

## Product datasheet for RC232621

### GNAL (NM\_001261443) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	GNAL (NM_001261443) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GNAL
Synonyms:	DYT25
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC232621 representing NM_001261443 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGGGTGTGGGGCGCAACAGCAAGACGACGGAAGACCAGGGCGTCGATGAAAAAGAACGACGCGAGG  
CCAACAAAAGATCGAGAAGCAGTTGCAGAAAGAGCGCCTGGCTTACAAGGCTACCCACCGCCTGCTGCT  
CCTGGGGCTGGTGAAGTCTGGGAAAAGCACTATCGTCAAACAGATGAGGATCCTGCACGTCATGGGTTT  
AATCCCGAGGAAAAGAACAGAAAATTCGGACATCCGGAAAAATGTTAAAGATGCTATCGTGACAATTG  
TTTCAGCAATGAGTACTATAATACCTCCAGTTCGGCTGGCCAACCCTGAAAACCAATTTGATCAGACTA  
CATCAAGAGCATAGCCCTATCACTGACTTTGAATATTCAGGAATTCCTTGACCATGTGAAAAAACTT  
TGGGACGATGAAGGCGTGAAGGCATGCTTTGAGAGATCCAACGAATACCAGCTGATTGACTGTGCACAA  
ACTTCTGGAAAGAAATCGACAGCGTCAGCTTGGTTGACTACACACCCACAGACCAGGACCTCCTCAGATG  
CAGAGTTCTGACATCTGGGATTTTGGAGACGATTCCAAGTGGACAAAGTAAACTTCCACATGTTTGTG  
GTTGGTGGCCAGAGGGATGAGAGGAGAAAATGGATCCAGTGTCTTAACGATGTCACAGCTATCATTTACG  
TCGCAGCCTGCAGTAGCTACAACATGGTGATTGAGAGAATAACAACCAACAGGCTGAGAGAGTCCCT  
GGATCTTTTTGAAAGCATCTGGAACAACAGGTGGTTACGGACATTTCTATCATCTTGTCTTGAACAAA  
CAAGATATGCTGGCAGAAAAGTCTTGGCAGGAAATCAAAAATTGAAGACTATTTCCAGAATATGCAA  
ATTATACTGTTCCCTGAAGACGCAACACCAGATGCAGGAGAAGATCCCAAAGTTACAAGAGCCAAGTTCTT  
TATCCGGGACCTGTTTTGAGGATCAGCACGGCCACCGGTGACGGCAAACATTACTGCTACCCGCACTTC  
ACCTGCGCGTGGACACAGAAACATCCGAGGGTGTCAACGACTGCCGCGACATCATCCAGCGGATGC  
ACCTCAAGCAGTATGAGCTCTTG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAAACATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC232621 representing NM\_001261443

Red=Cloning site Green=Tags(s)

MGCLGGNSKTTEDQGVDKERREANKKIEKQLQKERLAYKATHRLLLLGAGESGKSTIVKQMRILHVNGF  
 NPEEKQKILDIRKNVKDAIVTIVSAMSTIIPPVPLANPENQFRSDYIKSIAPITDFEYSQEFFDHVKKL  
 WDDEGVKACFERSNEYQLIDCAQYFLERIDSVSLVDYPTDQDLLRCRVLTSGIFETRFQVDKVNFMFD  
 VGGQRDERRKWIQCFNDVTAIIYVAACSSYNMVIREDNNTNRLRESLDLFESIWNRLRTISIIILFLNK  
 QDMLAEKVLAGKSKIEDYFPEYANYTVPEDATPDAGEDPKVTRAKFFIRDLFLRISTATGDGKHYCYPHF  
 TCAVDTENIRRVFNDICRDIQRMHLKQYELL

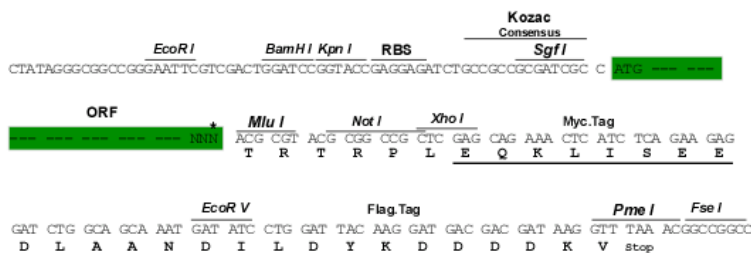
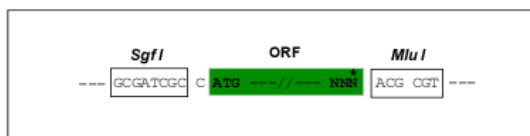
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk8032\\_d12.zip](https://cdn.origene.com/chromatograms/mk8032_d12.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_001261443

**ORF Size:** 1143 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:**

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\\_001261443.1](#), [NP\\_001248372.1](#)

**RefSeq Size:** 5850 bp

**RefSeq ORF:** 1146 bp

**Locus ID:** 2774

**UniProt ID:** [P38405](#)

**Cytogenetics:** 18p11.21

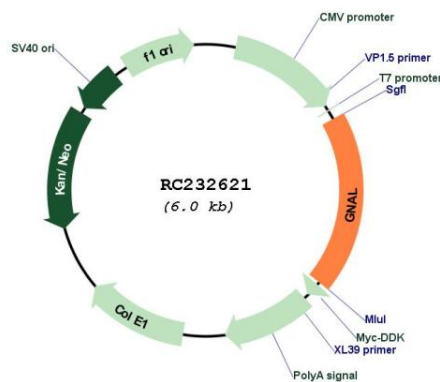
**Protein Families:** Druggable Genome

**Protein Pathways:** Calcium signaling pathway, Olfactory transduction

**MW:** 44.3 kDa

**Gene Summary:** This gene encodes a stimulatory G protein alpha subunit which mediates odorant signaling in the olfactory epithelium. This protein couples dopamine type 1 receptors and adenosine A2A receptors and is widely expressed in the central nervous system. Mutations in this gene have been associated with dystonia 25 and this gene is located in a susceptibility region for bipolar disorder and schizophrenia. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Dec 2013]

## Product images:



Circular map for RC232621