

Product datasheet for **RC239043**

GUCY1B1 (NM_001291952) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GUCY1B1 (NM_001291952) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GUCY1B1
Synonyms:	GC-S-beta-1; GC-SB3; GUC1B3; GUCB3; GUCSB3; GUCY1B3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC239043 representing NM_001291952
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCTTATGTGCTTTATAAAAAGAGGCACAGTTAGATGAAGAAGGACAGTTTCTTGTGAGAATAATATATG
 ATGACTCCAAAACCTATGATTTGGTTGCTGCTGCAAGCAAAGTCCTCAATCTCAATGCTGGAGAAAATCCT
 CCAAATGTTTGGGAAGATGTTTTTCGTCTTTTGCACAAAGTCTGGTTATGATACAATCTTGCCTGTCTG
 GGCTCTAATGTCAGAGAATTTCTACAGAACCTTGATGCTGTCACGACCACCTTGTACCATCTACCCAG
 GAATGCGTGCACCTTCTTTAGGTGCACTGATGCAGAAAAGGCAAAGGACTCATTTTGCCTACTACTC
 AGAGAGAGAAGGACTTCAGGATATTGTCATTGGAATCATCAAACAGTGGCACAACAAATCCATGGCACT
 GAAATAGACATGAAGTTATTACAGCAAAGAAATGAAGAATGTGATCACTCAATTTTTAATTGAAGAAA
 AAGAGTCAAAGAAGAGGATTTTTATGAAGATCTTGACAGATTTGAAGAAAATGGTACCCAGGAATCAGC
 CATCAGCCATATACATTCTGCAAAGCTTTTCTTTTCATATAATTTTGACCGGACCTAGTGGTCACT
 CAGTGTGGCAATGCTATATACAGAGTTCCTCCCAAGCTCCAGCCTGGGAATTGCAGCCTTCTGTCTGTCT
 TCTCGCTGGTTCCTCATATTGATATTAGTTTCCATGGGATCCTTTCTCACATCAACTGTTTTTGT
 ATTGAGAAGCAAGGAAGGATTGTTGGATGTGGAGAAATAGAATGTGAGGATGAAGTACTGACTGGGACTGAG
 ATCAGTCTGTTACGTCTCAAGGGTCAAATGATCTACTTACCTGAAGCAGATAGCATACTTTTTCTATGTT
 CACCAAGTGTGATGAACCTGGACGATTTGACAAGGAGAGGGTGTATCTAAGTGACATCCCTCTGCATGA
 TGCCACGCGCGATCTTGTCTTTTGGGAGAACAATTTAGAGAGGAATACAACTCACCAAGAAGTGGAA
 ATCCTCACTGACAGGCTACAGCTCACGTTAAGAGCCCTGGAAGATGAAAAGAAAAAGACAGACACATTGC
 TGTATTCTGTCTTCTCCGCTGTTGCCAATGAGCTGCGGCACAAGCGTCCAGTCCGCAAAAGATA
 TGACAATGTGACCATCCTCTTTAGTGGCATTGTGGGCTTCAATGCTTTCTGTAGCAAGCATGCATCTGGA
 GAAGGAGCCATGAAGATCGTCAACCTCCTCAACGACCTCTACACCAGATTTGACACACTGACTGATTC
 GGAAAAACCCATTTGTTTATAAGGTGGAGACTGTTGGTGACAAGTATATGACAGTGAAGTGGTTTACCAGA
 GCCATGCATTACCATGCACGATCCATCTGCCACCTGGCCTTGGACATGATGGAAATTGTGGCCAGGTT
 CAAGTAGATGGTGAATCTGTTTACAGATAACAATAGGGATACACACTGGAGAGGTAGTTACAGGTGTCATAG
 GACAGCGGATGCCTCGTACTGTCTTTTGGGAATACTGTCAACCTCACAAAGCCGACAGAAACACAGG
 AGAAAAGGAAAAATAAATGTGTCTGAATATACATACAGATGTCTTATGTCTCCAGAAAATTCAGATCCA
 CAATTCCTTGGAGCACAGAGGCCAGTCCATGAAGGGCAAAAAGAACAATGCAAGTTTGGTTTC
 TATCCAGAAAAATACAGGAACAGAGAAACAAAGCAGGATGATGAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC239043 representing NM_001291952
 Red=Cloning site Green=Tags(s)

MLMCFIKEAQLDEEGQFLVRIIYDDSKTYDLVAAASKVLNLNAGEILQMFGKMFVFCQESGYDTILRVL
 GSNVREFLQNLDALHDHLATIYPGMRAPSFRCDAEKGLILHYYSEREGLQDIVIGIIKTVAQQIHGT
 EIDMKVIQQRNEECDHTQFLIEEKESKEEDFYEDLDRFEENGTQESRISPYTFCKAFPFHIIIFDRDLVVT
 QCGNAIYRVLPQLQPGNCSLLSVFSLVRPHIDISFHGILSHINTVFVLSKEGLLDVEKLECEDELTGTE
 ISCLRRLKGMIIYLPEADSIILFLCSPSVMNLDL TRRGLYLSDIPLHDATRDLLVGEQFREEYKLTQELE
 ILTDRLQLTLRALEDEKKTDTLLYSVLPPSVANELRHKRPVPAKRYDNVTILFSGIVGFNAFCSKHASG
 EGAMKIVNLLNDLYTRFDLTLDSRKNPFYKVVETVGDKYMTVSGLPEPCIHHARSICHLALDMMIEAGQV
 QVDGESVQITIGIHTGEVVTGVIGQRMPRYCLFGNTVNLTSRTEETGKGINVSEYTYRCLMSPENSDP
 QFHLEHRGPVSMKGGKKEPMQVWFLSRKNTGTEETKQDDD

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN: NM_001291952

ORF Size: 1797 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_001291952.2](#)

RefSeq Size: 3413 bp

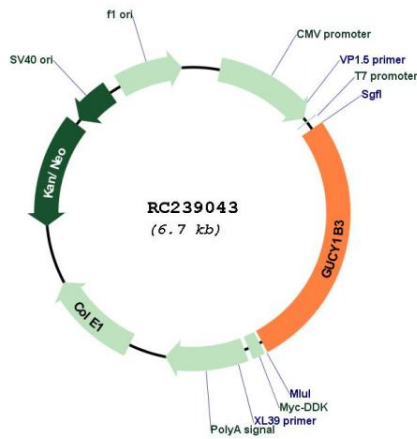
RefSeq ORF: 1800 bp

Locus ID: 2983

UniProt ID: [Q02153](#)

Cytogenetics:	4q32.1
Protein Families:	Druggable Genome
Protein Pathways:	Gap junction, Long-term depression, Purine metabolism, Vascular smooth muscle contraction
MW:	68.6 kDa
Gene Summary:	This gene encodes the beta subunit of the soluble guanylate cyclase (sGC), which catalyzes the conversion of GTP (guanosine triphosphate) to cGMP (cyclic guanosine monophosphate). The encoded protein contains an HNOX domain, which serves as a receptor for ligands such as nitric oxide, oxygen and nitrovasodilator drugs. Alternative splicing results in multiple transcript variants. [provided by RefSeq, May 2014]

Product images:



Circular map for RC239043