

Product datasheet for SC127265

RGS7 (NM_002924) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RGS7 (NM_002924) Human Untagged Clone
Tag:	Tag Free
Symbol:	RGS7
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_002924, the custom clone sequence may differ by one or more nucleotides

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ATGGCCCAGGGGAATAATTATGGGCAGACCAGCAACGGGGTGGCCGATGAATCACCCAACATGCTGGTGT
ACAGAAAGATGGAAGACGTCATAGCACGGATGCAAGATGAAAAAATGGAATTCCTATTCGTACGGTCAA
AAGCTTTCTTTCCAAGATACCTAGCGTCTTCTCTGGTTCAGACATTGTTCAATGGTTGATAAAGAACTTA
ACTATAGAAGATCCAGTGGAGGCGCTCCATTTGGGAACATTAATGGCTGCCCACGGCTACTTCTTTCCAA
TCTCAGATCATGTCCTCACACTCAAGGATGATGGCACCTTTTACCGGTTTCAAACCCCTATTTTGGCC
ATCAAATTGTTGGGAGCCGGAACACAGATTATGCCGTTTACCTCTGCAAGAGAACAATGCAAAACAAG
GCACGACTGGAGCTCGCAGACTATGAGGCTGAGAGCCTGGCCAGGCTGCAGAGAGCATTTGCCCGGAAGT
GGGAGTTTCAATTTTATGCAAGCAGAAGCACAAGCAAAAGTGGACAAGAAGAGAGACAAGATTGAAAGGAA
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AAAATGATATTAGAAGTCACAGTCCTACCCACACACCCACACCAGAACTAAACCTCCAACAGAAGATGA
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GATGCTCAGGAGCACATTTACAACTGATGAAAAGTGATTCATACCCACGTTTTATAAGATCCAGTGCCT
ATCAGGAGCTTCTACAGGCAAGAAAAAGTCTGGAACCTCAATGGATCGCAGAACATCTTTGAAAAATT
TGCACAGAATGTGGGGAATCTCTCACGTCCAAGAGTTAACAAGCCTTGCTCAGTCTTACTAA
  
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5' Read Nucleotide Sequence:

>OriGene 5' read for NM_002924 unedited
 CGACTCACTATAGGCGGCGCGATTGCGCACGAGGGCGAGGCGAGGGTGGCGGTGCGCTG
 AGCAGCTAGAGCCGGGGCGGCGCGGAATCCGCATCCGCCGCGAGTGTGATGAAGCTACCC
 TGCCTCGCTGCTCCGCTTGCCGCCAGCTGACACCGCTGCACCCAGCCCGCCGGGAGGG
 GAGACGCCGCGGGGCCGTGACCTTGGCGGAGGAGGGCACACTGATAATTCTTGTATCTTG
 AGTGTGGACCAAGTTTTGGGTGACATGGCCAGGGGAATAATTATGGGCAGACCAGCAAC
 GGGGTGGCCGATGAATCACCCAACATGCTGGTGTACAGAAAGATGGAAGACGTCATAGCA
 CGGATGCAAGATGAAAAAATGGAATTCCTATTCTGACGGTCAAAAGCTTTCTTTCCAAG
 ATACCTAGCGTCTTCTCTGGTTGACACATTGTTCAATGGTTGATAAAGAACTTAACATA
 GAAGATCCAGTGGAGGCGCTCCATTTGGGAACATTAATGGCTGCCACGCTACTTCTTT
 CCAATCTCAGATCATGCTCTCACTCAAGGATGATGGCACCTTTTACCGTTTCAAACC
 CCCTATTTTTGGCCATCAAATTGTTGGGAGCCCGANAACACAGATTATGCCGTTTACCTC
 TGCAAGAGAACATGCANAACAGGCACGACTGGAGCTCGCAGACTATGAGGCTGAGAGCCT
 GGCCAGGCTGCAGAGAGCATTGCCCCGGGAGTGGGGAGTCATTTTCATGCCAGCAGAAGC
 ACCAGCAAAGTGGGACAGAAGAAGACAGATTGAAGGNAGATCCTGACGNCAGAGAGAGCG
 TCTGGGACGTGCCAGGCNCGTGCCTGGATGTGTAACTACTGAAGTGCATTNAGAGTCAT
 CGATGAGAACCCACAACACGNAGCTGNCATGTTACAATGTATAGAGTACAGTCTACCC
 CACCACCCAGAACTACTCACGG

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_002924 unedited
 CCGCAATCTAGAGTCGAGTTTTTTTTTTTTTTTTTTTTTTGAGATTCTGCATCTTTTAAT
 GAAAGATAAAACAACAATATAAACATACACAAATTTACAGAGAAGGGATCACTTTAATA
 CATTTGGAGTAAAAGGGTTTCTTCTTTAAATATGGTATAAAAAATAATGCGAGAAACAT
 TAACGGAGAATGTACAGACAACAGACGAAGACATGAGTTTGTCTGACTGTGACACATT
 GGTGAAATGAACTTTCTGTGCGGAATTTATTGTTTAAATAATGTGAAGCCACATGTATA
 CTTATTGATATATACTTTTTCTTTTACAATTCTTCCAGTTTTTACTGACTGAATTTTC
 AGTGAAGTGTGTCTAGCTGAAGCTTTGAGAGAGAGAGAGAGAGAAAGAAGGAAAAAAA
 GAAAAGGTTTTACTTCACCTTGAAGTTGTTAAAAAGGAAGACACAGATCCAGCATAGTA
 GAAGGAGAAAGAAAGCAGACAACAGTTTGAATGGAGGCATTGAGACGGAAGAGTCCATT
 GGAGATGGAATGTACACACCAAAAATAACAATTTAAGTCTTTGCTCATGCAACATCTTG
 GTCTAATGTCCTCTGCTTCCAGTCACAACATTGAGCTACAAGTGTGTGACGGGACTTCAG
 CCTGCATTCATGCTACCAGAAGATCCGTTTAGTAAGACTGACCAAGGCTTTGTTAACCTC
 TTGGACGTGAGAGATTTCCCTCTTTTCAACAGGTTACGGCTGGCCCCCTACGGCGGG
 GTAACACGTTTTAGGGCATGGGAAATACGGATGTTTTTGCTTTCTTTGCTGAAAAA
 CTCCTGAAAGGCCTGGACCTATAAAACCGGGTTGAATCACTTTACCACTCTGAAAAGG
 GTCCTGACACTTCAAAGGGGATTGCCAAGTCCTTCCCTCTGGGGGGTTCGCAAAACCCCT
 GGAACAAGTTATAGACTGGGGCCCCGGGACCCAAAT

Restriction Sites:

NotI-NotI

ACCN:

NM_002924

Insert Size:

2390 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:	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_002924.2, NP_002915.2</u>
RefSeq Size:	2408 bp
RefSeq ORF:	1464 bp
Locus ID:	6000
UniProt ID:	<u>P49802</u>
Cytogenetics:	1q23.1
Domains:	RGS, DEP, G-gamma
Protein Families:	Druggable Genome
Gene Summary:	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 (PubMed:10521509, PubMed:10862767). The RGS7/GNB5 dimer enhances GNAO1 GTPase activity (PubMed:10521509). May play a role in synaptic vesicle exocytosis (PubMed:12659861). Modulates the activity of potassium channels that are activated by GNAO1 in response to muscarinic acetylcholine receptor M2/CHRM2 signaling (PubMed:15897264).[UniProtKB/Swiss-Prot Function] Transcript Variant: This variant (1) encodes isoform 1.