

Product datasheet for **RC200307**

RHEB (NM_005614) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: RHEB (NM_005614) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: RHEB
Synonyms: RHEB2
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC200307 representing NM_005614
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCCGCAGTCCAAGTCCCGGAAGATCGCGATCCTGGGCTACCGTCTGTGGGAAATCCTCATTGACGA
TTCAATTTGTTGAAGCCAATTTGTGGACTCCTACGATCCAACCATAGAAAACACTTTACAAAAGTTGAT
CACAGTAAATGGACAAGAATATCATCTTCAACTGTAGACACAGCCGGCAAGATGAATATTCTATCTTT
CCTCAGACATACTCCATAGATATTAATGGCTATATTCTTGTGATTCTGTTACATCAATCAAAGTTTTG
AAGTGATTAAGTTATCCATGGCAAATTGTTGGATATGGTGGGAAAGTACAAATACCTATTATGTTGGT
TGGGAATAAGAAAGACCTGCATATGGAAAGGGTGATCAGTTATGAAGAAGGGAAAGCTTTGCGAGAATCT
TGGAAATGCAGCTTTTTTGAATCTTCTGCTAAAGAAAATCAGACTGCTGTGGATGTTTTTCGAAGGATAA
TTTTGGAGGCAGAAAAATGGACGGGCAGCTTACAAGGCAAGTCTTCATGCTCGGTGATG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC200307 representing NM_005614
Red=Cloning site Green=Tags(s)

MPQSKSRKIAILGYRSVGKSSLTIQFVEGQFVDSYDPTIENTFTKLITVNGQEYHLQLVDTAGQDEYSIF
PQTYSIDINGYILVYSVTSIKSFEVIKVIHGKLLDMVGKVQIPIMLVGNKKDLHMERVISYEEGKALAES
WNAAFLESSAKENQTAVDVFRRILEAEKMDGAASQKSSCSVM

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg3781_h05.zip



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Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_005614

ORF Size: 552 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.

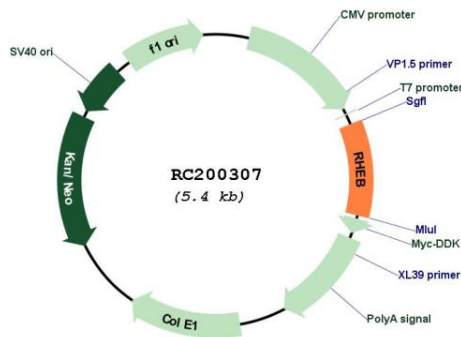
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- Reconstitution Method:**
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.

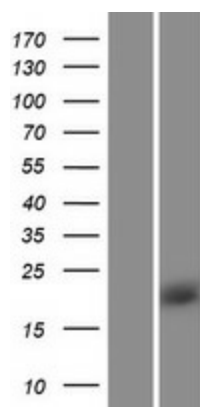
RefSeq:	NM_005614.4
RefSeq Size:	1396 bp
RefSeq ORF:	555 bp
Locus ID:	6009
UniProt ID:	Q15382
Cytogenetics:	7q36.1
Domains:	ras, RAS, RHO, RAB
Protein Pathways:	Insulin signaling pathway, mTOR signaling pathway
MW:	20.3 kDa

Gene Summary: This gene is a member of the small GTPase superfamily and encodes a lipid-anchored, cell membrane protein with five repeats of the RAS-related GTP-binding region. This protein is vital in regulation of growth and cell cycle progression due to its role in the insulin/TOR/S6K signaling pathway. The protein has GTPase activity and shuttles between a GDP-bound form and a GTP-bound form, and farnesylation of the protein is required for this activity. Three pseudogenes have been mapped, two on chromosome 10 and one on chromosome 22. [provided by RefSeq, Jul 2008]

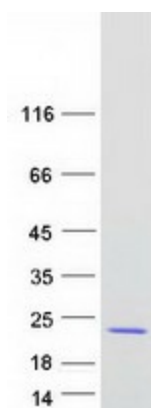
Product images:



Circular map for RC200307



Western blot validation of overexpression lysate (Cat# [LY417187]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200307 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified RHEB protein (Cat# [TP300307]). The protein was produced from HEK293T cells transfected with RHEB cDNA clone (Cat# RC200307) using MegaTran 2.0 (Cat# [TT210002]).