

Product datasheet for **RC226096**

GUCY1A1 (NM_001130684) Human Tagged ORF Clone

Product data:

| | |
|---------------------------|--|
| Product Type: | Expression Plasmids |
| Product Name: | GUCY1A1 (NM_001130684) Human Tagged ORF Clone |
| Tag: | Myc-DDK |
| Symbol: | GUCY1A1 |
| Synonyms: | GC-S-alpha-1; GC-SA3; GCS-alpha-3; GUC1A3; GUCA3; GUCSA3; GUCY1A3; MYMY6 |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-Entry (PS100001) |
| E. coli Selection: | Kanamycin (25 ug/mL) |



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ORF Nucleotide Sequence:

>RC226096 representing NM_001130684
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTTCTGCACGAAGCTCAAGGATCTCAAGATCACAGGAGAGTGTCTTTCTCCTTACTGGCACCAGGTC
 AAGTTCTAACGAGTCTTCAGAGGAGGAGCAGGAAGCTCAGAGAGCTGCAAAGCAACCGTGCCCATCTG
 TCAAGACATTCCTGAGAAGAACATACAAGAAAGTCTTCTCAAAGAAAAACAGTCGGAGCCGAGTCTAT
 CTTACACTTTGGCAGAGAGTATTTGCAAAGTATTTCCAGAGTTTGAACGGGTGAATGTTGCACTTC
 AGAGAATTGGCAAAGCAGCAAAATAAAAGAAAGCAGGAAATCTTTGAAAGAGAAGACTTTGAAAAAC
 AATTGCAGAGCAAGCAGTTGCAGCAGGAGTCCAGTGGAGTTATCAAAGAATCTTTGGTGAAGAGGTT
 TTTAAAATATGTTACGAGGAAGATGAAAACATCCTTGGGGTGGTTGGAGGCACCCTTAAAGATTTTTAA
 ACAGCTTCAGTACCCTTCTGAAACAGAGCAGCCATTGCCAAGAAGCAGGAAAAAGGGGCAGGCTTGAGGA
 CGCTCCATTCTATGCCTGGATAAAGGAGGATGATTTTCTACATGTTTACTACTTCTCCCTAAGAGAACC
 ACCTCCCTGATTCTCCCGGCATCATAAAGGCAGCTGCTCACGATTATATGAAACGGAAGTGGAAGTGT
 CGTTAATGCCTCCCTGCTTCCATAATGATTGCAGCGAGTTTGTGAATCAGCCCTACTTGTGTACTCCGT
 TCACATGAAAAGCACCAAGCCATCCCTGTCCCCAGCAAACCCAGTCTCGCTGGTGATTCCCACATCG
 CTATTCTGCAAGACATTTCCATTCCATTTCATGTTTGACAAAGATATGACAATTTGCAATTTGGCAATG
 GCATCAGAAGGCTGATGAACAGGAGAGACTTTCAAGGAAAGCCTAATTTTGAAGAATACTTTGAAATTTCT
 GACTCCAAAAATCAACCAGACGTTTAGCGGGATCATGACTATGTTGAATATGCAGTTTGTGTACGAGTG
 AGGAGATGGGACAACCTGTGAAAAATCTTCAAGGGTTATGGACCTCAAAGGCCAAATGATCTACATTG
 TTGAATCCAGTCAATCTTGTGTTTTGGGGTACCCTGTGTGGACAGATTAGAAGATTTTACAGGACGAGG
 GCTCTACCTCTCAGACATCCCAATTCACAATGCACTGAGGGATGTGGTCTTAATAGGGGAACAAGCCCGA
 GCTCAAGATGGCCTGAAGAAGAGGCTGGGGAAGCTGAAGGCTACCCTTGAGCAAGCCCACCAAGCCCTGG
 AGGAGGAGAAGAAAAAGACAGTAGACCTTCTGTGCTCCATATTTCCCTGTGAGGTTGCTCAGCAGCTGTG
 GCAAGGGCAAGTTGTGCAAGCCAAGAAGTTCAGTAATGTCACCATGCTCTTCTCAGACATCGTTGGGTTT
 ACTGCCATCTGCTCCAGTGCTCACCCTGCAGGTCATCACCATGCTCAATGCACTGTACACTCGTTTCG
 ACCAGCAGTGTGGAGAGCTGGATGTCTACAAGGTGGAGACCATTGGCGATGCCTATTGTGTAGCTGGGG
 ATTACACAAAGAGAGTGATACTCATGCTGTTTCAAGTAGCGCTGATGGCCCTGAAGATGATGGAGCTCTCT
 GATGAAGTTATGTCTCCCATGGAGAACCTATCAAGATGCGAATTGGACTGCACTCTGGATCAGTTTTTG
 CTGGCGTGGTGGAGTTAAAATGCCCGTTACTGTCTTTTGGAAACAATGCACTCTGGCTAACAAATT
 TGAGTCTGCAGTGTACCACGAAAAATCAATGTCAGCCCAACAACCTTACAGATTACTCAAAGACTGTCTCT
 GGTTCGTGTTTACCCTCGATCAAGGGAGGAACTTCCACCAAACCTTCCCTAGTGAATCCCGGAATCT
 GCCATTTCTGGATGCTTACCAACAAGGAACAACCTCAAACCATGCTTCCAAAAGAAAGATGTGGAAGA
 TGGCAATGCCAATTTTTTAGGCAAAGCATCAGGAATAGAT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC226096 representing NM_001130684
Red=Cloning site Green=Tags(s)

MFCTKLKDLKITGECPFSLAPGQVPNESSEEAAGSSESCKATVPICQDIPEKNIQESLPQRKTSRSRV
 LHTLAESICKLIFPEFERLNVALQRTLAKHKIKESRKSLERDFEKTIAEQAVAAGVPVEVIKESLGEEV
 FKICYEEDENILGVVGGTLKDFLNSFSTLLKQSSHQCQAGKRGRLEDASILCLDKEDDFLHVVYFFPKRT
 TSLILPGI I KAAAHVLYETEVEVSLMPPCFHNDCESEFVNQPYLLYSVHMKSTKPSLSPSKPQSSLVIPTS
 LFCKTFPFHMFDMTILQFGNGIRRLMNRDFQGKPNFEEYFEILTPKINQTFSGIMTMLNMQFVVRV
 RRWDNSVKSSRVMDLKGQMIYIVESSAILFLGSPCVDRLEDFTGRGLYLSDIPIHNALRDVVLIGEVAR
 AQDGLKKRLGKLEQAHALEEEKKTVDLLCSIFPCEVAQQLWQQVQAKKFSNVMTLFSDIVGF
 TAICSQCSPLQVITMLNLYTRFDQQCGELDVYK VETIGDAYCVAGGLHKE SDTHAVQIALMALKMMELS
 DEVMSPHGEPKMRIGLHSGSVFAGVVGKMPRYCLFGNNVTLANKFESCSVPRKINVSPTTYRLLKDCP
 GFVFTPRSREELPPNFPSEIPGICHFLDAYQQGTNSKPCFQKKDVEDGNANFLGKASGID

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN: NM_001130684

ORF Size: 2070 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: [NM_001130684.3](#)

RefSeq Size: 9300 bp

RefSeq ORF: 2073 bp

Locus ID: 2982

UniProt ID: [Q02108](#)

Cytogenetics: 4q32.1

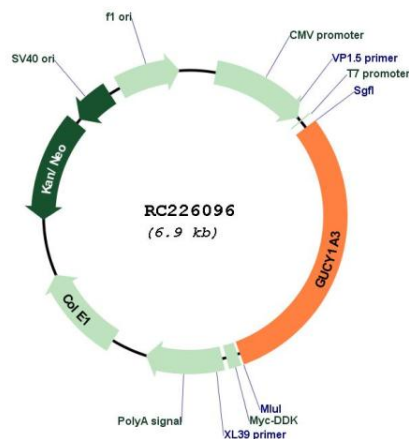
Protein Families: Druggable Genome

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

MW: 77.5 kDa

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. Several transcript variants encoding a few different isoforms have been found for this gene. [provided by RefSeq, Jan 2012]

Product images:



Circular map for RC226096