

Product datasheet for **SC116059**

RGS14 (NM_006480) Human Untagged Clone

Product data:

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| Product Type: | Expression Plasmids |
| Product Name: | RGS14 (NM_006480) Human Untagged Clone |
| Tag: | Tag Free |
| Symbol: | RGS14 |
| Mammalian Cell Selection: | None |
| Vector: | <u>pCMV6-XL4</u> |
| E. coli Selection: | Ampicillin (100 ug/mL) |



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Fully Sequenced ORF: >OriGene ORF within SC116059 sequence for NM_006480 edited (data generated by NextGen Sequencing)

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ATGCCAGGGAAGCCCAAGCACCTGGGCGTCCCCAACGGGCGCATGGTTCTGGCTGTGTCA
GATGGAGAGCTGAGCAGCAGACGGGGCCCCAGGGCCAGGGCGAGGGCCGCGGCAGCTCT
CTCAGCATCCACAGCCTCCCCAGTGGTCCCAGCAGCCCCTTCCAACCGAGGAGCAGCCT
GTGGCCAGCTGGGCCCTGTCTTCGAGCGGCTGTTGCAGGACCCGCTGGGCCTGGCTTAC
TTCACTGAGTTCTGAAGAAGGAGTTTCAGCGCGGAAAACGTGACTTTCTGGAAGGCCTGC
GAGCGCTTCCAGCAGATCCCGGCCAGCGATACCCAGCAGCTAGCTCAGGAGGCCCGCAAC
ATCTACCAGGAGTTCTGTCCAGCCAGGCGCTGAGCCAGTGAACATCGACCGTCAGGCC
TGGCTTGGCGAGGAGGTGCTGGCCGAGCCCCGGCCGACATGTTTCGGGCACAGCAGCTT
CAGATCTTCAACTTGATGAAGTTCGACAGCTATGCGCGCTTCGTCAAGTCCCCGCTGTAC
CGCGAGTGCTGTAGCCGAAGCCGAGGACGCCCTCTGCGGGAACCTGGCTCCTCGCGC
CTCGGCAGCCCTGACGCCACGAGGAAGAAGCCGAAGCTGAAGCCCGGAAGTCGTGCCG
CTGGGTGTGGAGGAGTTGGGCAGCTGCCACCCGTTGAGGGTCTGGGGGCCGCCCTCTC
CGCAAGTCTTCCGCCGGGAGCTGGGCGGACTGCAAACGCCGCTTGGCCGAGAGTCT
CAGGGCTCCCTCAACTCTCCGCCAGCCTGGACCTTGGCTTCTAGCCTTCGTACAGCAGC
AAATCTGAGAGCCACCGAAGAGCCTTGGGAGCACGGAGGGTGAAGTGAAGCCGGCCA
GGGAAGTACTGTGTGTACTCTGCCCGATGGCACAGCCTCCTTGGCCCTGGCCAGACCT
GGCCTCACCATCCGAGACATGCTGGCAGGGATCTGTGAGAAAACGAGGCCCTCTCTTACCT
GACATCAAGGTCTACCTGGTGGGCAATGAACAGGCCCTGGTCTGGATCAGGACTGCACC
GTGCTGGCGGATCAGGAAGTGGCGCTGGAAAACAGGATCACCTTCGAGCTGGAGCTGACG
CGCTGGAGCGCTGGTACGAATCTCAGCCAAGCCACCAAGCGGCTGCAGGAGGCGCTG
CAGCCCATCTCTGGAGAAGCACGGCTTGGCCCGTAGAGGTGGTGTGCACCGGCCAGGC
GAGAAAACAGCCTCTGGATCTGGGGAAGCTAGTGAGCTCGGTGGCGGCCAGAGACTGGTT
TTGGACACTCTTCCAGGTGTGAAGATCTCAAAGCCCGTGACAAAATCTCCCTGCCGAGC
CAGGGCTGCCACCTAGAACTCAGGATAAAGGCCACCCATCCCCCTCCAGCGTCCCCCAGT
TCTCTGGTGAAGGTGCCAGTAGTCCACTGGAAGCGGCAGACCTGTGACATCGAAGGC
CTGGTGGAGCTGTGAACCGGTGCAGAGCAGCGGGGCCACGACCAGAGGGGCCCTTCTG
AGGAAAGAGGACCTGGTACTTCCAGAATTTCTGCAGCTGCCCGCCCAAGGGCCAGCTCC
GAGGAGACCCACACAGACCAAATCAGCAGCCAGCCATCGGGGGATCCTTGAACCTC
ACCACCGACTCAGCCCTCTGA
    
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Clone variation with respect to NM_006480.4

5' Read Nucleotide Sequence: >OriGene 5' read for NM_006480 unedited

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CAAATTTTGTAAACGAACCTACTATAGGGCGGCCGGAATTCGACCAGGCCGAGTCAG
GCTCTCTCCCTGCCTGCCCGCCACCGTGAAGCTCTGGCCGGCGCTGCCACAGTCCCCA
TGGTGGGAGCCCCCGCGCGGGGACCCCTGATCGGCAGCGGCATGCCAGGGAAGCCCAA
GCACCTGGGCGTCCCCAACGGGCGCATGGTTCTGGCTGTGTGATGGAGAGCTGAGCAG
CAGCAGCGGGGCCAGGGCCAGGGCGAGGGCCGCGGCAGCTCTCTCAGCATCCACAGCCT
CCCCAGTGGTCCCAGCAGCCCCCTTCCAACCGAGGAGCAGCCTGTGGCCAGCTGGGCCCT
GTCCTTCGAGCGGCTGTTGCAGGACCCGCTGGGCTGGCTTACTTCACTGAGTTCCTGAA
GAAGGAGTTCAGCGCGGAAAACGTGACTTTCTGGAAGGCCTGCGAGCGCTTCCAGCAGAT
CCCGGCCAGCGATACCCAGCAGCTAGCTCAGGAGGCCCGCAACATCTACCAGGAGTTCCT
GTCCAGCCAGGCGCTGAGCCCAGTGAACATCGACCGTCAGGCCTGGCTTGGCGAGGAGGT
GCTGGCCGAGCCCCCGCGGACATGTTTCGGGCACAGCAGCTTTCAGATCTTCAACTTGAT
GAAGTTCGACAGCTATGCGCGCTTCGTCAAGTCCCCGCTGTACCGGAGTGCCTGCTAGC
CGAAGCCGAGGGACGCCCTCTGCGGNAACCTGGNCTCTCGCGCCCTCGCAGCCCTGACGC
CACGAGGAAGAAGCCGAAGCTGAAGCCNGAAGTCGCTGCCGCTGGGTGTGGAGGAAGN
TGGNGCANCTGCCANCCGNNTGAGGGTCTGGGGGGCCGNCCTCTTCGAGTCTTTNC
GCGGNAGCCTGGCGGAAGTGAACCGCCGCTGCGCCGANAGTCTAAGGNCTCCTTCAAC
TCTNCGCAGCCTGGACCTTGTNTAGNCTCGTAGCAGAAA
    
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| 3' Read Nucleotide Sequence: | >OriGene 3' read for NM_006480 unedited GACGCCGGACAAACCCACCCCTTTNNTTANTTTTACTTGNACCCGGCCGACTACTANGA TCGATTTTTTTTTTTTTTTTTTTTTTGCAGAAAAATAATAATTATTATAATAACAGTATCAT ACATCAAGGACAAACCCAGCTGCCCAAGCCTACTGCAAATCTGTATGTACAGTATAGT CTATGTGGGTGGGTACAGGGCTGCCTGCCTGCACCTCAAGGCCTTACTCATAACAGCT TCCTGAGGAGGGCCGGCCCTCCTCTTGCCCTGTTGAAGCTTGGCACAGGCTGGGGAG GCTGGCACTGCCAACGCCATCCCTCCATGTTGGGCAAGCCTGTTCCAAGGGGCTGGACT ACCTCCCCATTGTGGCTGGCTGCAAGGATTGGGGTGAGCTTGTGAGGGACAAGGC GGTGGCAGCTGTGGGTGTGTCTCATCTGAGTCCCTTTCCACCCTACCGGCTCTTCCT GCGGGCTGCCATGGCAGGAAGGGGCCAGGGACACTCATGGCACAGACAGGCATGCAG AGCGGACCATGGCATGCTCGGCCCGCGGTGCCATGCAGCTGTCTGGACTGTTGGGT AGCTGTCAAAGGGCTGAGTCGGTGGTGGAGTTCAAGGATCCCCGATGGGCTGGGCTGCT GATTTGGTCTGTGGTGGGTCTTCTCTGGACCTGGCCCTTGGCGGGCAGTTGCAAAAAT CTTGAAAGACCCAGTCTTTTTCTTAAAAGGCCCTTTGTCCGGGGCCCTTGGTCTT GAACCTGTTAAGAACTTTCCCAAGCTTTTATGTCACAAGTTTTGCCCTTTCCAAGGG GACTACGGGGCACCTCCCAAAAATGGGGGACCTTTAGGGGCAAGGGGCGCTTATCT CTGATTTAGGGGCAAACCTGCTTCGCAAGAAAATTTTACCGGTTTCTAAATTT |
| Restriction Sites: | NotI-NotI |
| ACCN: | NM_006480 |
| Insert Size: | 2560 bp |
| OTI Disclaimer: | Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP). |
| 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: | <u>NM_006480.4</u> , <u>NP_006471.2</u> |
| RefSeq Size: | 2418 bp |
| RefSeq ORF: | 1701 bp |
| Locus ID: | 10636 |
| UniProt ID: | <u>O43566</u> |
| Cytogenetics: | 5q35.3 |
| Domains: | RGS, GoLoco, RBD |
| Protein Families: | Druggable Genome |

Gene Summary:

This gene encodes a member of the regulator of G-protein signaling family. This protein contains one RGS domain, two Raf-like Ras-binding domains (RBDs), and one GoLoco domain. The protein attenuates the signaling activity of G-proteins by binding, through its GoLoco domain, to specific types of activated, GTP-bound G alpha subunits. Acting as a GTPase activating protein (GAP), the protein increases the rate of conversion of the GTP to GDP. This hydrolysis allows the G alpha subunits to bind G beta/gamma subunit heterodimers, forming inactive G-protein heterotrimers, thereby terminating the signal. Alternate transcriptional splice variants of this gene have been observed but have not been thoroughly characterized. [provided by RefSeq, Jul 2008]