

Product datasheet for **MR210549**

Gucy2e (BC057954) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Gucy2e (BC057954) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Gucy2e
Synonyms:	GC-E; GC1; ROS-GC1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR210549 representing BC057954
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAGCGCTTGGCTCCTGCCAGCCGGAGGGCTTCCCGCGCCGGGTTCTGTGTCCCTGCGCGGCAGTCTC
 CGTCCAGTTTCTCGCGGGTCTGCGCTGGCCAAGGCCTGGGCTACCGGGACTCCTGCTACTGCTACTGCT
 CCCATCTCCTTCTGCCCTCTCTGCTGTGTTCAAAGTGGGGGTGCTGGGCCCTGGGCTTGCAGCCCCATC
 TTTGCACGGGCCGACCAGACCTGGCTGCGCGTCTGGCCGCAACCGCCTGAATCGTGACTTTGCTTTAG
 ACGGGCGCCCCGGTTCGAGGTTGCGTCTCCAGAGCCCTGCCTGACTCCGGGCTCACTAGGGGCTGT
 GTCCTCTGCGTGTCTCGAGTCTCTGGCCTGGTGGGTCCGGTGAACCCCGCAGCCTGTCCGCCAGCCGAA
 CTGTTGGTCAAGAAGCTGGAGTAGCGTGGTGCCTGGGGTGCCTGGCACGCGGGCGGGGCTACTA
 CAGCCCCGGCGGTGACCCCGCTGCAGATGCTCTCTACGTCCTCCTTAGAGCATTCCGCTGGGCGCGGT
 GGCCCTGATCACTGCACCCAAGACCTGTGGTGGAGGCGGGACGCGCTCTGTCCACAGCACTCAGGGCC
 CGGGGTTTGCCAGTTGCCCTAGTGACTTCCATGGAGACTTCCAGACCGGTCTGGAGCCCGGAGGCCCTCG
 GGAGGATCCGAGATGGGCTAGAGTTAGAGTAGTGATCATGGTGTGACTCGGTGCTGTGGGCGGCGA
 GGAGCAGCGCTACCTACTGGAAGCTGCAGAAGAACTGGCTCTGACTGATGGCTCCCTGGTTTTCTGCC
 TTCGACACGCTTCACTACGCTTTGTCTCCAGGCCCGGAGGCTCTGGTGCATTTGTCAACAGCTCCCAGC
 TCCGCAGGGCTCACGATGCGGTGCTCACACTCACGCGCCGCTGTCTCTGGAGGCAGCGTGAAGACAG
 CCTGGCAGGGCTCAAGAACCAGGAAGTCCCTTACCTCAACCTGAAGCAGTCTCTCCGCTGTTT
 GGCACCATCTATGATGCTGTCTTCTGTTGGCTGGGGCGTGAAGAGAGCAAGAACAGCGGTGGTGGT
 GGGGAGTGCAGGTGCATCTGTAGCCCGCAAGTACGGGAAGCACAAGTCTCTGGCTTTTGTGGGCTCT
 GGAAGAACCAGGAGCCCTCCTTTGTGCTGCTGGACACAGATGCATCCGGAGAACAGTTGTTCCGAACA
 CACCTGTAGATCCTGTCTTAGGCTCCCTGCGTCTGCAGGGACCCCATGCACTTCCCTAGAGGTGGAC
 CTGCCCGGGACAGACCCTTCTGCTGGTTCGATCCAGATGTGATCTGCAACGGAGGGGTGGAGCCAGG
 CCTGGTCTTTGTTGGCTTCTCCTGGTATAGGGATGGGACTGACTGGAGCCTTCTGGCTCATTACTTG
 AGGCACAGGCTGCTACACATGCAGATGGCTTCCGGCCCCAACAAGATCATCTTGACGTTGGAAGATGTTA
 CTTTCTCCACCACCGGAGGCAGCTCTGAAAGGTGGTCCAGGGAAGTAGATCCAGTCTGGCTACCCG
 GAGCGCATCAGACATTCGAGTGTCCCGAGCCAGCCCCAAGAGAGCACCACGTTGGCCTCTATGAGGG
 GACTGGGTTTGGCTGAAGAAGTCCCAGGGGAACATCATATGGCTATCAGGCCAGCAACAAGACAGCCT
 TCTCCAAGCTTCGAGAGCTCCGGCATGAGAATGTGGCTCTCTACTTGGGACTCTTCTGGCGGGTACAGC
 AGACAGCCCTGCCACCCCTGGGGAGGGCATCTGGCTGTGGTCTCAGAGCACTGTGCTCGGGGTTCCCTC
 CATGACCTCCTGGCCAGAGAGAAATAAGCTGGACTGGATGTTCAAGTCTTCCCTCCTGCTGGACCTCA
 TCAAGGGAATGAGATATCTGCACCATCGCGGTGTGGCCACGGGAGGCTCAAGTCAAGCAATGCGTGGT
 GGACGGGAGGTTCTGTCTCAAGGTGACAGATCATGGCCATGGGCGACTGCTGGAAGCGCAAGGGTGT
 CCGGAACCTCCAGTGCAGAGGATCAGCTATGGACAGCCCCAGAGCTTCTCGGGACCCCTCCCTGGAGC
 GCCGGGAACCTAGCTGGTGTGCTTTAGTCTGGCCATCATGCAGGAGGTCGTGTGCCGAGCAC
 CCCTTATGCCATGCTGGAACAAACGCCCGAGGGTAAGGTGGTTTGGGGCCAGATAGGCACCCCTG

ACGCGTACGCGGGCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR210549 representing BC057954
 Red=Cloning site Green=Tags(s)

MSAWLLPAGGLPGAGFCVPARQSPSSFSRVLRWPRPGLPGLLLLLLLPSPSALS AVFKVGVLPWACDPI
 FARARPDLAARLAANRLNRDFALDGGPRFEVALLPEPCLTPGSLGAVSSALSRVSGLVGPNPAACRPAE
 LLAQEAGVALVPWGCPGTRAAGTTAPAVTPAADALYVLLRAFRWARVALITAPQDLWVEAGRALSTALRA
 RGLPVALVTSMETSDRSGAREALGRIRDGPRVRVIMVMHSVLLGEEQRYLLEAAEELALTDGSLVFLP
 FDTLHYALSPGPEALAAFVNSSQLRRAHDAVLTLTRCPPGGSVQDSLRRAQEHQELPLDLNLKQVSPLF
 GTIYDAVFLLAGVKRARTAVGGGWVSGASVARQVREAQVSGFCGVLGRTEEPSVLLD TDASGEQLFAT
 HLLDPVLGSLRSAGTPMHFPRGGPAPGDPSCWFDPDVICNGGVEPGLVFVGFLLVIGMGLTGAF LAHYL
 RHRL LHMQMASGPNKII LTLEDVTF LHPGSSRKVVQGSRSSLATRSASDIRSVSPQPQESTNVLG YEG
 DWVWLK KFPGEHMAIRPATKTA FSKLREL RHENVALYLGLFLAGTADSPATPGE GILAVVSEHCARGSL
 HDLLAQREIKLDWMFKSSLLLDL IKGMRYLHHRGVAHGRLKSRNCVVDGRFVLKVTDHGHGRLL EAQRVL
 PEPPSAEDQLWTAPELLRDP SLERRGTLAGDVFSLAIIMQEVVCRSTPYAMLELTPEGKVVWQIGTL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: BC057954

ORF Size: 2304 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

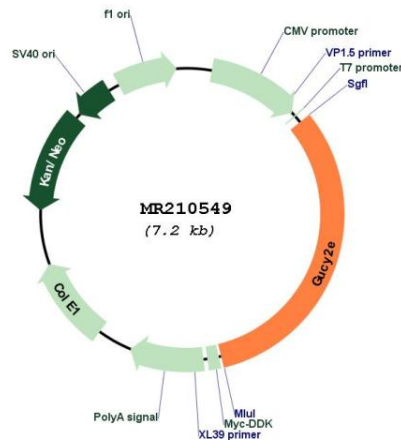
Locus ID: 14919

Cytogenetics: 11 42.51 cM

MW: 117.8 kDa

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]

Product images:



Circular map for MR210549