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Product datasheet for RC205284

RGS7 (NM_002924) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RGS7 (NM_002924) 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:

>RC205284 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCCCAGGGGAATAATTATGGGCAGACCAGCAACGGGGTGGCCGATGAATCACCCAACATGCTGGTGT
ACAGAAAGATGGAAGACGTCATAGCACGGATGCAAGATGAAAAAAATGGAATTCCTATTCGTACGGTCAA
AAGCTTTCTTTCCAAGATACCTAGCGTCTTCTCTGGTTCAGACATTGTTCAATGGTTGATAAAGAACTTA
ACTATAGAAGATCCAGTGGAGGCGCTCCATTTGGGAACATTAATGGCTGCCCACGGCTACTTCTTTCCAA
TCTCAGATCATGTCCTCACACTCAAGGATGATGGCACCTTTTACCGGTTTCAAACCCCCTATTTTTGGCC
ATCAAATTGTTGGGAGCCGGAAAACACAGATTATGCCGTTTACCTCTGCAAGAGAACAATGCAAAACAAG
GCACGACTGGAGCTCGCAGACTATGAGGCTGAGAGCCTGGCCAGGCTGCAGAGAGCATTTGCCCGGAAGT
GGGAGTTCATTTTCATGCAAGCAGAAGCACAAGCAAAAGTGGACAAGAAGAGAGACAAGATTGAAAGGAA
GATCCTTGACAGCCAAGAGAGAGCGTTCTGGGACGTGCACAGGCCCGTGCCTGGATGTGTAAATACAACT
GAAGTGGACATTAAGAAGTCATCCAGAATGAGAAACCCCCACAAAACACGGAAGTCTGTCTATGGTTTAC
AAAATGATATTAGAAGTCACAGTCCTACCCACACACCCACACCAGAAACTAAACCTCCAACAGAAGATGA
GTTACAACAACAGATAAAATATTGGCAAATACAGTTAGATAGACATCGGTTAAAAATGTCAAAAGTCGCT
GACAGTCTACTAAGTTACACGGAACAGTATTTAGAATACGACCCGTTTCTTTTGCCACCTGACCCTTCTA
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AAAACGATGGGGTTTTGGCATGGACGAGGCATTGAAAGACCCAGTTGGGAGAGAACAGTTCCTTAAATTT
CTAGAGTCAGAATTCAGCTCGGAAAATTTAAGATTCTGGCTGGCAGTGGAGGACCTGAAAAAGAGGCCTA
TTAAAGAAGTACCCTCAAGAGTTCAGGAAATATGGCAAGAGTTTCTGGCTCCCGGAGCCCCCAGTGCTAT
TAACTTGGATTCCAAGAGTTATGACAAAACCACACATAACGTGAAGGAACCTGGACGATACACATTTGAA
GATGCTCAGGAGCACATTTACAAACTGATGAAAAGTGATTCATACCCACGTTTTATAAGATCCAGTGCCT
ATCAGGAGCTTCTACAGGCAAAGAAAAAGTCTGGAAACTCAATGGATCGCAGAACATCTTTTGAAAAATT
TGCACAGAATGTGGGGAAATCTCTCACGTCCAAGAGGTTAACAAGCCTTGCTCAGTCTTAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC205284 protein sequence
Red=Cloning site Green=Tags(s)

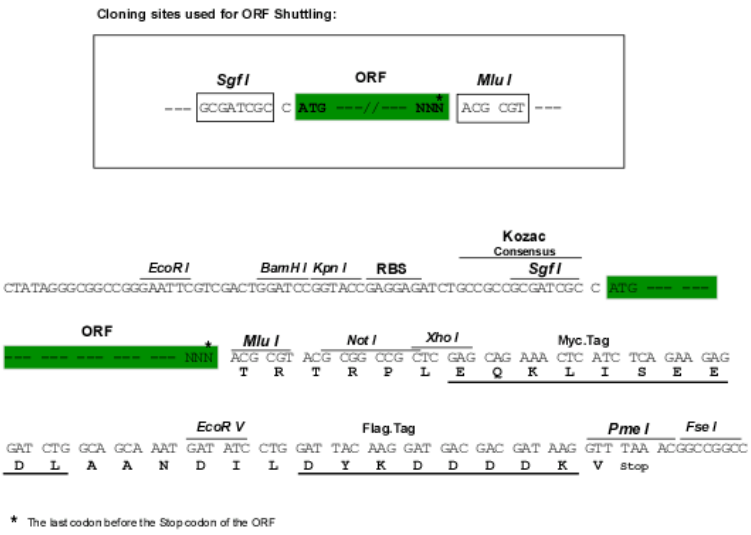
MAQGNNYGQTSNGVADESPNMLVYRKMEDVIARMQDEKNGIPIRTVKSFLSKIPSVFSGSDIVQWLIKNL
TIEDPVEALHLGTLMAAHGYFFPISDHVLTLKDDGTFYRFQTPYFWPSNCWEPENTDYAVYLCKRTMQNK
ARLELADYEAESLARLQRAFARKWEFIFMQAEAQAKVDKKRDKIERKILDSQERAFWDVHRPVPGCVNTT
EVDIKKSSRMRNPHKTRKSVYGLQNDIRSHSPTHTPTPETKPPTEDELQQQIKYWQIQLDRHRLKMSKVA
DSLLSYTEQYLEYDPFLLPPDPSNPWLSDDTTFWELEASKEPSQQRVKRWGFGMDEALKDPVGREQFLKF
LESEFSSENLRFWLAVEDLKKRPIKEVPSRVQEIWQEFLAPGAPSAINLDSKSYDKTTHNVKEPGRYTFE
DAQEHIYKLMKSDSYPRFIRSSAYQELLQAKKKSGNSMDRRTSFEKFAQNVGKSLTSKRLTSLAQSY

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6314_h05.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_002924

ORF Size: 1461 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_002924.3

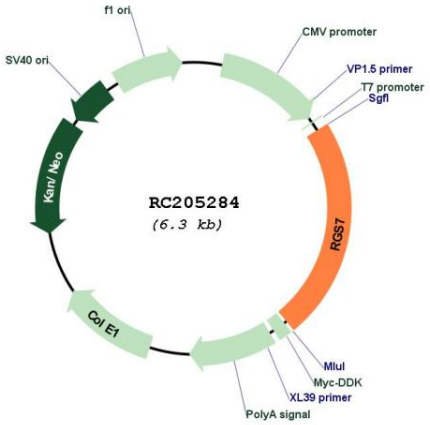
RefSeq Size: 2495 bp

RefSeq ORF: 1464 bp

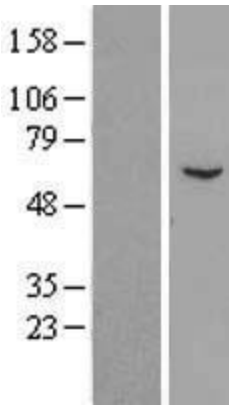
Locus ID: 6000

UniProt ID:	P49802
Cytogenetics:	1q23.1
Domains:	RGS, DEP, G-gamma
Protein Families:	Druggable Genome
MW:	56.8 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]

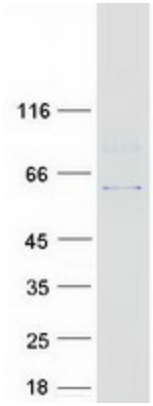
Product images:



Circular map for RC205284



Western blot validation of overexpression lysate (Cat# [LY419005]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205284 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified RGS7 protein (Cat# [TP305284]). The protein was produced from HEK293T cells transfected with RGS7 cDNA clone (Cat# RC205284) using MegaTran 2.0 (Cat# [TT210002]).