

## Product datasheet for **RG234421**

### **GRB7 (NM\_001242442) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	GRB7 (NM_001242442) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	GRB7
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG234421 representing NM\_001242442  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGGGAAAGTGGAGGCCGGGACAAGGGCACACAACTGGTTCGGTTAAGCCCTCTCTCGCTCAGACGCCA  
 TGGAGCTGGATCTGTCTCCACCTCATCTTAGCAGCTCTCCGGAAGACCTTTGCCAGCCCTGGGACCCC  
 TCCTGGGACTCCCCGGCCCCCTGATACCCTCTGCCTGAGGAGGTAAGAGGTTCCAGCCTCTCCTCATC  
 CCAACCACCGGCAGGAACTTCGAGAGGAGGAGAGGCGTGCCACCTCCCTCCCCTCTATCCCAACCCCT  
 TCCCTGAGCTCTGCAGTCTCCCTCACAGAGCCCAATTCTCGGGGGCCCTCCAGTGCAAGGGGGTCTGT  
 CCCCCGATGCCAGCCGCCCATGTAGTAAAGGTGTACAGTGAAGTGGGCTGCAGTCTGTGGAG  
 GTGGCAGCAGGTGCCACAGCTCGCCACGTGTGAAATGCTGGTGCAGCGAGCTCACGCCTTGAGCGACG  
 AGACCTGGGGTGGTGGAGTGCACCCACCTAGCACTGGAGCGGGTTGGAGGACCAGAGTCCGT  
 GGTGGAAGTGCAGCTGCCTGGCCGTGGCGGAGATAGCCGCTTCGTCTCCGAAAAAATTCGCCAAG  
 TACGAAGTGTCAAGAGCTCCCCACACTCCCTGTTCCAGAAAAAATGGTCTCCAGCTGTCTCGATGCAC  
 ACACTGGTATATCCCATGAAGACCTCATCCAGAATTCCTGAATGCTGGCAGTTTCTGAGATCCAGGG  
 CTTTCTGCAGCTGCGGGTTTCAGGACGGAAGCTTTGAAAACGCTTTTCTGCTTCTTGCGCCGATCTGGC  
 CTCTATTACTCCACCAAGGGCACCTTAAGGATCCGAGGCACCTGCAGTACGTGGCAGATGTGAACGAGT  
 CCAACGTGTACGTGGTACGCAGGGCCGAAGCTCTACGGGATGCCCACTGACTTCGGTTTCTGTGTCAA  
 GCCCAACAAGCTTCGAAATGGCCACAAGGGCTTCGGATCTTCTGCAGTGAAGATGAGCAGAGCCGACCC  
 TGCTGGCTGGCTGCCTCCGCTCTTCAAGTACGGGGTGCAGCTGTACAAGAATTACCAGCAGGCACAGT  
 CTCGCCATCTGCATCCATCTTGTGGTCCACCCCTTGGAAAGTGCCTCAGATAATACCCTGGTGGC  
 CATGGACTTCTCTGGCCATGCTGGCGTGTATTGAGAACCCTCCGGAGGCTCTGAGTGTGGCCCTGGAG  
 GAGGCCAGCCCTGGAGGAAGAAGACAAACCACCCCTCAGCCTGCCATGCCAGCTCCGGCAGCAGCC  
 TCAGTGCAGCCATCCACCGCACCAACTCTGGTCCACGGGCGCATTTCCCGTGGAGAGACCCAGCGCT  
 TATTGGACAGCAGGGCTTGGTAGACGCCTGTTCTGCTCCGGGAGAGTCAAGGAAACCCAGGGCTTT  
 GTCCTCTCTTGTGCCACCTGCAGAAAGTGAAGCATTATCTCATCTGCCGAGCGAGGAGGGGCCGCC  
 TGTACTTCAGCATGGATGATGGCCAGCCGCTTCACTGACCTGCTGCAGCTCGTGGAGTCCACCAGCT  
 GAACCGCGGCATCTGCCGTGCTTGTGCGCCATTGCTGCACGGGGTGGCCCTC

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:**

>RG234421 representing NM\_001242442  
 Red=Cloning site Green=Tags(s)

MGKWRPGQGHHTGSVKPLSRSDAMELDLSPPHLSSPEDLCPAPGTPPGTTPRPPDPLPEEVKRSQPLLI  
 PTTGRKLREEERRATSLPSIPNPFPELCSPPSQSPILGGPSSARGLLPRDASRPHVVKVYSEDGACRSVE  
 VAAGATARHVCEMLVQRAHALSDETWGLVECHPHLALERGLEDHESVVEVQAAWPVGGDSRFVFRKNFAK  
 YELFKSSPHSLFPEKMOVSSCLDAHTGISHEDLIQNFNLNAGSFPEIQGFLQLRGSGRKLWKRFFCFLRRSG  
 LYYSTKGTSKDPRHLQYVADVNESNVYVVTQGRKLYGMPTDFGFVKNKLRNGHKGLRIFCSEDEQSRT  
 CWLAAFRLFKYGVQLYKNYQQAQSRHLHPSCLGSPPLRSASDNTLVAMDFSGHAGRVIENPREALSVALE  
 EAQAWRKKTNHRLSLPMPASGTSLSAAIHRQLWFHGRISREESQRLIGQQGLVDGLFLVRESQRNPQGF  
 VLSLCHLQKVKHYLILPSEEEGRLYFSMDDGQTRFTDLLQLVEFHQLNRGILPCLLRHCCTRVAL

**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_001242442

**ORF Size:** 1665 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.

**RefSeq:** [NM\\_001242442.1](#), [NP\\_001229371.1](#)

**RefSeq Size:** 2214 bp

**RefSeq ORF:** 1668 bp

**Locus ID:** 2886

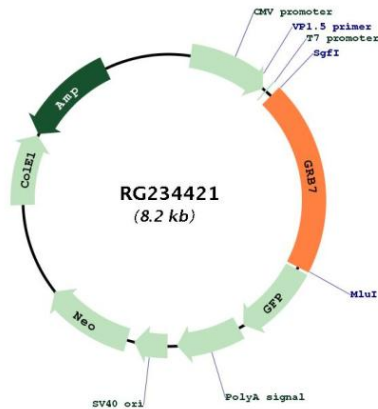
**UniProt ID:** [Q14451](#)

**Cytogenetics:** 17q12

**Protein Families:** Druggable Genome, Embryonic stem cells, Stem cell - Pluripotency

**Gene Summary:** The product of this gene belongs to a small family of adapter proteins that are known to interact with a number of receptor tyrosine kinases and signaling molecules. This gene encodes a growth factor receptor-binding protein that interacts with epidermal growth factor receptor (EGFR) and ephrin receptors. The protein plays a role in the integrin signaling pathway and cell migration by binding with focal adhesion kinase (FAK). Several transcript variants encoding two different isoforms have been found for this gene. [provided by RefSeq, Jun 2011]

**Product images:**



Circular map for RG234421