

Product datasheet for **RC203303**

RHOA (NM_001664) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: RHOA (NM_001664) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: RHOA
Synonyms: ARH12; ARHA; EDFAOB; RHO12; RHOH12
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC203303 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGCTGCCATCCGAAGAACTGGTGATTGTTGGTGATGGAGCCTGTGGAAAGACATGCTTGCTCATAG
 TCTTCAGCAAGGACCAAGTCCAGAGGTGTATGTGCCACAGTGTGAGAACTATGTGGCAGATATCGA
 GGTGGATGGAAAGCAGGTAGAATTGGCTTTGTGGGACACAGCTGGGCAGGAAGATTATGATCGCCTGAGG
 CCCCTCTCTACCCAGATACCGATGTTACTGATGTGTTTTCCATCGACAGCCCTGATAGTTTAGAAA
 ACATCCCAGAAAAGTGGACCCAGAAAGTCAAGCATTTCTGTCCCAACGTGCCATCATCCTGGTTGGGAA
 TAAGAAGGATCTTCGGAATGATGAGCACACAAGGCGGGAGCTAGCCAAGATGAAGCAGGAGCCGGTGAAA
 CCTGAAGAAGGCAGAGATATGGCAAACAGGATTGGCGCTTTTGGGTACATGGAGTGTTTCAGCAAAGACCA
 AAGATGGAGTGAGAGAGGTTTTTGAATGGCTACGAGAGCTGCTCTGCAAGCTAGACGTGGGAAGAAAAA
 ATCTGGGTGCCTTGCTTG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC203303 protein sequence
 Red=Cloning site Green=Tags(s)

MAAIRKKLVIVGDGACGKTCLLIVFSKQDFPEVYVPTVFENYVADIEVDGKQVELALWDTAGQEDYDRLR
 PLSYPDIDVILMCFSIDSPDSLENIPEKWTPEVKHFCPNVPIILVGNKKDLRNDHTRRELAKMKQEPVK
 PEEGRDMANRIGAFGYMECSAKTKDGVREVFEMATRAALQARRGKKKSGCLVL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV


[View online »](#)

Chromatograms: https://cdn.origene.com/chromatograms/mk6051_g08.zip

Restriction Sites: SgfI-MluI

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 or by calling 301.340.3188 option 3 for pricing and delivery.

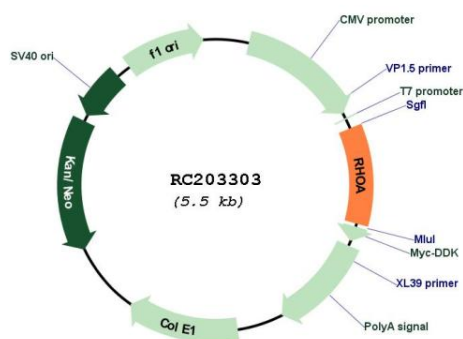
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in 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.

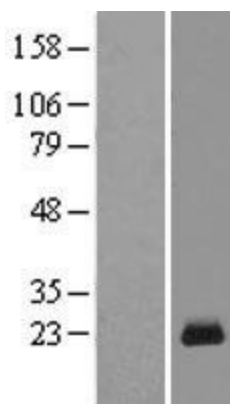
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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.
RefSeq:	<u>NM_001664.4</u>
RefSeq Size:	1926 bp
RefSeq ORF:	582 bp
Locus ID:	387
UniProt ID:	<u>P61586</u>
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
MW:	21.8 kDa
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]

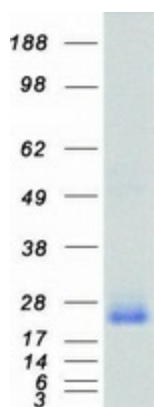
Product images:



Circular map for RC203303



Western blot validation of overexpression lysate (Cat# [LY400630]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203303 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified RHOA protein (Cat# [TP303303]). The protein was produced from HEK293T cells transfected with RHOA cDNA clone (Cat# RC203303) using MegaTran 2.0 (Cat# [TT210002]).