

Product datasheet for **RG215470**

KRIT1 (NM_001013406) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Tag:	TurboGFP
Symbol:	KRIT1
Synonyms:	CAM; CCM1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence: >RG215470 representing NM_001013406
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGGAAATCCAGAAAACATAGAAGATGCATATGTTGCTGTTATTCGTCCAAAGAATACTGCCAGTCTCA
ATTCTCGGGAATACAGAGCTAAGTCATATGAAATTTTGTGTCATGAAGTCCCATTTGAAGGACAGAAAAA
AAAGAGAAAGAAAGTTTATTGGAACGAACTTCAAGGCAACAGTGAAATAACACAAGGCATATTGGAT
TACGTAGTAGAAACCACCAACCAATTTCTCTGCAAAACAGGGTATCAGAGGAAAACGAGTTGTACTAA
TGAAAAATTTCTCTGGATGGAGAGAAGATGGCAGAGAAGCATCATTATTTATTGTTCCATCAGTTGT
CAAGAGATAATACTAAATACACATATACCCAGGATGCCCAATTTTTACTGCTTACAAGATATTATGCGA
GTCTGTAGTGAATCCAGTACTCATTTTGCTACACTTACAGCAAGGATGTTAATAGCCTTGGATAAGTGGT
TAGATGAACGTATGCACAATCTCACTTTATTCCAGCTTTATTCCGACCTTCTCCTTTGAGCGGATAAA
AACTAATGTCATAAATCTGCATATGCTACTGAATCAGGTCAGACAGAAAACCTACTACATATGGGCTAT
AGTGCCTAGAAAATAAGAGTAAATGTTAGCCCTAGAGAAAGCAGATACCTGTATTTACAACCTTTGT
TTGGATCAGATCTTCAGTATACAAATCGGGTAGATAAAGTGGTAATAAATCCATACTTTGGTCTAGGAGC
TCCAGACTACTCAAAATCCAAATACCTAAACAGGAAAAATGGCAGAGAAGCATGAGCAGTGTACAGAA
GACAAGTATGGAAAAGTTGAGGCCACTCGCATATTGTTAGAGAAAGGAAAGTGAATCCAAACCTTTTAA
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AAACCAACCCAGAAACGGATAGACATATAACAGACCAACAAGGAAGATCTCCATTAATATTTGTGAAGAA
AACAAACAAACAACTGGGAAGAAGCTGCAAAATTTGTTGAAGGAAGCAATTAACAAACCATATGAAAAAG
TTCGAATATACAGAAATGGATGGGTATATCGTTCTGTTGAATTGAAGCATGGAATAATACCACAGTGCA
GCAGATAATGGAAGGAATGCGTCTCTCTCAAGAAACTCAGCAATATTTCACTATATGGATTTGTTGAGAA
AACCTCAGCTTCAACTCAAACCATATCATAAACCTTGAACATGTTCTGCTGACTGGCCAGAAATACTTG
CTGAATTGACTAATCTGGATCTCAAAGGGAACACCTCAGCTTTTTCTAAGAAGAGATGTGAGACTTCC
CTTGAAGTTGAAAAACAGATTGAAGACCACTAGCTATTCTTATCTCTTTGATGAAGCCAGATATAAT
TTATTGAAGGCTTTTATACAGCTCTGATGCTAAGCTGATAACATTGGCAAGTCTGCTTTTGCAAATAG
TCTATGGAATTTATGAGAGTAAAAACACAAGCAAGGTTTCTAAATGAAGAAAATCTAAATCCATCGT
ACCTGTTACCAAACTGAAAAGTAAGGCACCTCACTGGACAAATCGCATACTTCATGAATACAAGATCTC
AGTACAAGTGAAGGTGTCAGTAAAGAAATGCATCACCTTCAGCGCATGTTCTTACAGAATTGCTGGGAAA
TTCCTACTTATGGAGCAGCATTTTTCACAGGACAGATTTTACAAAGGCAAGCCCCAGCAATCATAAAGT
CATCCCTGTGTATGTAGAGTGAATATAAAGGACTTCATCTCCTCAACATGGAACCTAAGGCTTTACTC
ATCAGTCTTAAGTATGTTGTTTTATGTGGCAATTGGGAGATACTGATACTTGTTTTCAGATCCATAGCA
TGGAATAAATATGAGCTTTATAGTACATACAAAACAGGCTGGTCTCGTGGTAAACGTGTTAATGAAGCT
AATGGACAGTTAATGCCCACTGAAAGAAATTCA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG215470 representing NM_001013406
Red=Cloning site Green=Tags(s)

MGNPENIEDAYVAVIRPKNTASLNSREYRAKSYEILLHEVPIEGQKKRKKVLLLETKLQGNSEITQGILD
YVVETTKPISPANQGIRKRVVLMKKFPLDGEKMGREASLFIVPSVVKDNTKYTYTPGCPIFYCLQDIMR
VCSESTHFATLTARMLIALDKWLDERHAQSHFIPALFRPSPLERIKTNVINPAYATESGQTENSLHMGY
SALEIKSKMLALEKADTCIYNPLFGSDLQYTNRVDKVINPYFGLGAPDYSKIQIPKQEKWQRMSSVTE
DKYGVKEATRILLEKGCNPNLLNGQLSSPLHFAAGGGHAEIVQILLNHPETDRHITDQGRSPLNICEE
NKQNNWEEAAKLLKEAINKPYEKVRIYRMDGSYRSVELKHGNNTTVQIMEGMRLSQETQQYFTIWCSE
NLSLQLKPYHKPLQHVWDPEILAEILTNDPQRETPQLFLRRDVRLPLEVEKQIEDPLAILILFDEARYN
LLKGFYTPDAKLITLASLLQIVYGNYESKKHKQGFLNEENLKSIVPVTKLKSAPHWTNRILHEYKNL
STSEGVSKEMHHLQRMFLQNCWEIPTYGAAFFTGQIFTKASPSNHKVIPVYGVNIGLHLLNMETKALL
ISLKYGCFMWQLGDTDTCFQIHSMENKMSFIVHTKQAGLVVKLLMKLNGQLMPTEENS

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001013406

ORF Size: 2064 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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:

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.

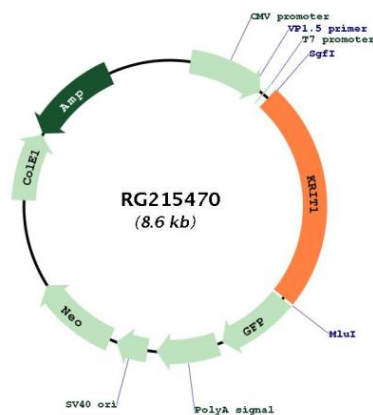
Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_001013406.2](#)

RefSeq Size: 4231 bp

RefSeq ORF:	2067 bp
Locus ID:	889
UniProt ID:	<u>O00522</u>
Cytogenetics:	7q21.2
Protein Families:	Druggable Genome
Gene Summary:	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. [provided by RefSeq, Sep 2009]

Product images:



Circular map for RG215470