

Product datasheet for **RC203493**

RRAGA (NM_006570) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RRAGA (NM_006570) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	RRAGA
Synonyms:	FIP-1; FIP1; RAGA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC203493 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCCAAATACAGCCATGAAGAAAAGGTGCTGCTGATGGGGAAGAGCGGGTCGGGGAAGACCAGCATGA
GGTCGATAATCTTCGCCAATTACATTGCTCGCGACACCCGGCGCCTGGGGGCCACCATTGACGTGGAACA
CTCCCACGTCCGATTCTAGGGAACCTGGTGTGAACCTGTGGGACTGTGGCGGTCAGGACACCTTCATG
GAAAATTACTTCACCAGCCAGCGAGACAATATCTCCGTAACGTGGAAGTTTGTATTACGTGTTTGACG
TGGAGAGCCGCGAACTGGAAAAGGACATGCATTATTACAGTCGTGTCTGGAGGCCATCCTCCAGAACTC
TCTGACGCCAAAATCTTCTGCCTGGTGCACAAAATGGATCTGGTTCAGGAGGATCAGCGTGACCTGATT
TTTAAAGAGCGAGAGGAAGACCTGAGGCGTCTGTCTCGCCCGCTGGAGTGTGCTTGTTCGAACGTCCA
TCTGGGATGAGACGCTCTACAAAGCCTGGTCCAGCATCGTCTACCAGTGATTCCCAACGTTTCAGCAGCT
GGAGATGAACCTCAGGAATTTTGCCCAAATCATTGAGGCCGATGAAGTTCTGCTGTTTGAAGAGCTACA
TTCTTGTTATTTCCCACTACAGTGCAAAGAGCAGCGCAGCTCCACCGGTTTGAGAAGATCAGCAACA
TCATCAACAGTTCAAGCTGAGCTGCAGTAAATTGGCCGCTTCCTCCAGAGCATGGAAGTTAGGAATTC
CAACTTCGCTGCTTTCATCGACATCTTCACCTCAAATACGTACGTGATGGTGGTCATGTCAGATCCGTCG
ATCCCTTCTGCGGCCACTCTGATCAACATTGCAATGCCCGGAAACACTTTGAGAAGCTGGAGAGAGTGG
ATGGCCCCAAGCACAGTCTCCTTATGCGT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



[View online »](#)

Protein Sequence: >RC203493 protein sequence
 Red=Cloning site Green=Tags(s)

MPNTAMKKKVLLMGKSGSGKTSMRSIIFANYIARDTRRLGATIDVEHSHVRFLGNLVLNLWDCGGQDTFM
 ENYFTSQRDNIIFRNVEVLIYVFDVESRELEKDMHYYSQSCLEAILQNSPDAKIFCLVHKMDLVQEDQRDLI
 FKEREEDLRLSRPLECACFRTSIWDETLYKAWSSIVYQLIPNVQQLMNLNFAQIIIEADEVLLFERAT
 FLVISHYQCKEQRDVHRFEKISNIIKQFKLSCKLAASFQSMVRNSNFAAFIDIFTNTYVMVMSDPS
 IPSAATLINIRNARKHFEKLERVDGPKHSLLMR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6424_a07.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_006570

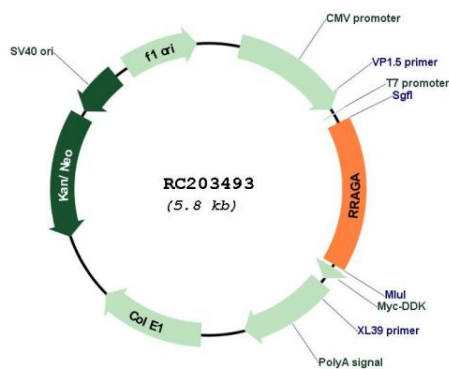
ORF Size: 939 bp

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 or by calling 301.340.3188 option 3 for pricing and delivery.

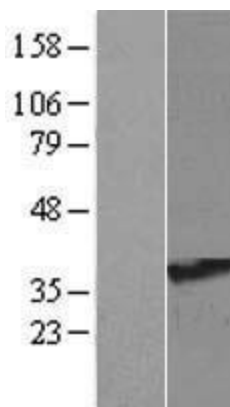
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in 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.
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:	<ol style="list-style-type: none"> 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_006570.5
RefSeq Size:	1657 bp
RefSeq ORF:	942 bp
Locus ID:	10670
UniProt ID:	Q7L523
Cytogenetics:	9p22.1
Domains:	Gtr1_RagA
MW:	36.6 kDa
Gene Summary:	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]

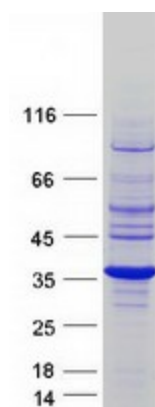
Product images:



Circular map for RC203493



Western blot validation of overexpression lysate (Cat# [LY416559]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203493 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified RRAGA protein (Cat# [TP303493]). The protein was produced from HEK293T cells transfected with RRAGA cDNA clone (Cat# RC203493) using MegaTran 2.0 (Cat# [TT210002]).