

Product datasheet for RC216167

GCAP3 (GUCA1C) (NM_005459) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: GCAP3 (GUCA1C) (NM_005459) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: GCAP3
Synonyms: GCAP3
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC216167 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGGGAATGGCAATCTATAGCTGGTGATCAGAAAGCAGTTCCTACACAAGAGACCCATGTGTGGTACA
 GAACATTTATGATGGAATATCCATCCGGCTGCAAACTACATGAATTTAAGACTTTTGGGTCTGCA
 AGGTCTGAATCAGAAGGCCAATAAACATATTGATCAAGTTTATAACCTTTGACACGAACAAGGATGGA
 TTTATTGACTTTTGGAGTTTATTGCTGCTGTAATCTAATCGTCAAGAAAAATGGAGCAAAAATTA
 AATGGTATTTAAGCTGTATGATGCTGATGAAATGGTTCTATTGACAAAAATGAACTACTGGACATGTT
 CATGGCGGTACAAGCCCTCAATGGCCAGCAAACCTGAGTCTGAAGAATTCATCAACTGGTGTCCAT
 AAGATCGATATAACAATGATGGGAATTGACTTTAGAAGAATTTATCAATGGCATGGCAAAAGATCAGG
 ATCTCCTGGAGATTGTTTACAAGAGCTTCGACTTCTCCAATGTGCTGAGAGTAATCTGTAATGGGAAGCA
 GCCAGACATGGAGACAGACTCCTCCAAATCTCCTGACAAGGCTGGTCTAGGGAAGGTGAAAATGAAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC216167 protein sequence
 Red=Cloning site Green=Tags(s)

MGNKSIAGDQKAVPTQETHVWYRTFMMEYPSGLQTLHEFKTLLGLQGLNQNKANKHIDQVYNTFDTNKDG
 FIDFLEFIAAVNLIVQEKMEQLKWFYKLYDADGNGSIDKNELDMFMAVQALNGQQLSPEEFINLVFH
 KIDINNDGELTLEEFINGMAKDQDLLEIVYKSFDFSNVLRVICNGKQPDMETDSSKSPDKAGLGKVKMK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV



Chromatograms: https://cdn.origene.com/chromatograms/mk6457_a11.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_005459

ORF Size: 627 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:

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_005459.4](#)

RefSeq Size: 925 bp

RefSeq ORF: 630 bp

Locus ID: 9626

UniProt ID: [O95843](#)

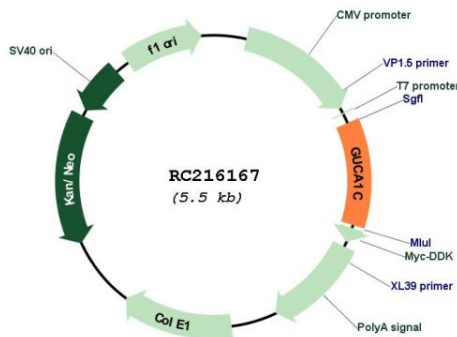
Cytogenetics: 3q13.13

Protein Pathways: Olfactory transduction

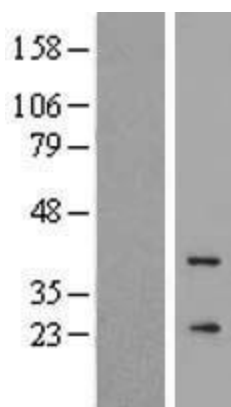
MW: 23.8 kDa

Gene Summary: Stimulates guanylyl cyclase 1 (GC1) and GC2 when free calcium ions concentration is low and inhibits guanylyl cyclases when free calcium ions concentration is elevated. This Ca(2+)-sensitive regulation of guanylyl cyclase (GC) is a key event in recovery of the dark state of rod photoreceptors following light exposure.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RC216167



Western blot validation of overexpression lysate (Cat# [LY417298]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC216167 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).