

Product datasheet for **RG220516**

KRIT1 (NM_194455) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	KRIT1 (NM_194455) Human Tagged ORF Clone
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:

>RG220516 representing NM_194455
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGCATCGCC**

ATGGGAAATCCAGAAAACATAGAAGATGCATATGTTGCTGTTATTCGTCCAAAGAATACTGCCAGTCTCA
ATTCTCGGAATACAGAGCTAAGTCATATGAAATTTTGTGCATGAAGTCCATTGAAGGACAGAAAA
AAAGAGAAAGAAAGTTTTATTGGAACGAACTTCAAGGCAACAGTGAAATAACAAGGCATATTGGAT
TACGTAGTAGAAACCACCAACCAATTTCTCTGCAAACCAGGGTATCAGAGGAAAACGAGTTGTA
TGAAAAATTTCTCTGGATGGAGAGAAGATGGGCAGAGAAGCATCATTATTTATTGTTCCATCAGTTGT
CAAAGATAATACTAAATACACATATACCCAGGATGCCAATTTTTACTGCTTACAAGATATTATGCGA
GTCTGTAGTGAATCCAGTACTCATTGCTACACTTACAGCAAGGATGTTAATAGCCTTGGATAAGTGGT
TAGATGAACGTCATGCACAATCTCACTTTATTCCAGCTTTATTCCGACCTTCTCCTCTTGAGCGGATAAA
AACTAATGTCATAAATCTGCATATGCTACTGAATCAGGTCAGACAGAAAACACTACTACATATGGGCTAT
AGTGCCTAGAAAATAAGAGTAAAATGTTAGCCCTAGAGAAAGCAGATACCTGTATTTACAACCCCTTGT
TTGGATCAGATCTTCAGTATACAATCGGGTAGATAAAAGTGGTAATAAATCCATACTTTGGTCTAGGAGC
TCCAGACTACTCAAAAATCCAAATACCTAAACAGGAAAAATGGCAGAGAAGCATGAGCAGTGTACAGAA
GACAAGGAACGACAGTGGGTAGATGATTTTCTCTCCACCGAAGCGCCTGTGAAGGAGATTCAGAATTAC
TAAGCCGTCTTCTCAGTGAAAGATTTTCACTCAACAGTTAGATAGTGACCCTGGGCACCCATTTCATTA
TGCATGCTGGTATGGAAGTTGAGGCCACTCGCATATTGTTAGAGAAAGGAAAGTGAATCCAAACCTT
TTAAATGGACAACCTTAGTTCTCTCTTCACTTTGCTGCTGGAGGAGGACATGCTGAAATAGTACAGATTC
TCCTAAACCCAGAACCGGATAGACATATAACAGACCAACAAGGAAGATCTCCATAAATATTGTTGA
AGAAAACAACAAAACAACCTGGGAAGAAGCTGCAAAATGTTGAAGGAAGCAATTAACAACCCATATGAA
AAAGTTGGAATATACAGAAATGGATGGGTATATCGTTCTGTTGAATTGAAGCATGGAAATAATACCACAG
TGCAGCAGATAATGGAAGGAATGCGTCTCTCAAGAACTCAGCAATATTTCACTATATGGATTTGTTT
AGAAAACCTCAGCCTTCAACTCAAACCATATCATAAACCCCTTGCAACATGTTCTGACTGGCCAGAAATA
CTTGCTGAATTGACTAATCTGGATCCTCAAAGGAAACACCTCAGCTTTTTCTAAGAAGAGATGTGAGAC
TTCCCTTGAAGTTGAAAAACAGATTGAAGACCCACTAGCTATTCTTATTCTCTTTGATGAAGCCAGATA
TAATTTATTGAAGGGCTTTTATACAGCTCCTGATGCTAAGCTGATAACATTGGCAAGTCTGCTTTTGCAA
ATAGTCTATGGAATTTATGAGAGTAAAAACACAAGCAAGGTTTCTAAATGAAGAAAATCTAAAATCCA
TCGTACCTGTTACCAAACCTGAAAAGTAAGGCACCTCACTGGACAATCGCATACTTCATGAATACAAGAA
TCTCAGTACAAGTGAAGGTGTCAGTAAAGAAATGCATCACCTTCAGCGCATGTTCTTACAGAATTGCTGG
GAAATTCCTACTTATGGAGCAGCATTTTTCACAGGACAGATATTTACAAAGGCAAGCCCCAGCAATCATA
AAGTCAATCCCTGTGTATGTAGGAGTGAATATAAAGGACTTCATCTCCTCAACATGGAAACTAAGGCTTT
ACTCATCAGTCTTAAGTATGGTTGTTTTATGTGGCAATGGGAGATACTGATACTGTTTTTCAGATCCAT
AGCATGGAAAATAAATGAGCTTTATAGTACATACAAAACAGGCTGGTCTCGTGGTAAAACCTGTTAATGA
AGCTAAATGGACAGTTAATGCCCACTGAAAGAAATTC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >RG220516 representing NM_194455
 Red=Cloning site Green=Tags(s)

MGNPENIEDAYVAVIRPKNTASLNSREYRAKSYEILLHEVPIEGQKKRKKVLLLETKLQGNSEITQGILD
 YVVETTKPISPANQGIRGKRVVLMKKFPLDGEKMGREASLFIVPSVVKDNTKYTYTPGCPIFYCLQDIMR
 VCESSTHFATLTARMLIALDKWLDERHAQSHFIPALFRPSPLERIKTNVINPAYATESGQTENSLHMGY
 SALEIKSKMLALEKADTCIYNPLFGSDLQYTNRVDKVVINPYFGLGAPDYSKIQIPKQEKWQSRMSSVTE
 DKERQWVDDFPLHRSACEGDSELLSRLLSERFSVNQLSDHWAPIHYACWYGKVEATRILLEKGCNPNL
 LNGQLSSPLHFAAGGGHAEIVQILLNHPETDRHITDQQGRSPLNICEENKQNNWEEAAKLLKEAINKPYE
 KVRIYRMDGSYRSVELKHGNNTTVQQIMEGMRLSQETQQYFTIWCENLSLQLKPYHKPLQHVRDWP
 LAELTNLDPQRETPQLFLRRDVRLPLEVEKQIEDPLAILILFDEARYNLLKGFYAPDAKLITLASLLQ
 IVYGNYESKHKQGLNEENLKSIVPVTKLKSAPHWTNRILHEYKNLSTSEGVSKEMHHLQRMFLQNCW
 EIPTYGAFFTGQIFTKASPSNHKVIPVYGVNIKGLHLLNMETKALLISLKYGCFMWQLGDTDTFCFQIH
 SMENKMSFIVHTKQAGLVVLLMKLNGQLMPTERNS

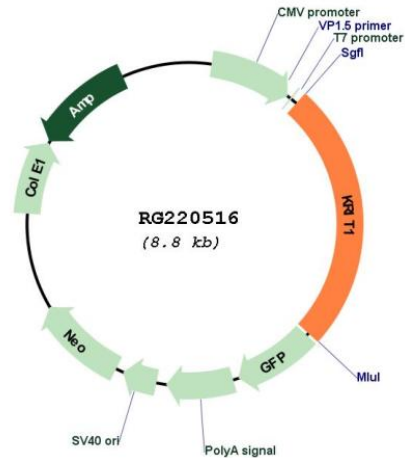
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:


ACCN: NM_194455

ORF Size: 2208 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.

RefSeq: [NM_194455.1](#), [NP_919437.1](#)

RefSeq Size: 4997 bp

RefSeq ORF: 2211 bp

Locus ID: 889

UniProt ID: [O00522](#)

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]