

Product datasheet for **RG220715**

GRB10 (NM_005311) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GRB10 (NM_005311) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	GRB10
Synonyms:	Grb-10; GRB-IR; IRBP; MEG1; RSS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG220715 representing NM_005311
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCTTTAGCCGGCTGCCAGATTCTTTTTGCACCATCCGTACTIONACCAGGACAAGGTGGAGCAGACAC
 CTCGCAGTCAACAAGACCCGGCAGGACCAGGACTCCCGCACAGTCTGACCGACTTGCGAATCACCAGGA
 GGATGATGTGGACCTGGAAGCCCTGGTGAACGATATGAATGCATCCCTGGAGAGCCTGTACTCGGCCTGC
 AGCATGCAGTCAGACACGGTGCCCTCTCTGCGAATGGCCAGCATGCCCGCAGCCAGCCTCGGGCTTCAG
 GCCCTCTCGGTCCATCCAGCCACAGGTGTCCCGAGGCAGAGGGTGCAGCGCTCCAGCCTGTGCACAT
 CCTCGCTGTCAAGCGCCTCAGGAGGAAGACCAGCAGTTTAAACCTCATCTCTGCCGCCATCCCCAAT
 CCTTTTCTGAACTCTGTGGCCCTGGGAGCCCCCTGTGCTCACGCCGGTTCTTACCTCCGAGCCAGG
 CCGCCGAAAGCAGGATGTTAAAGTCTTAGTGAAGATGGACAAGCAAAGTGGTGGAGATTCTAGCAGA
 CATGACAGCCAGAGACCTGTGCCAATTGCTGGTTACAAAAGTCACTGTGTGGATGACAACAGCTGGACA
 CTAGTGGAGCACCACCCGCACCTAGGATTAGAGAGGTGCTTGAAGACCATGAGCTGGTGGTCCAGGTGG
 AGAGTACCATGGCCAGTGAAGTAAATTTCTATTCAGGAAGAATTACGAAAATACGAGTCTTTAAAAA
 TCCCATGAATTTCTCCAGAACAGATGGTTACTTGGTCCAGCAGTCAAATGGCAGTCAAACCCAGCTT
 TTGCGAATTTCTGAACTCCAGTAGTTGTCTGAAATTCAGGGTTTTTGCATGTGAAAGAGCTGGGAA
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 AAGAGCTGAGGTTGCTCTGTGCAGAGGACGAGCAAACACAGGACGTGCTGGATGACAGCCTCAGCTCT
 CAAGTATGGAATGCTCCTTTACCAGAATTACCGAATCCCTCAGCAGAGGAAGGCCTTGCTGTCCCGTTC
 TCGACGCCAGTGCAGTGTCTCCGAGAACTCCCTCGTGCAATGGATTTTTCTGGGCAACAGGACGCG
 TGATAGAGAATCCGGCGGAGGCCAGAGCGCAGCCCTGGAGGAGGGCCACGCCTGGAGGAAGCGAAGCAC
 ACGGATGAACATCCTAGGTAGCCAAAGTCCCTCCACCCTTCTACCCTAAGTACAGTATTACAGGACA
 CAGCACTGGTTTACGGGAGGATCTCCAGGAGGAATCCACAGGATCATTAAACAGCAAGGGCTCGTGG
 ATGGGCTTTTTCTCCTCCGTGACAGCCAGAGTAATCCAAAGGCATTTGTACTIONCACACTGTGCATACCA
 GAAAATAAAAATTTCCAGATCTTACCTTGCAGGACGACGGGCAGACGTTCTTACGCTAGATGACGGG
 AACACCAAATTTCTGACCTGATCCAGCTGGTTGACTTTTACCAGCTGAACAAAGGAGTCTGCCTTGCA
 AACTCAAGCACCCTGCATCCGAGTGGCCTTA

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG220715 representing NM_005311
 Red=Cloning site Green=Tags(s)

MALAGCPDSFLHHPYYQDKVEQTPRSQQDPAGPGLPAQSDRLANHQEDDVLLEALVNDMNASLESLSYAC
 SMQSDTVPLLQNGQHARSQPRASGPPRSIQPVSPRQRVQRSQPVHILAVRRLQEEDQQFRTSSLPAIPN
 PFPELCPGSPVLPVTPGSLPPSQAQAAKQDVKVFSEDGTSKVVVEILADMTARDLCQLLVYKSHCVDDNSWT
 LVEHHPHLGLERCLEDELVVQVESTMASESKFLFRKNYAKYEFFKNPMNFFPEQMVTWCQSNQSQTQL
 LQNFLNSSCPEIQGFLHVKELGKKSWKLYVCLRRSGLYCSTKGTSTKEPRHLQLLADLEDSNIFSLIAG
 RKQYNAPTDHGLCIKPNKVRNETKELRLLCAEDEQTRTCWMTAFRLLKYGMMLYQNYRIPQQRKALLSPF
 STPVRSVSENSLVAMDFSGQTGRVIENPAEAQSAALEEGHAWRKRSTRMNILGSQSPLHPSTLSTVIHRT
 QHWFHGRISREESHRIKQQLVDGLFLLRDSQSNPKAFVLTLCCHQKIKNFQILPCEDDGGQTFSLDDG
 NTKFSDLIQLVDFYQLNKGVLPCCLKHHCIRVAL

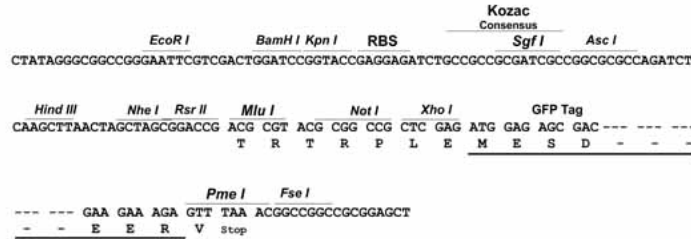
SGP**TRRRLE** - GFP Tag - V

Restriction Sites:

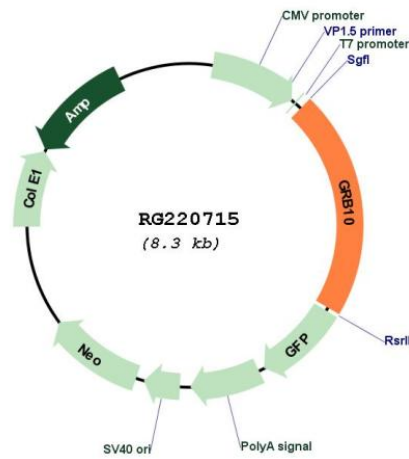
Sgfl-RsrII

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



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:	<ol style="list-style-type: none">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
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]