

Product datasheet for **RG206595**

GCAP1 (GUCA1A) (NM_000409) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: GCAP1 (GUCA1A) (NM_000409) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: GCAP1
Synonyms: GUCA1A; GUCA1ANB-GUCA1A
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG206595 representing NM_000409
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGGCAACGTGATGGAGGGAAAGTCAGTGGAGGAGCTGAGCAGCACCGAGTGCCACCAGTGGTACAAGA
 AGTTCATGACTGAGTGCCCTCTGGCCAACTCACCTCTATGAGTTCGCCAGTCTTCGGCCTCAAGAA
 CCTGAGCCCGTCGCCAGCCAGTACGTGGAACAGATGTTTGGACTTTTACTTCAACAAGGACGGCTAC
 ATTGATTTTCATGGAGTACGTGGCAGCGCTCAGCTTGGTCTCAAGGGGAAGGTGGAACAGAAGCTCCGCT
 GGTACTTCAAGCTCTATGATGTAGATGGCAACGGCTGCATTGACCGCGATGAGCTGCTCACCATCATCCA
 GGCCATTCGCGCCATTAACCCCTGCAGCGATACCAACCATGACTGCAGAGGAGTTCACCGATACAGTGTT
 TCCAAGATTGACGTCAACGGGGATGGGGAAGTCTCCCTGGAAAGAGTTTATAGAGGGCGTCCAGAAGGACC
 AGATGCTCCTGGACACTGACACGAAGCCTGGACCTTACCCGCATCGTGCGCAGGCTCCAGAATGGCGA
 GCAAGACGAGGAGGGGCTGACGAGGCCGCTGAGGCAGCCGGC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG206595 representing NM_000409
 Red=Cloning site Green=Tags(s)

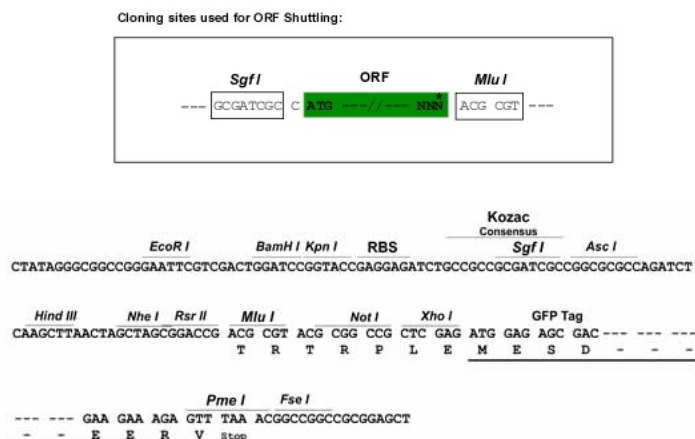
MGNVMEGKSVEELSSTECHQWYKFMTECPGQLTLYEFRQFFGLKNLSPSASQYVEQMFETDFDNKDG
 IDFMEYVAALSLVLKGVKVEQKLRWYFKLYDVGNGCIDRDELLTIIQAIRAINPCSDTTMTAEFFDTDFV
 SKIDVNGDGELSLEEFIEGVQKQMLLDLTLTRSLDLTRIVRRLQNGEQDEEGADEAAEAAG

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI



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Cloning Scheme:


ACCN: NM_000409

ORF Size: 603 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_000409.5](#)

RefSeq Size: 1976 bp

RefSeq ORF: 606 bp

Locus ID: 2978

UniProt ID: [P43080](#)

Cytogenetics: 6p21.1

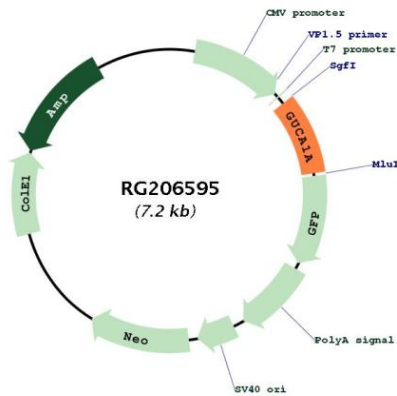
Domains: EFh

Protein Families: Druggable Genome

Protein Pathways: Olfactory transduction

Gene Summary: This gene encodes an enzyme that plays a role in the recovery of retinal photoreceptors from photobleaching. This enzyme promotes the activity of retinal guanylyl cyclase-1 (GC1) at low calcium concentrations and inhibits GC1 at high calcium concentrations. Mutations in this gene can cause cone dystrophy 3 and code-rod dystrophy 14. provided by RefSeq, Jul 2020]

Product images:



Circular map for RG206595