abcam

Product datasheet

Anti-IRS2 antibody [EPR904(2)] ab134101



ייבע RabMAb

26 References 画像数 13

製品の概要

製品名 Anti-IRS2 antibody [EPR904(2)]

製品の詳細 Rabbit monoclonal [EPR904(2)] to IRS2

由来種 Rabbit

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

種交差性 交差種: Mouse, Rat, Human

免疫原 Synthetic peptide within Human IRS2 aa 1300 to the C-terminus (C terminal). The exact sequence

is proprietary.

ポジティブ・コントロール WB: HEK293, HEK293 (treated with insulin), and NIH/3T3 (treated with insulin) and SH-SY5Y cell

> lysates; A375 (human malignant melanoma epithelial cell) and A549 whole cell lysates IHC-P: Human kidney, breast and muscle tissues and rat kidney tissue. ICC/IF: SH-SY5Y cells. HEK293

WT cells (HEK293-IRS2 KO used as a negative cell line). Flow Cyt (intra): HeLa 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**.

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.

Stable for 12 months at -20°C.

バッファー pH: 7.2

Preservative: 0.01% Sodium azide

Constituents: 40% Glycerol, 0.05% BSA, 59% PBS

精製度 Protein A purified

ポリモノ モノクローナル

クローン名 EPR904(2)

ΙgG

アイソタイプ

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ab134101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
Flow Cyt (Intra)		1/100 - 1/1000. ab172730 - Rabbit monoclonal lgG, is suitable for use as an isotype control with this antibody.
WB		1/1000 - 1/10000. Detects a band of approximately 170-185 kDa (predicted molecular weight: 137 kDa). Although some papers support the expression in liver (PMID: 30202052), A549 (PMID: 30988063), NCI-H1299 (PMID: 30988063), LADMAC (PMID: 29115630), MDA-MB-231 (PMID: 29685905) and MEF (PMID: 30679431), ab134101 can't detect the target band in these samples, even at the dilution of 1:200
IHC-P		1/50 - 1/500. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
ICC/IF		1/300.

ターゲット情報

機能 May mediate the control of various cellular processes by insulin.

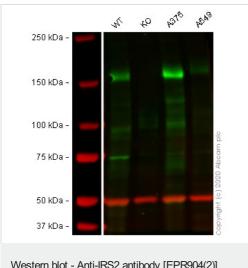
配列類似性 Contains 1 IRS-type PTB domain.

Contains 1 PH domain.

翻訳後修飾 Phosphorylated upon DNA damage, probably by ATM or ATR.

細胞内局在 Cytoplasm > cytosol.

画像



Western blot - Anti-IRS2 antibody [EPR904(2)] (ab134101)

All lanes: Anti-IRS2 antibody [EPR904(2)] (ab134101) at 1/1000 dilution

Lane 1 : Wild-type HEK-293 (Human epithelial cell line from embryonic kidney) whole cell lysate

Lane 2: IRS2 knockout HEK-293 (Human epithelial cell line from embryonic kidney) whole cell lysate

Lane 3: A-375 cell lysate

Lane 4: A549 (Human lung carcinoma cell line) whole cell lysate

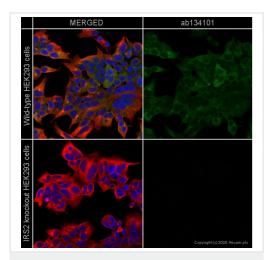
Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

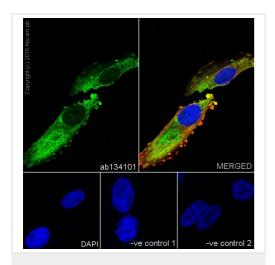
Predicted band size: 137 kDa **Observed band size:** 160 kDa

Lanes 1 - 4: Merged signal (red and green). Green - ab134101 observed at 160 kDa. Red - loading control <u>ab7291</u> (Mouse anti-Alpha Tubulin [DM1A]) observed at 55kDa.

ab134101 was shown to react with IRS2 in wild-type HEK-293 cells in western blot with loss of signal observed in IRS2 knockout sample. Wild-type and IRS2 knockout HEK-293 cell lysates were subjected to SDS-PAGE. Membranes were blocked in 3% milk in TBS-T (0.1% Tween®) before incubation with ab134101 and ab7291 (Mouse anti-Alpha Tubulin [DM1A]) overnight at 4°C at a 1 in 1000 Dilution and a 1 in 20000 dilution respectively. Blots were incubated 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 in 20000 dilution for 1 hour at room temperature before imaging.



Immunocytochemistry/ Immunofluorescence - Anti-IRS2 antibody [EPR904(2)] (ab134101)



Immunocytochemistry/ Immunofluorescence - Anti-IRS2 antibody [EPR904(2)] (ab134101)

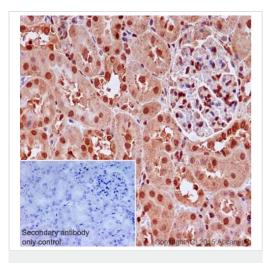
ab134101 staining IRS2 in wild-type HEK293 cells (top panel) and IRS2 knockout HEK293 cells (bottom panel). The cells were fixed with 4% paraformaldehyde (10 min) permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated with ab134101 at 1/500 and ab7291 (Mouse monoclonal to alpha Tubulin) at 1/1000 dilution overnight at +4°C, followed by a further incubation at room temperature for 1h with a goat secondary antibody to rabbit IgG (Alexa Fluor® 488) (ab150081) at 2 µg/ml (shown in green) and a goat secondary antibody to mouse IgG (Alexa Fluor® 594) (ab150120) at 2 µg/ml (shown in red). Nuclear DNA was labelled in blue with DAPI. Image was taken with a confocal microscope (Leica-Microsystems,

TCS SP8).

Immunocytochemistry/Immunofluorescence analysis of SH-SY5Y cells labelling IRS2 with purified ab134101 at 1/300. Cells were fixed with 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. ab150077, an Alexa Fluor® 488-conjugated goat antirabbit IgG (1/1000) was used as the secondary antibody. DAPI (blue) was used as the nuclear counterstain. ab7291, a mouse antitubulin (1/1000) and ab150120, an Alexa Fluor® 594-conjugated goat anti-mouse IgG (1/1000) were also used.

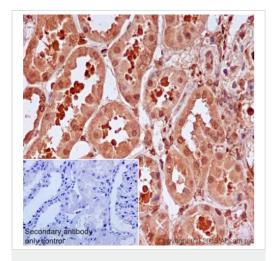
Control 1: primary antibody (1/300) and secondary antibody, ab150120, an Alexa Fluor® 594-conjugated goat anti-mouse IgG (1/1000).

Control 2: ab7291 (1/1000) and secondary antibody, ab150077, an Alexa Fluor[®] 488-conjugated goat anti-rabbit lgG (1/1000).



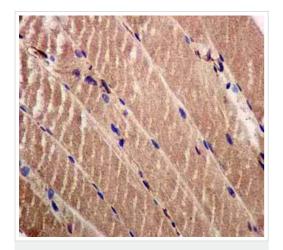
Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-IRS2 antibody
[EPR904(2)] (ab134101)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of rat kidney tissue labelling IRS2 with purified ab134101 at 1/500. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. ab97051, a HRP-conjugated goat anti-rabbit IgG (H+L) was used as the secondary antibody (1/500). Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-IRS2 antibody
[EPR904(2)] (ab134101)

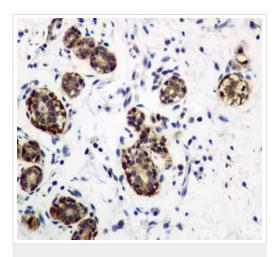
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human kidney tissue labelling IRS2 with purified ab134101 at 1/500. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. ab97051, a HRP-conjugated goat anti-rabbit IgG (H+L) was used as the secondary antibody (1/500). Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-IRS2 antibody
[EPR904(2)] (ab134101)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human muscle tissue labelling IRS2 with unpurified ab134101 at a dilution of 1/50.

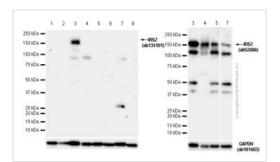
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-IRS2 antibody
[EPR904(2)] (ab134101)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human breast tissue labelling IRS2 with unpurified ab134101 at a dilution of 1/50.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Western blot - Anti-IRS2 antibody [EPR904(2)] (ab134101)

All lanes : Anti-IRS2 antibody [EPR904(2)] (ab134101) at 1/1000 dilution

Lane 1: Rat liver lysates

Lane 2: Human liver lysates

Lane 3: A375 (human malignant melanoma epithelial cell) whole cell lysates

Lane 4: A549 (human lung carcinoma epithelial cell) whole cell lysates

Lane 5 : NCI-H1299 (human lung carcinoma epithelial cell) whole cell lysates

Lane 6 : LADMAC (Mouse bone marrow monocyte macrophage) whole cell lysates

Lane 7: MDA-MB-231 (human breast adenocarcinoma epithelial cell) whole cell lysates

Lane 8: MEF (Mouse embryonic fibroblast) whole cell lysates

Lysates/proteins at 20 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) (<u>ab97051</u>) at 1/20000 dilution (Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated)

Developed using the ECL technique.

Predicted band size: 137 kDa **Observed band size:** 170-185 kDa

Blocking/Diluting buffer and concentration: 5% NFDM/TBST.

Exposure time:

Left image: 180 seconds

Right image: 40 seconds

Although some papers support the expression in liver (PMID: 30202052), A549 (PMID: 30988063), NCI-H1299 (PMID: 30988063), LADMAC (PMID: 29115630), MDA-MB-231 (PMID: 29685905) and MEF (PMID: 30679431), ab134101 can't detect the target band in these samples, even at the dilution of 1:200.

250 kDa —

150 kDa —

100 kDa —

75 kDa —

50 kDa —

37 kDa —

25 kDa —

25 kDa —

20 kDa —

15 kDa —

10 kDa —

10 kDa —

Western blot - Anti-IRS2 antibody [EPR904(2)] (ab134101)

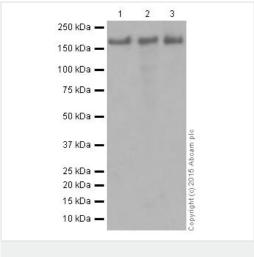
Anti-IRS2 antibody [EPR904(2)] (ab134101) at 1/5000 dilution (purified) + NIH/3T3 whole cell lysate - treated with insulin at 20 µg

Secondary

Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/50000 dilution

Predicted band size: 137 kDa **Observed band size:** 170-185 kDa

Blocking and dilution buffer: 5% NFDM/TBST.



Western blot - Anti-IRS2 antibody [EPR904(2)] (ab134101)

All lanes : Anti-IRS2 antibody [EPR904(2)] (ab134101) at 20 μ g (purified)

Lane 1: HEK293 whole cell lysate - untreated

Lane 2: HEK293 whole cell lysate - treated with insulin

Lane 3: SH-SY5Y whole cell lysate

Lysates/proteins at 20 µg per lane.

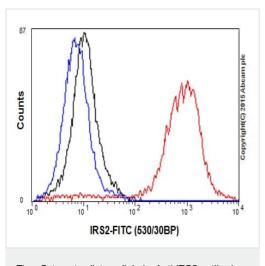
Secondary

All lanes : Goat Anti-Rabbit lgG H&L (HRP) ($\underline{ab97051}$) at 1/50000

dilution

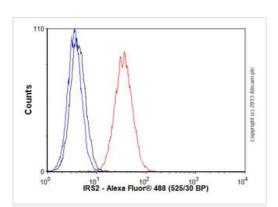
Predicted band size: 137 kDa **Observed band size:** 170-185 kDa

Blocking and dilution buffer: 5% NFDM/TBST.



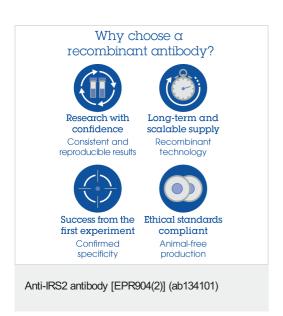
Flow Cytometry (Intracellular) - Anti-IRS2 antibody [EPR904(2)] (ab134101)

Intracellular Flow Cytometry analysis of HeLa cells labelling IRS2 with purified ab134101 at 1/120 (red). Cells were fixed with 2% paraformaldehyde. A FITC-conjugated goat anti-rabbit IgG (1/500) was used as the secondary antibody. Black - Isotype control, rabbit monoclonal IgG. Blue - Unlabelled control, cells without incubation with primary and secondary antibodies.



Flow Cytometry (Intracellular) - Anti-IRS2 antibody [EPR904(2)] (ab134101)

Overlay histogram showing HeLa cells stained with unpurified ab134101 (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 (unpurified ab134101, 1/1000 dilution) for 30 min at 22°C. The secondary antibody used was Alexa Fluor® 488 goat anti-rabbit lgG (H&L) (ab150077) at 1/2000 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) $(0.1\mu g/1x10^6 \text{ cells})$ used under the same conditions. Unlabelled sample (blue line) was also used as a control. Acquisition of >5,000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter. This antibody gave a positive signal in HeLa cells fixed with 4% paraformaldehyde (10 min)/permeabilized with 0.1% PBS-Tween for 20 min used under the same conditions.



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