

Product datasheet for **SC335044**

G protein alpha 13 (GNA13) (NM_001282425) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	G protein alpha 13 (GNA13) (NM_001282425) Human Untagged Clone
Tag:	Tag Free
Symbol:	GNA13
Synonyms:	G13
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_001282425, the custom clone sequence may differ by one or more nucleotides

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ATGAGGGTGCTGGTTGATGCTCGAGAGAAGCTTCATATCCCTGGGGAGACAACCTCAAACCAACAACATG
GAGATAAGATGATGTCGTTTGATACCCGGGCCCCATGGCAGCCCAAGGAATGGTGGAAACAAGGTTTTT
CTTACAATATCTTCTGCTATAAGAGCATTATGGGCAGACAGCGGCATACAGAATGCCTATGACCGGCGT
CGAGAATTTCAACTGGGTGAATCTGTAATAATTTCTGGATAACTTGGATAAACTTGGAGAACCAGATT
ATATTCCATCACAACAAGATATTCTGCTTGCCAGAAGACCCACCAAGGCATCCATGAATACGACTTTGA
AATAAAAAATGTTCCTTTCAAAATGGTTGATGTAGGTGGTCAGAGATCAGAAAGGAAACGTTGGTTTGAA
TGTTTCGACAGTGTGACATCAATACTTTTCTTGTTCCTCAAGTGAATTTGACCAGGTGCTTATGGAAG
ATCGACTGACCAATCGCCTTACAGAGTCTCTGAACATTTTTGAAACAATCGTCAATAACCGGTTTTTCAG
CAATGTCTCCATAATTCTGTTCTTAAACAAGACAGACTTGCTTGAGGAGAAGGTGCAAAATTTGTGAGCATC
AAAGACTATTTCTAGAAATTTGAAGGGATCCCCACTGCTTAAGAGACGTCCAAAAATTCCTGGTGGAAAT
GTTTCCGGAACAAACGCCGGGACCAGCAACAGAAGCCCTTATACCACCCTTACCCTGCTATCAACAC
GGAGAACATCCGCCTGTTTTCCGTGACGTGAAGGATACTATTCTGCATGACAACCTCAAGCAGCTTATG
CTACAGTGA
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Restriction Sites:	Sgfl-MluI
ACCN:	NM_001282425
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).



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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:	<u>NM_001282425.1, NP_001269354.1</u>
RefSeq Size:	6016 bp
RefSeq ORF:	849 bp
Locus ID:	10672
UniProt ID:	<u>Q14344</u>
Cytogenetics:	17q24.1
Protein Families:	Druggable Genome
Protein Pathways:	Long-term depression, Regulation of actin cytoskeleton, Vascular smooth muscle contraction
Gene Summary:	<p>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]</p> <p>Transcript Variant: This variant (2) uses an alternate 5' terminal exon which results in the use of a downstream AUG compared to variant 1. The encoded isoform (2) has a shorter N-terminus compared to isoform 1. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.</p>