

Product datasheet for **MG210549**

Gucy2e (BC057954) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Gucy2e (BC057954) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Gucy2e
Synonyms:	GC-E; GC1; ROS-GC1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG210549 representing BC057954
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGAGCGCTTGGCTCCTGCCAGCCGGAGGGCTTCCCGCGCCGGGTTCTGTGTCCCTGCGCGGCAGTCTC
 CGTCCAGTTTCTCGCGGGTCTGCGCTGGCCAAGGCCTGGGCTACCGGGACTCCTGCTACTGCTACTGCT
 CCCATCTCCTTCTGCCCTCTCTGCTGTGTTCAAAGTGGGGTGTGGGCCCTGGGCTTGCACCCCATC
 TTTGCACGGGCCGACCAGACCTGGCTGCGCGTCTGGCCGCAACCGCCTGAATCGTGACTTTGCTTTAG
 ACGGGCGCCCGGTTTCGAGTTGCGTCTCCAGAGCCCTGCCTGACTCCGGGCTCACTAGGGGCTGT
 GTCCTCTGCGTGTCTCGAGTCTTGGCTGGTGGGTCCGGTGAACCCCGCAGCCTGTCCGCCAGCCGAA
 CTGTTGGTCAAGAAGCTGGAGTAGCGTGGTCCCTGGGGTCCCTGGCACCGGGCGGGGGTACTA
 CAGCCCCGGCGGTGACCCCGCTGCAGATGCTCTCTACGTCCTCCTTAGAGCATTCCGCTGGGCGCGGT
 GGCCCTGATCACTGCACCCAAGACCTGTGGTGGAGGGGACGCGCTCTGTCCACAGCACTCAGGGCC
 CGGGGTTTGCCAGTTGCCCTAGTGACTTCCATGGAGACTTCCAGACCGGTCTGGAGCCCGGAGGCCCTCG
 GGAGGATCCGAGATGGGCTAGAGTTAGAGTAGTGATCATGGTGTGACTCGGTGCTGTGGGCGGCGA
 GGAGCAGCGCTACCTACTGGAAGCTGCAGAAGAACTGGCTCTGACTGATGGCTCCCTGGTTTTCTGCC
 TTCGACACGCTTCACTACGCTTTGTCTCCAGGCCCGGAGGCTCTGGTGCATTTGTCAACAGCTCCCAGC
 TCCGCAGGGCTCACGATGCGGTGCTCACACTCACGCGCCGCTGTCTCTGGAGGCAGCGTGAAGACAG
 CCTGCGCAGGGCTCAAGAACCAGGAAGTCCCTTACCTCAACCTGAAGCAGTCTCTCCGCTGTTT
 GGCACCATCTATGATGCTGTCTTCTGTGGCTGGGGCGTGAAGAGAGCAAGAACAGCGGTGGTGGT
 GGGGAGAACCGAGGAGCCCTCCTTTGTGCTGCTGGACACAGATGCATCCGGAGAACAGTTGTTCCGAACA
 CACCTGTAGATCCTGTCTTAGGCTCCCTGCGTCTGCAGGGACCCCATGCACTTCCCTAGAGGTGGAC
 CTGCCCGGGACAGACCCTTCTGCTGGTTCGATCCAGATGTGATCTGCAACGGAGGGGTGGAGCCAGG
 CCTGGTCTTTGTTGGCTTCTCTGGTATAGGGATGGGACTGACTGGAGCCTTCTGGCTCATTACTTG
 AGGCACAGGCTGCTACACATGCAGATGGCTTCCGGCCCAACAAGATCATCTTGACGTTGGAAGATGTTA
 CTTTCTCCACCACCGGAGGCAGCTCTGAAAGGTGGTCCAGGGAAGTAGATCCAGTCTGGCTACCCG
 GAGCGCATCAGACATTCGAGTGTCCCGAGCCAGCCCAAGAGAGACCAACGTTGGCCTCTATGAGGG
 GACTGGGTTTGGCTGAAGAAGTCCCAGGGGAACATCATATGGCTATCAGGCCAGCAACAAGACAGCCT
 TCTCCAAGCTTCGAGAGCTCCGGCATGAGAATGTGGCTCTCTACTTGGGACTCTTCTGGCGGGTACAGC
 AGACAGCCCTGCCACCCCTGGGGAGGGCATCTGGCTGTGGTCTCAGAGCACTGTGCTCGGGGTTCCCTC
 CATGACCTCCTGGCCAGAGAGAAATAAGCTGGACTGGATGTTCAAGTCTTCCCTCCTGCTGGACCTCA
 TCAAGGGAATGAGATATCTGCACCATCGCGGTGTGGCCACGGGAGGCTCAAGTACGGAATTGCGTGGT
 GGACGGGAGGTTCTGTCTCAAGGTGACAGATCATGGCCATGGGCGACTGCTGGAAGCGCAAAGGGTGT
 CCGGAACCTCCAGTGCAGAGGATCAGCTATGGACAGCCCGAGAGCTTCTCGGGACCCCTCCCTGGAGC
 GCCGGGAACTCTAGCTGGTGTGCTTTAGTCTGGCCATCATATGCAGGAGGTCGTGTGCCGAGCAC
 CCCTTATGCCATGCTGGAACAAACGCCCGAGGGTAAGGTGGTTTGGGGCCAGATAGGCACCCTG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG210549 representing BC057954
 Red=Cloning site Green=Tags(s)

MSAWLLPAGGLPGAGFCVPAQSPSSFSRVLRWPRPGLPGLLLLLLLPSPSALS AVFKVGVLPWACDPI
 FARARPDLAARLANRLNRDFALDGGPRFEVALLPEPCLTPGSLGAVSSALSRVSGLVGPVNPAAACRP
 AELLAQEAGVALVPWGCPGTRAAGTTAPAVTPAADALYVLLRAFRWARVALITAPQDLWVEAGRALST
 ALRARGLPVALVTSMETSDRSGAREALGRIRDGPRVRVIMVMHSVLLGGEEQRYLLEAAEELALTDG
 SLVFLPFDLTHYALSPGPEALAAFVNSSQLRRAHDAVLTLTRCPPGGSVQDSLRRRAQEHQELPLD
 LNLKQVSPLFGTIYDAVFLLAGVKRARTAVGGGWVSGASVARQVREAVQVSGFCGVLGRTEEPSFV
 LLDTDASGEQLFATHLLDPVLGSLRSAGTPMHFPRGGPAPGDPSCWFDPDVICNGGVEPGLVFV
 GFLLVIGMGLTGAFLAHYLRHRLLMQMASGPNKIIILTLEDVTFLHPPGGSSRKVVQGSRSSLA
 TRSASDIRSVSPQPESTNVGLYEGDWWLKKFPGEHHMAIRPATKTAFSKLRRELHENVALYLGLF
 LAGTADSPATPGEGILAVVSEHCARGSLHDLLAQREIKLDWMFKSSLLLDLIKGMRYLHHRG
 VAHGRLKSRNCVVDGRFVVKVTDHGHGRLLLEAQRVLPPEPPSAEDQLWTAPELLRDP
 SLERRGTLAGDVFSLAIIMQEVVCRSTPYAMLELTPEGKVVWGQIGTL

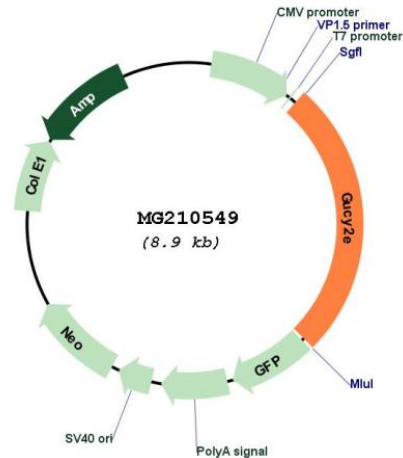
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:


ACCN: BC057954

ORF Size: 2306 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: [BC057954](#)

RefSeq Size: 3213 bp

RefSeq ORF: 2306 bp

Locus ID: 14919

Cytogenetics: 11 42.51 cM

Gene Summary: Catalyzes the synthesis of cyclic GMP (cGMP) in rods and cones of photoreceptors. Plays an essential role in phototransduction, by mediating cGMP replenishment (PubMed:21598940). May also participate in the trafficking of membrane-associated proteins to the photoreceptor outer segment membrane (PubMed:17255100).[UniProtKB/Swiss-Prot Function]