

Product datasheet for **RC227261**

GNAL (NM_001142339) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GNAL (NM_001142339) 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:	>RC227261 representing NM_001142339 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGGGTGTTTGGGCGGCAACAGCAAGACGACGGAAGACCAGGGCGTCGATGAAAAAGAACGACGCGAGG
CCAACAAAAGATCGAGAAGCAGTTGCAGAAAGAGCGCCTGGCTTACAAGGCTACCCACCGCCTGCTGCT
CCTGGGGCTGGTGAAGTCTGGGAAAAGCACTATCGTCAAACAGATGAGGATCCTGCACGTCATGGGTTT
AATCCCGAGGAAAAGAACAGAAAATTCGGACATCCGGAAAAATGTTAAAGATGCTATCGTGACAATTG
TTTCAGCAATGAGTACTATAATACCTCCAGTTCGGCTGGCCAACCCTGAAAACCAATTTTCGATCAGACTA
CATCAAGAGCATAGCCCTATCACTGACTTTGAATATCCAGGAATTCCTTGACCATGTGAAAAAACTT
TGGGACGATGAAGGCGTGAAGGCATGCTTTGAGAGATCCAACGAATACCAGCTGATTGACTGTGCACAAT
ACTTCCTGGAAGAATCGACAGCGTCAGCTTGGTTGACTACACACCCACAGACCAGGACCTCCTCAGATG
CAGAGTTCTGACATCTGGGATTTTGGAGACGATTCCAAGTGGACAAAAGTAAACTTCCACATGTTTGTAT
GTTGGTGGCCAGAGGGATGAGAGGAGAAAATGGATCCAGTGTCTTAACGATGTCACAGCTATCATTTACG
TCGCAGCCTGCAGTAGCTACAACATGGTGAATCGAGAAGATAACAACCAACAGGCTGAGAGAGTCCCT
GGATCTTTTTGAAAGCATCTGGAACAACAGGTGGTTACGGACATTTCTATCATCTTGTTCTTGAACAAA
CAAGATATGCTGGCAGAAAAGTCTTGGCAGGGAATCAAAAATTGAAGACTATTTCCAGAATATGCAA
ATTATACTGTTCCCTGAAGACGCAACACCAGATGCAGGAGAAGATCCCAAAGTTACAAGACCAAGTTCTT
TATCCGGGACCTGTTTTTGGAGATCAGCACGGCCACCGGTGACGGCAAACATTACTGCTACCCGCACTTC
ACCTGCGCGTGGACACAGAGAATCCGAGGGTGTCAACGACTGCCGCGACATCATCCAGCGGATGC
ACCTCAAGCAGTATGAGCTCTTG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC227261 representing NM_001142339
 Red=Cloning site Green=Tags(s)

MGCLGGNSKTTEDQGVDKERREANKKIEKQLQKERLAYKATHRLLLLGAGESGKSTIVKQMRILHVNGF
 NPPEKKQKILDIRKNVKDAIVTIVSAMSTIIPPVPLANPENQFRSDYIKSIAPITDFEYSQEFFDHVKKL
 WDDEGVKACFERSNEYQLIDCAQYFLERIDSVSLVDYPTDQDLLRCRVLTSGIFETRFDVQVDFHMF
 VGGQDRERRKWIQCFNDVTAIIYVAACSSYNMVIREDNNTNRLRESLDFESIWNRLRTISIIILFLNK
 QDMLAEKVLAGKSKIEDYFPEYANYTVPEPATPDAGEDPKVTRAKFFIRDLFLRISTATGDGKHYCPHF
 TCAVDTENIRRVFNDCRDIIQRMHLKQYELL

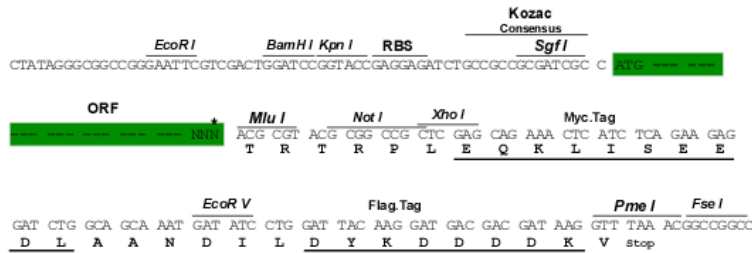
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: 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_001142339

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_001142339.3](#)

RefSeq ORF: 1146 bp

Locus ID: 2774

UniProt ID: [P38405](#)

Cytogenetics: 18p11.21

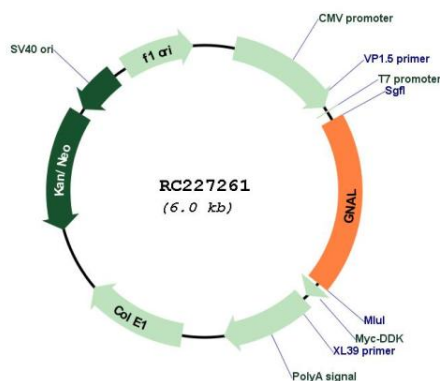
Protein Families: Druggable Genome

Protein Pathways: Calcium signaling pathway, Olfactory transduction

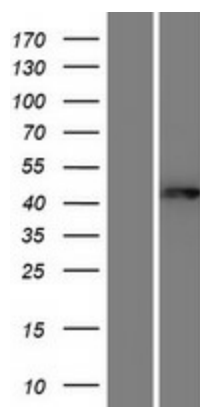
MW: 44.1 kDa

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 RC227261



Western blot validation of overexpression lysate (Cat# [LY428044]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC227261 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).