

Product datasheet for **RG220183**

GCAP2 (GUCA1B) (NM_002098) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: GCAP2 (GUCA1B) (NM_002098) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: GUCA1B
Synonyms: GCAP 2; GCAP2; GUCA2; RP48
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG220183 representing NM_002098
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGGGCAGGAGTTTAGCTGGGAGGAGGCGGAGGCAGCTGGCGAGATAGATGTGGCGGAGCTCCAGGAGT
GGTACAAGAAGTTTGTGATGGAGTGCCCCAGCGGCACACTCTTTATGCATGAGTTAAGCGCTTCTTCAA
GGTCACAGACGATGAGGAGGCCTCCAGTACGTAGAGGGCATGTTCCGAGCCTTCGACAAGAATGGGGAC
AACACCATCGACTTCTGGAGTACGTGGCAGCTCTGAATCTCGTCTGAGGGCACCTGGAGCACAAGC
TGAAGCGGACATTCAAGATCTATGATAAGGATGGCAATGGCTGCATCGACCGCCTGGAGTACTCAACAT
TGTGGAGGGAATTTACCAGCTGAAGAAAGCCTGCCGCGGAGAGCTACAACTGAGCAAGGCCAGCTGCTC
ACACCCGAGGAGGTCGTGGACAGGATCTTCTCTGGTGGATGAGAATGGAGATGGCCAGCTGTCTCTGA
ACGGGTTTGTGAAGGTGCCCGTCCGGACAAGTGGGTGATGAAGATGCTGCAGATGGACATGAATCCAG
CAGCTGGCTCGCTCAGCAGAGACGGAAAAGTGCCATGTTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG220183 representing NM_002098
Red=Cloning site Green=Tags(s)

MGQEFSWEEAEEAGEIDVAELQEWYKFFVMECPSTGLFMHEFKRFFKVTDDDEASQYVEGMFRAFDKNGD
NTIDFLEYVAALNLVLRGTLEHKLKRTFKIYDKDGNCGIDRLELLNIVEGIYQLKKACRRELQTEQGQLL
TPEEVDRIFLLVDENGDGQLSLNGFVEGARRDKWVMKMLQMDMNPSSWLAQRRKSAMF

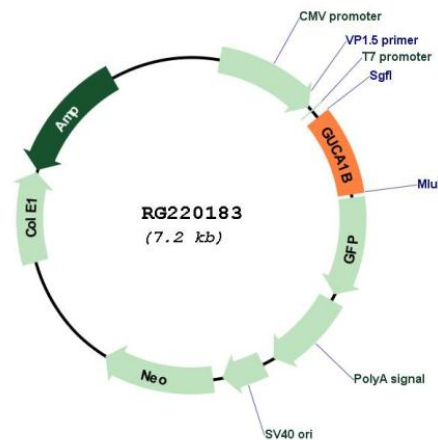
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI



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Cloning Scheme:

Plasmid Map:


ACCN: NM_002098

ORF Size: 600 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_002098.3](#), [NP_002089.3](#)

RefSeq Size: 2288 bp

RefSeq ORF: 603 bp

Locus ID: 2979

UniProt ID: [Q9UMX6](#)

Cytogenetics: 6p21.1

Protein Families: Druggable Genome

Protein Pathways: Olfactory transduction

Gene Summary: The protein encoded by this gene is a calcium-binding protein that activates photoreceptor guanylate cyclases. This gene may have arisen due to a gene duplication event since there is a highly similar gene clustered with it on chromosome 6. Mutations in this gene can cause a form of retinitis pigmentosa. [provided by RefSeq, Nov 2009]