

Product datasheet for **MC220603**

Krit1 (NM_001170552) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Krit1 (NM_001170552) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Krit1
Synonyms:	2010007K12Rik; A630036P20Rik; AA432855; AI450393; AI643869; BB155247; BB235701; Ccm1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >MC220603 representing NM_001170552
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGGAAATCCAGAAAACATCGAAGATGCTTACGTTGCGATTATTCGTCCAAAGAACACTGCTAGTCTCA
 ACTCCCGGGAGTATAGAGCTAAGTCCTATGAAATTTTATTGCATGAAGTCCATTGAAGGACAGAAAA
 AAAGCGAAAGAAAGTTTTGCTGGAACTAACTTCAAAGCAACAGTGAAATAGCACAAAGGCATATTGGAC
 TATGTAGTAGAAAACACAAACCAATTTCTCTGCAAACAGGGGATTAAAGGGAAACGAGTGGTCTGA
 TGAGGAAGTTTCTCTGGACGGAGAGAAGACAGGCAGAGAAGCAGCACTGTTTATCGTGCCATCAGTTGT
 CAAAGATAATACTAAATATGCATATACTCTGGATGCCAATTTTTTACTGCTTACAAGATATTATGAGA
 GTTTGTAGTGAATCCAGTACTCACTTTGCAACACTTACAGCAAGGATGTTAATAGCCTTGGATAAGTGGT
 TAGATGAACGTCATGCGCAGTCTCACTTTATTCCAGCTTTATTCCGACCTTCTCCCCTTGAACGGATAAA
 GACAAATGTCATAAACCCCTGCGTATGCTGCTGAATTAGGCCAGGTAGACAATTCACTACATATGGGCTAT
 AGTGCCTAGAAAATAAAGAGTAAAATGCTAGCCCTAGAGAAAGCAGACACCTGCATTTACAACCCCTTGT
 TTGGATCAGATCTTCAGTATACAATCGGGTAGATAAAAGTGGTAATAAATCCATACTTTGGTCTCGGAGC
 TCCAGACTACTCAAAAATCCAAATCCCAAACAGGAAAAATGGCAGCGAAGCATGAGCAGCGTTGTGGAA
 GACAAAGAACGACAGTGGGTTGATGACTTTCTTTACATCGAAATGCCTGTGAAGGAGATTCAGAATTAC
 TGAGCCATCTTCTCGATAAAGGACTTTCACTCAACCACTAGATAATGACCACTGGGCACCCATTCATTA
 TCAATGGGCAGCTCAGCTCACCCTTCACTTTGCTGCTGGAGGGCCATGCTGAAATAGTGCAGATCC
 TCCTGACTCACCAGACATTGACAGGCACATAACAGATCAACAAGGAAGATCCCCATTAATGTTTGTGA
 AGAAAACAAACAAAATAAAGTGGGAAGAAGCTGCAAAATGTTGAAAGACGCCATTAACAAGCCATATGAA
 AAAGTTTGAATCTATAGAATGGATGGATCATACCGTTCTGTTGAACTAAAGCATGGCAATATACCACAG
 CACAGCAGATAATGGAGGAATGCGGCTCTCTCAGGAACTCAGCGATATTTCACTATTTGGATCTGTTT
 AGAAAACTTAGTCTTCAAGCTTATCATAAACCCCTTGAACAAGTTCATGACTGGCCAGAAATA
 CTTGCTGAATTGACTAATTTGGATCCACAAGAGAAACACCACAGCTTTTCTAAGAAGAGATGTGGGAC
 TTCCTTTAGAAGTTGAGAAAAAGATTGAAGACCCACTAGCTATTCTTATTCTTTGATGAAGCCAGATA
 TAATTTACTGAAGGGCTTTTATACGCTCCTGATGCTAACTGATAAAGTGGCAAGTCTACTGTTACAA
 ATAGTTTATGGGAATTATGAGAGTAAAAAGCACAACAAGGTTTCTTAAATGAAGAACTCTGAAATCCA
 TCGTACCTATTACTAACTGAAAAGTAAGGCGCCTCACTGGATAAACCGAATACTCCATGAGTACAAGAA
 TCTGAGTCTGAGTGAGGGCGTCAGTAAGGAAATGCACCACCTGCAGCGCATGTTCTACAGAACTGCTGG
 GAGATCCCTACGTACGGAGCCGCTTCTTACAGGACAGATATTTACAAAGGCAAGCCCAAGCAATCATA
 AAGTCAATCCCTGTGTATGTAGGAGTGAATATAAAGGACTTCACTCTCTGAAACATGGAACTAAGGCTGG
 CCTTGTGGTAAAGCTGCTAATGAAGTAAATGGACAACATAATGCCCTCTGAAAGAAATTCATGA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAAGTTTAA

Chromatograms: https://cdn.origene.com/chromatograms/ja3128_e11.zip

Restriction Sites: SgfI-MluI

ACCN: NM_001170552

Insert Size: 2094 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
Reconstitution Method:	<ol style="list-style-type: none">1. Centrifuge at 5,000xg for 5min.2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.3. Close the tube and incubate for 10 minutes at room temperature.4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	<u>NM_001170552.1, NP_001164023.1</u>
RefSeq Size:	6034 bp
RefSeq ORF:	2094 bp
Locus ID:	79264
UniProt ID:	<u>Q6S5J6</u>
Cytogenetics:	5 2.26 cM
Gene Summary:	<p>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 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.[UniProtKB/Swiss-Prot Function]</p> <p>Transcript Variant: This variant (2) differs in the 5' UTR and lacks an alternate in-frame exon, compared to variant 1, resulting in a shorter protein (isoform 2), compared to isoform 1. Isoform 2 is also known as Krit1B.</p>