

Product datasheet for **SC119658**

GUCY1A1 (NM_000856) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GUCY1A1 (NM_000856) Human Untagged Clone
Tag:	Tag Free
Symbol:	GUCY1A1
Synonyms:	GC-S-alpha-1; GC-SA3; GCS-alpha-3; GUC1A3; GUCA3; GUCSA3; GUCY1A3; MYMY6
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC119658 sequence for NM_000856 edited (data generated by NextGen Sequencing)

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ATGTTCTGCACGAAGCTCAAGGATCTCAAGATCACAGGAGAGTGTCTTTCTCCTTACTG
GCACCAGGTCAAGTTCCTAACGAGTCTTCAGAGGAGGCAGCAGGAAGCTCAGAGAGCTGC
AAAGCAACCGTGCCCATCTGTCAAGACATTCTGAGAAGAACATACAAGAAAGTCTTCTC
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CTGATTTTCCCAGAGTTTGAACGGCTGAATGTTGCACTTCAGAGAACATTGGCAAAGCAC
AAAATAAAAGAAAGCAGGAAATCTTTGGAAAGAGAAGACTTTGAAAAACAATTGCAGAG
CAAGCAGTTGCAGCAGGAGTTCCAGTGGAGGTTATCAAAGAATCTCTTGGTGAAGAGGTT
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CATAATGATTGCAGCGAGTTTGAATCAGCCCTACTTGTGTACTCCGTTCCACATGAAA
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GATGAAGTTATGCTCCCATGGAGAACCTATCAAGATGCGAATTGGACTGCACTCTGGA
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GCACTCTGGCTAACAAATTTGAGTCTGCAGTGTACCACGAAAAATCAATGTCAGCCCA
ACAACCTACAGATTACTCAAAGACTGTCCTGGTTTCGTGTTTACCCTCGATCAAGGGAG
GAACCTCCACCAAACCTCCCTAGTAAAATCCCCGGAATCTGCCATTTTCTGGATGCTTAC
CAACAAGGAACAACTCAAACCATGCTTCCAAAAGAAAGATGTGGAAGATGGCAATGCC
AATTTTTTAGGCAAAGCATCAGGAATAGATTAG
    
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Clone variation with respect to NM_000856.4
1074 a=>g

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_000856 unedited
 TTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGGCACGAGGGAGGGAGACACAGA
 CACAGAGAGACAAAGGCAAGGAGGACTGTCTGGGAGCCACGCGGGCGATACAGTTTCCGA
 GGCACGCCGCGTCCCCTAGCCTGTTGAACAGGTAGACATGAGCGACCCAAGCTGCGGA
 TTTGCGAGGCGCGCCCTGGAGCTGCTAGAGATCCGGAAGCACAGCCCCGAGGTGTGCGAA
 GCCACCAATCTCATATAAGAACTACAGCTCATCAGGAGGAGATCGCAGCAGGGTAAGAGA
 CACCAACACCATGTTCTGCACGAAAGCTCAAGGATCTCAAGATCACAGGAGAGTGTCTTT
 CTCCTTACTGGCACCAGGTCAAGTTCCTAACGAGTCTTCAGAGGAGGCAGCAGGAAGCTC
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 AAGTCTTCTCAAAGAAAAACCAGTCGGAGCCGAGTCTATCTTCACACTTTGGCAGAGAG
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 AATTGCAGAGCAAGCAGTTGCAGCAGGAGTTCAGTGGAGTTATCAAAGAATCTCTTGG
 TAAAAGAGTTTTTAAAAATATGTTACGAGGAAGATGAAAACATCTTGGGGTGTNTGCAGG
 CACCCTTAAAGATTTTNTAACAGCTTCAGTACCCTTCTGAACAGAGCAGCCATTGCCAA
 GAAGCAGAAAAGGGGCAGCTTGAGGACGCTCATTCTATGCTGATAGNGG

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_000856 unedited
 TTTAAAAAANNNTTCTATGNACCGCGNCCCGCATTTTANGATCGAGTTTTTTTTTTT
 TTTTTTGAAGGCTGAAGTACTGAAGTACTGATTTTGTGATGTTAAACAGGAGAAAAG
 ATTGTGACTTGGCTCCTGAAATTTAATACTGCTTGTAGCCATCTACAATCCCTAAAGT
 GCTTTCAGAGGCTCTACACATCTCAATGAGTCAAACCCCAAAGACTTATAAATAGGTAT
 ATAGGTTGCTAATCTATTCTGATGCTTTGCCTAAAAAATTGGCATTGCCATCTCCACA
 TCTTTCTTTTGAAGCATGGTTTTGAGTTTGTCTTGTGGTAAGCATCCAGAAAATGG
 CAGATTCGGGGATTTCACTANGGAAGTTTGGTGGAAAGTTCCTCCCTTGATCGAGNGGT
 AACACGANACCAGGACAGTCTTTGAGTAATCTGTAAGTGTGGGCTGACATTGATTTTT
 CGTGGTACACTGCANGACTCAAATTTGTAGCCAGAGTGACATTGNNTCCAAAAGACAGTA
 ACGNGCATTTACTNCAACGACGCCAGCAAAACTGATCCAGAGTGACGTCCAATTCGCAT
 CTTGATAGTNTCCATGGNGAGACATAACTTCATAGAAAGCTCCATCATCTTTAGGGCCA
 TCANCGTATCTGAAAACATGAGTTCACCTCTCTTGGGTAATCCCCAGCTTCCCATAGGC
 ATTGCCAATGGTCTCCACCTTGTGAAATCCAGCTTTCCTGNTGGTCAAACGAGGGCCC
 AGGCCTTGACCTGGGGATGATTC AACGGGTAACCCTTGGACCAATGCCTTGGACCCAAA
 TTCTGAAAAAAGTGGGACCTTCTGAATTTTGGGTTGCCACATGCCTTTGCCAATTGTTG
 CCCCCCTCGGAAAATTGGGCCAAAGTCTGTGTTTTTTTTTCCCTCCAAGCTGGGGGG
 TTTGCAGGGGCCCTAATCCACCC

Restriction Sites:

NotI-NotI

ACCN:

NM_000856

Insert Size:

2073 bp

OTI Disclaimer:

Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

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:	<ol style="list-style-type: none">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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	<u>NM_000856.2</u> , <u>NP_000847.2</u>
RefSeq Size:	3015 bp
RefSeq ORF:	2073 bp
Locus ID:	2982
UniProt ID:	<u>Q02108</u>
Cytogenetics:	4q32.1
Domains:	CYCc
Protein Families:	Druggable Genome
Protein Pathways:	Gap junction, Long-term depression, Purine metabolism, Vascular smooth muscle contraction
Gene Summary:	<p>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. Several transcript variants encoding a few different isoforms have been found for this gene. [provided by RefSeq, Jan 2012]</p> <p>Transcript Variant: This variant (1) represents the longest transcript and encodes the longest isoform (A). Variants 1, 2, 3, 4, and 8 all encode the same isoform (A). Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.</p>