

Product datasheet for **RC209837**

RHOB (NM_004040) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: RHOB (NM_004040) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: RHOB
Synonyms: ARH6; ARHB; MST081; MSTP081; RHOH6
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
ORF Nucleotide Sequence: >RC209837 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGGCATCCGCAAGAAGCTGGTGGTGGTGGGCGACGGCGCGTGGCAAGACGTGCCTGCTGATCG
TGTT**CAGTAAGGACGAGT**TCCCCGAGGTGTACGTGCCACCGTCTTCGAGAACTATGTGGCCGACATTGA
GGTGGACGGCAAGCAGGTGGAGCTGGCGCTGTGGGACACGGCGGGCCAGGAGGACTACGACCGCCTGCGG
CCGCTCTCCTACCCGGACACCGACGTATTCTCATGTGCTTCTCGGTGGACAGCCCGACTCGCTGGAGA
ACATCCCCGAGAAGTGGTCCCCGAGGTGAAGCACTTCTGTCCCAATGTGCCATCATCCTGGTGGCCAA
CAAAAAAGACCTGCGCAGCGACGAGCATGTCCGCACAGAGCTGGCCCGCATGAAGCAGGAACCCGTGCGC
ACGGATGACGGCCGCGCCATGGCCGTGCGCATCCAAGCCTACGACTACCTCGAGTGCTCTGCCAAGACCA
AGGAAGGCGTGGCGAGGTCTTCGAGACGGCCACGCGCGCCGCGTGCAGAAAGCGCTACGGCTCCAGAA
CGGCTGCATCAACTGCTGCAAGGTGCTA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC209837 protein sequence
Red=Cloning site Green=Tags(s)

MAAIRKKLVVVGDGACGKTCLLIVFSKDEFPEVYVPTVFENYVADIEVDGKQVELALWDTAGQEDYDRLR
PLSYPD**TDVILMCF**SVDSPD**SLNI**PEKWVPEVKHF**CPNVPIIL**VANKKDLRSDEHV**RETEL**ARMKQEPV**R**
TDDGRAMAVRIQAYDYLECSAKTKEGVREVFETATRAALQKRYGSQNGCIN**CKVL**

TRTRPLE**QKLISEEDLA**ANDILDYKDDDDK**V**

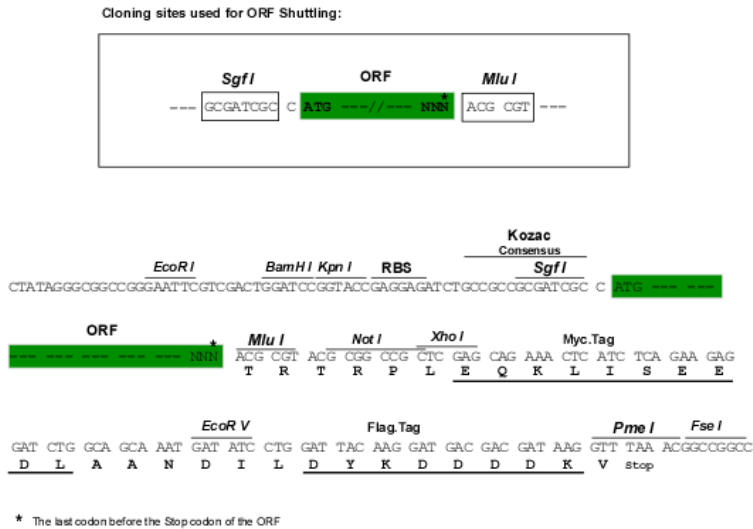
Chromatograms: https://cdn.origene.com/chromatograms/mk6214_h08.zip



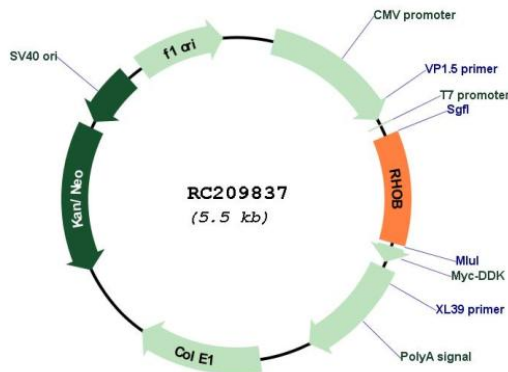
[View online »](#)

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



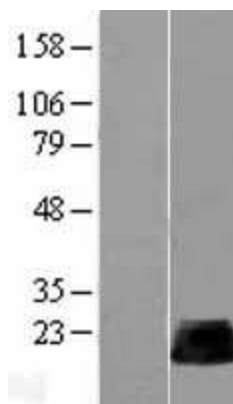
ACCN: NM_004040

ORF Size: 588 bp

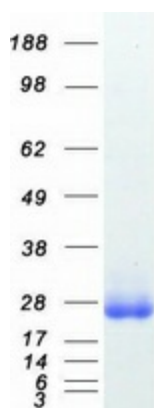
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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:	<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:	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
MW:	22.1 kDa
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:

Western blot validation of overexpression lysate (Cat# [LY418297]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC209837 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified RHOB protein (Cat# [TP309837]). The protein was produced from HEK293T cells transfected with RHOB cDNA clone (Cat# RC209837) using MegaTran 2.0 (Cat# [TT210002]).