

Product datasheet for **RC216110**

GRB 14 (GRB14) (NM_004490) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GRB 14 (GRB14) (NM_004490) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GRB 14
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC216110 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGC**C

ATGACCACTTCCCTGCAAGATGGGCAGAGCGCCGCGAGCAGGGCGGCTGCCCGGATTCCCGCTGGCCG
 CCCAGGTGTGTGGCGCTGCCAGGGGAGGGGCGACGCCACGACCTGGCGCCGGCCCCCTGGCTGCACGC
 GCGAGCGCTCCTGCCCTTCCGGACGGGACCGCGGCTGTGCTGCAGACAGGAGAAAAAAGAAAGATCTT
 GATGTTCCGAAATGCCATCTATTCCAAACCTTTTCTGAGCTATGCTGTTCTCCATTTACATCTGTTT
 TGTGAGCAGACCTATTTCCCAAAGCAAATTCAAGGAAAAAACAGGTGATTAAGTATACAGTGAAGATGA
 AACCAGCAGGGCTTTAGATGTACCCAGTGACATAACGGCTCGAGATGTTTGTGAGCTGTTGATCTGAAG
 AATCATTACATTGATGACCACAGCTGGACCTTTTGTGACACCTGCCTCACATAGGTGTAGAAAGAACAA
 TAGAAGACCACGAACTGGTGATTGAAGTCTATCCAATGGGGGATAGAAGAAGAAAAACAACTATACTT
 TAGAAAAAATTATGCCAAATATGAGTTCTTTAAAAACCAATGTATTTTTTCCAGAGCATATGGTATCT
 TTTGCAACTGAAACCAATGGTGAAATATCCCCACACAGATTTTGCAGATGTTTCTGAGTTCAAGACAT
 ATCCTGAAATTCATGGTTTCTTACATGCGAAAGAACAGGGAAGAGTCTTGAAAAAATTTACTTTTT
 TCTAAGAAGATCTGGTTTATATTTTCTACTAAAGGAACATCAAAGGAACCGCGCATTTGCAGTTTTTC
 AGCGAATTTGGCAATAGTGATATTTATGTGCTACTGGCAGGCAAAAAAACATGGAGCACCAGCTAACT
 ATGGATTCTGCTTAAGCCTAACAAAGCGGGAGGGCCCCGAGACCTGAAATGCTCTGTGAGAAGAAGA
 GCAGAGTAGGACGTGCTGGTGACCGGATTAGATTGCTTAAGTATGGCATGCAGCTGTACCAGAATTAT
 ATGCATCCATATCAAGGTAGAAGTGGCTGCAGTTCACAGAGCATATCACCTATGAGAAGTATATCAGAGA
 ATTCCTGGTAGCAATGGACTTCTCAGGCCAGAAAAAGCAGAGTTATAGAAAAATCCCACTGAAGCCCTTTC
 AGTTGCGGTTGAAGAAGGACTCGCTTGGAGGAAAAAAGGATGTTTACGCCTGGGCACTCACGGTAGCCCC
 ACTGCCTCTTACAGAGCTCTGCCACAAACATGGCTATCCACCGGTCCCAGCCATGGTTTACCACAAAA
 TTTCTAGAGATGAGGCTCAGCGATTGATTATTCAGCAAGGACTTGTGGATGGAGTTTTCTTGGTACGGGA
 TAGTCAGAGTAACCCCAAACCTTTCGTAAGTGTCAATGAGTCATGGACAAAAATAAGCACTTTCAAATT
 ATACCAGTAGAAGATGACGGTGAAATGTTCCACACACTGGATGATGGCCACACAAGATTTACAGATCTAA
 TACAGCTGGTGGAGTTCTATCAACTCAATAAGGGCGTTCTTCTTGAAGTTGAAACATTATTGTGCTAG
 GATTGCTCTC

ACGCGTACGCGGCGGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC216110 protein sequence
 Red=Cloning site Green=Tags(s)

MTTSLQDGQSAASRAAARDSPLAQVCGAAQGRGDAHDLAPAPWLHARALLPLPDGTRGCAADRRKKKDL
 DVPEMPSIPNPFPELCCSPFTSVLSADLFPKANSRKKQVIKVYSEDETSRALDVPSDITARDVCQLLILK
 NHYIDHWSWTLFEHLPHIGVERTIEDHELVIEVLSNWGIEEENKLYFRKNYAKYEFFKNPMYFFPEHMVS
 FATETNGEISPTQILQMFLSSSTYPEIHGFLHAKEQGKKSWKKIYFFLRSSGLYFSTKGSKEPRHLQFF
 SEFGNSDIYVSLAGKKKHGAPTNYGFCFKPNKAGGPRDLKMLCAEEEQSRTCWVTAIRLLKYGMQLYQNY
 MHPYQGRSGCSSQISPMRSISENSLVAMDFSGQKSRVIENPTEALSVAVEEGLAWRKKGCLRLGTHGSP
 TASSQSSATNMAIHRSPWFHHKISRDEAQRLLIQQGLVDGVFLVRDSQSNPKTFVLMSHGQKIKHFQI
 IPVEDDGEMFHTLDDGHTRFTDLIQLVEFYQLNKGVLPCCLKHYCARIAL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6353_f10.zip

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_004490

ORF Size: 1620 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_004490.3](#)

RefSeq Size: 2402 bp

RefSeq ORF: 1623 bp

Locus ID: 2888

UniProt ID: [Q14449](#)

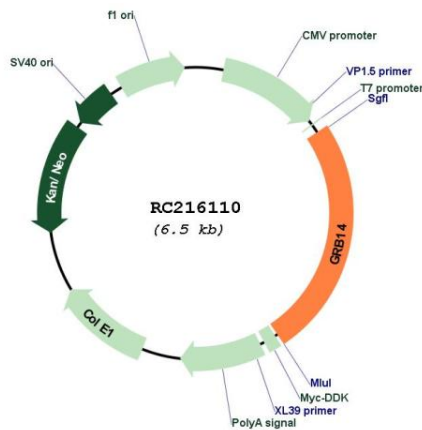
Cytogenetics: 2q24.3

Domains: RA, SH2, PH

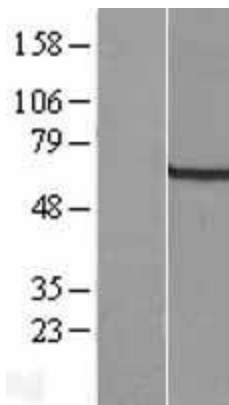
MW: 61 kDa

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. This protein likely has an inhibitory effect on receptor tyrosine kinase signaling and, in particular, on insulin receptor signaling. This gene may play a role in signaling pathways that regulate growth and metabolism. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Dec 2014]

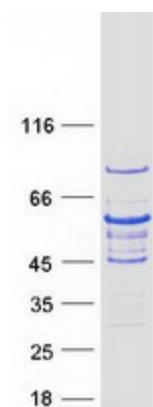
Product images:



Circular map for RC216110



Western blot validation of overexpression lysate (Cat# [LY417952]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC216110 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified GRB14 protein (Cat# [TP316110]). The protein was produced from HEK293T cells transfected with GRB14 cDNA clone (Cat# RC216110) using MegaTran 2.0 (Cat# [TT210002]).