

## Product datasheet for RC207762

### 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:	Myc-DDK
Symbol:	G protein alpha 13
Synonyms:	G13
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC207762 representing NM_006572 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCGGACTTCCTGCCGTCGCGGTCCGTGCTGTCCGTGTGCTTCCCGGCTGCCTGCTGACGAGTGGCG  
AGGCCGAGCAGCAACGCAAGTCCAAGGAGATCGACAAATGCCTGTCTCGGAAAAGACCTATGTGAAGCG  
GCTGGTGAAGATCCTGCTGCTGGCGCGGGCGAGAGCGGCAAGTCCACCTTCTGAAGCAGATCGGGATC  
ATCCACGGGCAGGACTTCGACCAGCGCGCGCAGGAGTCCGCCCCACCATCTACAGCAACGTGATCA  
AAGGTATGAGGGTCTGGTTGATGCTCGAGAGAAGCTTCATATTCCTGGGGAGACAACCAACCAACA  
ACATGGAGATAAGATGATGTCGTTTGATACCCGGGCCCCATGGCAGCCCAAGGAATGGTGGAAACAAGG  
GTTTTCTTACAATATCTTCTGCTATAAGACATTATGGGCAGACAGCGGCATACAGAATGCCTATGACC  
GGCGTCGAGAATTTCAACTGGGTGAATCTGAAAAATTTCTGGATAAATTGGATAAACTGGAGAACC  
AGATTATATCCATCACAAAGATATTCTGCTTGCCAGAAGACCCACCAAGGCATCCATGAATACGAC  
TTTGAATAAAAAATGTTCTTTCAAAATGGTTGATGTAGGTGGTCCAGAGATCAGAAAGGAAACGTTGGT  
TTGAATGTTTCGACAGTGTGACATCAATACTTTTCTTGTTCCTCAAGTGAATTTGACCAGGTGCTTAT  
GGAAGATCGACTGACCAATCGCCTTACAGAGTCTCTGAACATTTTGAACAATCGTCAATAACCGGGTT  
TTCAGCAATGTCTCATAAATCTGTTCTTAAACAAGACAGACTGCTTGAGGAGAAGGTGCAAAATTTGTA  
GCATCAAAGACTATTTCTAGAATTTGAAGGGATCCCCACTGCTTAAGAGACGTCCAAAAATTCCTGGT  
GGAATGTTTCCGGAACAAACGCCGGGACCAGCAACAGAAGCCCTTATACCACCACTTCACCACTGCTATC  
AACACGGAGAACATCCGCTTGTTCCTGACGTGAAGGATACTATTCTGCATGACAACCTCAAGCAGC  
TTATGCTACAG

AC**CGGCCCGC**TCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGA  
TTACAAGGATGACGACGATAAGGTTTAA



[View online »](#)

**Protein Sequence:** >RC207762 representing NM\_006572  
 Red=Cloning site Green=Tags(s)

MADFLPSRSVLSVCFPGCLLTSGEAEQQRKSKEIDKCLSREKTYVKRLVKILLGAGESGKSTFLKQMRI  
 IHGQDFDQRAREEFRPTIYSNVIKGMRVLDAREKLHIPWGDNSNQHGDKMMSFDTRAPMAAQGMVETR  
 VFLQYLPAIRALWADSGIQNAYDRRREFQLGESVKYFLDNLDKLGEPDYIPSQQDILLARRPTKGIHEYD  
 FEIKNVPFKMDVGGQRSEKRWFECDVSVTSILFLVSSSEFDQVLMEDRLTNRLTESLNIFETIVNNRV  
 FSNVSIILFLNKTDLLEEKVQIVSIKDYFLEFEGDPHCLRDVQKFLVECFRNKRRDQQQKPLYHHFTTAI  
 NTENIRLVFRDVKDTILHDNLKQLMLQ

TRRLEQKLI SEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6274\\_d03.zip](https://cdn.origene.com/chromatograms/mk6274_d03.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_006572

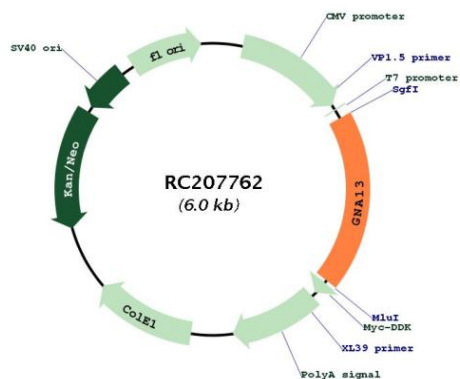
**ORF Size:** 1131 bp

**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](mailto: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](#)

<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<a href="#">NM_006572.6</a>
<b>RefSeq Size:</b>	4744 bp
<b>RefSeq ORF:</b>	1134 bp
<b>Locus ID:</b>	10672
<b>UniProt ID:</b>	<a href="#">Q14344</a>
<b>Cytogenetics:</b>	17q24.1
<b>Domains:</b>	G-alpha
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Long-term depression, Regulation of actin cytoskeleton, Vascular smooth muscle contraction
<b>MW:</b>	44 kDa
<b>Gene Summary:</b>	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 RC207762