR6263(2)] (ab151719)

Immunohistochemical analysis of paraffin-embedded Human liver tissue labeling PRAS40 with ab151719 at 1/50 dilution.

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Western blot - Anti-PRAS40 antibody [EPR6263(2)] (ab151719)

All lanes : Anti-PRAS40 antibody [EPR6263(2)] (ab151719) at 1/1000 dilution

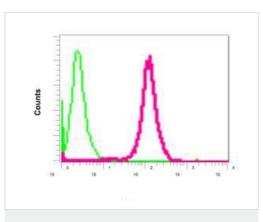
Lane 1: 293T cell lysate
Lane 2: SHSY5Y cell lysate
Lane 3: HeLa cell lysate
Lane 4: NIH 3T3 cell lysate

Lysates/proteins at 10 µg per lane.

Secondary

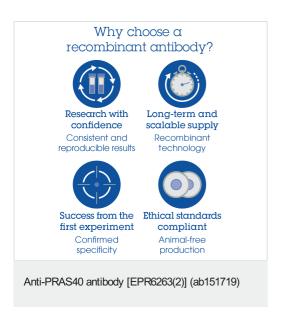
All lanes: Goat anti-rabbit HRP at 1/2000 dilution

Predicted band size: 27 kDa **Observed band size:** 40 kDa



Flow Cytometry (Intracellular) - Anti-PRAS40 antibody [EPR6263(2)] (ab151719)

Intracellular flow cytometric analysis of permeabilized 293T cells labeling PRAS40 with ab151719 at 1/10 dilution (red), compared to a nonspecific control antibody (green).



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