

Product datasheet for **RC208205**

GUCY1B1 (NM_000857) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GUCY1B1 (NM_000857) 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:

>RC208205 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTACGGATTTGTGAATCACGCCCTGGAGTTGCTGGTATCCGCAATTACGGCCCCGAGGTGTGGGAAG
 ACATCAAAAAAGAGGCACAGTTAGATGAAGAAGGACAGTTTCTTGTGAGAATAATATATGATGACTCCAA
 AACTTATGATTTGGTTGCTGCTGCAAGCAAAGTCTCAATCTCAATGCTGGAGAAATCTCCAAATGTTT
 GGAAGATGTTTTCTGCTTTTCCCAAGAATCTGGTTATGATACAATCTTGCCTGCTGGGCTCTAATG
 TCAGAGAAATTTACAGAACCTTGATGCTCTGCACGACCACCTTCTACCATCTACCCAGGAATGCGTGC
 ACCTTCTTTAGGTGCACTGATGCAGAAAAGGGCAAAGGACTCATTTTGCCTACTACTCAGAGAGAGAA
 GGACTTCAGGATATTGTCATTGGAATCATCAAACAGTGGCACAACAAATCCATGGCACTGAAATAGACA
 TGAAGGTTATTCAGCAAAGAAATGAAGAATGTGATCATACTCAATTTTTAATTGAAGAAAAAGAGTCAA
 AGAAGAGGATTTTATGAAGATCTTGACAGATTTGAAGAAAATGGTACCCAGGAATCACGCATCAGCCCA
 TATACATTCTGCAAAGCTTTTCTTTTTCATATAATATTTGACCGGACCTAGTGGTCACTCAGTGTGGCA
 ATGCTATATACAGAGTTCTCCCCAGCTCCAGCCTGGGAATTGCAGCCTTCTGTCTGTCTTCTCGCTGGT
 TCGTCTCATATTGATATTAGTTTCCATGGGATCCTTTCTCACATCAATACTGTTTTGTATTGAGAAGC
 AAGGAAGGATTGTTGGATGTGGAGAAAATGAAGATGTGAGGATGAAGTACTGACTGGGACTGAGATCAGCTGCT
 TACGTCTCAAGGGTCAAATGATCTACTTACCTGAAGCAGATAGCATACTTTTCTATGTTACCAAGTGT
 CATGAACCTGGACGATTTGACAAGGAGAGGGCTGTATCTAAGTGACATCCCTCTGCATGATGCCACACGC
 GATCTTGTCTTTTGGGAGAACAATTTAGAGAGGAATACAAACTACCCAAGAATGGAAATCCTCACTG
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 CCTTCTCCGTCTGTTGCCAATGAGCTGCGGCACAAGCGTCCAGTGCCTGCCAAAAGATATGACAATGTG
 ACCATCTCTTTAGTGGCATTGTGGCTTCAATGCTTTCTGTAGCAAGCATGCATCTGGAGAAGGAGCCA
 TGAAGATCGTCAACCTCTCAACGACCTCTACACCAGATTTGACACACTGACTGATTTCCCGAAAAACCC
 ATTTGTTTATAAGGTGGAGACTGTTGGTGACAAGTATATGACAGTGAGTGGTTTACCAGAGCCATGCATT
 CACCATGCAGATCCATCTGCCACCTGGCCTTGGACATGATGGAATTTGCTGGCCAGGTTCAAGTAGATG
 GTGAATCTGTTTACAGATAACAATAGGATACACACTGGAGAGGTAGTTACAGGTGCATAGGACAGCGGAT
 GCCTCGATACTGTCTTTTGGGAATACTGTCAACCTCACAGCCGAACAGAAACACAGGAGAAAAGGGA
 AAAATAAATGTGTCTGAATATACATACAGATGTCTTATGTCTCCAGAAAATTCAGATCCACAATTTCACT
 TGGAGCACAGAGCCAGTGTCCATGAAGGGCAAAAAGAACCAATGCAAGTTTGGTTTCTATCCAGAAA
 AAATACAGGAACAGAGGAAACAAAGCAGGATGATGAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC208205 protein sequence
 Red=Cloning site Green=Tags(s)

MYGFVNHALELLVIRNYGPEVWEDIKKEAQLDEEGQFLVRIIYDDSKTYDLVAAASKVLNLNAGEILQMF
 GKMFVFCQESGYDTILRVLGNSVREFLQNLDALHDHLATIYPGMRAPSFRCDAEKGKGLILHYYSERE
 GLQDIVIGI IKTVAQQIHGTEIDMKVIQQRNEECDHTQFLIEEKESKEEDFYEDLDRFEENGTSRIS
 YTFCKAFPFIIFDRDLVVTQCGNAIYRVLPLQPGNCSLLSVFSLVRPHIDISFHGILSHINTVFLRS
 KEGLLDVEKLECEDELGTETISCLRRLKGMIIYLPEADSIILFLCSPSVMNLDL TRRGLYLSDIPLHDATR
 DLVLLGEQFREEYKLTQEILEILDRLQLTLRALEDEKKTDTLLYSVLPSPVANELRHKRPVPAKRYDNY
 TILFSGIVGFNAFCSKHASGEGAMKIVNLLNDLYTRFDLTLDSRKNPFVYKVVETVGDKYMTVSGLPEPCI
 HHARSICHLALDMMIEAGQVQVDGESVQITIGIHTGEVVTGVIGQRMPRYCLFGNTVNLTSRTETTGEK
 KINVSEYTYRCLMSPENSDFHLEHRGPVSMKGKKEPMQVWFLSRKNTGTEETKQDDD

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6023_e12.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_000857

ORF Size: 1857 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_000857.5](#)

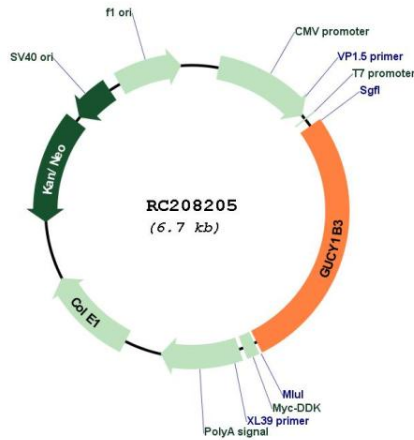
RefSeq Size: 3261 bp

RefSeq ORF: 1860 bp

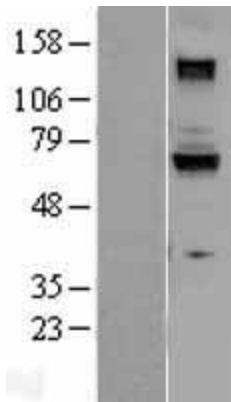
Locus ID: 2983
UniProt ID: [Q02153](#)
Cytogenetics: 4q32.1
Domains: CYCc
Protein Families: Druggable Genome
Protein Pathways: Gap junction, Long-term depression, Purine metabolism, Vascular smooth muscle contraction
MW: 70.5 kDa

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]

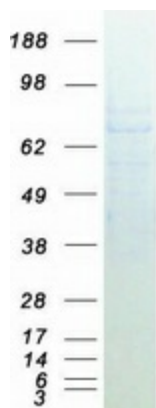
Product images:



Circular map for RC208205



Western blot validation of overexpression lysate (Cat# [LY400302]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC208205 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified GUCY1B1 protein (Cat# [TP308205]). The protein was produced from HEK293T cells transfected with GUCY1B1 cDNA clone (Cat# RC208205) using MegaTran 2.0 (Cat# [TT210002]).