

Product datasheet

Anti-RHEB antibody [EPR2971] ab92313

Recombinant RabMAb

★★★★★ [2 Abreviews](#) [8 References](#) [8 Images](#)

Overview

Product name	Anti-RHEB antibody [EPR2971]
Description	Rabbit monoclonal [EPR2971] to RHEB
Host species	Rabbit
Tested applications	Suitable for: Flow Cyt (Intra), WB, IHC-P, ICC/IF Unsuitable for: IP
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide within Human RHEB aa 50-150. The exact sequence is proprietary. (Peptide available as ab194764)
Positive control	WB: Raji and SH-SY5Y lysates. IHC-P: human glioma and brain tissue. ICC/IF: Raji cells. Flow Cyt (intra): Raji cells.
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: <ul style="list-style-type: none"> - 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 .

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol, 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR2971

Isotype

IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab92313 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
Flow Cyt (Intra)		1/40. ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody. For unpurified use at 1/100 - 1/1000
WB		1/2000 - 1/5000. Predicted molecular weight: 20 kDa. Can be blocked with Human RHEB peptide (ab194764) .
IHC-P	★★★★★ (2)	1/500. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. Heat mediated antigen retrieval and use of an HRP/AP polymerized secondary antibody recommended. See IHC antigen retrieval protocols For unpurified use at 1/100 - 1/250
ICC/IF		1/100 - 1/250.

Application notes

Is unsuitable for IP.

Target

Function

Stimulates the phosphorylation of S6K1 and EIF4EBP1 through activation of mTORC1 signaling. Activates the protein kinase activity of mTORC1. Has low intrinsic GTPase activity.

Tissue specificity

Ubiquitous. Highest levels observed in skeletal and cardiac muscle.

Sequence similarities

Belongs to the small GTPase superfamily. Rheb family.

Post-translational modifications

Farnesylation is important for efficiently activating mTORC1-mediated signaling.

Cellular localization

Cell membrane.

Images

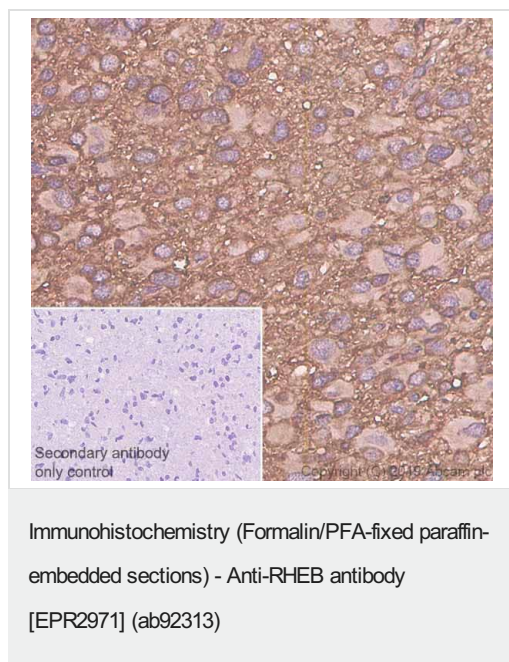


Anti-RHEB antibody [EPR2971] (ab92313) at 1/2000 dilution + Raji (Human Burkitt's lymphoma B lymphocyte) whole cell lysates at 15 μ g

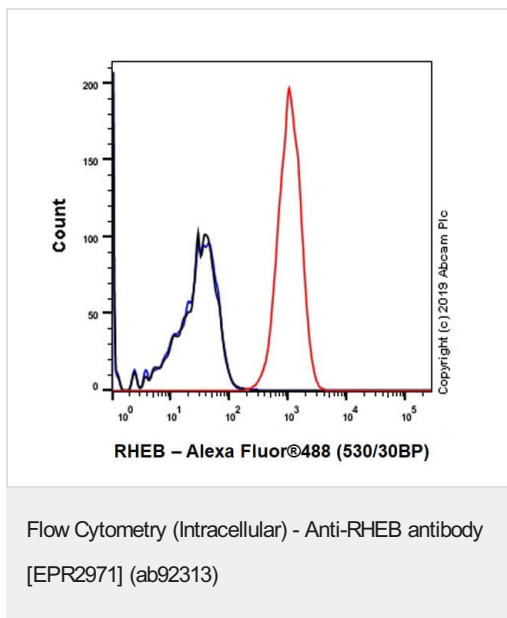
Secondary

Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

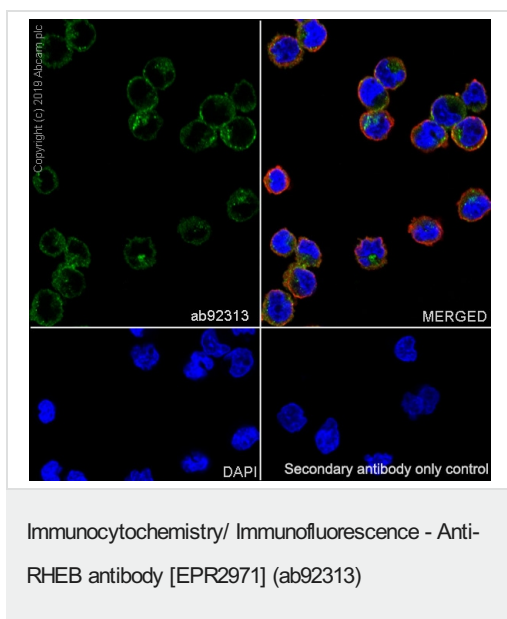
Predicted band size: 20 kDa



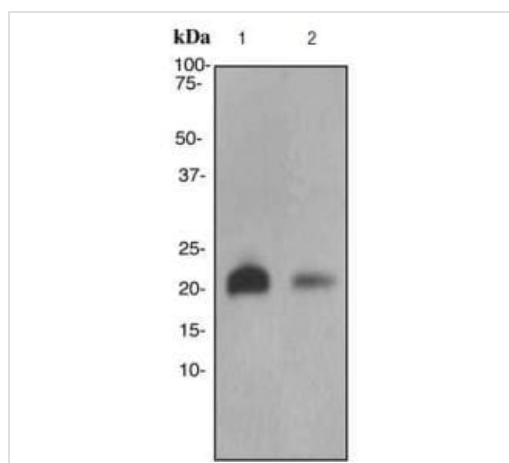
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human glioma tissue sections labeling RHEB with purified ab92313 at 1:500 dilution (0.73 μ g/ml). Heat mediated antigen retrieval was performed using Bond TM Epitope Retrieval Solution 2 (pH 9.0). Rabbit specific IHC polymer detection kit HRP/DAB ([ab209101](#)) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Intracellular Flow Cytometry analysis of Raji (Human Burkitt's lymphoma B lymphocyte) cells labeling RHEB with purified ab92313 at 1/40 dilution (10 µg/ml) (Red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluor® 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).



Immunocytochemistry/ Immunofluorescence analysis of Raji (Human Burkitt's lymphoma B lymphocyte) cells labeling RHEB with purified ab92313 at 1:250 dilution (1.46 µg/ml). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with Ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1:200 (2.5 µg/ml). Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) was used as the secondary antibody at 1:1000 (2 µg/ml) dilution. DAPI (blue) was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



Western blot - Anti-RHEB antibody [EPR2971]
(ab92313)

All lanes : Anti-RHEB antibody [EPR2971] (ab92313) at 1/2000 dilution

Lane 1 : Raji cell lysate

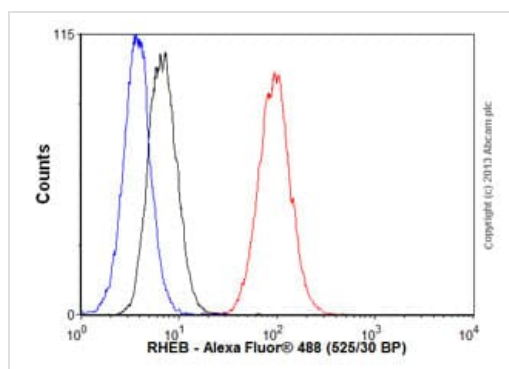
Lane 2 : SH-SY5Y cell lysate

Lysates/proteins at 10 µg per lane.

Secondary

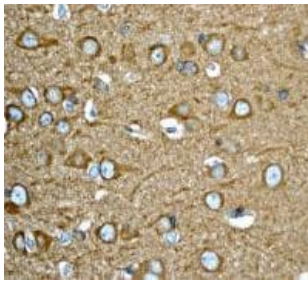
All lanes : HRP labelled goat anti-rabbit at 1/2000 dilution

Predicted band size: 20 kDa



Flow Cytometry (Intracellular) - Anti-RHEB antibody
[EPR2971] (ab92313)

Overlay histogram showing Raji cells stained with unpurified ab92313 (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 (ab92313, 1/1000 dilution) for 30 min at 22°C. The secondary antibody used was Alexa Fluor® 488 goat anti-rabbit IgG (H&L) ([ab150077](#)) at 1/2000 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) (0.1 µg/1x10⁶ 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 Raji cells fixed with 80% methanol (5 min)/permeabilized with 0.1% PBS-Tween for 20 min used under the same conditions.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-RHEB antibody [EPR2971] (ab92313)

Unpurified ab92313, at 1/100 dilution, staining RHEB in paraffin-embedded Human brain tissue, by Immunohistochemistry.

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

Why choose a recombinant antibody?



Anti-RHEB antibody [EPR2971] (ab92313)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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