

Product datasheet for **RG207762**

G protein alpha 13 (GNA13) (NM_006572) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	G protein alpha 13 (GNA13) (NM_006572) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	G protein alpha 13
Synonyms:	G13
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG207762 representing NM_006572 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGGACTTCCTGCCGTCGCGGTCCGTGCTGTCCGTGTGCTTCCCGGCTGCCTGCTGACGAGTGGCG
AGGCCGAGCAGCAACGCAAGTCCAAGGAGATCGACAAATGCCTGTCTCGGAAAAGACCTATGTGAAGCG
GCTGGTGAAGATCCTGCTGCTGGCGCGGGCGAGAGCGGCAAGTCCACCTTCTGAAGCAGATCGGGATC
ATCCACGGGCAGGACTTCGACCAGCGCGCGGAGGAGTCCGCCACCACCTACAGCAACGTGATCA
AAGGTATGAGGGTCTGGTTGATGCTCGAGAGAAGCTTCATATTCCTGGGAGACAACCAACCAACA
ACATGGAGATAAGATGATGTCGTTTGATACCCGGGCCCCATGGCAGCCCAAGGAATGGTGGAAACAAGG
GTTTTCTTACAATATCTTCTGCTATAAGACATTATGGCAGACAGCGGCATACAGAATGCCTATGACC
GGCGTCGAGAATTTCAACTGGGTGAATCTGAAAAATTTCTGGATAACTTGGATAAACTTGGAGAACC
AGATTATATCCATCACAAAGATATTCTGCTTGCCAGAAGACCCACCAAGGCATCCATGAATACGAC
TTTGAATAAAAAATGTTCTTTCAAAATGGTTGATGTAGGTGGTCCAGAGATCAGAAAGGAAACGTTGGT
TTGAATGTTTCGACAGTGTGACATCAATACTTTTCTTGTTCCTCAAGTGAATTTGACCAGGTGCTTAT
GGAAGATCGACTGACCAATCGCCTTACAGAGTCTCTGAACATTTTGAACAATCGTCAATAACCGGTT
TTCAGCAATGTCTCCATAATTCTGTTCTTAAACAAGACAGACTGCTTGGAGAGAAGGTGCAAAATTTGTA
GCATCAAAGACTATTTCTAGAATTTGAAGGGATCCCCACTGCTTAAGAGACGTCCAAAAATTCCTGGT
GGAATGTTTCCGGAACAACGCCGGGACCAGCAACAGAAGCCCTTATACCACCACTTACCACCTGCTATC
AACACGGAGAACATCCGCTTGTTCCTGACGTGAAGGATACTATTCTGCATGACAACCTCAAGCAGC
TTATGCTACAG

AC**CGGCCGCT**CGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG207762 representing NM_006572
 Red=Cloning site Green=Tags(s)

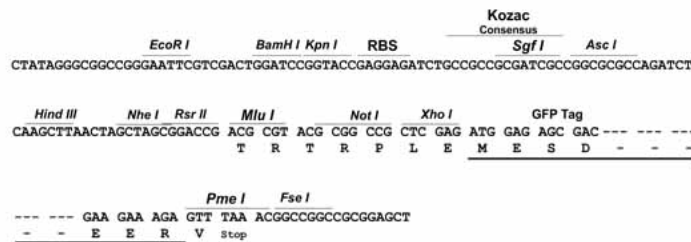
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MADFLPSRSVLSVCFPGCLLTSGEAEQQRKSKEIDKCLSREKTYVKRLVKILLGAGESGKSTFLKQMRI
IHGQDFDQRAREEFRPTIYSNVIKGMRVLDAREKLHIPWGDNSNQHGDKMMSFDTRAPMAAQGMVETR
VFLQYLPAIRALWADSGIQNAYDRRREFQLGESVKYFLDNLDKLGEPDYIPSQQDILLARRPTKGIHEYD
FEIKNVFPKMVDVGGQRSEKRWFEFCFDSVTSILFLVSSSEFDQVLMEDRLTNRLTESLNIFETIVNNRV
FSNVSIILFLNKTDLLEEKVQIVSIKDYFLEFEGDPHCLRDVQKFLVECFRNKRRDQQKPLYHHFTTAI
NTENIRLVFRDVKDITLHDNLKQLMLQ
```

TRPLE - GFP Tag - V

Restriction Sites: SgfI-NotI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



ACCN: NM_006572

ORF Size: 1131 bp

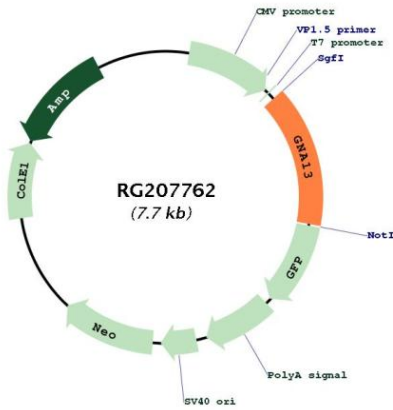
OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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:	<ol style="list-style-type: none">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:	NM_006572.6
RefSeq Size:	4744 bp
RefSeq ORF:	1134 bp
Locus ID:	10672
UniProt ID:	Q14344
Cytogenetics:	17q24.1
Domains:	G-alpha
Protein Families:	Druggable Genome
Protein Pathways:	Long-term depression, Regulation of actin cytoskeleton, Vascular smooth muscle contraction
Gene Summary:	Guanine nucleotide-binding proteins (G proteins) are involved as modulators or transducers in various transmembrane signaling systems (PubMed:15240885, PubMed:16787920, PubMed:16705036, PubMed:27084452). Activates effector molecule RhoA by binding and activating RhoGEFs (ARHGEF1/p115RhoGEF, ARHGEF11/PDZ-RhoGEF and ARHGEF12/LARG) (PubMed:15240885, PubMed:12515866). GNA13-dependent Rho signaling subsequently regulates transcription factor AP-1 (activating protein-1) (By similarity). Promotes tumor cell invasion and metastasis by activating RhoA/ROCK signaling pathway (PubMed:16787920, PubMed:16705036, PubMed:27084452). Inhibits CDH1-mediated cell adhesion in process independent from Rho activation (PubMed:11976333).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RG207762