

Product datasheet for **RC220715**

GRB10 (NM_005311) Human Tagged ORF Clone

Product data:

| | |
|---------------------------|------------------------------------------|
| Product Type: | Expression Plasmids |
| Product Name: | GRB10 (NM_005311) Human Tagged ORF Clone |
| Tag: | Myc-DDK |
| Symbol: | GRB10 |
| Synonyms: | Grb-10; GRB-IR; IRBP; MEG1; RSS |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-Entry (PS100001) |
| E. coli Selection: | Kanamycin (25 ug/mL) |



[View online »](#)

ORF Nucleotide Sequence:

>RC220715 representing NM_005311
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCTTTAGCCGGCTGCCAGATTCTTTTTGCACCATCCGTAACCAGGACAAGGTGGAGCAGACAC
 CTCGCAGTCAACAAGACCCGGCAGGACCAGGACTCCCCGCACAGTCTGACCGACTTGCGAATCACCAGGA
 GGATGATGTGGACCTGGAAGCCCTGGTGAACGATATGAATGCATCCCTGGAGAGCCTGTAAGTCTCGGCTGC
 AGCATGCAGTCAGACACGGTGCCCTCTGCAGAAATGGCCAGCATGCCCGCAGCCAGCCTCGGGCTTCAG
 GCCCTCTCGTCCATCCAGCCACAGGTGTCCCGAGGCGAGGGTGCAGCGCTCCAGCCTGTGCACAT
 CCTCGTGTCCAGGCGCTTCAGGAGGAAGACCAGCAGTTTAAACCTCATCTCTGCCGGCCATCCCCAAT
 CCTTTCTGAACTCTGTGGCCCTGGGAGCCCCCTGTGCTCACGCCGGTCTTTACCTCCGAGCCAGG
 CCGCCGCAAAGCAGGATGTTAAAGTCTTAAAGTGAAGATGGACAAGCAAAGTGGTGGAGATTCTAGCAGA
 CATGACAGCCAGAGACCTGTGCCAATTGCTGGTTTACAAAAGTCACTGTGTGGATGACAACAGCTGGACA
 CTAGTGGAGCACCACCCGCACCTAGGATTAGAGAGGTGCTTGAAGACCATGAGCTGGTGGTCCAGGTGG
 AGAGTACCATGGCCAGTGAAGTAAATTTCTATTACAGGAAGAATTACGCAAAAATACGAGTTCTTTAAAAA
 TCCCATGAATTTCTCCAGAACAGATGGTTACTTGGTCCAGCAGTCAAATGGCAGTCAAACCCAGCTT
 TTGAGAATTTCTGAACTCCAGTAGTTGTCTGAAATTCAGGGTTTTTGCATGTGAAAGAGCTGGGAA
 AGAAATCATGGAAAAGCTGTATGTGTGTTGCGGAGATCTGGCCTTTATTGCTCCACCAAGGAACTTC
 AAAGGAACCCAGACACCTGCAGCTGTGGCCGACCTGGAGGACAGCAACATCTTCCCTGATCGCTGGC
 AGGAAGCAGTACAACGCCCTACAGACCAGGGCTCTGCATAAAGCCAAACAAAGTCAGGAATGAAACTA
 AAGAGCTGAGGTTGCTCTGTGCAGAGGACGAGCAAAACAGGACGTGCTGGATGACAGCTCAGACTCCT
 CAAGTATGGAATGCTCCTTTACCAGAATTACCGAATCCCTCAGCAGAGGAAGGCCTTGCTGTCCCGTTC
 TCGACGCCAGTGCAGTGTCTCCGAGAACTCCCTCGTGGCAATGGATTTTTCTGGGCAACAGGACGCG
 TGATAGAGAATCCGGCGGAGGCCAGAGCGCAGCCCTGGAGGAGGGCCACGCCTGGAGGAAGCGAAGCAC
 ACGGATGAACATCCTAGGTAGCCAAAGTCCCCTCCACCCTTCTACCCTAAGTACAGTATTACAGGACA
 CAGCACTGGTTTACGGGAGGATCTCCAGGGAGGAATCCACAGGATCATTAAACAGCAAGGGCTCGTGG
 ATGGGCTTTTTCTCCGTGACAGCCAGAGTAATCAAAGGCATTTGACTCACACTGTGCATCACCA
 GAAAATAAAAATTTCCAGATCTTACCTTGCAGGACGACGGGCAGACGTTCTTACGCTAGATGACGGG
 AACACCAAATTTCTGACCTGATCCAGCTGGTTGACTTTACCAGCTGAACAAAGGAGTCTGCCTTGCA
 AACTCAAGCACCCTGCATCCGAGTGGCTTA

AG**CGGACCG**ACGCGTACGCGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
 TGGATTACAAGGATGACGACGATAAGGTTAA

Protein Sequence:

>RC220715 representing NM_005311
 Red=Cloning site Green=Tags(s)

MALAGCPDSFLHHPYQDKVEQTPRSQQDPAGPGLPAQSDRLANHQEDDVLEALVNDMNASLESLSYAC
 SMQSDTVPLLQNGQHARSQPRASGPPRSIQPVSPRQRVQRSQPVHILAVRRLQEEDQQFRTSSLPAIPN
 PFPELCPGPPVLTGSLPPSQAQAKQDVKVFSEDGTSKVVVEILADMTARDLCQLLVYKSHCVDDNSWT
 LVEHHPHLGLERCLELHELVVQVESTMASESKFLFRKNYAKYEFFKNPMNFFPEQMVTWCQSQNGSQTQL
 LQNFLNSSSCEIQGFLHVKELGKKSWKLYVCLRRSGLYCSTKGTSTKEPRHLQLLADLEDSNIFSLIAG
 RKQYNAPTDHGLCIKPNKVRNETKELRLLCAEDEQTRTCWMTAFRLKYGMLLYQNYRIPQQRKALLSPF
 STPVRSVSENSLVAMDFSGQTGRVIENPAEAQSAALEEGHAWRKRSTRMNILGSQSPLHPSTLSTVIHRT
 QHWFHGRISREESHRIKQQLVDGLFLLRDSQSNPKAFVLTLCCHQKIKNFQILPCEDDGQTFSLDDG
 NTKFSDLIQLVDFYQLNKGVLPCCLKHHHCIRVAL

SGPTRRRLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-RsrII

Cloning Scheme:


ACCN: NM_005311

ORF Size: 1782 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_005311.4](#)

RefSeq Size: 4717 bp

RefSeq ORF: 1785 bp

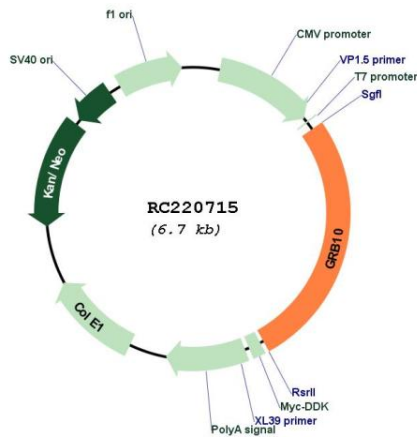
Locus ID: 2887

UniProt ID: [Q13322](#)

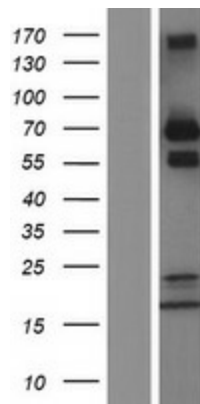
Cytogenetics: 7p12.1
Domains: RA, SH2, PH
Protein Families: Druggable Genome
MW: 67.1 kDa

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 insulin receptors and insulin-like growth-factor receptors. Overexpression of some isoforms of the encoded protein inhibits tyrosine kinase activity and results in growth suppression. This gene is imprinted in a highly isoform- and tissue-specific manner, with expression observed from the paternal allele in the brain, and from the maternal allele in the placental trophoblasts. Alternatively spliced transcript variants encoding different isoforms have been identified. [provided by RefSeq, Oct 2010]

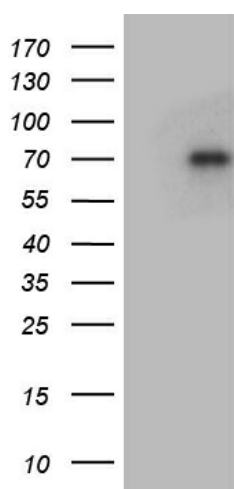
Product images:



Circular map for RC220715



Western blot validation of overexpression lysate (Cat# [LY417385]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC220715 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY GRB10 (Cat# RC220715, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-GRB10 (Cat# [TA812343]). Positive lysates [LY417385] (100ug) and [LC417385] (20ug) can be purchased separately from OriGene.