

## Product datasheet for **RG211686**

### **KRIT1 (NM\_004912) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	KRIT1 (NM_004912) 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:**

>RG211686 representing NM\_004912  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGGAAATCCAGAAAACATAGAAGATGCATATGTTGCTGTTATTCGTCCAAAGAATACTGCCAGTCTCA  
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**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:** >RG211686 representing NM\_004912  
 Red=Cloning site Green=Tags(s)

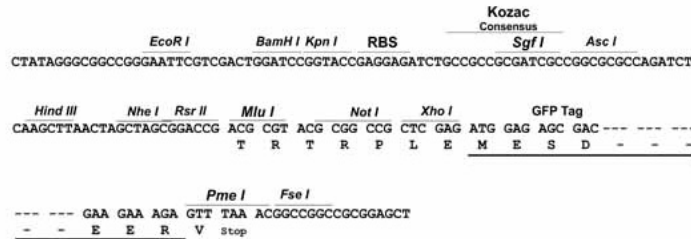
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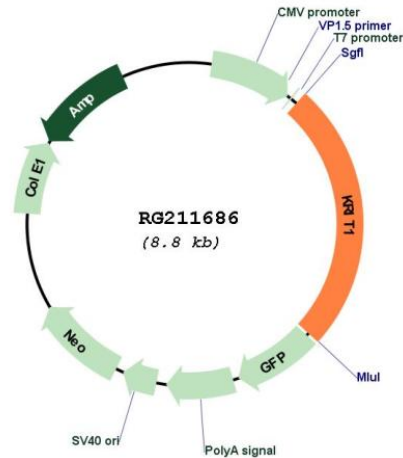
TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shutting:



**Plasmid Map:**


**ACCN:** NM\_004912

**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\\_004912.4](#)

**RefSeq Size:** 4870 bp

**RefSeq ORF:** 2211 bp

**Locus ID:** 889

UniProt ID: [O00522](#)

Cytogenetics: 7q21.2

Domains: B41, ANK

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]