

Product datasheet for **MC219498**

Grb10 (NM_010345) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Grb10 (NM_010345) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Grb10
Synonyms:	5730571D09Rik; AI325020; Meg1; mKIAA0207
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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Fully Sequenced ORF: >MC219498 representing NM_010345
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGAACAACGATATTAACCTCGTCCGTGGAAAGCCTTAACCTCAGCTTGCAACATGCAGTCTGATACTGATA
 CTGCACCACTTCTTGAGGATGGCCAGCATGCCAGCAACCAGGGAGCAGCATCTAGCTCCCGGGACAGCC
 ACAGGCGTCCCGAGGCAGAAAATGCAACGCTCGCAGCCTGTGCACATTCTCAGGCGCCTTCAGGAGGAA
 GACCAGCAGTTAAGAAGTGCATCTCTCCGGCCATCCCCAACCCATTTCCGGAGCTCACTGGTGCGGCCC
 CTGGGAGCCCTCCTTCGGTTGCTCCTAGCTCCTTACCTCCTCCTCGAGCCAGCCACCTGCCAAGCATT
 CCCTCCAGGCTTTCAGCTGTCGAAACTCACCCGTCCAGGTCTGTGGACAAAGACCACTGCGAGATTTTCA
 AAGAAACAACCTAAGAACCAGTGTCCAACCGACTGTGAATCCAGTGGCACGGATGCCACTTCACAGA
 TGGAGAAGCTGAGGCTCAGAAAGGATGTCAAAGTCTTTAGTGAAGATGGGACCAGCAAAGTGGTGGAGAT
 TCTAACCGACATGACAGCCAGGGACCTGTGCCAGCTGCTGGTTTACAAAAGTCACTGTGTGGATGACAAC
 AGCTGGACTCTGGTGGAAACACCACCACAACCTGGGATTAGAGAGGTGCCTGGAGGACCATGAGATCGTGG
 TCCAAGTGGAGAGTACCATGCCAAGTGAGAGCAAATTCCTATTGAGAAAGAAATTATGCGAAGTACGAGTT
 CTTAAGAATCCAGTGAACCTTCTCCCGGATCAGATGGTCAATTGGTGGCAGCAGTCCAACGGTGGCCAG
 GCGCAGCTTCTGCAGAATTTTCTGAACACCAGCAGCTGCCCTGAGATCCAGGGGTTCTTGCAAGTAAAG
 AGGTAGGACGCAAGTCTTGAAGAAGCTGTATGTGTGCCTGCGCAGATCTGGCCTCTATTACTCCACCAA
 GGGGACTTCAAAAGAACCAGACACCTGCAGCTGCTGGCTGACCTGGAAGAAAGCAGCATCTTCTACCTG
 ATTGCTGGAAAGAAGCAGTACAACGCGCCGAATGAACATGGGATGTGCATCAAGCCAAACAAGCGAAGA
 CCGAGATGAAGGAGCTTCGTCTGCTCTGTGCCGAAGATGACAGATCCGTACTTGTGGATGACTGCCTT
 CAGACTGCTCAAGTACGGAATGCTCCTGTACAAAACATCGCATCCACAGAGGAAGGGTCTGCCCCCT
 CCTTTCAACGCACCTATGCGCAGTGTTCCTGAGAATTCTTGTGGCCATGGATTTTTCTGGACAAATCG
 GAAGAGTGATCGATAACCCGGCTGAAGCCAGAGTGTGCCCTGGAAGAGGGCCATGCCTGGCGTAAAGCG
 GAGCACACGGATGAATATCCTAAGCAGCCAAAGCCACTGCATCCTTCTACCCTGAATGCAGTGATTAC
 AGGACTCAGATTGGTTCCATGGACGTATCTCCCGCAGGAGTCTCACAGGATCATCAAGCAACAAGGTC
 TCGTGGACGGGCTGTTCCCTCCTCGTGACAGCCAGAGTAATCAAAGGCGTTCTGACTGACACTGTGCCA
 TCACCAGAAGATTA AAAACTTCCAGATCTTACCTTGCAGGATGATGGGACAGCCTTCTTACTCTGGAT
 GATGGGAACCAAGTTCTCCGATCTGATCCAGCTGGTCGACTTCTACCAGCTCAACAAAGGTGTTCTGC
 CCTGCAAGCTGAAACACCCTGCATCCGGTGGCCTTATGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI
ACCN: NM_010345
Insert Size: 1791 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](#)

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_010345.4](#), [NP_034475.2](#)

RefSeq Size: 5089 bp

RefSeq ORF: 1791 bp

Locus ID: 14783

UniProt ID: [Q60760](#)

Cytogenetics: 11 7.15 cM

Gene Summary:

Adapter protein which modulates coupling of a number of cell surface receptor kinases with specific signaling pathways. Binds to, and suppress signals from, activated receptors tyrosine kinases, including the insulin (INSR) and insulin-like growth factor (IGF1R) receptors. The inhibitory effect can be achieved by 2 mechanisms: interference with the signaling pathway and increased receptor degradation. Delays and reduces AKT1 phosphorylation in response to insulin stimulation. Blocks association between INSR and IRS1 and IRS2 and prevents insulin-stimulated IRS1 and IRS2 tyrosine phosphorylation. Recruits NEDD4 to IGF1R, leading to IGF1R ubiquitination, increased internalization and degradation by both the proteasomal and lysosomal pathways. A similar role in the mediation of ubiquitination has also been suggested with INSR. Negatively regulates Wnt signaling by interacting with LRP6 intracellular portion and interfering with the binding of AXIN1 to LRP6. Positive regulator of the KDR/VEGFR-2 signaling pathway. May inhibit NEDD4-mediated degradation of KDR/VEGFR-2. [UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (1) includes an alternate internal exon, compared to variant 3. It encodes isoform 1 which is shorter, compared to isoform 3.