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# Product datasheet for AP26021PU-L

## KRIT1 Rabbit Polyclonal Antibody

### Product data:

| | |
|---|---|
| **Product Type:** | Primary Antibodies |
| **Applications:** | IF, WB |
| **Recommended Dilution:** | **Western Blot:** 1-5 µg/ml.<br>**Immunofluorescence:** 1-10 µg/ml.<br>**Immunohistochemistry:** 1/200. |
| **Reactivity:** | Human |
| **Host:** | Rabbit |
| **Isotype:** | IgG |
| **Clonality:** | Polyclonal |
| **Immunogen:** | Highly pure (>95%) recombinant Human CCM-1 (Met1-Ser736) derived from *E. coli* fused to a C-teminal His-tag (6 x His) (*Cat.-No* AR26002PU-N). |
| **Specificity:** | This antibody is anti-His depleated.<br>It detects KRIT1 / CCM1. |
| **Formulation:** | 5mM PBS, pH 7.2<br>State: Purified<br>State: Lyophilized purified IgG fraction |
| **Reconstitution Method:** | Restore in sterile water to a concentration of 0.1-1.0 mg/ml.<br>Centrifuge vial prior to opening. |
| **Purification:** | Protein A Chromatography |
| **Conjugation:** | Unconjugated |
| **Storage:** | Prior to reconstitution store at 2-8°C.<br>Following reconstitution store undiluted at 2-8°C for one month<br>or (in aliquots) at -20°C for longer.<br>Avoid repeated freezing and thawing. |
| **Stability:** | Shelf life: one year from despatch. |
| **Gene Name:** | KRIT1, ankyrin repeat containing |
| **Database Link:** | Entrez Gene 889 Human<br>O00522 |

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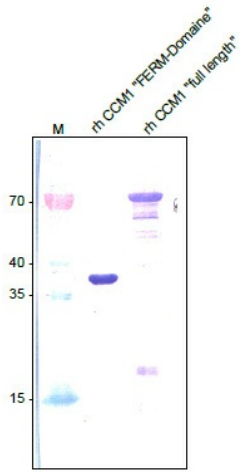
**Background:** **Cerebral Cavernous Malformations** (CCM) are frequent vascular abnormalities caused by mutations in one of the CCM genes. CCM-1 (also known as KRIT1) stabilizes endothelial junctions and is essential for vascular morphogenesis in mouse embryos. However, cellular functions of CCM-1 during the early steps of the CCM pathogenesis remain unknown. It was shown that CCM-1 represents an antiangiogenic protein to keep the human endothelium quiescent. CCM-1 inhibits endothelial proliferation, apoptosis, migration, lumen formation, and sprouting angiogenesis in primary human endothelial cells. CCM-1 strongly induces DLL4-NOTCH signaling, which promotes AKT phosphorylation but reduces phosphorylation of the mitogen-activated protein kinase ERK. Consistently, blocking of NOTCH activity alleviates CCM-1 effects. ERK phosphorylation is increased in human CCM lesions. Transplantation of CCM-1-silenced human endothelial cells into SCID mice recapitulates hallmarks of the CCM pathology and serves as a unique CCM model system.

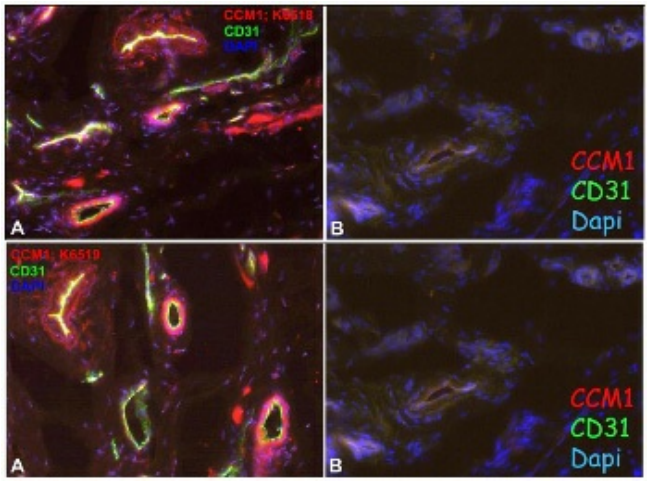
**Synonyms:** Krev interaction trapped 1

**Protein Families:** Druggable Genome

## Product images:




Western analysis of recombinant Human CCM-1 (FERM domain) and recombinant Human full length CCM-1 using a Rabbit polyclonal anti-Human CCM-1 antibody generated against the recombinant FERM domain of Human CCM-1.




Immunofluorescence staining of Human foreskin (Cryo-section of unfixed tissue) with anti-CCM1 Antibody (red, dilution: 1/50). Costaining of endothelial cells with anti-CD31 (green). Note specific staining in the wall of a subset of vessel. Nuclei counter-stained with Dapi (blue). Specimen provided by Prof. Dr. J. Wilting and Dr. K. Buttler, Goettingen.