

Product datasheet

Anti-KRIT1 antibody [EPR16560] - BSA and Azide free ab240339

Recombinant RabMAb

2 Images

Overview

Product name	Anti-KRIT1 antibody [EPR16560] - BSA and Azide free
Description	Rabbit monoclonal [EPR16560] to KRIT1 - BSA and Azide free
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
General notes	Ab240339 is the carrier-free version of ab196025 . This format is designed for use in antibody labeling, including fluorochromes, metal isotopes, oligonucleotides, enzymes.

Our [carrier-free formats](#) are supplied in a buffer free of BSA, sodium azide and glycerol for higher conjugation efficiency.

Use our [conjugation kits](#) for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

ab240339 is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm.

Maxpar® is a trademark of Fluidigm Canada Inc.

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. Do Not Freeze.
Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR16560
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab240339** 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		Use at an assay dependent concentration. Detects a band of approximately 84 kDa (predicted molecular weight: 84 kDa).
ICC/IF		Use at an assay dependent concentration.

Target

Function	Negative regulator of angiogenesis. Inhibits endothelial proliferation, apoptosis, migration, lumen formation and sprouting angiogenesis in primary endothelial cells. Promotes AKT phosphorylation
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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

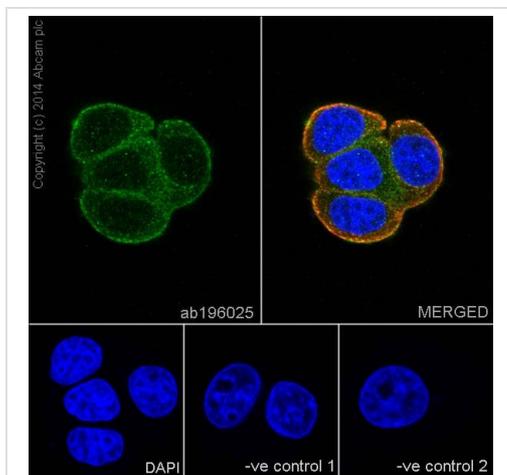
Contains 4 ANK repeats.

Contains 1 FERM domain.

Cellular localization

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

Images



Immunocytochemistry/ Immunofluorescence - Anti-KRIT1 antibody [EPR16560] - BSA and Azide free (ab240339)

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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab196025](#)).

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] - BSA and Azide free (ab240339)

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

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