

Product datasheet for **RR204718**

Grb14 (NM_031623) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Grb14 (NM_031623) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Grb14
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide Sequence:

>RR204718 representing NM_031623
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGACCACGTCCCTGCAAGATGGGCAGAGCGCCGCGGGCCGGGCGGCCAGGACTCCCCGCTGGCAG
 TGCAGGTGTGCCGCTTCCAGGGCAAGGAGACGCCAGGACCGGCTCAGGTCCCCGACTGCACGC
 GCTGTCCCGGCCTCAGATGCGACCCGCGCGGTGCCATGGACAGGAGAAAAGCGAAAGATCTGGAAGTT
 CAGGAAACGCCTTCCATTCTAACCCCTTCCCTGAGCTCTGCTGTTCTCCACTTACATCGGTGCTGCAG
 CAGGCCTTCCCCAGATCAAATTAAGGAAGAAAACAGGTGATTAAGTTTACAGCGAGGATGAGACCAG
 CAGAGCGTTAGAGGTGCCAGTGACGTACAGCCCGTGATGTCTGCCAGCTGTTGATCCTGAAGAACCAC
 TATGTCGACGACAATAGCTGGACCCTTTTGGACACCTGTCTCACACAGGCGTAGAAAGGACAGTGGAGG
 ACCATGAGCTGCTGACTGAAGTGTCTCATTGGGTGATGGAAGAAGATAATAAGCTGTATCTTAGAAA
 GAATTATGCCAAATATGAATTTTTAAGAACCCAAATGTATTTCTTCCAGAGCACATGGTGTCTTTTGCA
 ACTGAAATGAACGGTGACAGATCCCTTACACAGATCCCGCAGGTGTTTTAAGCTCAAACACATATCCTG
 AAATCCATGGCTTCTGCATGCAAGGAACAGGGGAAGAAGTCTTGAAAAAAGCTTACTTTTTTCTCAG
 AAGATCTGGTTTATTTTTCTACTAAAGGCACATCCAAGGAACCACGGCACTTGCAGTTTTTCAGTGAA
 TTCAGCACTAGTAATGTTTACATGTCACTGGCAGGCAAAAAAAGCATGGAGCGCCGACTCCCTATGGAT
 TCTGCTTAAAGCTACCAAAGCAGGAGGGCCCCGGGACCTGAAAAATGCTGTGTGCAGAAGAAGACCAAAG
 CAGGATGTGCTGGGTGACCGCCATTAGATTGCTCAAGTATGGCATGCAGCTCTACCAGAATTATATGCAT
 CCATCCCAAGCTAGAAGCGCCTGCAGTTCTCAGAGCGTATCACCCATGAGAAGCGTATCAGAGAATTCCT
 TAGTAGCAATGGACTTCTCAGGTGAGAAGACAGAGTATAGACAACCCACTGAAGCCCTTTCGGTTGC
 CGTTGAGGAAGGACTCGCTTGGAGGAAAAAAGGATGTTTACGCCTGGGGAATCATGGGAGTCCCACTGCG
 CCCTCTCAGAGCTCTGCTGTGAACATGGCTCTCCACCGTCCCAGCCATGGTTTACCACAGAATTTCTA
 GAGATGAAGCTCAGCAGTTGATTACCCGGCAGGGCCTGTGGATGGAGTTTTCTTGGTACGGGATAGTCA
 GAGTAACCCAGAACTTTTGTACTGTCAATGAGTACGGACAAAAGATAAAACACTTTCAAATTATACCC
 GTGGAAGATGATGGTGGGTGTTCCACACCCTGGATGATGGCCATACGAAGTTCACAGATCTCATCCAGC
 TCGTGGAGTTCTACCAGCTCAACAAGGGGCTCTCTGCAAGCTGAAGCATTACTGTGCTAGGATGGC
 TGT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RR204718 representing NM_031623
 Red=Cloning site Green=Tags(s)

MTTSLQDQSAAGRAGAQDSPLAVQVCRVAQGGKGAQDPAQVPLHALSPASDATRRGAMDRRKAKDLEV
 QETPSIPNPFPELCCSPLTSVLSAGLFPRSNSRKKQVIKYYSEDETSRALEVPSDVTARDVCQLLILKNH
 YVDDNSWTLFEHLSHTGVERTVEDHELLTEVLSHWVMEEDNKLRLRKNYAKYEFKKNPMYFFPEHMFSA
 TEMNGDRSLTQIPQVFLSSNTYPEIHGFLHAKEQGKKSWKKAYFFLRSSGLYFSTKGTKEPRHLQFFSE
 FSTSNVYMSLAGKKKHGAPTPYGFCKPTKAGGPRDLKMLCAEEDQSRMCWVTAIRLLKYGMQLYQNYMH
 PSQARSACSSQSVPMRSVSENSLVAMDFSGQKTRVIDNPTEALSVAVEEGLAWRKKGLRLGNHGSPTA
 PSQSSAVNMALHRSQPWFHHRISRDEAQLITRQGPVDGVFLVRDSQSNPRTFVLSMSHGQKIKHFQIIP
 VEDDGEVFHTLDDGHTKFTDLIQLVEFYQLNKGVLPCCLKHYCARMAV

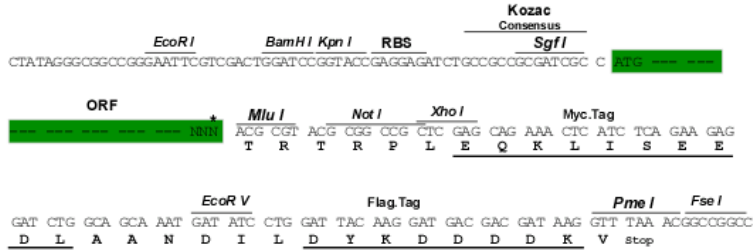
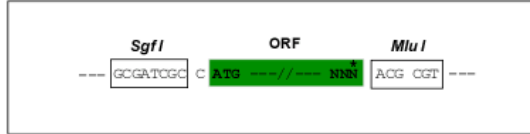
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

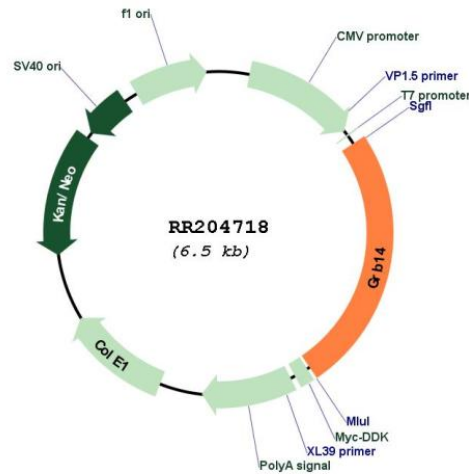
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

Plasmid Map:


ACCN: NM_031623

ORF Size: 1614 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_031623.1](#), [NP_113811.1](#)

RefSeq Size: 1950 bp

RefSeq ORF: 1617 bp

Locus ID: 58844

UniProt ID: [O88900](#)

Cytogenetics: 3q21

MW: 60.6 kDa

Gene Summary: member of the Grb7 subfamily of adapters; functions as inhibitor in insulin-mediated pathways [RGD, Feb 2006]