

**KRIT1 Antibody (N-term)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP18206A****Specification**

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**KRIT1 Antibody (N-term) - Product Information**

Application	WB,E
Primary Accession	<a href="#">O00522</a>
Other Accession	<a href="#">Q6S5J6</a> , <a href="#">Q6TNJ1</a> , <a href="#">NP_004903.2</a>
Reactivity	Human
Predicted	Bovine, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	6-34

**KRIT1 Antibody (N-term) - Additional Information****Gene ID** 889**Other Names**

Krev interaction trapped protein 1, Krev interaction trapped 1, Cerebral cavernous malformations 1 protein, KRIT1, CCM1

**Target/Specificity**

This KRIT1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 6-34 amino acids from the N-terminal region of human KRIT1.

**Dilution**

WB~~1:1000

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

KRIT1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**KRIT1 Antibody (N-term) - Protein Information****Name** KRIT1**Synonyms** CCM1

**Function** Component of the CCM signaling pathway which is a crucial regulator of heart and vessel formation and integrity (By similarity). 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 ERK1/2 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, and cell junction stabilization. Plays a role in integrin signaling via its interaction with ITGB1BP1; this prevents the interaction between ITGB1 and ITGB1BP1. Microtubule- associated protein that binds to phosphatidylinositol 4,5-bisphosphate (PIP2)-containing membranes in a GTP-bound RAP1-dependent manner. 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 (CCND1) 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. May play a role in the regulation of macroautophagy through the down- regulation of the mTOR pathway (PubMed:[26417067](#)).

#### **Cellular Location**

Cytoplasm, cytoskeleton. Cell membrane; Peripheral membrane protein. Cell junction. Note=KRIT1 and CDH5 reciprocally regulate their localization to endothelial cell-cell junctions. Association with RAP1 relocates KRIT1 from microtubules to cell junction membranes. Translocates from the cytoplasm along microtubules to the cell membrane in a ITGB1BP1-dependent manner

#### **Tissue Location**

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

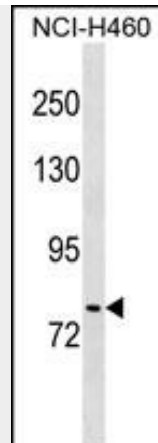
#### **KRIT1 Antibody (N-term) - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### **KRIT1 Antibody (N-term) - Images**





KRIT1 Antibody (N-term) (Cat. #AP18206a) western blot analysis in NCI-H460 cell line lysates (35ug/lane). This demonstrates the KRIT1 antibody detected the KRIT1 protein (arrow).

#### **KRIT1 Antibody (N-term) - Background**

This gene encodes a protein containing four ankyrin repeats, a band 4.1/ezrin/radixin/moesin (FERM) domain, and multiple NPXY sequences. The encoded protein is localized in the nucleus and cytoplasm. It binds to integrin cytoplasmic domain-associated protein-1 alpha (ICAP1alpha), and plays a critical role in beta1-integrin-mediated cell proliferation. It associates with junction proteins and RAS-related protein 1A (Rap1A), which requires the encoded protein for maintaining the integrity of endothelial junctions. It is also a microtubule-associated protein and may play a role in microtubule targeting. Mutations in this gene result in cerebral cavernous malformations. Multiple alternatively spliced transcript variants have been found for this gene.

#### **KRIT1 Antibody (N-term) - References**

Reddy, S., et al. Graefes Arch. Clin. Exp. Ophthalmol. 248(9):1359-1361(2010)  
Rose, J.E., et al. Mol. Med. 16 (7-8), 247-253 (2010) :  
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