

Product datasheet for **RG226982**

REA (PHB2) (NM_001144831) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	REA (PHB2) (NM_001144831) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PHB2
Synonyms:	BAP; Bap37; BCAP37; hBAP; p22; PNAS-141; REA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG226982 representing NM_001144831 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCCAGAACTGAAGGACTTGGCGGGACGGCTGCCCGCCGGGCCCGGGGCATGGGCACGGCCCTGA
AGCTGTTGCTGGGGCCGGCGCCGTGGCCTACGGTGTGCGCGAATCTGTGTTACCGTGAAGGCGGGCA
CAGAGCCATCTTCTTCAATCGGATCGGTGGAGTGCAGCAGGACACTATCCTGGCCGAGGGCCTTCACTTC
AGGATCCCTTGGTCCAGTACCCATTATCTATGACATTCGGGCCAGACCTCGAAAAATCTCCTCCCTCA
CAGGCTCCAAAGACCTACAGATGGTGAATATCTCCCTGCGAGTGTGTCTCGACCAATGCTCAGGAGCT
TCCTAGCATGTACCAGCGCTAGGGCTGGACTACGAGGAACGAGTGTGCCGTCCATTGTCAACGAGGTG
CTCAAGAGTGTGGTGGCCAAGTTCAATGCCTCACAGCTGATCACCCAGCGGGCCAGGTATCCCTGTTGA
TCCGCCGGGAGCTGACAGAGAGGGCCAAGGACTTCAGCCTCATCCTGGATGATGTGGCCATCACAGAGCT
GAGCTTTAGCCGAGGTACACAGCTGCTGTAGAAGCCAACAAGTGGCCAGCAGGAGGCCAGCGGGCC
CAATTCTTGGTAGAAAAAGCAAAGCAGGAACAGCGGCAGAAAATTGTGCAGGCCGAGGGTGAAGCCGAGG
CTGCCAAGATGCTTGGAGAAGCACTGAGCAAGAACCCTGGCTACATCAAATTCGCAAGATTCGAGCAGC
CCAGAATATCTCCAAGACGATCGCCACATCACAGAATCGTATCTATCTCACAGCTGACAACCTTGTGCTG
AACCTACAGGATGAAAGTTTCACCAGGGGAAGTACAGCCTCATCAAGGGTAAGAAA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG226982 representing NM_001144831
 Red=Cloning site Green=Tags(s)

MAQNLKDLA~~GR~~LPA~~GR~~PMGTALKLLL~~GAGAVAYGVRESVFTVEGGHRAIFFNRIGGVQQDTILA~~EGLHF
 RIPWFQYPIIYDIRARPRKISSPTGSKDLQMVN~~ISLRVLSRPNAQELPSMYQRLGLDYE~~ERVLPSIVNEV
 LKSVVAKFNASQLITQRAQVSL~~IRRELTERAKDFSLILDDVAITELSF~~SREYTA~~A~~EAKQVAQ~~Q~~EAQRA
 QFLVEKAKQE~~QR~~QKIVQAE~~GE~~A~~E~~A~~A~~KMLGEALSKNPGYIKLRKIRA~~A~~QNI~~SKTIATSQNRIYL~~TADNLVL
 NLQDES~~FTRGSDSLIKGKK~~

TRTRPLE - GFP Tag - V

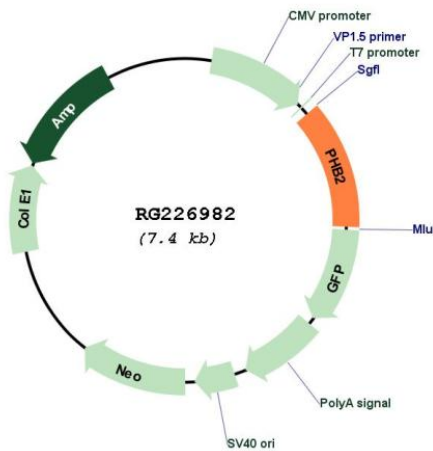
Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM_001144831

ORF Size: 897 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_001144831.2](#)

RefSeq Size: 1457 bp

RefSeq ORF: 900 bp

Locus ID: 11331

UniProt ID: [Q99623](#)

Cytogenetics: 12p13.31

Protein Families: Druggable Genome, Transcription Factors

Gene Summary: Acts as a mediator of transcriptional repression by nuclear hormone receptors via recruitment of histone deacetylases (By similarity). Functions as an estrogen receptor (ER)-selective coregulator that potentiates the inhibitory activities of antiestrogens and represses the activity of estrogens. Competes with NCOA1 for modulation of ER transcriptional activity. In mitochondria, regulates cytochrome-c oxidase assembly (COX) and mitochondrial respiration. Binding to sphingoid 1-phosphate (SPP) modulates its regulator activity (PubMed:20959514).[UniProtKB/Swiss-Prot Function]