

Product datasheet for **RC237150**

G protein alpha 13 (GNA13) (NM_001282425) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	G protein alpha 13 (GNA13) (NM_001282425) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GNA13
Synonyms:	G13
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RC237150 representing NM_001282425 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**GCGATCGCC**

ATGAGGGTGTGGTTGATGCTCGAGAGAAGCTTCATATTCCTGGGGAGACAACCTCAAACCAACAACATG
GAGATAAGATGATGTCGTTTGATACCCGGGCCCCCATGGCAGCCCAAGGAATGGTGGAAACAAGGGTTTT
CTTACAATATCTCCTGCTATAAGAGCATTATGGGCAGACAGCGGCATACAGAATGCCTATGACCGGCGT
CGAGAATTTCAACTGGGTGAATCTGTAAAATATTCCTGGATAACTTGGATAAACTTGGAGAACCAGATT
ATATTCATCACAAAGATATTCTGCTTGCCAGAAGACCCACCAAGGCATCCATGAATACGACTTTGA
AATAAAAAATGTTCTTTCAAAATGGTTGATGTAGGTGGTCTAGAGATCAGAAAGGAAACGTTGGTTTGAA
TGTTTTCGACAGTGTGACATCAACTTTTCTTGTTCCTCAAGTGAATTTGACCAGGTGCTTATGGGAAG
ATCGACTGACCAATCGCCTTACAGAGTCTCTGAACATTTTGAACAATCGTCAATAACCGGGTTTTTCAG
CAATGTCTCCATAATTCTGTTCTTAAACAAGACAGACTTGCTTGAGGAGAAGGTGCAAATTTGTGAGCATC
AAAGACTATTTCTAGAATTTGAAGGGGATCCCCACTGCTTAAGAGACGTCCAAAAATTCCTGGTGAAT
GTTTCCGGAACAAACGCCGGGACCAGCAACAGAAGCCCTTATACCACCACTTCACCACTGCTATCAACAC
GGAGAACATCCGCTTGTTCCTGACGTGAAGGATACTATTCTGCATGACAACCTCAAGCAGCTTATG
CTACAG

AC**GCGCCGC**TCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGA
TTACAAGGATGACGACGATAAGGTTTAA



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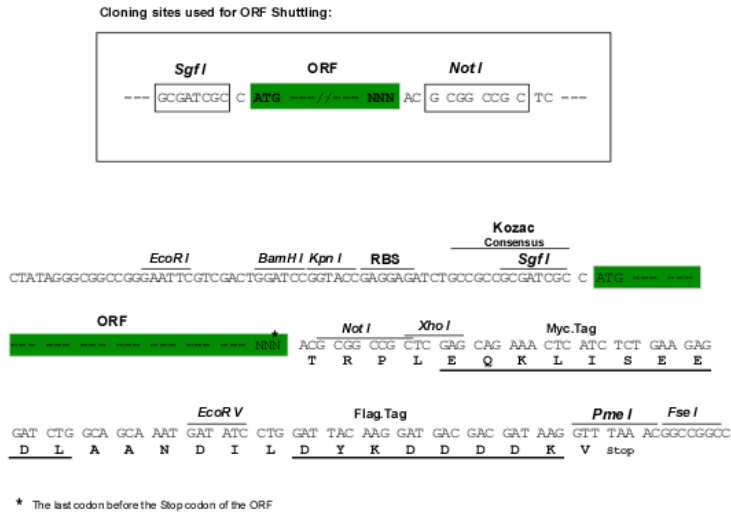
Protein Sequence: >RC237150 representing NM_001282425
Red=Cloning site Green=Tags(s)

MRVLVDAREKLHIPWGDNSNQHGDKMMSFDTRAPMAAQGMVETRVFLQYLPAIRALWADSGIQNAYDRR
 REFQLGESVKYFLDNLDKLGEPTYIPSQDILLARRPTKGIHEYDFEIKNVPFKMDVGGQRSEKRWFE
 CFDSVTSILFLVSSSEFDQVLMEDRLTNRLTESLNIFETIVNNRVFSNVSIIILFNKTDLLEEKVQIVSI
 KDYFLEFEGDPHCLRDVQKFLVECFRNKRRDQQKPLYHHFTTAINENIRLVFRDVKDTILHDNLKQLM
 LQ

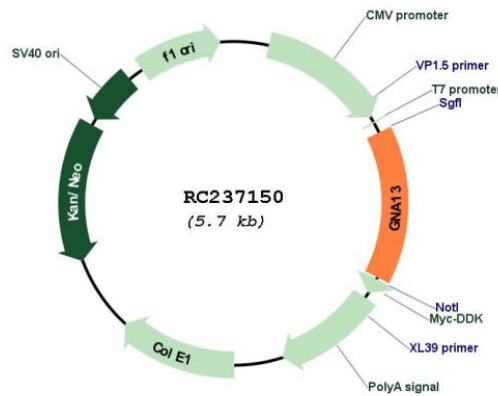
TRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-NotI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001282425

ORF Size: 846 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:	<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_001282425.1 , NP_001269354.1
RefSeq Size:	6016 bp
RefSeq ORF:	849 bp
Locus ID:	10672
UniProt ID:	Q14344
Cytogenetics:	17q24.1
Protein Families:	Druggable Genome
Protein Pathways:	Long-term depression, Regulation of actin cytoskeleton, Vascular smooth muscle contraction
MW:	33.7 kDa
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]