abcam

Product datasheet

Anti-RASA1 antibody [B4F8] ab2922

7 References 4 Images

Overview

Product name	Anti-RASA1 antibody [B4F8]
Description	Mouse monoclonal [B4F8] to RASA1
Host species	Mouse
Specificity	This antibody is specific for RASA1 (an alternate name of GAP).
Tested applications	**Suitable for:** ICC/IF, WB
Species reactivity	**Reacts with:** Mouse, Human **Predicted to work with:** Non human primates
Immunogen	Recombinant full length protein corresponding to Human RASA1.
Epitope	Epitope mapping studies suggest that this antibody binds a portion of GAP that contains the src homology regions SH2 and SH3.
Positive control	ICC: C2C12, HeLa, A431; WB: HeLa, A431, mouse brain lysate
General notes	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

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Purity	Protein A purified
Primary antibody notes	GTPase Activating Protein (GAP) is capable of stimulating the hydrolysis of GTP by ras p21 proteins, though GAP has little effect on the oncogenic forms of ras. It is also known that several tyrosine kinases such as platelet derived growth factor receptor and epidermal growth factor receptor are involved in the tyrosine phosphorylation of GAP. It has therefore been suggested that GAP may provide a connection or link between growth factor receptors and the ras p21 family.

Clonality	Monoclonal
Clone number	B4F8
Isotype	IgG2a

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab2922 in the following tested applications.

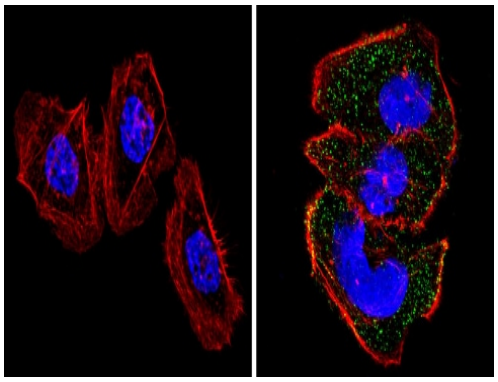
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF		Use a concentration of 5 µg/ml. Immunofluorescence staining of GAP in mouse fibroblast cells results in diffuse cytoplasmic staining. Following the addition of PDGF, immunofluorescence staining shows that some GAP rapidly translocates to the plasma membrane.
WB		Use a concentration of 10 µg/ml. By Western blot, this antibody recognizes a single 120 kDa protein representing ras GAP from RS-2 cell lysate.

Target

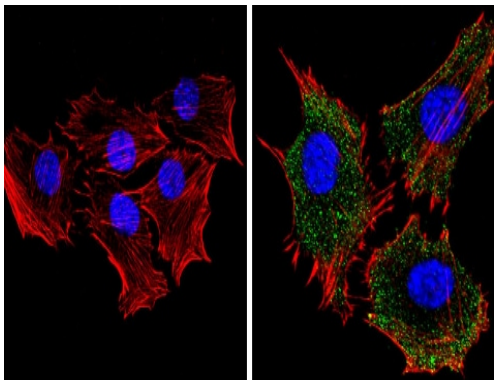
Function	Inhibitory regulator of the Ras-cyclic AMP pathway. Stimulates the GTPase of normal but not oncogenic Ras p21.
Tissue specificity	In placental villi, detected only in the trophoblast layer (cytotrophoblast and syncytiotrophoblast). Not detected in stromal, endothelial or Hofbauer cells (at protein level).
Involvement in disease	Note=Mutations in the SH2 domain of RASA seem to be oncogenic and cause basal cell carcinomas. Defects in RASA1 are the cause of capillary malformation-arteriovenous malformation (CMAVM) [MIM:608354]. CMAVM is a disorder characterized by atypical capillary malformations that are multiple, small, round to oval in shape and pinkish red in color. These capillary malformations are associated with either arteriovenous malformation, arteriovenous fistula, or Parkes Weber syndrome. Defects in RASA1 are a cause of Parkes Weber syndrome (PKWS) [MIM:608355]. PKWS is a disorder characterized by a cutaneous flush with underlying multiple micro-arteriovenous fistulas, in association with soft tissue and skeletal hypertrophy of the affected limb.
Sequence similarities	Contains 1 C2 domain. Contains 1 PH domain. Contains 1 Ras-GAP domain. Contains 2 SH2 domains. Contains 1 SH3 domain.
Post-translational modifications	The N-terminus is blocked.
Cellular localization	Cytoplasm.

Images



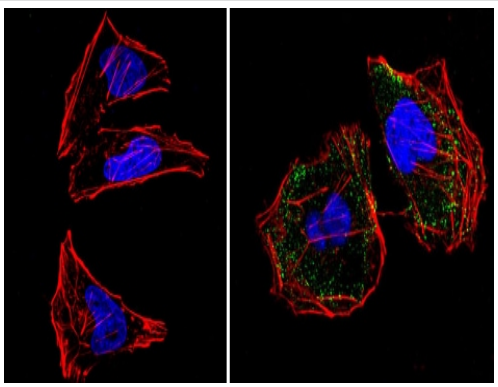
Immunocytochemistry/ Immunofluorescence - Anti-RASA1 antibody [B4F8] (ab2922)

ab2922 labelling GAP (green) in the cytoplasm of A431 cells (right) compared with a negative control (left) by Immunocytochemistry/Immunofluorescence. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes, blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were incubated with the primary antibody (1:200 in 3% BSA-PBS) overnight at 4 ºC. A DyLight 488-conjugated Goat anti-mouse IgG (H+L) was used as the secondary antibody. Red (phalloidin) - F-actin, Bue (DAPI) - nuclei. Images were taken at a magnification of 60x.



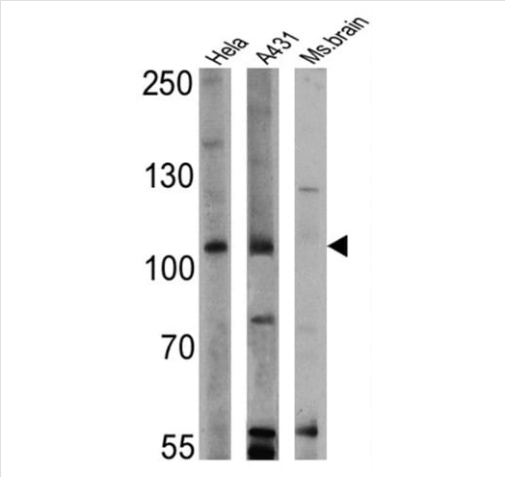
Immunocytochemistry/ Immunofluorescence - Anti-RASA1 antibody [B4F8] (ab2922)

ab2922 labelling GAP (green) in the cytoplasm of C2C12 cells (right) compared with a negative control (left) by Immunocytochemistry/Immunofluorescence. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes, blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were incubated with the primary antibody (1:200 in 3% BSA-PBS) overnight at 4 ºC. A DyLight 488-conjugated Goat anti-mouse IgG (H+L) was used as the secondary antibody. Red (phalloidin) - F-actin, Bue (DAPI) - nuclei. Images were taken at a magnification of 60x.



Immunocytochemistry/ Immunofluorescence - Anti-RASA1 antibody [B4F8] (ab2922)

ab2922 labelling GAP (green) in the cytoplasm of Hela cells (right) compared with a negative control (left) by Immunocytochemistry/Immunofluorescence. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes, blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were incubated with the primary antibody (1:200 in 3% BSA-PBS) overnight at 4 ºC. A DyLight 488-conjugated Goat anti-mouse IgG (H+L) was used as the secondary antibody. Red (phalloidin) - F-actin, Bue (DAPI) - nuclei. Images were taken at a magnification of 60x.



Western blot - Anti-RASA1 antibody [B4F8] (ab2922)

All lanes : Anti-RASA1 antibody [B4F8] (ab2922) at 1/200 dilution

Lane 1 : HeLa cell lysate
Lane 2 : A431 cell lysate
Lane 3 : Mouse brain cell lysate

Lysates/proteins at 25 µg per lane.

Observed band size: 110 kDa

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit **https://www.abcam.com/abpromise** or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors