

Product datasheet for **RG209837**

RHOB (NM_004040) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: RHOB (NM_004040) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: RHOB
Synonyms: ARH6; ARHB; MST081; MSTP081; RHOH6
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG209837 representing NM_004040
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGCGGCCATCCGAAGAAGCTGGTGGTGGTGGGCGACGGCGCGTGTGGCAAGACGTGCCTGCTGATCG
 TGTTTCAGTAAGGACGAGTCCCGAGGTGTACGTGCCACCGTCTTCGAGAACTATGTGGCCGACATTGA
 GGTGGACGGCAAGCAGGTGGAGCTGGCGCTGTGGGACACGGCGGCCAGGAGGACTACGACCGCCTGCGG
 CCGCTCTCTACCCGGACACCGACGTATTCTCATGTGCTTCTCGGTGGACAGCCCGGACTCGCTGGAGA
 ACATCCCCGAGAAGTGGGTCCCGAGGTGAAGCACTTCTGTCCCAATGTGCCATCATCCTGGTGGCCAA
 CAAAAAGACCTGCGCAGCGACGAGCATGTCCGCACAGAGCTGGCCCGCATGAAGCAGGAACCCGTGCGC
 ACGGATGACGGCCGCGCCATGGCCGTGCGCATCCAAGCCTACGACTACCTCGAGTCTGCTGCAAGACCA
 AGGAAGCGGTGCGCGAGGTCTTCGAGACGGCCACGCGCGCCGCGTGCAGAAGCGCTACGGCTCCCGAA
 CGGCTGCATCAACTGCTGCAAGGTGCTA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG209837 representing NM_004040
 Red=Cloning site Green=Tags(s)

MAAIRKKLVVVGDGACGKTCLLIVFSKDEFPEVYVPTVFENYVADIEVDGKQVELALWDTAGQEDYDRLR
 PLSYPD TDVILMCF SVDSPD SLENIPEKWWPEVKHFCPNVPIILVANKDLRSDEHVRTELARMKQEPVR
 TDDGRAMAVRIQAYDYLECSAKTKEGVREVFETATRAALQKRYGSQNGCINCKVL

TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-MluI



Cloning Scheme:


ACCN: NM_004040

ORF Size: 588 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

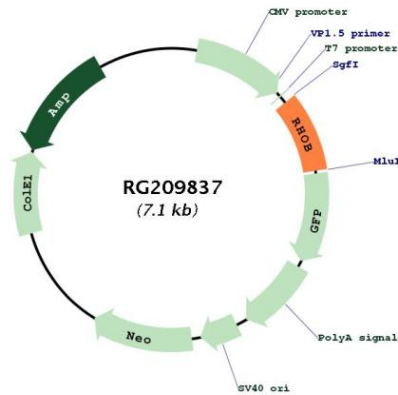
RefSeq: [NM_004040.4](#)

RefSeq Size: 2384 bp

RefSeq ORF: 591 bp

Locus ID: 388

UniProt ID: [P62745](#)
Cytogenetics: 2p24.1
Domains: ras, RAS, RHO, RAB
Protein Families: Druggable Genome
Gene Summary: Mediates apoptosis in neoplastically transformed cells after DNA damage. Not essential for development but affects cell adhesion and growth factor signaling in transformed cells. Plays a negative role in tumorigenesis as deletion causes tumor formation. Involved in intracellular protein trafficking of a number of proteins. Targets PKN1 to endosomes and is involved in trafficking of the EGF receptor from late endosomes to lysosomes. Also required for stability and nuclear trafficking of AKT1/AKT which promotes endothelial cell survival during vascular development. Serves as a microtubule-dependent signal that is required for the myosin contractile ring formation during cell cycle cytokinesis. Required for genotoxic stress-induced cell death in breast cancer cells.[UniProtKB/Swiss-Prot Function]

Product images:


Circular map for RG209837