

## Product datasheet for **MG202065**

### Guca1b (NM\_146079) Mouse Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Guca1b (NM\_146079) Mouse Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** Guca1b  
**Synonyms:** BC018258; GCAP2  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >MG202065 representing NM\_146079  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGGGCAGCAGCTGAGCTGGGAAGAGGCGGAGGCGGCCGGGGAGATGGATGTGGCGGAGTTCAGGAGT  
GGTACAAGAAGTTTGTCTGGAGTGTCCAGTGGGACGCTCTTCATGCACGAGTTCAGCGCTTCTTCAA  
GGTCACGGCAATGAGGAGGCCAGCCAGTATGTAGAGAGCATGTTCCGAGCCTTCGACAAGAATGGGGAC  
AACACCATTGACTTCTGGAGTATGTGGCAGCCCTGAACCTCGTCTGAGGGCAGCCTGGAACACAAGC  
TCAAGTGGACCTCAAGATCTATGACAAGGACCGAAATGGCTGCATCGACCGCTGGAACCTCTGGACAT  
TGTGGAGGCGATTTACAAGCTGAAGAAAGCCTGCCGAGCGGAGCTGGATCTGGAACACCGAGGCCAGCTG  
CTCACGCCGAGGAGGTGGTGGACAGGATCTTCTCTCTGGTGGACGAGAATGGAGACGGCCAGCTGTCTC  
TGACCGAGTTCATCGAGGGCGCCCGTCGCGATAAGTGGGTAATGAAGATGCTACAAATGGATATCAACCC  
AGGCTGCTGGATCACGCAGCAGAGGCGGAGAAGCGCCATGTTC

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:** >MG202065 representing NM\_146079  
Red=Cloning site Green=Tags(s)

MGQQLSWEEAEAAGEMDVAELQEWYKFFVVECPSTGLFMHEFKRFFKVTGNEEASQYVESMFRAFDKNGD  
NTIDFLEYVAALNLVLRGSLHKLKWTFKIYDKDRNGCIDRELLDIVEAIYKLLKACRAELDLEHQGL  
LTPEEVVDRIFFLLVDENGDGQLSLTEFIEGARRDKWVMKMLQMDINPGCWITQRRRSAMF

**TRTRPLE** - GFP Tag - V

**Restriction Sites:** SgfI-MluI

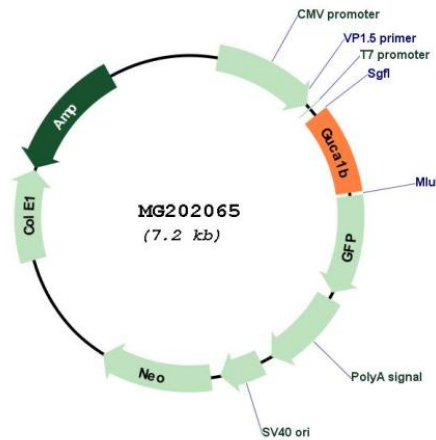


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Cloning Scheme:



Plasmid Map:



ACCN: NM\_146079

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\\_146079.1](#), [NP\\_666191.1](#)

**RefSeq Size:** 1681 bp

**RefSeq ORF:** 606 bp

**Locus ID:** 107477

**UniProt ID:** [Q8VBV8](#)

**Cytogenetics:** 17 C

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