

## Product datasheet for **RG203493**

### **RRAGA (NM\_006570) Human Tagged ORF Clone**

#### Product data:

Product Type:	Expression Plasmids
Product Name:	RRAGA (NM_006570) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	RRAGA
Synonyms:	FIP-1; FIP1; RAGA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG203493 representing NM_006570 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGCCAAATACAGCCATGAAGAAAAGGTGCTGCTGATGGGAAGAGCGGGTCGGGAAGACCAGCATGA  
 GGTCGATAATCTTCGCCAATTACATTGCTCGGACACCCGGCGCCTGGGGCCACCATTGACGTGGAACA  
 CTCCCACGTCCGATTCTAGGGAACCTGGTGTGAACCTGTGGGACTGTGGCGGTGAGGACACCTTCATG  
 GAAAATTACTTCACCAGCCAGCGAGACAATATCTCCGTAACGTGGAAGTTTGTATTACGTGTTTGACG  
 TGGAGAGCCGCGAACTGGAAGGACATGCATTATTACAGTCGTGTCTGGAGGCCATCCTCCAGAACTC  
 TCTGACGCCAAATCTTCTGCCTGGTGCACAAATGGATCTGGTTCAGGAGGATCAGCGTGACCTGATT  
 TTTAAAGAGCGAGAGGAAGACCTGAGGCGTCTGTCTCGCCGCTGGAGTGTGCTTGTTCGAACGTCCA  
 TCTGGGATGAGACGCTCTACAAAGCCTGGTCCAGCATCGTCTACCAGTGATTCCCAACGTTTCAGCAGCT  
 GGAGATGAACCTCAGGAATTTGCCCAATCATTGAGGCCGATGAAGTTCTGCTGTTTCAAAGAGCTACA  
 TTCTTGTTATTTCCCACTACAGTGCAAAGAGCAGCGCAGCTCCACCGGTTTGAGAAGATCAGCAACA  
 TCATCAACAGTTCAAGCTGAGCTGCAGTAAATGGCCGCTTCCTCCAGAGCATGGAAGTTAGGAATTC  
 CAATTCGCTGCTTTCATCGACATCTTCACCTCAAATACGTACGTGATGGTGGTCATGTCAGATCCGTCG  
 ATCCCTTCTGCGCCACTCTGATCAACATTCGCAATGCCCGGAAACACTTTGAGAAGCTGGAGAGAGTGG  
 ATGGCCCCAAGCACAGTCTCCTTATGCGT

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA


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**Protein Sequence:** >RG203493 representing NM\_006570  
 Red=Cloning site Green=Tags(s)

MPNTAMKKKVLLMGKSGSGKTSMRSIIFANYIARDTRRLGATIDVEHSHVRFGLNLVLNLWDCGGQDTFM  
 ENYFTSQRDNIIFRNVEVLIYVFDVESRELEKDMHYYSQSCLEAILQNSPDAKIFCLVHKMDLVQEDQRDLI  
 FKEREEDLRLSRPLECACFRTSIWDETLYKAWSSIVYQLIPNVQQLMNLNFAQIIIEADEVLLFERAT  
 FLVISHYQCKEQRDVHRFEKISNIIKQFKLSCSKLAASFQSMVRNSNFAAFIDIFTNTYVMVMSDPS  
 IPSAATLINIRNARKHFEKLERVDGPKHSLLMR

TRTRPLE – GFP Tag – V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_006570

**ORF Size:** 939 bp

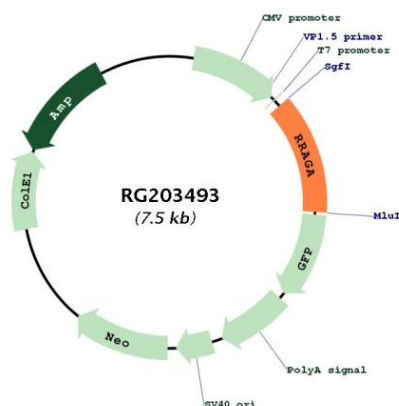
**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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.

<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<u><a href="#">NM_006570.5</a></u>
<b>RefSeq Size:</b>	1657 bp
<b>RefSeq ORF:</b>	942 bp
<b>Locus ID:</b>	10670
<b>UniProt ID:</b>	<u><a href="#">Q7L523</a></u>
<b>Cytogenetics:</b>	9p22.1
<b>Domains:</b>	Gtr1_RagA
<b>Gene Summary:</b>	Guanine nucleotide-binding protein that plays a crucial role in the cellular response to amino acid availability through regulation of the mTORC1 signaling cascade. Forms heterodimeric Rag complexes with RRAGC or RRAGD and cycles between an inactive GDP-bound and an active GTP-bound form. In its active form participates in the relocalization of mTORC1 to the lysosomes and its subsequent activation by the GTPase RHEB. Involved in the RCC1/Ran-GTPase pathway. May play a direct role in a TNF-alpha signaling pathway leading to induction of cell death. May alternatively act as a cellular target for adenovirus E3-14.7K, an inhibitor of TNF-alpha functions, thereby affecting cell death.[UniProtKB/Swiss-Prot Function]

## Product images:



Circular map for RG203493