

## Product datasheet for **RG203303**

### **RHOA (NM\_001664) Human Tagged ORF Clone**

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** RHOA (NM\_001664) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** RHOA  
**Synonyms:** ARH12; ARHA; EDFAOB; RHO12; RHOH12  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG203303 representing NM\_001664  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCTGCCATCCGGAAGAACTGGTGATTGTTGGTGATGGAGCCTGTGGAAAGACATGCTTGCTCATAG  
TCTTCAGCAAGGACCAGTCCCAGAGGTGTATGTGCCACAGTGTGGAGAACTATGTGGCAGATATCGA  
GGTGGATGGAAAGCAGGTAGAATTGGCTTTGTGGGACACAGCTGGGCAGGAAGATTATGATCGCCTGAGG  
CCCCTCTCTACCCAGATACCGATGTTACTGATGTGTTTTCCATCGACAGCCCTGATAGTTTAGAAA  
ACATCCCAGAAAAGTGGACCCAGAAAGCAAGCATTTCTGTCCCAACGTGCCATCATCCTGGTTGGGAA  
TAAGAAGGATCTTCGGAATGATGAGCACACAAGGCGGGAGCTAGCCAAGATGAAGCAGGACCCGGTGAAA  
CCTGAAGAAGGCAGAGATATGGCAAACAGGATTGGCGCTTTTGGGTACATGGAGTGTTCAGCAAAGACCA  
AAGATGGAGTGAGAGAGGTTTTTGAATGGCTACGAGAGCTGCTCTGCAAGCTAGACGTGGGAAGAAAAA  
ATCTGGGTGCCTTGCTTG

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG203303 representing NM\_001664  
Red=Cloning site Green=Tags(s)

MAAIRKKLVIVGDGACGKTCLLIVFSKQDFPEVYVPTVFENYVADIEVDGKQVELALWDTAGQEDYDRLR  
PLSYPD TDVILMCF SIDSPD SLENIPEKWTPEVKHFCPNVPIILVGNKKDLRND EHTRRELAKMKQEPVK  
PEEGRDMANRIGAFGYMECSAKTKDGVREVFEMATRAALQARRGKKKSGCLVL

**TRTRPLE** - GFP Tag - V

**Restriction Sites:** Sgfl-MluI



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**Cloning Scheme:**


**ACCN:** NM\_001664

**ORF Size:** 579 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.

**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).

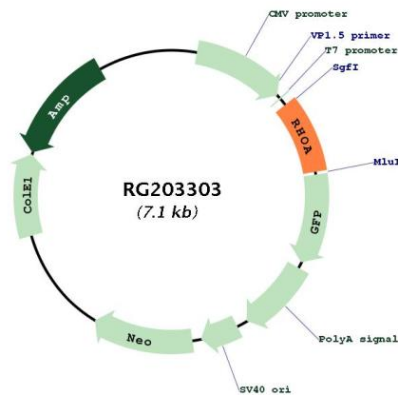
**Reconstitution Method:**

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\\_001664.2](#), [NP\\_001655.1](#)

RefSeq Size:	1926 bp
RefSeq ORF:	582 bp
Locus ID:	387
UniProt ID:	<a href="#">P61586</a>
Cytogenetics:	3p21.31
Domains:	ras, RAS, RHO, RAB
Protein Families:	Druggable Genome
Protein Pathways:	Adherens junction, Axon guidance, Chemokine signaling pathway, Focal adhesion, Leukocyte transendothelial migration, Neurotrophin signaling pathway, Pathogenic Escherichia coli infection, Pathways in cancer, Regulation of actin cytoskeleton, T cell receptor signaling pathway, TGF-beta signaling pathway, Tight junction, Vascular smooth muscle contraction, Wnt signaling pathway
Gene Summary:	This gene encodes a member of the Rho family of small GTPases, which cycle between inactive GDP-bound and active GTP-bound states and function as molecular switches in signal transduction cascades. Rho proteins promote reorganization of the actin cytoskeleton and regulate cell shape, attachment, and motility. Overexpression of this gene is associated with tumor cell proliferation and metastasis. Multiple alternatively spliced variants have been identified. [provided by RefSeq, Sep 2015]

### Product images:



Circular map for RG203303