

Product datasheet for **RG238860**

GUCY1B1 (NM_001291955) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GUCY1B1 (NM_001291955) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	GUCY1B1
Synonyms:	GC-S-beta-1; GC-SB3; GUC1B3; GUCB3; GUCSB3; GUCY1B3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG238860 representing NM_001291955.
 Blue=ORF Red=Cloning site Green=Tag(s)

GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGCGACTG
 GATCCGGTACCGAGGAGATCTGCCGCC**CGGATCGCC**
 ATGTTTGGGAAGATGTTTTTCGCTTTTTGCCAAGAATCTGGTTATGATACAATCTTGCCTGTCTGGGC
 TCTAATGTCAGAGAATTTCTACAGAACCCTTGATGCTCTGCACGACCACCTTGCTACCATCTACCCAGGA
 ATGCGTGCACCTTCCTTTAGGTGCACTGATGCAGAAAAGGGCAAAGGACTCATTTTGCCTACTACTCA
 GAGAGAGAAGGACTTCAGGATATTGTCATTGGAATCATCAAAACAGTGGCACAACAAATCCATGGCACT
 GAAATAGACATGAAGTTATTACAGCAAAGAAATGAAGAATGTGATCATACTCAATTTTTAATTGAAGAA
 AAAGAGTCAAAGAAGAGGATTTTTATGAAGATCTTGACAGATTTGAAGAAAATGGTACCCAGGAATCA
 CGCATCAGCCATATACATTCTGCAAAGCTTTTCTTTTCATATAATATTTGACCGGGACCTAGTGGTC
 ACTCAGTGTGGCAATGCTATATACAGAGTTCTCCCCAGCTCCAGCTGGGAATTGCAGCCTTCTGTCT
 GTCTTCTCGCTGGTTCGCTCATATTGATATTAGTTTCCATGGGATCCTTTCTCACATCAATACTGTT
 TTTGATTGAGAAGCAAGGAAGGATTGTTGGATGTGGAGAAATAGAATGTGAGGATGAAGTACTGACTGGG
 ACTGAGATCAGCTGCTTACGTCTCAAGGTCAAATGATCTACTTACCTGAAGCAGATAGCATACTTTTT
 CTATGTTACCAAGTGTGATGAACCTGGACGATTTGACAAGGAGAGGGCTGTATCTAAGTACATCCCT
 CTGCATGATGCCACGCGCATCTTGTCTTTTGGGAGAACAATTTAGAGAGGAATACAAACTCACCCAA
 GAACTGGAAATCCTCACTGACAGGCTACAGCTCACGTTAAGAGCCCTGGAAGATGAAAAGAAAAGACA
 GACACATTGCTGTATTCTGTCTTCTCCGTCTGTTGCCAATGAGCTGCGGCACAAGCGTCCAGTGCCT
 GCCAAAAGATATGACAAATGTGACCATCCTCTTTAGTGGCATTGTGGGCTTCAATGCTTTCTGTAGCAAG
 CATGACTCTGGAGAAGGAGCCATGAAGATCGTCAACCTCCTCAACGACCTCTACACCAGATTTGACACA
 CTGACTGATCCCGGAAAAACCCATTTGTTTATAAGGTGGAGACTGTTGGTGACAAGTATATGACAGTG
 AGTGGTTTACCAGAGCCATGCATTACCATGCAGATCCATCTGCCACCTGGCCTTGACATGATGGAA
 ATTGCTGGCCAGTTCAAGTAGATGGTGAATCTGTTGAGATAACAATAGGGATACACACTGGAGAGGTA
 GTTACAGTGTGATAGGACAGCGGATGCCTCGATACTGTCTTTTGGGAATACTGTCAACCTCACAAGC
 CGAACAGAAACCACAGGAGAAAAGGAAAAATAAATGTGTCTGAAATATACATACAGATGTCTTATGTCT
 CCAGAAAATTCAGATCCACAATTCCTTGGAGCACAGAGGCCAGTGTCCATGAAGGGCAAAAAGAA
 CCAATGCAAGTTGGTTTCTATCCAGAAAAATACAGGAACAGAGGAAACAAAGCAGGATGATGAC
ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAAAC

Protein Sequence:

>Peptide sequence encoded by RG238860
 Blue=ORF Red=Cloning site Green=Tag(s)

MFGKMFVFCQESGYDILRVLGSNVREFLQNLDALHDHLATIYPGMRAPSFRC TDAEKGKGLILHYYS
 EREGLQDIVIGI IKTVAQQIHGTEIDMKVIQQRNEECDHTQFLIEEKESKEEDFYEDLDRFEENG TQES
 RISP YTFCKAFP FHIIFDRDLVVTQC GNAIYRVL PQLQPGNCSLLSVFSLVRPHIDISFHGILSHINTV
 FVLR SKEGLLDVEKLECEDEL TGETISCLR LKQMIY LPEADSILFLCSPSVMNLDL TRRGLYLS DIP
 LHDATRD LVLLGEQFREEYKLTQELEILTDRLQLTLRALEDEKKTDTLLYSVLPPSVANELRHKRPVP
 AKRYDNV TILFSGIVGFNAFC SKHASGEGAMKIVNLLNDLYTRFDL TDSRKNPFVYKVETVGD KYMTV
 SGLPEPC IHHARSICHLALDMMEIAGQVQVDGESVQITIGIHTGEVVTG VIGQRM PRYCLFGNTVNLTS
 RTETTGEKGKINVSEYTYRCLMSPENSDPQFHLEHRGPVSMK GKKEPMQVWFLSRKNTGTEETKQDDD
TRTRPLEMESDESGLPAMEIECRITGLNGVEFELVGGEGTPEQGRMTNKMKSTKGALTFSPYLLSHV
 MGYGFYHFGTYPSGYENPFLHAINNGGYNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED
 SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFLRDGGYYSSVVD SHMHFKSAIHPSILQNGGPMFA
 FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV

Restriction Sites:

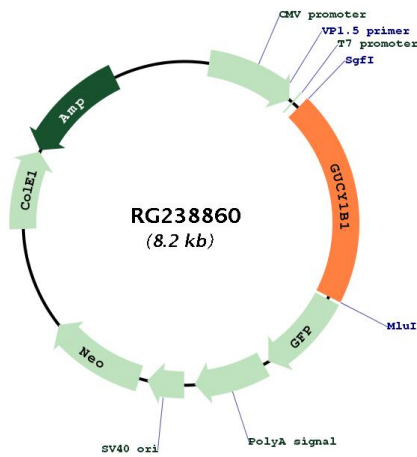
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



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).
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]