

## Product datasheet for **RG224624**

### **KRIT1 (NM\_194454) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	KRIT1 (NM_194454) 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)



[View online »](#)

ORF Nucleotide  
Sequence:

>RG224624 representing NM\_194454  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGCATCGCC**

ATGGGAAATCCAGAAAACATAGAAGATGCATATGTTGCTGTTATTCGTCCAAAGAATACTGCCAGTCTCA  
ATTCTCGGGAATACAGAGCTAAGTCATATGAAATTTTGTGCATGAAGTCCATTGAAGGACAGAAAA  
AAAGAGAAAAGAAAGTTTTATTGGAACGAACTTCAAGGCAACAGTGAAATAACAACAAAGGCATATTGGAT  
TACGTAGTAGAAAACACCAACCAATTTCTCCTGCAAACAGGGTATCAGAGGAAAACGAGTTGTAATA  
TGAAAAATTTCTCCTGGATGGAGAGAAGATGGGCAGAGAAGCATCATTATTTATTGTTCCATCAGTTGT  
CAAAGATAATACTAAATACACATATACCCAGGATGCCAATTTTTTACTGCTTACAAGATATTATGCGA  
GTCTGTAGTGAATCCAGTACTCATTGCTACACTTACAGCAAGGATGTTAATAGCCTTGGATAAGTGGT  
TAGATGAACGTCATGCACAATCTCACTTTATTCCAGCTTTATTCCGACCTTCTCCTCTTGAGCGGATAAA  
AACTAATGTCATAAATCTGCATATGCTACTGAATCAGGTCAGACAGAAAACACTACTACATATGGGCTAT  
AGTGCCTAGAAAATAAGAGTAAAATGTTAGCCCTAGAGAAAGCAGATACCTGTATTTACAACCCCTTGT  
TTGGATCAGATCTTCAGTATACAATCGGGTAGATAAAAGTGGTAATAAATCCATACTTTGGTCTAGGAGC  
TCCAGACTACTCAAAAATCCAAATACCTAAACAGGAAAAATGGCAGAGAAGCATGAGCAGTGTACAGAA  
GACAAGGAACGACAGTGGGTAGATGATTTTCTCCTCCACCGAAGCGCCTGTGAAGGAGATTCAGAATTAC  
TAAGCCGCTCTTCTCAGTGAAGATTTTCACTCAACCAAGTATAGTGAAGGAGATTCAGAAATTCATTA  
TGCATGCTGGTATGGAAGTTGAGGCCACTCGCATATTGTTAGAGAAAGGAAAGTGAATCCAAACCTT  
TTAAATGGACAACCTTAGTTCTCCTCTTCAATTTGCTGCTGGAGGAGGACATGCTGAAATAGTACAGATTC  
TCCTAAACCAACCCAGAAACCGATAGACATATAACAGACCAACAAGGAAGATCTCCATAAATATTGTTGA  
AGAAAACAACAAAACAACCTGGGAAGAAGCTGCAAAATTTGTTGAAGGAAGCAATTAACAACCCATATGAA  
AAAGTTTGAATATACAGAAATGGATGGGTATATCGTTCTGTTGAATTGAAGCATGGAAATAATACCACAG  
TGCAGCAGATAATGGAAGGAATGCGTCTCTCAAGAACTCAGCAATATTTCACTATATGGATTTGTTT  
AGAAAACCTCAGCCTTCAACTCAAACCATATCATAAACCCCTTGAACATGTTCTGACTGGCCAGAAATA  
CTTGCTGAATTGACTAATCTGGATCCTCAAAGGAAACACCTCAGCTTTTTCTAAGAAGAGATGTGAGAC  
TTCCCTTGAAGTTGAAAAACAGATTGAAGACCCACTAGCTATTCTTATTCTCTTTGATGAAGCCAGATA  
TAATTTATTGAAGGGCTTTTATACAGCTCCTGATGCTAAGCTGATAACATTGGCAAGTCTGCTTTTGCAA  
ATAGTCTATGGAATTTATGAGAGTAAAAACACAAGCAAGGTTTCTAAATGAAGAAAATCTAAAATCCA  
TCGTACCTGTTACCAAACCTGAAAAGTAAGGCACCTCACTGGACAATCGCATACTTCATGAATACAAGAA  
TCTCAGTACAAGTGAAGGTGTCAGTAAAGAAATGCATCACCTTCAGCGCATGTTCTTACAGAATTGCTGG  
GAAATTCCTACTTATGGAGCAGCATTTTTCACAGGACAGATATTTACAAAGGCAAGCCCCAGCAATCATA  
AAGTCAATCCCTGTGTATGTAGGAGTGAATATAAAGGACTTCATCTCCTCAACATGGAAACTAAGGCTTT  
ACTCATCAGTCTTAAGTATGGTTGTTTTATGTGCAATTTGGGAGATACTGATACTGTTTTTCAGATCCAT  
AGCATGGAAAATAAATGAGCTTTATAGTACATACAAAACAGGCTGGTCTCGTGGTAAAACCTGTTAATGA  
AGCTAAATGGACAGTAAATGCCCACTGAAAGAAATTC

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:** >RG224624 representing NM\_194454  
 Red=Cloning site Green=Tags(s)

MGNPENIEDAYVAVIRPKNTASLNSREYRAKSYEILLHEVPIEGQKKRKKVLLLETKLQGNSEITQGILD  
 YVVETTKPISPANQGIRGKRVVLMKKFPLDGEKMGREASLFIVPSVVKDNTKYTYTPGCPIFYCLQDIMR  
 VCESSTHFATLTARMLIALDKWLDERHAQSHFIPALFRPSPLERIKTNVINPAYATESGQTENSLHMGY  
 SALEIKSKMLALEKADTCIYNPLFGSDLQYTNRVDKVVINPYFGLGAPDYSKIQIPKQEKWQSRMSSVTE  
 DKERQWVDDFPLHRSACEGDSELLSRLLSERFSVNQLSDHWAPIHYACWYGKVEATRILLEKGCNPNL  
 LNGQLSSPLHFAAGGGHAEIVQILLNHPETDRHITDQQGRSPLNICEENKQNNWEEAAKLLKEAINKPYE  
 KVRIYRMDGSYRSVELKHGNNTTVQQIMEGMRLSQETQQYFTIWCENLSLQLKPYHKPLQHVRDWP  
 LAELTNLDPQRETPQLFLRRDVRLPLEVEKQIEDPLAILILFDEARYNLLKGFYAPDAKLITLASLLQ  
 IVYGNYESKHKQGLNEENLKSIVPVTKLKSAPHWTNRILHEYKNLSTSEGVSKEMHHLQRMFLQNCW  
 EIPTYGAFFTGQIFTKASPSNHKVIPVYGVNIKGLHLLNMETKALLISLKYGCFMWQLGDTDTFCFQIH  
 SMENKMSFIVHTKQAGLVVLLMKLNGQLMPTERNS

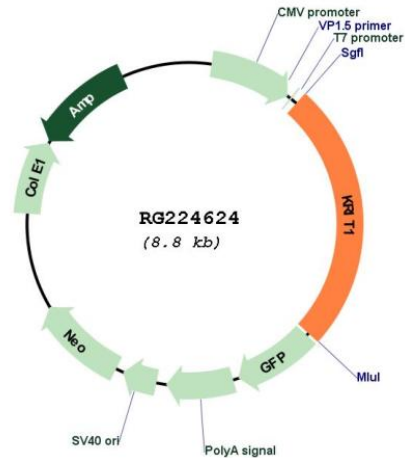
TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shutting:



**Plasmid Map:**


**ACCN:** NM\_194454

**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\\_194454.3](#)

**RefSeq Size:** 4523 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]