

Product datasheet for **RC238405**

RGS7 (NM_001282778) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RGS7 (NM_001282778) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	RGS7
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC238405 representing NM_001282778
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGCCCAGGGGAATAATTATGGGCAGACCAGCAACGGGGTGGCCGATGAATCACCCAACATGCTGGTGT
 ACAGAAAGATGGAAGACGTCATAGCACGGATGCAAGATGAAAAAATGGAATTCCTATTCTGACGGTCAA
 AAGCTTTCTTTCCAAGATACCTAGCGTCTTCTCTGGTTGACACATTGTTCAATGGTTGATAAAGAACTTA
 ACTATAGAAGATCCAGTGGAGGCGCTCCATTTGGGAACATTAATGGCTGCCCACGGCTACTTCTTTCCAA
 TCTCAGATCATGTCTCACACTCAAGGATGATGGCACCTTTTACCGGTTTCAAACCCCTATTTTGGCC
 ATCAAATTGTTGGGAGCCGAAACACAGATTATGCCGTTTACCTCTGCAAGAGAACAATGCAAAACAAG
 GCACGACTGGAGCTCGCAGACTATGAGGCTGAGAGCCTGGCCAGGCTGCAGAGAGCATTTGCCCGAAGT
 GGGAGTTCATTTTCATGCAAGCAGAAGCACAAGCAAAAGTGGACAAGAAGAGAGACAAGATTGAAAGGAA
 GATCCTTGACAGCAAGAGAGAGCGTTCTGGGACGTGCACAGGCCGTGCCTGGATGTGTAAATACAAC
 GAAGTGGACATTAAGAAGTCATCCAGAATGAGAAACCCCAACAAACACGGAAGTCTGTCTATGGTTTAC
 AAAATGATATTAGAAGTCACAGTCTACCCACACCCACACCAGAACTAAACCTCCAACAGAAGATGA
 GTTACAACAACAGATAAAATATTGGCAAATACAGTTAGATAGACATCGGTTAAAAATGTCAAAGTCGCT
 GACAGTCTACTAAGTTACACGGAACAGTATTTAGAATACGACCCGTTTCTTTGCCACCTGACCTTCTA
 ACCCATGGCTGTCCGATGACACCACTTTCTGGGAACCTGAGGCAAGCAAGAACCAGCCAGCAGAGGGT
 AAAACGATGGGGTTTTGGCATGGACGAGGCATTGAAAGACCCAGTTGGGAGAGAACAGTTCCTTAAATTT
 CTAGAGTCAGAATTCAGTCTCGAAAAATTAAGATTCTGGCTGGCAGTGGAGGACCTGAAAAAGAGGCCTA
 TTAAGAAGTACCCTCAAGAGTTCAGGAAATATGGCAAGAGTTTCTGGCTCCCGAGCCCCCAGTGCTAT
 TAACTTGGATTCCAAGAGTTATGACAAACACACAGAACGTGAAGGAACCTGGACGATACACATTTGAA
 GATGCTCAGGAGCACATTTACAACTGATGAAAAGTATTATACCCACGTTTTATAAGATCCAGTGCCT
 ATCAGGAGCTTCTACAGGCAAGAAAAAGGGGAAATCTCTCACGTCCAAGAGGTTAAACAGCCTTGTCTCA
 GTCTTAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC238405 representing NM_001282778
 Red=Cloning site Green=Tags(s)

MAQGNNGQTSNGVADESPNMLVYRKMEDVIARMQDEKNGIPIRTVKSFLSKIPSVFSGSDIVQWLIKNL
 TIEDPVEALHLGLTMAAHGYFFPISDHVLTLDKDGTFYRFQTPYFWPSNCWEPENTDYAVYLCKRTMQNK
 ARLELADYEAESLARLQRAFARKWEFIFMQAEQAKVDKKRDKIERKILDSQERAFWDVHRPVPVCVNTT
 EVDIKKSSMRNPHKTRKSVYGLQNDIRSHSPHTPTPETKPTEDELQQQIKYWQIQLDRHRLKMSKVA
 DSSL SYTEQYLEYDPFLPPDPSPNWL SDDTTFWELASKEPSQQRVKRWGFGMDEALKDPVGREQFLKF
 LESEFSSENLRFWLAVEDLKKRPIKEVPSRVQEIWQEF LAPGAPSAINLDSKSYDKTTQNVKEPGRYTFE
 DAQEHYIKLMKSDSYPRFIRSSAYQELLQAKKKGKSLTSKRLTSLAQSY

TRTRPLE**QKL**ISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: NM_001282778

ORF Size: 1407 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_001282778.2](#)

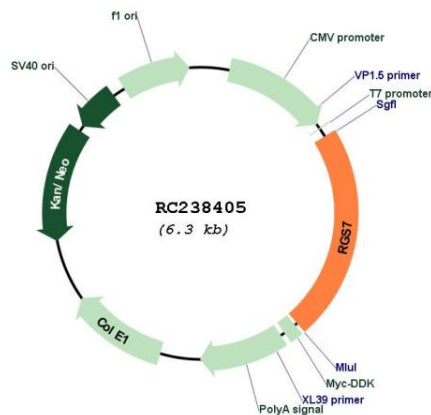
RefSeq Size: 2441 bp

RefSeq ORF: 1410 bp

Locus ID: 6000

UniProt ID:	<u>P49802</u>
Cytogenetics:	1q23.1
Protein Families:	Druggable Genome
MW:	55.1 kDa
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]

Product images:



Circular map for RC238405