Datasheet for ABIN7539340

KRIT1 Protein (His tag)

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Overview

Quantity:	20 µg
Target:	KRIT1
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Purification tag / Conjugate:	This KRIT1 protein is labelled with His tag.

Product Details

Purpose:	CCM-1
Sequence:	MLLKEAINKP YEKVRIYRMD GSYRSVELKH GNNTTVQQIM EGMRLSQETQ QYFTIWICSE NLSLQLKPYH KPLQHVRDWP EILAELTNLD PQRETPQLFL RRDVRLPLEV EKQIEDPLAI LILFDEARYN LLKGFYTAPD AKLITLASLL LQIVYGNYES KKHKQGFLNE ENLKSIVPVT KLKSKAPHWT NRILHEYKNL STSEGVSKEM HHLQRMFLQN CWEIPTYGAA FFTGQIFTKA SPSNHKVIPV YVGVNIKGLH LLNMETKALL ISLKYGCFMW QLGDTDTCFQ IHSMENKMSF IVHTKQAGLV VKLLMKLNGQ LMPTERNSLE HHHHH
Specificity:	Chromosomal location:7q21.2
Characteristics:	Length (aa):335
Purity:	> 90 % by SDS-PAGE

Target Details

Target:	KRIT1

Target Details

Alternative Name:	CCM-1 (KRIT1 Products)
Background:	CCM-1, Cerebral cavernous malformations protein 1, KRIT1, KRIT1, ankyrin repeat containing, CAM,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.
Molecular Weight:	39 kDa
Gene ID:	889
NCBI Accession:	NM_004912, NP_004903
UniProt:	O00522
Pathways:	Cell RedoxHomeostasis

Application Details

Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	Human CCM1 should be reconstituted in water or other buffer solutions and stored at -20 °C.
Buffer:	30 mM NaCl. 50 mM NaP, pH 7.4
Storage:	RT,0 °C
Storage Comment:	The lyophilized human CCM1, though stable at room temperature, is best stored desiccated below 0°C.