

Product datasheet for **RG237150**

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:	TurboGFP
Symbol:	GNA13
Synonyms:	G13
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG237150 representing NM_001282425. Blue=ORF Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGAGGGTCTGGTTGATGCTCGAGAGAAGCTTCATATTCCTGGGGAGACAACCTCAAACCAACAACAT
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GTTTTAGCAATGTCTCCATAATTCTGTTCTTAAACAAGACAGACTTGCTTGAGGAGAAGGTGCAAATT
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CTGGTGAATGTTTCCGGAACAAACGCCGGACCAGCAACAGAAGCCCTTATACCACCACTTCACCACT
GCTATCAACACGGAGAACATCCGCCTTGTTCCTGACGTGAAGGATACTATTCTGCATGACAACCTC
AAGCAGCTTATGCTACAG
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC
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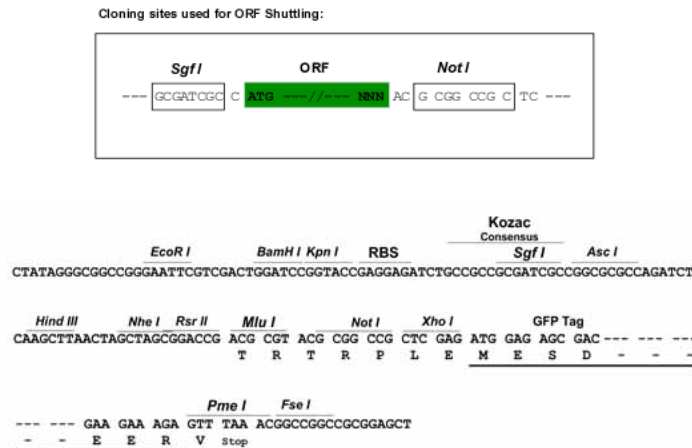
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Protein Sequence: >Peptide sequence encoded by RG237150
 Blue=ORF Red=Cloning site Green=Tag(s)

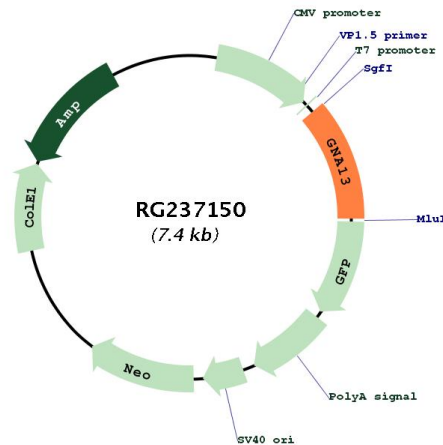
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 FECFDSVTSILFLVSSSEFDQVLMEDRL TNRLTESLNIFETIVNVRVSNVSIILFLNKTDLLEEKVQI
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 SVIFTDKIIRS NATVEHLHPMGDNDLDGSFTRTFSLRDGGYSSVVD SHMHFKSAIHPSILQNGGPMFA
 FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV

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).
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]