

## Product datasheet for **RG220093**

### gamma Sarcoglycan (SGCG) (NM\_000231) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	gamma Sarcoglycan (SGCG) (NM_000231) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	gamma Sarcoglycan
Synonyms:	35DAG; A4; DAGA4; DMDA; DMDA1; gamma-SG; LGMD2C; LGMDR5; MAM; SCARMD2; SCG3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG220093 representing NM_000231 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGCATCGCC**

ATGGTGCCTGAGCAGTACACTACAGCCACAGAAGGCATCTGCATAGAGAGGCCAGAGAATCAGTATGTCT  
ACAAAATTGGCATTATGGCTGGAGAAAGCGCTGTCTCTACTTGTGGTTCTTTTACTCATCATCCT  
CGTTGTGAATTTAGCTCTTACAATTTGGATTCTTAAAGTGATGTGGTTTTCTCCAGCAGGAATGGCCAC  
TTGTGTGAACAAAAGATGGACTGCGCTTGAAGGGGAATCAGAATTTTATTCCATTGTATGCCAAAG  
AAATACACTCCAGAGTGGACTCATCTCTGCTTCTACAATCAACCCAGAATGTGACTGTAATGCGCGCAA  
CTCAGAAGGGGAGGTACAGGCAGGTTAAAAGTCGGTCCCAAAATGGTAGAAGTCCAGAATCAACAGTTT  
CAGATCAACTCCAACGACGGCAAGCCACTATTTACTGTAGATGAGAAGGAAGTTGTGGTTGTACAGATA  
AACTTCGAGTAAGTGGGCTGAAGGGGCTTTTTGAACATTCAGTGGAGACACCCCTTGTGAGGCCGA  
CCCCTTCAAGACCTTAGATTAGAATCCCCACTCGGAGTCTAAGCATGGATGCCCAAGGGGTGTGCAT  
ATTCAAGCTCACGCTGGGAAAATTGAGGCGTTTCTCAAATGGATATTCTTTTCATAGTAGTGTGAA  
TGCTTGTGCTTGATGCTGAAACTGTGTGCTTACCAAGCTGGTGCAGGGGACGTGGGTCCCTCTGGCAG  
CTCACAGACCTCTACGAAATCTGTGTGTGCCAGATGGGAAGCTGTACCTGTCTGTGCCGGTGTGAGC  
ACCACGTGCCAGGAGCACAGCCACATCTGCCTC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG220093 representing NM\_000231  
 Red=Cloning site Green=Tags(s)

MVREQYTTATEGICIERPENQYVYKIGIYGWRKRCLYLFVLLLLIILVNLALTIWILKVMWFSPAGMGH  
 LCVTKDGLRLEGESEFLFPLYAKEIHSRVDSLLLQSTQNVTVNARNSEGEVTGRLKVGPKMVEVQNQQF  
 QINSNDGKPLFTVDEKEVVVGTDKLRVTGPEGALFEHSVETPLVRADPFQDLRLESPTSLSMADAPRGVH  
 IQAHAGKIEALSQMDILFHSSDGMVLDAETVCLPKLVQGTWGPSSGSSQSLYEICVCPDGKLYLSVAGVS  
 TTCQEHSHICL

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_000231

**ORF Size:** 873 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\\_000231.2](#), [NP\\_000222.1](#)

**RefSeq Size:** 1630 bp

**RefSeq ORF:** 876 bp

**Locus ID:** 6445

**UniProt ID:** [Q13326](#)

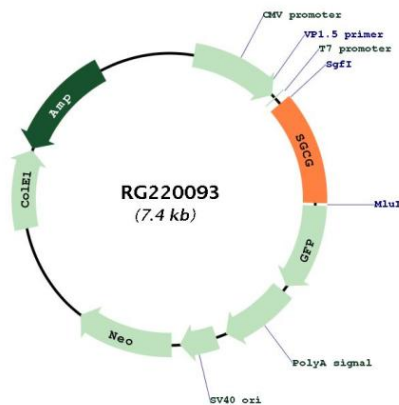
**Cytogenetics:** 13q12.12

**Protein Families:** Druggable Genome, Transmembrane

**Protein Pathways:** Arrhythmogenic right ventricular cardiomyopathy (ARVC), Dilated cardiomyopathy, Hypertrophic cardiomyopathy (HCM), Viral myocarditis

**Gene Summary:** This gene encodes gamma-sarcoglycan, one of several sarcolemmal transmembrane glycoproteins that interact with dystrophin. The dystrophin-glycoprotein complex (DGC) spans the sarcolemma and is comprised of dystrophin, syntrophin, alpha- and beta-dystroglycans and sarcoglycans. The DGC provides a structural link between the subsarcolemmal cytoskeleton and the extracellular matrix of muscle cells. Defects in the encoded protein can lead to early onset autosomal recessive muscular dystrophy, in particular limb-girdle muscular dystrophy, type 2C (LGMD2C). [provided by RefSeq, Oct 2008]

**Product images:**



Circular map for RG220093