

## Product datasheet for **MC204443**

### **Rgs14 (NM\_016758) Mouse Untagged Clone**

#### **Product data:**

|                           |  |
|---------------------------|--|
| Product Type:             | Expression Plasmids                    |
| Product Name:             | Rgs14 (NM_016758) Mouse Untagged Clone |
| Tag:                      | Tag Free                               |
| Symbol:                   | Rgs14                                  |
| Synonyms:                 | RPIP1                                  |
| Mammalian Cell Selection: | Neomycin                               |
| Vector:                   | PCMV6-Kan/Neo (PCMV6KN)                |
| E. coli Selection:        | Kanamycin (25 ug/mL)                   |



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**Fully Sequenced ORF:** >BC030321  
 CCACGCGTCCGGTAAGGGCCCGGAGGAGCAGAGCTCTCTCTCCACTGCCTGCTTGCCACCCCAAGAGA  
 GTGCTTCCGCGATCCTTGTGGTGGGTGGCCCCCGTGGAGGGGACCTGTGATCAACGGCGGTATGCCAGG  
 GAAGCCCAAGCACTTGGGTGTCCCAACGGGCGCATGGTTCTGGCTGTCTCAGATGGAGAAGTACCAGC  
 ACTGCAGGTTCCAGGCCAGGGTGAGGGCAGAGGCAGCTCTCTCAGCATCCACAGCCTCCCTAGTGGCC  
 CCAGACGCCCTTCTCCACCGAGGAGCAGCCTGTGGCCAGCTGGGCCAGTCTTTGAGCGGCTGCTGCA  
 AGACCCACGGGGTCTGGCTTACTTCACTGAGTTCTGAAGAAGGAATTCAGCGCAGAGAAGTAACTTTC  
 TGGAAAGCCTGCGAACGTTTCCAGCAGATCCCAGCCAGCGACACCAAGCAGCTAGCTCAGGAGGCCACA  
 ACATCTACCACGAGTTCCATCCAGCCAGGCGCTGAGCCAGTGAACATCGACCCAGCAGGCTGGCTTAG  
 TGAGGAGGTGCTGGCCAGCCCCGGCCAGATATGTTCCGAGCACAGCAGCTTTCAGATCTTCAATTTGATG  
 AAGTTCGACAGCTATGCGCGCTTCGTCAAATCCCCGCTGTACCAAGAGTGCCTGTGGCGGAGGCCGAGG  
 GACGCCCTGCGGGAACCTGGCTCCTCACACCTCGGGAGCCCGGACACAGCGAGGAAGAAGCCAAAGCT  
 GAAGCCTGGGAAGTCACTGCCGTGGGCGTGAAGAGTTGGGCGAGCTGCCACTCGCTGAGGGCCCTTGT  
 GGCCGCCCTCCTCGCAAGTCTTTCGTAGAGAGATGACAGGTGGAGCCATGAATTCGGCCCTGCGACGAG  
 AGTCTCAAGGTCCTGAATTTCTGCCAGTCTGGACCTGGGTTTCTTGCCTTTGTGAGCAGCAAATC  
 TGAGAGTCAACCGAAGAGCCTTGAAGTGGAGAGAGTGAAGAGCGAGAGTGGCCGGGGAAGTATTGCTGC  
 GTGATCTACCTGACGGCACGGCTTCTTGGCCCTGGCTCGACCTGGCCTCACCATCCGAGACATGCTGG  
 CAGGCATCTGTGAGAAGAGAGGCCCTCTCTGCTGACATTAAGGTCTACCTGGTGGGCAATGAACAGAA  
 GGCCCTGGTCTGGATCAGGATTGCACCGTGTGGCAGACCAGGAAGTGCAGTGGAAAACAGGATCACC  
 TTCCAGCTGGAGTTGGTTCGGCTGGAGCGAGTGGTCCGGATCTCAGCTAAGCCCAAGCGTCTGCAAG  
 AGGCGCTGCAGCCATCCTGGCTAAGCATGGCCTGAGCCTGGACCAGGTGGTACTGCACAGGCCAGGAGA  
 GAAGCAGCCCATGGATTTGGAGAATCCAGTGAAGTCCAGTGGCCTCACAGACTGGTTTTGGACACTCCT  
 CCGGATGCAAAGATGAGTGAAGCCAGAAGCATATCCCCCTGCCGAGTCAAGGATGCCTCCCAAGAACC  
 AGACCAAGGACAGTCACTTCCCCCATCGTCTCCAGTTTGTGTTAGAAAGATGCCAGTATTCTACTGG  
 GAACCGGACAGCTGTGACATTGAAGGCCTGGTGGAGCTGCTGAATCGGGTGCAGAGCAGCGGGGCCAC  
 GATCAGAGAGGACTTCTTCGCAAAGAGGACCTGGTCTTCCAGAATTTCTGCAGTCTCTTCCAAAGAC  
 CAGGCTCTCGGGAGGCTCCACCATAGACTGAATCAACTATTCAGCCAGGGAGGGCCCTTTCAGACTCCAC  
 CACCCACCGGTCTCTGGCATCTGTGTAACAATCCAGGCTATCTGCATGGTGCCTGGGCAAACCAAGCA  
 TGCCACGGGTCTGTGCTGCATGCCCTATCTGTACCATGAGTGTCTTTGGCTCTTCTGCTATGGGCAGG  
 CCCCCAGAAAGGGCCAGGAGGGGTGGCTAACTGTTCTCTCATAGTTTGGCTACCCATTCTCCAGTA  
 GGCCATCAAGAGGAGGTGGCCCTAGTTCCTTGGCATAAGCATAGTGAACCAAACGGGTGACTTTGGCAG  
 TGCCAGCCTCCTCAACTGTTCTAGGCTTTAGCAGGGGGCAGGAAGGAGGGGCTGCCCCCTCTTAAAGA  
 GTTGATATAAGTAAGACCTGGGTGACTGGTGAAGCAACCCTCCCTCCATCCACAGACTCTACTGTACAT  
 ATGGATTTTATGGTTGGCTTGGGCGAGCTGGGTTTGTCTGGATATATGGTACTGTTATATAATAATAAT  
 AATTATCATTATTATCAA  
 AA

**Restriction Sites:** RsrII-NotI

**ACCN:** NM\_016758

**Insert Size:** 1644 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).

|                               |  |
|-------------------------------|--|
| <b>Reconstitution Method:</b> | <ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>  |
| <b>RefSeq:</b>                | <a href="#">BC030321</a> , <a href="#">AAH30321</a>  |
| <b>RefSeq Size:</b>           | 2437 bp  |
| <b>RefSeq ORF:</b>            | 1644 bp  |
| <b>Locus ID:</b>              | 51791  |
| <b>UniProt ID:</b>            | <a href="#">P97492</a>   |
| <b>Cytogenetics:</b>          | 13 29.8 cM   |
| <b>Gene Summary:</b>          | <p>Regulates G protein-coupled receptor signaling cascades. Inhibits signal transduction by increasing the GTPase activity of G protein alpha subunits, thereby driving them into their inactive GDP-bound form. Besides, modulates signal transduction via G protein alpha subunits by functioning as a GDP-dissociation inhibitor (GDI). Has GDI activity on G(i) alpha subunits GNAI1 and GNAI3, but not on GNAI2 and G(o) alpha subunit GNAO1. Has GAP activity on GNAI0, GNAI2 and GNAI3. May act as a scaffold integrating G protein and Ras/Raf MAPkinase signaling pathways. Inhibits platelet-derived growth factor (PDGF)-stimulated ERK1/ERK2 phosphorylation; a process depending on its interaction with HRAS and that is reversed by G(i) alpha subunit GNAI1. Acts as a positive modulator of microtubule polymerisation and spindle organization through a G(i)-alpha-dependent mechanism. Plays a role in cell division; required for completion of the first mitotic division of the embryo. Involved in visual memory processing capacity; when overexpressed in the V2 secondary visual cortex area. Involved in hippocampal-based learning and memory; acts as a suppressor of synaptic plasticity in CA2 neurons. Required for the nerve growth factor (NGF)-mediated neurite outgrowth. Involved in stress resistance.[UniProtKB/Swiss-Prot Function]</p> |