

Product datasheet for **RC238860**

GUCY1B1 (NM_001291955) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GUCY1B1 (NM_001291955) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GUCY1B1
Synonyms:	GC-S-beta-1; GC-SB3; GUC1B3; GUCB3; GUCSB3; GUCY1B3
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide Sequence:

>RC238860 representing NM_001291955
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGTTTGGGAAGATGTTTTTCGCTTTTGGCAAGAATCTGGTTATGATACAATCTTCGCTGTCTGGGCT
 CTAATGTCAGAGAATTTCTACAGAACCTTGATGCTCTGCACGACCACCTTGCTACCATCTACCCAGGAAT
 CGGTGCACCTTCCTTTAGGTGCACTGATGCAGAAAAGGGCAAAGGACTCATTTCGACTACTACTCAGAG
 AGAGAAGGACTTCAGGATATTGCATTGGAATCATCAAAACAGTGGCACAACAAATCCATGGCACTGAAA
 TAGACATGAAGGTTATTCAGCAAAGAAATGAAGAATGTGATCATACTCAATTTTTAATTGAAGAAAAAGA
 GTCAAAAGAAGAGGATTTTTATGAAGATCTTGACAGATTTGAAGAAAATGGTACCCAGGAATCACGCATC
 AGCCCATATACATTCTGCAAAGCTTTTCCTTTTCATATAATTTGACCGGGACCTAGTGGTCACTCAGT
 GTGGCAATGCTATATACAGAGTTCTCCCCAGCTCCAGCCTGGGAATTGCAGCCTTCTGTCTGTCTTCTC
 GCTGGTTCGTCCTCATATTGATATTAGTTTCCATGGGATCCTTTCTCACATCAACTGTTTTTGTATTG
 AGAAGCAAGGAAGGATTGTTGGATGTGGAGAAATTAGAATGTGAGGATGAACTGACTGGGACTGAGATCA
 GCTGCTTACGTCTCAAGGTCAAATGATCTACTTACCTGAAGCAGATAGCATACTTTTTCTATGTTACC
 AAGTGTCAAGCCTGGACGATTTGACAAGGAGAGGGCTGATCTAAGTGACATCCCTCTGCATGATGCC
 ACGCGCATCTTGTCTTTTGGGAGAACAATTTAGAGAGGAATACAAACTCACCCAAAGACTGGAATCC
 TCACTGACAGGCTACAGCTCACGTTAAGAGCCCTGGAAGATGAAAAGAAAAAGACAGACACATTGCTGTA
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 AATGTGACCATCTCTTAGTGGCATTGTGGGCTTCAATGCTTTCTGTAGCAAGCATGCATCTGGAGAAG
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 AAACCCATTTGTTTATAAGGTGGAGACTGTTGGTGACAAGTATATGACAGTGAGTGGTTTACCAGAGCCA
 TGCATTACCATGCACGATCCATCTGCCACCTGGCCTTGACATGATGGAATTTGCTGGCCAGGTTCAAG
 TAGATGGTGAATCTGTTTACAGATAACAATAGGGATACACTGGAGAGGTAGTTACAGGTGTATAGGACA
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 AAGGGAAAAATAATGTGTCTGAATATACATACAGATGTCTTATGTCTCCAGAAAATTCAGATCCACAAT
 TCCACTTGAGCACAGAGGCCAGTGTCCATGAAGGGCAAAAAGAACCAATGCAAGTTTGGTTTCTATC
 CAGAAAAATACAGGAACAGAGGAAACAAAGCAGGATGATGAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC238860 representing NM_001291955
 Red=Cloning site Green=Tags(s)

MFGKMFVFCQESGYDILRVLGNSVREFLQNLDALHDHLATIYPGMRAPSFRCCTDAEKGKGLILHYHSE
 REGLQDIVIGI IKTVAQQIHGTEIDMKVIQQRNEECDHTQFLIEEKESKEEDFYEDLDRFEENGTOESRI
 SPYTFCKAFPFIHIFDRDLVVTQCGNAIYRVL PQLQPGNCSLLSVFSLVRPHIDISFHGILSHINTVFVL
 RSKEGLLDVEKLECEDEL TGTETISCLRKLGQMIYLP EADSILFLCSPSVMNLDL TRRGLYLSDIPLHDA
 TRDLVLLGEQFREEYKLTQELEILTDRLLQLTLRALEDEKKTDTLLYSVLPSPVANELRHKRPVPAKRYD
 NVTILFSGIVGFNAFC SKHASGEGAMKIVNLLNDLYTRFDL TDSRKNPFVYKVVETVGDKYMTVSGLPEP
 CIHHARSICHLALDMMEIAGQVQVDGESVQITIGIHTGEVVTGVIGQRMPPRYCLFGNTVNLTSRTEITTE
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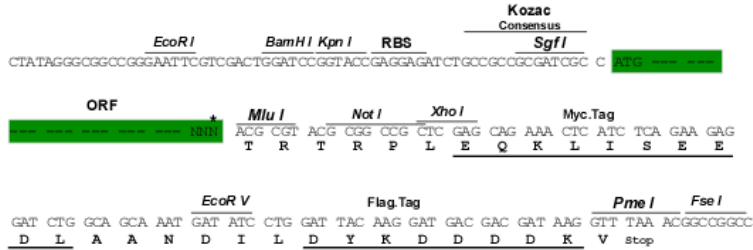
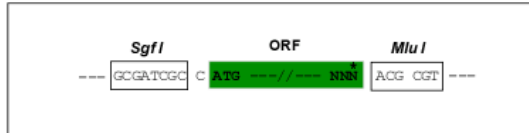
TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

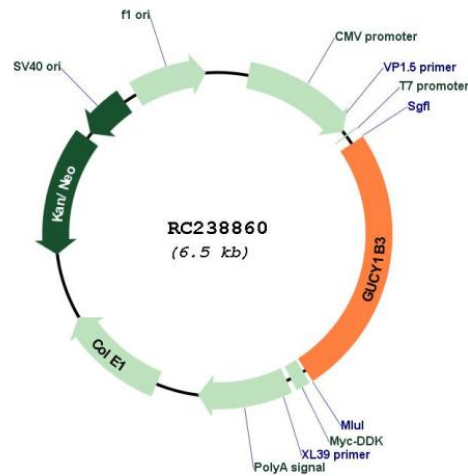
Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

Plasmid Map:



ACCN:	NM_001291955
ORF Size:	1653 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:	<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.
RefSeq:	NM_001291955.2
RefSeq Size:	3187 bp
RefSeq ORF:	1656 bp
Locus ID:	2983
Cytogenetics:	4q32.1
Protein Families:	Druggable Genome
Protein Pathways:	Gap junction, Long-term depression, Purine metabolism, Vascular smooth muscle contraction
MW:	63.2 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]