

Product datasheet for **RC238459**

RGS7 (NM_001282775) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RGS7 (NM_001282775) 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:

>RC238459 representing NM_001282775
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGCCCAGGGGAATAATTATGGGCAGACCAGCAACGGGGTGGCCGATGAATCACCCAACATGCTGGTGT
 ACAGAAAGATGGAAGACGTCATAGCACGGATGCAAGATGAAAAAATGGAATTCCTATTCTGACGGTCAA
 AAGCTTTCTTTCCAAGATACCTAGCGTCTTCTCTGGTTCCAGACATTGTTCAATGGTTGATAAAGAACTTA
 ACTATAGAAGATCCAGTGGAGGCGCTCCATTTGGGAACATTAATGGCTGCCCACGGCTACTTCTTTCCAA
 TCTCAGATCATGTCTCACACTCAAGGATGATGGCACCTTTTACCGGTTTCAAACCCCTATTTTGGCC
 ATCAAATTGTTGGGAGCCGAAACACAGATTATGCCGTTTACCTCTGCAAGAGAACAATGCAAAACAAG
 GCACGACTGGAGCTCGCAGACTATGAGGCTGAGAGCCTGGCCAGGCTGCAGAGAGCATTTGCCCGAAGT
 GGGAGTTCATTTTCATGCAAGCAGAAGCACAAGCAAAAGTGGACAAGAAGAGAGACAAGATTGAAAGGAA
 GATCCTTGACAGCAAGAGAGAGCGTTCTGGGACGTGCACAGGCCGTGCCTGGATGTGTAAATACAAC
 GAAGTGGACATTAAGAAGTCATCCAGAATGAGAAACCCCAACAAACACGGAAGTCTGTCTATGGTTTAC
 AAAATGATATTAGAAGTCACAGTCTACCCACACCCACACCAGAACTAAACCTCCAACAGAAGATGA
 GTTACAACAACAGATAAAATATTGGCAAATACAGTTAGATAGACATCGGTTAAAAATGTCAAAGTCGCT
 GACAGTCTACTAAGTTACACGGAACAGTATTTAGAATACGACCCGTTTCTTTGCCACCTGACCTTCTA
 ACCCATGGCTGTCCGATGACACCACTTTCTGGGAACCTTGAGGCAAGCAAGAACCAGCCAGCAGAGGGT
 AAAACGATGGGGTTTTGGCATGGACGAGGCATTGAAAGACCCAGTTGGGAGAGAACAGTTCCTTAAATTT
 CTAGAGTCAGAATTCAGCTCGGAAAATTAAGATTCTGGCTGGCAGTGGAGGACCTGAAAAGAGGCCTA
 TTAAGAAGTACCCTCAAGAGTTCAGGAAATATGGCAAGAGTTTCTGGCTCCCGAGCCCCCAGTGCTAT
 TAACTTGGATTCCAAGAGTTATGACAAACACACAGAACGTGAAGGAACCTGGACGATACACATTTGAA
 GATGCTCAGGAGCACATTTACAACTGATGAAAAGTATTATACCCACGTTTTATAAGATCCAGTGCCT
 ATCAGGAGCTTCTACAGGCAAAGAAAAAGGGCAGAAACATCCCTATTTCCCATGCCATAAAACTGTAC
 ACCAACACTGAGGGCCAGCACTAACCTGTTA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC238459 representing NM_001282775
 Red=Cloning site Green=Tags(s)

MAQGNNGQTSNGVADESPNMLVYRKMEDVIARMQDEKNGIPIRTVKSFLSKIPSVFSGSDIVQWLKLN
 TIEDPVEALHLGLMAAHGYFFPISDHVLTLDKDGTFYRFQTPYFWPSNCWEPENTDYAVYLCKRTMQNK
 ARLELADYEAESLARLQRAFARKWEFIFMQAEQAKVDKKRDKIERKILDSQERAFWDVHRPVPVCVNTT
 EVDIKKSSMRNPHKTRKSVYGLQNDIRSHSPHTPTPETKPTEDELQQQIKYWQIQLDRHLKMSKVA
 DSSL SYTEQYLEYDPFLPPDPSPNWLSDDTTFWELEASKEPSQQRVVRWFGMDKALDPVGREQFLKF
 LESEFSSENLRFWLAVEDLKKRPIKEVPSRVQEIWQEFAPGAPSAINLDSKSYDKTTQNVKEPGRYTFE
 DAQEHYKLMKSDSYPRFIRSSAYQELLQAKKKGRNIPFCHKNCTPTLRASTNLL

TRTRPLE**QKL**ISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: NM_001282775

ORF Size: 1431 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_001282775.2](#)

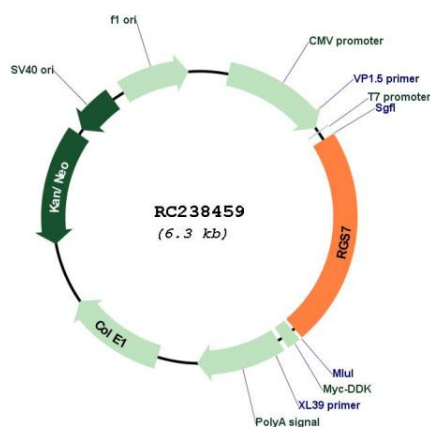
RefSeq Size: 2522 bp

RefSeq ORF: 1434 bp

Locus ID: 6000

UniProt ID:	P49802
Cytogenetics:	1q23.1
Protein Families:	Druggable Genome
MW:	56.1 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 RC238459