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Product datasheet for SC127819

GUCY1A2 (NM_000855) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GUCY1A2 (NM_000855) Human Untagged Clone
Tag:	Tag Free
Symbol:	GUCY1A2
Synonyms:	GC-SA2; GUC1A2
Mammalian Cell Selection:	None
Vector:	pCMV6-XL4
E. coli Selection:	Ampicillin (100 ug/mL)

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Fully Sequenced ORF:

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>OriGene ORF sequence for NM_000855 edited
ATGTCTCGAAGGAAGATTTCGTCCGAGTCCTTCAGCTCCCTGGGCTCCGACTACCTGGAG
ACCAGCCCGGAGGAGGAGGGGGAGTGCCCCCTGTCTAGGCTCTGCTGGAATGGCAGCCGG
AGCCCGCCCGGGCCGCTGGAGCCCAGCCCGGCCGCAGCTGCCGCTGCCGCCGCCCCGGCC
CCGACCCCGGCTGCTTCTGCCGCCGCCGCCGCTGCCACTGCCGGGGCCAGGAGGGTGCAG
CGCCGGAGGCGGGTCAACCTGGACTCGCTGGGCGAGAGCATCAGCCGCCTGACGGCGCCC
TCGCCTCAGACGATACAGCAGACTCTCAAGAGGACACTGCAGTATTATGAACATCAAGTT
ATTGGTTACAGGGATGCAGAAAAGAATTTCCACAATATCTCTAACAGATGCTCCTATGCA
GACCACTCCAACAAAGAAGAAATTGAAGATGTCTCAGGAATTCTTCAGTGTACTGCTAAT
ATACTCGGTTTGAAGTTTGAGGAAATTCAAAAAAGATTTGGTGAAGAGTTCTTTAATATA
TGCTTTCATGAGAATGAGAGAGTCCTTCGAGCTGTAGGTGGCACTTTGCAGGACTTTTTT
AACGGCTTTGATGCTTTGTTGGAACACATTAGAACTTCTTTTGGAAAACAGGCCACTCTG
GAGTCACCATCTTTCCTATGCAAAGAGCTCCCTGAAGGTACTCTCATGCTCCACTACTTC
CACCCTCACCATATTGTGGGGTTTGCAATGCTGGGGATGATTAAGGCTGCAGGAAAGAAG
ATCTATCGGCTGGATGTGGAAGTGGAACAGGTTGCAAATGAGAAGCTATGCTCTGATGTT
TCAAACCCAGGCAATTGTAGCTGTCTTACTTTCCTTATCAAAGAATGTGAAAATACTAAT
ATCATGAAGAACCTTCCACAGGGAACCTCCCAAGTTCCTGCGGACCTCAGAATTAGCATC
AACACCTTCTGTAGAGCCTTCCCTTTCCACTTGATGTTTGATCCCAGCATGTCAGTCCTT
CAGTTGGGGGAAGGTCTAAGGAAGCAGCTTCGATGTGACACTCACAAAGTGCTCAAGTTT
GAGGACTGCTTCGAGATTGTATCTCCAAAGGTTAATGCCACCTTTGAAAGGGTCCTGCTG
CGACTGTCTACCCCGTTTGTGATTAGAACCAAGCCTGAGGCTTCTGGCTCTGAAAATAAA
GACAAGGTGATGGAAGTCAAAGGACAAATGATCCATGTTCCAGAATCAAATTCCATTTTA
TTTTTGGGCTCTCCATGTGTGGACAAGTTGGATGAACTCATGGGCCGAGGGCTACATCTC
TCAGACATCCCTATCCATGATGCCACCCGAGATGTCATTTTGGTTGGTGAGCAGGCAAAG
GCCCAAGATGGGTTGAAGAAAAGGATGGATAAATTAAAGGCAACTTTAGAAAGAACTCAC
CAGGCCCTGGAAGAAGAGAAAAAGAAGACAGTGGATCTTCTATATTCTATTTTCCCTGGT
GATGTAGCCCAGCAATTATGGCAAGGGCAGCAAGTACAGGCCAGAAAGTTTGATGATGTC
ACCATGCTCTTTTCAGACATTGTTGGCTTCACAGCCATATGTGCCCAGTGTACTCCCATG
CAAGTAATCAGCATGCTGAATGAACTGTACACCAGATTTGACCACCAGTGTGGATTTTTG
GATATTTATAAGGTGGAAACAATAGGTGATGCCTACTGTGTTGCAGCAGGGCTCCACAGA
AAAAGCCTCTGCCATGCTAAACCCATTGCTCTGATGGCCTTGAAGATGATGGAACTTTCA
GAAGAGGTGCTGACACCTGATGGAAGACCGATTCAGATGAGGATAGGAATTCACTCAGGC
TCCGTGCTGGCTGGAGTTGTTGGGGTGCGAATGCCACGTTATTGCCTGTTTGGAAATAAT
GTCACACTGGCAAGCAAATTCGAGTCGGGAAGTCACCCTCGGCGCATCAATGTCAGCCCA
ACCACTTACCAATTATTAAAACGAGAAGAAAGTTTCACATTCATTCCGCGGTCTCGTGAA
GAGCTTCCAGACAACTTTCCAAAGGAAATTCCTGGGATCTGCTATTTCCTGGAGGTAAGG
ACTGGTCCAAAGCCACCAAAGCCTTCTCTTTCTTCGTCGAGAATAAAAAAGGTTTCCTAC
AACATCGGCACCATGTTCCTCCGGGAGACAAGCCTCTGA
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Restriction Sites: NotI-NotI

ACCN: NM_000855

Insert Size: 4730 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 TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
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_000855.1, NP_000846.1
RefSeq Size:	2954 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]
Transcript Variant: This variant (2) lacks an alternate in-frame exon compared to variant 1. The resulting isoform (2) has the same N- and C-termini but is shorter compared to isoform 1.
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.