abcam

Product datasheet

Anti-RanGAP1 antibody [EPR3295] ab92360

ועלשעבע RabMAb

★★★★★ 3 Abreviews 11 References 画像数 13

製品の概要

製品名 Anti-RanGAP1 antibody [EPR3295]

製品の詳細 Rabbit monoclonal [EPR3295] to RanGAP1

由来種 Rahhit

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

種交差性 交差種: Mouse, Rat, Human

免疫原 Synthetic peptide. within Human RanGAP1 aa 1-100. The exact sequence is proprietary.

Database link: P46060

ポジティブ・コントロール WB: MCF7 (Human breast adenocarcinoma cell line) Cytoplasmic Lysate - tumor cell line

> (ab29538), HeLa, SH SY5Y and A549 cell lysates, mouse and rat brain tissue lysates. IHC-P: Human breast carcinoma, Human testis, Human bladder carcinoma, Mouse testis and Rat liver tissue. ICC/IF: mouse hepatocyte, and MCF7 cells. Flow Cyt (intra): Jurkat cells IP: HeLa cell

lysate

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

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: 7.20

Preservative: 0.01% Sodium azide

Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA

精製度 Protein A purified

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ab92360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)		1/20. ab172730 - Rabbit monoclonal lgG, is suitable for use as an isotype control with this antibody. For unpurified use at 1/50
WB	****(1)	1/1000 - 1/5000. Predicted molecular weight: 64 kDa.
IP		1/20. For unpurified use at 1/10
IHC-P		1/500. Perform heat mediated antigen retrieval via the pressure cooker method before commencing with IHC staining protocol. For unpurified use at 1/100 - 1/250. See IHC antigen retrieval protocols.
ICC/IF	*** <u>*</u> (1)	1/100 - 1/250.

ターゲット情報

機能 GTPase activator for the nuclear Ras-related regulatory protein Ran, converting it to the putatively

inactive GDP-bound state.

組織特異性 Highly expressed in brain, thymus and testis.

配列類似性 Belongs to the RNA1 family.

Contains 6 LRR (leucine-rich) repeats.

翻訳後修飾 Phosphorylated occurs before nuclear envelope breakdown and continues throughout mitosis.

Phosphorylated by the M-phase kinase cyclin B/Cdk1, in vitro. Differential timing of

dephosphorylation occurs during phases of mitosis. The phosphorylated form remains associated with RANBP2/NUP358 and the SUMO E2-conjugating enzyme, UBC9, on nuclear pore complex $\frac{1}{2}$

(NPC) diassembly and during mitosis.

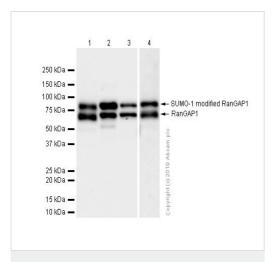
Sumoylated with SUMO1. Sumoylation is necessary for targeting to the nuclear envelope (NE), and for association with mitotic spindles and kinetochores during mitosis. Also required for $\frac{1}{2}$

interaction with RANBP2 and is mediated by UBC9.

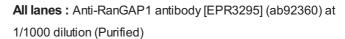
細胞内局在 Cytoplasm. Nucleus membrane. Chromosome, centromere, kinetochore. Cytoplasm,

cytoskeleton, spindle pole. Cytoplasmic during interphase. Targeted to the nuclear rim after sumoylation. During mitosis, associates with mitotic spindles. Association with kinetochores appears soon after nuclear envelope breakdown and persists until late anaphase. Mitotic location

also requires sumoylation.



Western blot - Anti-RanGAP1 antibody [EPR3295] (ab92360)



Lane 1 : HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates

Lane 2 : SH-SY5Y (Human neuroblastoma epithelial cell) whole cell lysates

Lane 3 : Mouse brain lysates

Lane 4 : Rat brain lysates

Lysates/proteins at 20 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit lgG H&L (HRP) (<u>ab97051</u>) at 1/20000 dilution

Predicted band size: 64 kDa **Observed band size:** 70,90 kDa

The doublets detected are consistent with what have been described in literature PMID: 24988324 and PMID: 21646468

All lanes : Anti-RanGAP1 antibody [EPR3295] (ab92360) at 1/1000 dilution

Lane 1 : HeLa cell lysate

Lane 2 : MCF-7 cell lysate

Lane 3 : SH-SY5Y cell lysate

Lane 4 : A549 cell lysate

Lysates/proteins at 10 µg per lane.

kDa 1 2 3 4 150 10075 5037-

Western blot - Anti-RanGAP1 antibody [EPR3295] (ab92360)

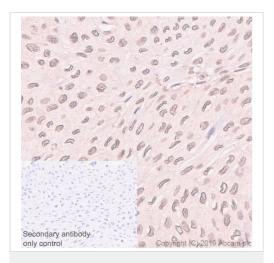
Secondary

All lanes: HRP labelled goat anti-rabbit antibody at 1/2000 dilution

Predicted band size: 64 kDa **Observed band size:** 64 kDa

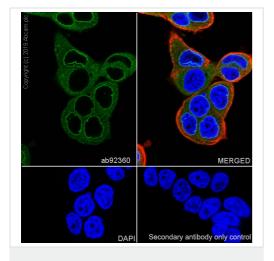
Additional bands at: 90 kDa. We are unsure as to the identity of

these extra bands.



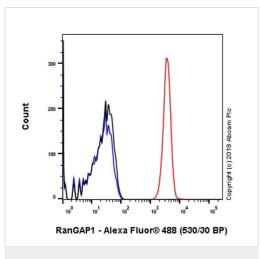
Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-RanGAP1 antibody
[EPR3295] (ab92360)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human bladder carcinoma tissue sections labeling RanGAP1 with purified ab92360 at 1/500 dilution (0.22 µg/ml). Perform heat mediated antigen retrieval using ab93684 (Tris/EDTA buffer, pH 9.0). ImmunoHistoProbe one step HRP Polymer (ready to use) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Immunocytochemistry/ Immunofluorescence - Anti-RanGAP1 antibody [EPR3295] (ab92360)

Immunocytochemistry/ Immunofluorescence analysis of MCF7 (Human breast adenocarcinoma epithelial cell) cells labeling RanGAP1 with purified ab92360 at 1/100 dilution (1.1 μ g/ml). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with <u>ab195889</u> Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor[®] 594) at 1/200 (2.5 μ g/ml) dilution. Goat anti rabbit lgG (Alexa Fluor[®] 488, <u>ab150077</u>) was used as the secondary antibody at 1/1000 (2 μ g/ml) dilution. DAPI (blue) was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



Flow Cytometry (Intracellular) - Anti-RanGAP1 antibody [EPR3295] (ab92360)

Intracellular Flow Cytometry analysis of Jurkat (Human T cell leukemia T lymphocyte) cells labeling RanGAP1 with purified ab92360 at 1/20 dilution (10µg/ml) (red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluorr® 488, **ab150077**) secondary antibody was used at 1/2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).



Immunoprecipitation - Anti-RanGAP1 antibody [EPR3295] (ab92360)

ab92360 (purified) at 1/20 dilution (0.5ug) immunoprecipitating RanGAP1 in HeLa whole cell lysates.

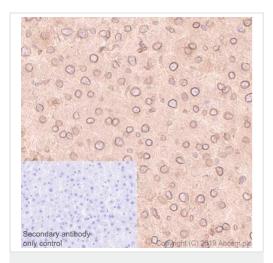
Lane 1: HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates 10ug

Lane 2 (+): ab92360 & HeLa whole cell lysates

Lane 3 (-): Rabbit monoclonal lgG (<u>ab172730</u>) instead of ab92360 in HeLa whole cell lysates

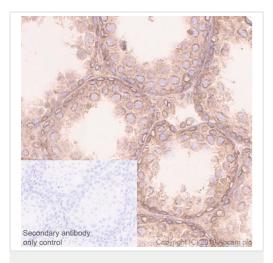
For western blotting, VeriBlot for IP Detection Reagent (HRP) (ab131366) was used at 1/1000 dilution.

Blocking and diluting buffer: 5% NFDM/TBST.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-RanGAP1 antibody
[EPR3295] (ab92360)

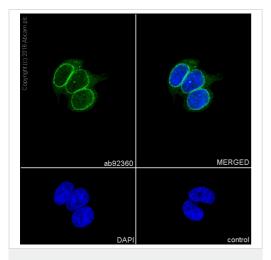
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of rat liver tissue sections labeling RanGAP1 with purified ab92360 at 1/500 dilution (0.22 µg/ml). Perform heat mediated antigen retrieval using **ab93684** (Tris/EDTA buffer, pH 9.0). ImmunoHistoProbe one step HRP Polymer (ready to use) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-RanGAP1 antibody

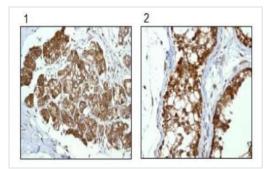
[EPR3295] (ab92360)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of mouse testis tissue sections labeling RanGAP1 with purified ab92360 at 1/500 dilution (0.22 µg/ml). Perform heat mediated antigen retrieval using **ab93684** (Tris/EDTA buffer, pH 9.0). ImmunoHistoProbe one step HRP Polymer (ready to use) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Immunocytochemistry/ Immunofluorescence - Anti-RanGAP1 antibody [EPR3295] (ab92360)

Immunofluorescence staining of MCF7 cells with purified ab92360 at a working dilution of 1/500, counter-stained with DAPI. The secondary antibody was an Alexa Fluor[®] 488 conjugated goat antirabbit (<u>ab150077</u>), used at a dilution of 1/1000. The cells were fixed in 4% PFA and permeabilized using 0.1% Triton X 100. The negative control is shown in bottom right hand panel - for the negative control, PBS was used instead of the primary antibody.



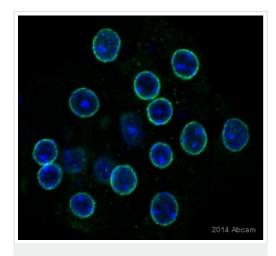
Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-RanGAP1 antibody

[EPR3295] (ab92360)

b92360 at 1/100 dilution staining RanGAP1 in paraffin-embedded (1) Human breast carcinoma tissue and (2) Human testis tissue by immunohistochemistry.

Perform heat mediated antigen retrieval via the pressure cooker method before commencing with IHC staining protocol.

Perform heat mediated antigen retrieval via the pressure cooker method before commencing with IHC staining protocol.



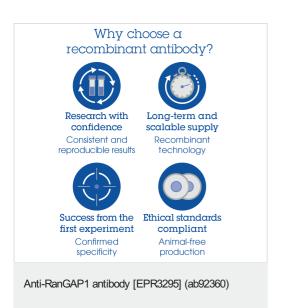
Immunocytochemistry/ Immunofluorescence - Anti-RanGAP1 antibody [EPR3295] (ab92360)

This image is courtesy of an anonymous Abreview

ab92360 staining RanGAP1 in mouse hepatocyte cells by ICC/IF (Immunocytochemistry/immunofluorescence). Cells were fixed with paraformaldehyde, permeabilized, and blocked with 2% BSA for 2 hours at 22°C. Samples were incubated with primary antibody (1/100 in blocking buffer) for 18 hours at 4°C. An Alexa Fluor® 488-conjugated goat anti-rabbit IgG polyclonal (1/10000) was used as the secondary antibody.

Flow Cytometry (Intracellular) - Anti-RanGAP1 antibody [EPR3295] (ab92360)

Overlay histogram showing Jurkat cells stained with ab92360 (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 (ab92360, 1/100 dilution) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-rabbit IgG (H+L) (ab96899) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) (1µg/1x10⁶ cells) used under the same conditions. Unlabelled sample (blue line). 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 Jurkat cells fixed with 80% methanol (5 min)/permeabilized with 0.1% PBS-Tween for 20 min used under the same conditions.



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