

## Product datasheet for RR200591

### Gnaq (NM\_031036) Rat Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Gnaq (NM_031036) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Gnaq
Synonyms:	Galphaq
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RR200591 representing NM_031036 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGACTCTGGAGTCCATCATGGCGTGCTGCCTGAGCGAGGAGGCCAAGGAAGCCCGGAGGATCAACGACG  
AGATCGAGCGGCAGCTGCGCAGGGACAAGCGCGACGCCCGGGAGCTCAAGCTGCTGCTGGGGAC  
AGGGGAGAGTGGCAAGAGTACCTTCATTAAGCAGATGAGGATCATCCACGGGTCGGGGTACTCTGATGAA  
GACAAGAGGGGCTTTACCAAACCTGGTGTATCAGAACATCTTTACAGCCATGCAGGCCATGGTCAGAGCTA  
TGGACTCTCAAGATCCCATACAAGTATGAACACAATAAGGCTCATGCACAATTGGTTCGAGAGGTTGA  
TGTGGAGAAGGTGCTGCTTTTGAGAATCCATATGTAGACGCAATAAAGAGCTTGTGGAATGATCCTGGA  
ATCCAGGAATGCTACGATAGACGGCGAGAATATCAGCTATCTGACTCTACCAAATACTATCTGAACGACT  
TGGACCGTGTGGCTGACCCCTTCCTATCTGCCTACACAACAAGATGTGCTTAGAGTTCGAGTCCCCACCAC  
AGGGATCATTGAGTACCCCTTCGACTTACAGAGTGTCATCTTCAGAATGGTCGATGTAGGAGGCCAAAGG  
TCAGAGAGAAGAAAATGGATACACTGCTTTGAAAACGTCACCTCGATCATGTTTCTGGTAGCGCTTAGCG  
AATACGATCAAGTCTTGTGGAGTCAGACAATGAGAACCGAATGGAGGAGAGCAAAGCACTCTTTAGAAC  
CATTATCACATATCCCTGGTTCAGAACTCCTCTGTTATTCTGTCTTAAACAAGAAAGATCTTCTAGAG  
GAGAAAATTATGTATTCCACCTAGTCGACTACTTCCAGAATATGATGGACCCAGAGAGATGCCCAGG  
CAGCACGAGAATTCATCCTGAAGATGTTCTGGACCTGAACCCCGACAGTGACAAAATCATCTACTCGCA  
CTTCACGTGTGCCACAGACACGGAGAACATCCGCTTCGTGTTGCTGCTGCAAGGACACCATCCTGCAG  
CTGAACCTGAAGGAGTACAATCTGGTC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAAACATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RR200591 representing NM\_031036  
Red=Cloning site Green=Tags(s)

MTLESIMACCLSEEAKEARRINDEIERQLRRDKRDARRELKLLLLGTGESGKSTFIKQMRIIHGSGYSDE  
DKRGFTKLVYQNIPTAMQAMVRAMDTLKIPYKYEHNKAAHAQLVREVDVEKVSFENPYVDAIKSLWNDPG  
IQECYDRRREYQLSDSTKYLLNDLDRVADPSYLPQQDVLRRVPTTGIIEYFDLQSVIFRMVDVGGQR  
SERRKWIHCFENVTSIMFLVALSEYDQVLVESDNENRMEESKALFRTIITYPWFQNSSVILFLNKKDLLE  
EKIMYSHLVDFPEYDGPQRDAQAAREFILKMFVDLNPDSKIIYSHFTCATDTENIRVFVAAVKDTILQ  
LNLKEYNLV

TRTRPLEQKLISEEDLAANDILDYKDDDDKVK

**Chromatograms:** [https://cdn.origene.com/chromatograms/ja3315\\_b05.zip](https://cdn.origene.com/chromatograms/ja3315_b05.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_031036

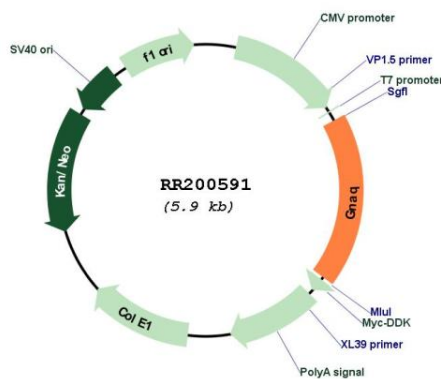
**ORF Size:** 1077 bp

**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](mailto: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:**
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\\_031036.1](#), [NP\\_112298.1](#)
- RefSeq Size:** 1080 bp
- RefSeq ORF:** 1080 bp
- Locus ID:** 81666
- UniProt ID:** [P82471](#)
- Cytogenetics:** 1q43
- MW:** 42.1 kDa
- Gene Summary:** may mediate cardiomyocyte growth and hypertrophy; overexpression may facilitate apoptosis by inhibiting the PI3K/phosphoinositide-dependent kinase-1/Akt cell survival signaling pathway [RGD, Feb 2006]

**Product images:**



Circular map for RR200591