

Product datasheet for **RG219523**

GUCY1A2 (NM_000855) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GUCY1A2 (NM_000855) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	GUCY1A2
Synonyms:	GC-SA2; GUC1A2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RG219523 representing NM_000855
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGTCTCGAAGGAAGATTTCTGTCGAGTCTTTCAGCTCCCTGGGCTCCGACTACCTGGAGACCAGCCCGG
 AGGAGGAGGGGGAGTGCCCCCTGTCTAGGCTCTGCTGGAATGGCAGCCGGAGCCCGCCGGGCCGCTGGA
 GCCCAGCCCGGCCGACGCTGCCGCTGCCGCCGCCCGGCCCGACCCCGGCTGCTTCTGCCGCCGCCGCC
 GCTGCCACTGCCGGGGCCAGGAGGGTGCAGCGCCGGAGCGGGTCAACCTGGACTCGCTGGGCGAGAGCA
 TCAGCCGCTGACGGCGCCCTCGCCTCAGACGATACAGCAGACTCTCAAGAGGACTGCAGTATTATGA
 ACATCAAGTTATTGGTTACAGGGATGCAGAAAAGAATTTCCACAATATCTCTAACAGATGCTCTATGCA
 GACCACTCCAACAAGAAGAAATGAAGATGTCTCAGGAATTTCTCAGTGTACTGCTAATACTCGGTT
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 TCAAACCCAGGCAATTGTAGCTGTCTTACTTTCTTATCAAAGAATGTGAAAATACTAATATCATGAAGA
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 CGATGTGACACTCACAAGTGTCAAGTTTGAGGACTGCTTCGAGATTGTATCTCAAAGGTTAATGCCA
 CCTTTGAAAGGGTCTGCTGCGACTGTCTACCCGTTTTGTGATTAGAACCAAGCCTGAGGCTTCTGGCTC
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 CCAGAAAGTTTGTATGATGTCACCATGCTCTTTTCAGACATTGTTGGCTTACAGCCATATGTGCCAGTG
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 ATGCCACGTTATTGCCTGTTTGGAAATAATGTCACACTGGCAAGCAAATTCGAGTCGGGAAGTACCCCTC
 GGCGCATCAATGTGAGCCCAACCACTTACCAATATTAACGAGAGAAAGTTTACATTCATTCCGCG
 GTCTCGTGAAGAGCTTCCAGACAACCTTCCAAAGGAAATTCCTGGGATCTGCTATTTCTGGAGGTAAGG
 ACTGGTCCAAAGCCACCAAGCCTTCTCTTTCTCGTCGAGAATAAAAAAGGTTTCTACAACATCGGCA
 CCATGTTCTCCGGGAGACAAGCCTC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >RG219523 representing NM_000855
 Red=Cloning site Green=Tags(s)

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MSRRKISSESFSSLGSDYLETSPEEEGECPLSRLCWNGSRSPGPLEPSPAAAAAAPAPTPAASAAAA
AATAGARRVQRRRRVNLDSLGESISRLTAPSPQTIQQTLKRTLQYYEHQVIGYRDAEKNFHNISNRCSYA
DHSNKEEIEDVSGILQCTANILGLKFEEIQKRFGEFFNICFHENERVLRVGGTLQDFNFGFDALLEHI
RTSFGKQATLESPSFLCKELPEGTLMLHYFHPHHIVGFAMLGMIKAAGKKIYRLDVEVEQVANEKLCSDV
SNPGNCSCLTFLIKECENTNIMKNLPQGT SQVPADLRISINTFCRAFPFHLMFDPMSVLQLGEGLRKQL
RCDTHKVLKFEDCFEIVSPKVNATFERVLLRSLSTPFVIRTKEASGSENKDKVMEVKQMIVPESNSIL
FLGSPCDKLDLMGRGLHLSDIPIHDA TRD VILVGEQAKAQDGLKKRMDK LKATLERHQALEEEKKKT
VDLLYSIFPGDVAQQLWQQQVQARKFDDVTMLFSDIVGFTAICAQCTPMQVISMLNELYTRFDHQCGFL
DIYKVETIGDAYVAAGLHRKSLCHAKPIALMALKMMELSEEVLTPDGRPIQMRIGIHSVSLAGVVGVR
MPRYCLFGNNVTLASKFESGSHPRRINVSPTTYQLLKREESFTFIPRSREELPDNFPKEIPGICYFLEVR
TGPKPPKPSLSSSRIKKVSYNIGTMFLRETSL
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TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



ACCN: NM_000855

ORF Size: 2196 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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_000855.3](#)

RefSeq Size: 16140 bp

RefSeq ORF: 2199 bp

Locus ID: 2977

UniProt ID: [P33402](#)

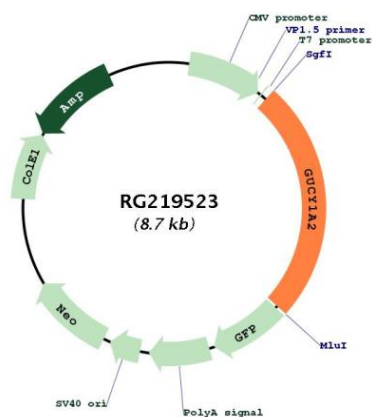
Cytogenetics: 11q22.3

Protein Families: Druggable Genome

Protein Pathways: Gap junction, Long-term depression, Purine metabolism, Vascular smooth muscle contraction

Gene Summary: Soluble guanylate cyclases are heterodimeric proteins that catalyze the conversion of GTP to 3',5'-cyclic GMP and pyrophosphate. The protein encoded by this gene is an alpha subunit of this complex and it interacts with a beta subunit to form the guanylate cyclase enzyme, which is activated by nitric oxide. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jan 2012]

Product images:



Circular map for RG219523