

Product datasheet for RC209199

GNAQ (NM_002072) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GNAQ (NM_002072) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GNAQ
Synonyms:	CMC1; G-ALPHA-q; GAQ; SWS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC209199 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGACTCTGGAGTCCATCATGGCGTGCTGCCTGAGCGAGGAGGCCAAGGAAGCCCGCGGATCAACGACG
AGATCGAGCGGCAGCTCCGCAGGGACAAGCGGGACGCCCGCGGGAGCTCAAGCTGCTGTGCTCGGGAC
AGGAGAGAGTGGCAAGAGTACGTTTATCAAGCAGATGAGAATCATCCATGGGTCAAGACTCTGATGAA
GATAAAAGGGGCTTACCAAGCTGGTGTATCAGAACATCTTACGCGCCATGCAGGCCATGATCAGAGCCA
TGGACACACTCAAGATCCCATACAAGTATGAGCACAATAAGGCTCATGCACAATTAGTTCGAGAAGTTGA
TGTGGAGAAGGTGCTGCTTTTGAAGTCCATATGTAGATGCAATAAAGAGTTTATGGAATGATCCTGGA
ATCCAGGAATGCTATGATAGACGACGAGAATATCAATTATCTGACTCTACCAAATACTATCTTAATGACT
TGGACCGCTAGCTGACCTGCCTACCTGCCTACGCAACAAGATGTGCTTAGAGTTCGAGTCCCCACCAC
AGGGATCATCGAATACCCCTTTGACTTACAAAGTGTCATTTTTCAGAAATGGTTCGATGTAGGGGGCCAAAGG
TCAGAGAGAAGAAAATGGATACACTGCTTTGAAAATGTCACCTCTATCATGTTTCTAGTAGCGCTTAGTG
AATATGATCAAGTTCTCGTGGAGTCAGACAATGAGAACCGAATGGAGGAAAGCAAGGCTCTCTTTAGAAC
AATTATCACATACCCCTGGTCCAGAATCCTCGGTTATTCTGTCTTAAACAAGAAAGATCTTCTAGAG
GAGAAAATCATGTATTCCATCTAGTCGACTACTCCAGAATATGATGGACCCAGAGAGATGCCCAGG
CAGCCCGAGAATTCATTCTGAAGATGTTCTGGACCTGAACCCAGACAGTGACAAAATTATCTACTCCCA
CTTCACGTGCGCCACAGACACCGAGAATATCCGCTTTGTCTTTGCTGCCGTCAAGGACACCATCCTCCAG
TTGAACCTGAAGGAGTACAATCTGGTC

ACGCGTACGCGGCCGCTCGAGCAGAAAATCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTAA



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Protein Sequence: >RC209199 protein sequence
Red=Cloning site Green=Tags(s)

MTLESIMACCLSEEAKEARRINDEIERQLRRDKRDARRELKLLLLGTGESGKSTFIKQMRIIHGSGYSDE
DKRGFTKLVYQNI FTAMQAMIRAMDTLKIPYKYEHNKAAHQLVREVDVEKVS AFENPYVDAIKSLWNDPG
IQECYDRRREYQLSDSTKYLLNDLDRVADPAYLPTQDVLRRVPTTGIIEYFDLQSVIFRMVDVGGQR
SERRKWIHCFENVTSIMFLVALSEYDQVLVESDNENRMEESKALFRTIITYPWFQNSSVILFLNKKDLLE
EKIMYSHLVDFPEYDGPQRDAQAAREFILKMFVDLNPDSKIIYSHFTCATDTENIRFVFAAVKDTILQ
LNLKEYNLV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6126_d08.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

ACCN: NM_002072

ORF Size: 1077 bp

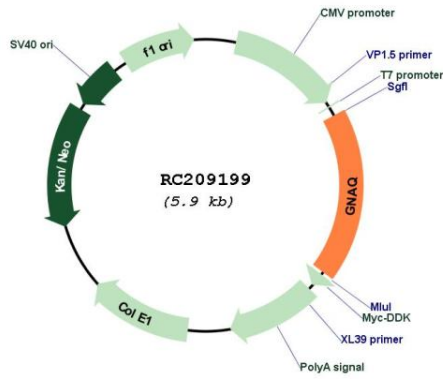
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

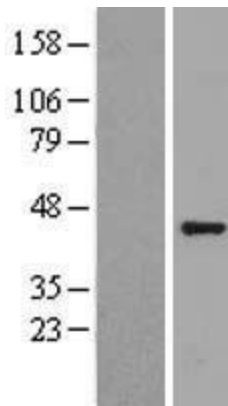
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:	<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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_002072.5
RefSeq Size:	6343 bp
RefSeq ORF:	1080 bp
Locus ID:	2776
UniProt ID:	P50148
Cytogenetics:	9q21.2
Domains:	G-alpha
Protein Families:	Druggable Genome
Protein Pathways:	Alzheimer's disease, Calcium signaling pathway, Gap junction, GnRH signaling pathway, Huntington's disease, Long-term depression, Long-term potentiation, Melanogenesis, Vascular smooth muscle contraction
MW:	42.1 kDa
Gene Summary:	This locus encodes a guanine nucleotide-binding protein. The encoded protein, an alpha subunit in the Gq class, couples a seven-transmembrane domain receptor to activation of phospholipase C-beta. Mutations at this locus have been associated with problems in platelet activation and aggregation. A related pseudogene exists on chromosome 2.[provided by RefSeq, Nov 2010]

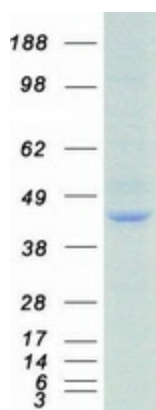
Product images:



Circular map for RC209199



Western blot validation of overexpression lysate (Cat# [LY400763]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC209199 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified GNAQ protein (Cat# [TP309199]). The protein was produced from HEK293T cells transfected with GNAQ cDNA clone (Cat# RC209199) using MegaTran 2.0 (Cat# [TT210002]).