

Product datasheet

Anti-KRIT1 antibody [EPR16560] ab196025

Recombinant RabMAb

★★★★★ 3 Abreviews 3 References 5 Images

Overview

| | |
|----------------------------|---|
| Product name | Anti-KRIT1 antibody [EPR16560] |
| Description | Rabbit monoclonal [EPR16560] to KRIT1 |
| Host species | Rabbit |
| Tested applications | Suitable for: WB, ICC/IF |
| Species reactivity | Reacts with: Mouse, Human |
| Immunogen | Recombinant fragment within Human KRIT1 aa 1-150. The exact sequence is proprietary. Database link: O00522 |
| Positive control | Human fetal brain and Mouse brain lysates; SH-SY5Y, Raji, NIH/3T3 and HUVEC cell lysates; HUVEC cells. |
| General notes | |

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](#).

Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough.

Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.

We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications & species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise[™] guarantee.

In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for.

We are also updating the applications & species that this product has been "predicted to work

with," however this information is not covered by our Abpromise guarantee.

Applications & species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee.

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, as well as 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 long term. Avoid freeze / thaw cycle. |
| Storage buffer | pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA |
| Purity | Protein A purified |
| Clonality | Monoclonal |
| Clone number | EPR16560 |
| Isotype | IgG |

Applications

Our [Abpromise guarantee](#) covers the use of **ab196025** 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 |
|-------------|-----------|--|
| WB | ★★★★★ | 1/1000. Detects a band of approximately 84 kDa (predicted molecular weight: 84 kDa). |
| ICC/IF | | 1/100. |

Target

| | |
|-----------------|--|
| Function | Negative regulator of angiogenesis. Inhibits endothelial proliferation, apoptosis, migration, lumen formation and sprouting angiogenesis in primary endothelial cells. Promotes AKT phosphorylation in a NOTCH-dependent and independent manner, and inhibits EKR1/2 phosphorylation indirectly through activation of the DELTA-NOTCH cascade. Acts in concert with CDH5 to establish and maintain correct endothelial cell polarity and vascular lumen and these effects are mediated by recruitment and activation of the Par polarity complex and RAP1B. Required for the localization of phosphorylated PRKCZ, PARD3, TIAM1 and RAP1B to the cell junction. Plays an important role in the maintenance of the intracellular reactive oxygen species (ROS) homeostasis to prevent oxidative cellular damage. Regulates the homeostasis of intracellular ROS through an antioxidant pathway involving FOXO1 and SOD2. Facilitates the down-regulation of cyclin D1 levels required for cell transition from proliferative growth to quiescence by preventing the accumulation of |
|-----------------|--|

intracellular ROS through the modulation of FOXO1 and SOD2 levels.

Tissue specificity

Low levels in brain. Very weak expression found in heart and muscle.

Involvement in disease

Defects in KRIT1 are the cause of cerebral cavernous malformations type 1 (CCM1) [MIM:116860]. Cerebral cavernous malformations (CCMs) are congenital vascular anomalies of the central nervous system that can result in hemorrhagic stroke, seizures, recurrent headaches, and focal neurologic deficits. CCMs have an incidence of 0.1%-0.5% in the general population and usually present clinically during the 3rd to 5th decade of life. The lesions are characterized by grossly enlarged blood vessels consisting of a single layer of endothelium and without any intervening neural tissue, ranging in diameter from a few millimeters to several centimeters.

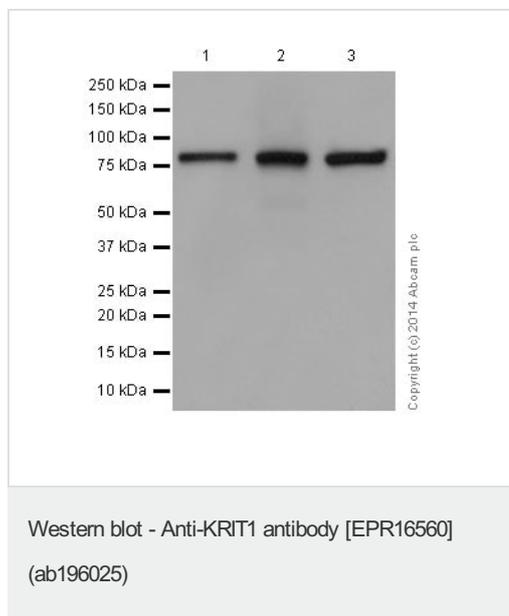
Sequence similarities

Contains 4 ANK repeats.
Contains 1 FERM domain.

Cellular localization

Membrane. Cell junction. KRIT1 and CDH5 reciprocally regulate their localization to endothelial cell-cell junctions.

Images



All lanes : Anti-KRIT1 antibody [EPR16560] (ab196025) at 1/5000 dilution

Lane 1 : Human fetal brain lysate

Lane 2 : SH-SY5Y (Human neuroblastoma from bone marrow cells) cell lysate

Lane 3 : Raji (Human Burkitt's lymphoma cell line) cell lysate

Lysates/proteins at 20 µg per lane.

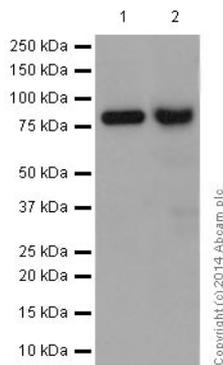
Secondary

All lanes : Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 84 kDa

Observed band size: 84 kDa

Blocking/Dilution buffer: 5% NFDm/TBST.



Western blot - Anti-KRIT1 antibody [EPR16560]
(ab196025)

All lanes : Anti-KRIT1 antibody [EPR16560] (ab196025) at 1/1000 dilution

Lane 1 : Mouse brain lysate

Lane 2 : NIH/3T3 (Mouse embryo fibroblast cells) cell lysate

Lysates/proteins at 10 µg per lane.

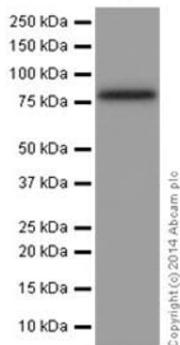
Secondary

All lanes : Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 84 kDa

Observed band size: 84 kDa

Blocking/Dilution buffer: 5% NFDM/TBST.



Western blot - Anti-KRIT1 antibody [EPR16560]
(ab196025)

Anti-KRIT1 antibody [EPR16560] (ab196025) at 1/5000 dilution + HUVEC (Human umbilical vein endothelial cell line) whole cell lysate at 10 µg

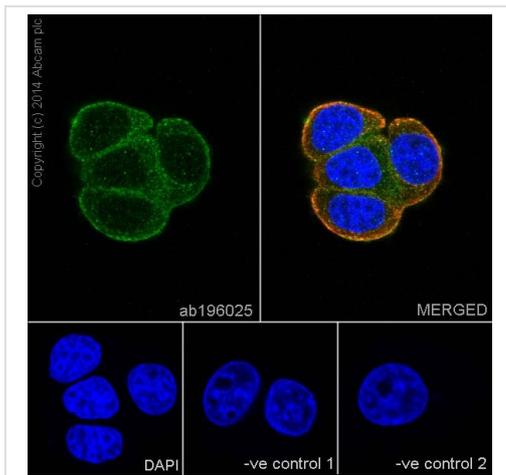
Secondary

Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 84 kDa

Observed band size: 84 kDa

Blocking/Dilution buffer: 5% NFDM/TBST.



Immunocytochemistry/ Immunofluorescence - Anti-KRIT1 antibody [EPR16560] (ab196025)

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HUVEC (Human umbilical vein endothelial cell line) cells labeling KRIT1 with ab196025 at 1/100 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor® 488) (ab150077) secondary antibody at 1/500 dilution (green). Cytoplasm staining on HUVEC cell line is observed. The nuclear counter stain is DAPI (blue). Tubulin is detected with ab7291 (anti-Tubulin mouse mAb) at 1/1000 dilution and ab150120 (AlexaFluor®594 Goat anti-Mouse secondary) at 1/500 dilution (red).

The negative controls are as follows:

-ve control 1: ab196025 at 1/100 dilution followed by ab150120 (AlexaFluor®594 Goat anti-Mouse secondary) at 1/500 dilution.

-ve control 2: ab7291 (anti-Tubulin mouse mAb) at 1/1000 dilution followed by ab150077 (Alexa Fluor®488 Goat Anti-Rabbit IgG H&L) at 1/500 dilution.

Why choose a recombinant antibody?

Research with confidence
Consistent and reproducible results

Long-term and scalable supply
Recombinant technology

Success from the first experiment
Confirmed specificity

Ethical standards compliant
Animal-free production

Anti-KRIT1 antibody [EPR16560] (ab196025)

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

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- We investigate all quality concerns to ensure our products perform to the highest standards

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