Datasheet for ABIN7564147

# KRIT1 Protein (AA 1-736) (His tag)

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## Overview

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| Quantity: | 1 mg |
| Target: | KRIT1 |
| Protein Characteristics: | AA 1-736 |
| Origin: | Mouse |
| Source: | HEK-293 Cells |
| Protein Type: | Recombinant |
| Purification tag / Conjugate: | This KRIT1 protein is labelled with His tag. |

## Product Details

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| Purpose: | Custom-made recombinant Krit1 Protein expressed in mammalian cells. |
| Sequence: | MGNPENIEDA YVAVIRPKNT ASLNSREYRA KSYEILLHEV PIEGQKKKRK KVLLETKLQS NSEIAQGILD YVVETTKPIS PANQGIKGKR VVLMRKFPLD GEKTGREAAL FIVPSVVKDN TKYAYTPGCP IFYCLQDIMR VCSESSTHFA TLTARMLIAL DKWLDERHAQ SHFIPALFRP SPLERIKTNV INPAYAAELG QVDNSLHMGY SALEIKSKML ALEKADTCIY NPLFGSDLQY TNRVDKVVIN PYFGLGAPDY SKIQIPKQEK WQRSMSSVVE DKERQWVDDF PLHRNACEGD SELLSHLLDK GLSVNQLDND HWAPIHYACW YGKVEATRIL LEKGKCNPNL LNGQLSSPLH FAAGGGHAEI VQILLTHPDI DRHITDQQGR SPLNVCEENK QNNWEEAAKL LKDAINKPYE KVRIYRMDGS YRSVELKHGN NTTAQQIMEG MRLSQETQRY FTIWICSENL SLQFKPYHKP LQQVHDWPEI LAELTNLDPQ RETPQLFLRR DVGLPLEVEK KIEDPLAILI LFDEARYNLL KGFYTAPDAK LITLASLLLQ IVYGNYESKK HKQGFLNEET LKSIVPITKL KSKAPHWINR ILHEYKNLSL SEGVSKEMHH LQRMFLQNCW EIPTYGAAFF TGQIFTKASP SNHKVIPVYV GVNIKGLHLL NMETKALLIS LKYCCFTWQL GDAGTCFQIH SMENKMSFIV HTKQAGLVVK |

## Product Details

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| | LLMKLNGQLM PSERNS **Sequence without tag. The proposed Purification-Tag is based on experiences with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.** |
| Specificity: | If you are looking for a specific domain and are interested in a partial protein or a different isoform, please contact us regarding an individual offer. |
| Characteristics: | Key Benefits:<br>• Made to order protein - from design to production - by highly experienced protein experts.<br>• Protein expressed in mammalian cells and purified in one-step affinity chromatography<br>• The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.<br>• State-of-the-art algorithm used for plasmid design (Gene synthesis).<br><br>This protein is a made-to-order protein and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein.<br><br>If you are not interested in a full length protein, please contact us for individual protein fragments.<br><br>The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified. |
| Purity: | > 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, Western Blot and analytical SEC (HPLC) |
| Grade: | custom-made |

## Target Details

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| Target: | KRIT1 |
| Alternative Name: | Krit1 (KRIT1 Products) |
| Background: | Krev interaction trapped protein 1 (Krev interaction trapped 1) (Cerebral cavernous malformations 1 protein homolog),FUNCTION: Component of the CCM signaling pathway which is a crucial regulator of heart and vessel formation and integrity. 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 |

## Target Details

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| | 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 (By similarity). 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). {ECO:0000250\|UniProtKB:O00522, ECO:0000269\|PubMed:20332120, ECO:0000269\|PubMed:20616044, ECO:0000269\|PubMed:20668652, ECO:0000269\|PubMed:26417067}. |
| Molecular Weight: | 84.0 kDa |
| UniProt: | Q6S5J6 |
| Pathways: | Cell RedoxHomeostasis |

## Application Details

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| Application Notes: | We expect the protein to work for functional studies. As the protein has not been tested for functional studies yet we cannot offer a guarantee though. |
| Restrictions: | For Research Use only |

## Handling

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| Format: | Liquid |
| Buffer: | The buffer composition is at the discretion of the manufacturer. |
| Handling Advice: | Avoid repeated freeze-thaw cycles. |
| Storage: | -80 °C |
| Storage Comment: | Store at -80°C. |
| Expiry Date: | 12 months |