

Product datasheet for RC215437

G0 Protein alpha (GNAO1) (NM_138736) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	G0 Protein alpha (GNAO1) (NM_138736) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	G0 Protein alpha
Synonyms:	DEE17; EIEE17; G-ALPHA-o; GNAO; HLA-DQB1; NEDIM
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC215437 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGC**C

ATGGGATGACTCTGAGCGCAGAGGAGAGACCGCCCTCGAGCGGAGCAAGGCGATTGAGAAAACTCA
AAGAGGATGGCATCAGCGCCGCCAAAGACGTGAAATTACTCTGCTCGGGCTGGAGAATCAGGAAAAAG
CACCATTGTGAAGCAGATGAAGATCATCCATGAAGATGGCTTCCGGAGAAGACGTGAAACAGTACAAG
CCTGTTGTCTACAGCAACTATCCAGTCCCTGGCAGCCATCGTCCGGGCATGGACACTTTGGGCATCG
AATATGGTGATAAGGAGAGAAAGGCTGACGCCAAGATGGTGTGTGATGTGGTGAGTCGGATGGAAGACAC
CGAGCCCTTCTCTGCAGAGCTGCTTTCTGCCATGATGCGGCTCTGGGGCGACTCAGGAATCCAAGAGTGC
TTCAACCGGTCCCAGGATATCAGCTCAACGACTCTGCCAAATACTACCTGGACAGCCTGGATCGGATTG
GGGCCCGCGACTACCAGCCCACCGAGCAGGACATCCTCCGAACCAGGGTCAAACCACTGGCATCGTAGA
AACCCACTTCACATTCAAGAACCTCCACTTCAGGCTGTTTGACGTGCGAGGCCAGCGATCTGAACGCAAG
AAGTGGATCCATTGCTTCGAGGACGTACGGCCATCATTTTCTGTGTCGCGCTCAGCGGCTATGACCAGG
TGCTCCACGAAGACGAAACCACGAACCGCATGCACGAATCCCTGAAGCTTTTTGACAGCATCTGCAACAA
CAAATGGTTCACAGACACGTCCATCATCTGTTTCTTAACAAGAAGGACATATTTGAAGAGAAGATCAAG
AAGTCCCAGTACAGGAGCAAGAACAAGTCAGCCCAAAAGAGATCTACACCCAGTCACTGCGGCCAC
TCCAGGCCAGTACGAGAGCAAGAACAAGTCAGCCCAAAAGAGATCTACACCCAGTCACTGCGGCCAC
GGACACCAACAACATCCAGTTTGTCTTTGATGCTGTGACGGACGTATCATCGCCAAAAACCTGCGGGG
TGTGGACTCTAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTAA



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Protein Sequence: >RC215437 protein sequence
Red=Cloning site Green=Tags(s)

MGCTLSAEERAALERSKAIEKNLKEDGISAAKDVKLLLLGAGESGKSTIVKQMKIIHEDGFSGEDVKQYK
 PVVYSNTIQSLAAIVRAMDTLGLIEYGDKERKADAKMVCVVSVMEDTEPFSAELLSAMMRLWGDSGIQEC
 FNRSREYQLNDSAKYYLDSLDRIGAADYQPTAQDILRTRVKTGIVETHFTFKNLHFRLFDVGGQRSEK
 KWIHC FEDVTAIIFCVALSGYDQVLHEDETTNRMHESLKLFD SICNNKWF TDTSIILFLNKKDIFEKIK
 KSPLTICFPEYTGPSAFTEAVAYIQAQYESKNKSAHKEIYTHVTCATDTNNIQVFDAVTDVYIAKNLRG
 CGLY

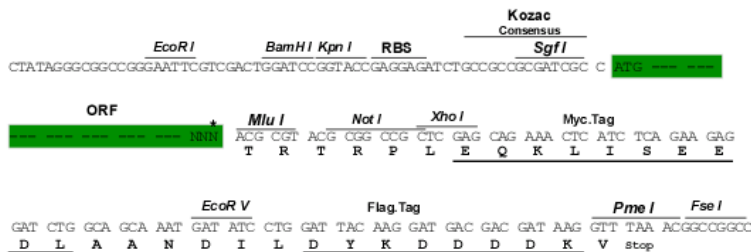
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_138736

ORF Size: 1065 bp

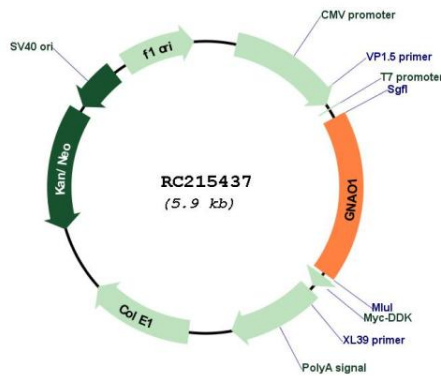
OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA 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](#)

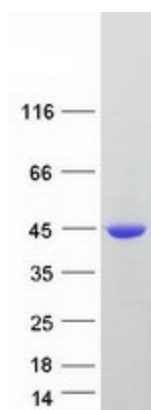
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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:	<u>NM_138736.3</u>
RefSeq Size:	6061 bp
RefSeq ORF:	1065 bp
Locus ID:	2775
UniProt ID:	<u>P09471</u>
Cytogenetics:	16q13
Protein Families:	Druggable Genome
Protein Pathways:	Long-term depression, Melanogenesis
MW:	40.1 kDa
Gene Summary:	The protein encoded by this gene represents the alpha subunit of the Go heterotrimeric G-protein signal-transducing complex. Defects in this gene are a cause of early-onset epileptic encephalopathy. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Aug 2015]

Product images:



Circular map for RC215437



Coomassie blue staining of purified GNAO1 protein (Cat# [TP315437]). The protein was produced from HEK293T cells transfected with GNAO1 cDNA clone (Cat# RC215437) using MegaTran 2.0 (Cat# [TT210002]).