

## Product datasheet for **RG204699**

### beta Sarcoglycan (SGCB) (NM\_000232) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	beta Sarcoglycan (SGCB) (NM_000232) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	beta Sarcoglycan
Synonyms:	A3b; LGMD2E; LGMDR4; SGC
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG204699 representing NM_000232 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCGGCAGCGGCGGCGGCTGCAGAACAGCAAAGTTCCAATGGTCCTGTAAAGAAGTCCATGCGTG  
AGAAGGCTGTTGAGAGAAGGAGTGTCAATAAAGAGCACAAACAGTAACTTTAAAGCTGGATACATTCCGAT  
TGATGAAGATCGTCTCCACAAAACAGGGTTGAGAGGAAGAAAGGGCAATTTAGCCATCTGTGTGATTATC  
CTCTTGTATCCTGGCTGTCATCAATTAATAATAACACTTGTATTTGGGCCGTGATTCGCATTGGAC  
CAAATGGCTGTGATAGTATGGAGTTTCATGAAAGTGGCCTGCTTCGATTTAAGCAAGTATCTGACATGGG  
AGTGATCCACCCTCTTTATAAAGCACAGTAGGAGGAAGGCGAAATGAAAATTTGGTCATCACTGGCAAC  
AACCAGCCTATTGTTTTTCAGCAAGGGACAACAAAGCTCAGTGTAGAAAACAACAAACTTCTATTACAA  
GTGACATCGGCATGCAGTTTTTTGACCCGAGGACTCAAAATATCTTATTCAGCACAGACTATGAAACTCA  
TGAGTTTCATTTGCCAAGTGGAGTGAAGTTTGAATGTTCAAAAGGCATCTACTGAAAGGATTACCAGC  
AATGCTACCAGTGATTTAAATATAAAGTTGATGGCGTGCTATTGTGCGTGGAATGAAGGTGATTCA  
TTATGGGCAAAACCATTGAATTTACATGGGTGTAATATGGAGTTAAAGGCGGAAAACAGTATCATCCT  
AAATGGATCTGTGATGGTCAGCACACCACCGCCTACCCAGTTCCTCCAGTGGAGACCAGTTGGGTAGTGGT  
GACTGGGTACGCTACAAGCTCTGCATGTGTGCTGATGGGACGCTCTTCAAGGTGCAAGTAACCAGCCAGA  
ACATGGGCTGCCAAATCTCAGACAACCCCTGTGGAAACACTCAT

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG204699 representing NM\_000232  
 Red=Cloning site Green=Tags(s)

MAAAAAAAAAEQSSNGPVKKSMEKAVERRSVNKEHNSNFKAGYIPIDEDRLHKTGLRGRKGNLAICVII  
 LLFILAVINLIIITLVIWAVIRIGPNGDSMEFHESGLLRFKQVSDMGVIHPLYKSTVGGRRNENLVITGN  
 NQPIVVFQGTTKLSVENNKTSITSDIGMQFFDPRTQNILFSTDYETHEFHLP SGVKSLNVQKASTERITS  
 NATSDLNIKVDGRAIVRGNEGVFIMGKTI EFHMGGMELKAENSIILNGSVMVSTTRLPSSSSGDQLGSG  
 DWVRYKLCMCADGTLFKVQVTSQNMGCQISDNPCGNTH

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_000232

**ORF Size:** 954 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\\_000232.5](#)

**RefSeq Size:** 4229 bp

**RefSeq ORF:** 957 bp

**Locus ID:** 6443

**UniProt ID:** [Q16585](#)

**Cytogenetics:** 4q12

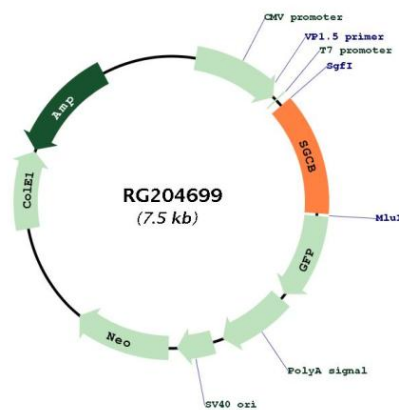
**Domains:** sarcoglycan

**Protein Families:** Druggable Genome, Transmembrane

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

**Gene Summary:** This gene encodes a member of the sarcoglycan family. Sarcoglycans are transmembrane components in the dystrophin-glycoprotein complex which help stabilize the muscle fiber membranes and link the muscle cytoskeleton to the extracellular matrix. Mutations in this gene have been associated with limb-girdle muscular dystrophy.[provided by RefSeq, Oct 2008]

### Product images:



Circular map for RG204699