

## Product datasheet for **RG216167**

### 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:** TurboGFP  
**Symbol:** GCAP3  
**Synonyms:** GCAP3  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG216167 representing NM\_005459  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGGGGAATGGCAAATCTATAGCTGGTGATCAGAAAGCAGTTCCTACACAAGAGACCCATGTGTGGTACA  
GAACATTTATGATGGAATATCCATCCGGCTGCAAACACTACATGAATTTAAGACACTTTTGGGTCTGCA  
AGGTCTGAATCAGAAGGCCAATAAACATATTGATCAAGTTTATAATACCTTTGACACGAACAAGGATGGA  
TTTATTGACTTTTGGAGTTTATTGCTGCTGTAATCTAATCGTCAAGAAAAATGGAGCAAAAATTA  
AATGGTATTTAAGCTGTATGATGCTGATGAAATGGTCTATTGACAAAAATGAACTACTGGACATGTT  
CATGGCGGTACAAGCCCTCAATGGCCAGCAAACCTGAGTCTGAAGAATTCATCAACTGGTGTCCAT  
AAGATCGATATAACAATGATGGGAATTGACTTTAGAAGAATTTATCAATGGCATGGCAAAAGATCAGG  
ATCTCCTGGAGATTGTTTACAAGAGCTTCGACTTCTCCAATGTGCTGAGAGTAATCTGTAATGGGAAGCA  
GCCAGACATGGAGACAGACTCCTCCAAATCTCCTGACAAGGCTGGTCTAGGGAAGGTGAAAATGAAG

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:** >RG216167 representing NM\_005459  
Red=Cloning site Green=Tags(s)

MGNKSIAGDQKAVPTQETHVWYRTFMMEYPSGLQTLHEFKTLLGLQGLNQNKANKHIDQVYNTFDTNKDG  
FIDFLEFIAAVNLIVQEKMQLKWFKLYDADGNGSIDKNELLDMAVQALNGQQLSPEEFINLVFH  
KIDINNDGELTLEEFINGMAKDQDLLEIVYKSFDFSNVLRVICNGKQPDMETDSSKSPDKAGLGKVKMK

**TRTRPLE** - GFP Tag - V

**Restriction Sites:** Sgfl-MluI



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**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](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).

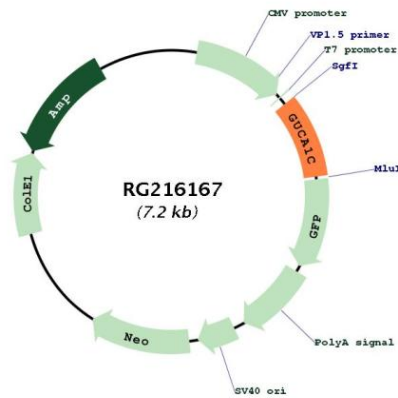
**Reconstitution Method:**

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\\_005459.2](#), [NP\\_005450.2](#)

**RefSeq Size:** 860 bp  
**RefSeq ORF:** 630 bp  
**Locus ID:** 9626  
**UniProt ID:** [O95843](#)  
**Cytogenetics:** 3q13.13  
**Protein Pathways:** Olfactory transduction  
**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 RG216167