

Product datasheet for **RC204699**

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: | Myc-DDK |
| Symbol: | beta Sarcoglycan |
| Synonyms: | A3b; LGMD2E; LGMDR4; SGC |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-Entry (PS100001) |
| E. coli Selection: | Kanamycin (25 ug/mL) |
| ORF Nucleotide Sequence: | >RC204699 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGGCAGCGCGCGCGGCTGCAGAACAGCAAAGTTCCAATGGTCCTGTAAAGAAGTCCATGCGTG
AGAAGGCTGTTGAGAGAAGGAGTGTCAATAAAGAGCACAAACAGTAACTTTAAAGCTGGATACATTCCGAT
TGATGAAGATCGTCTCCACAAAACAGGGTTGAGAGGAAGAAAGGGCAATTTAGCCATCTGTGTGATTATC
CTCTTGTATCCTGGCTGTCATCAATTAATAAATAACACTTGTATTTGGGCCGTGATTCGCATTGGAC
CAAATGGCTGTGATAGTATGGAGTTTCATGAAAGTGGCCTGCTTCGATTTAAGCAAGTATCTGACATGGG
AGTGATCCACCCTCTTTATAAAGCACAGTAGGAGGAAGGCGAAATGAAAATTTGGTCATCACTGGCAAC
AACCAGCCTATTGTTTTTCAGCAAGGGACAACAAAGCTCAGTGTAGAAAACAACAAACTTCTATTACAA
GTGACATCGGCATGCAGTTTTTTGACCCGAGGACTCAAAATATCTTATTCAGCACAGACTATGAAACTCA
TGAGTTTCATTTGCCAAGTGGAGTGAAGTTTGAATGTTCAAAAGGCATCTACTGAAAGGATTACCAGC
AATGCTACCAGTGATTTAAATATAAAGTTGATGGCGTGCTATTGTGCGTGAAATGAAGGTGATTCA
TTATGGGCAAAACCATTGAATTTACATGGGTGTAATATGGAGTTAAAGGCGGAAAACAGTATCATCCT
AAATGGATCTGTGATGGTCAGCACACCACCGCCTACCCAGTTCCTCCAGTGGAGACCAGTTGGGTAGTGGT
GACTGGGTACGCTACAAGCTCTGCATGTGTGCTGATGGGACGCTTCAAGGTGCAAGTAACCAGCCAGA
ACATGGGCTGCCAAATCTCAGACAACCCCTGTGAAACACTCAT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC204699 protein sequence
Red=Cloning site Green=Tags(s)

MAAAAAAAAAEQSSNGPVKKS MREKAVERRSVNKEHNSNFKAGYIPIDEDRLHKTGLRGRKGNLAICVII
 LLFILAVINLIITLVIWAVIRIGPNGCDSEFHEGSLRFRKQVSDMGVIHPLYKSTVGGRRNENLVITGN
 NQPIVFQQGTTKLSVENNKTSITSDIGMQFFDPRTQNILFSTDYETHEFHLP SGVKSLNVQKASTERITS
 NATSDLNIKVDGRAIVRGNEGVFIMGKTIEFHMGGMELKAENSIILNGSYVMVSTTRLPSSSSGDQLGSG
 DWVRYKLCMCADGTLFKVQVTSQNMGCQISDNPCGNTH

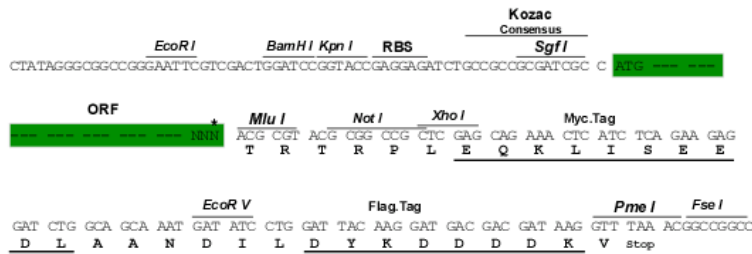
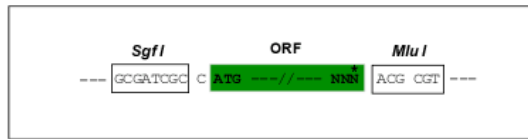
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6172_h04.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_000232

ORF Size: 954 bp

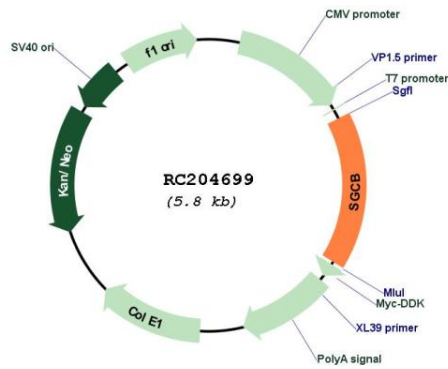
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

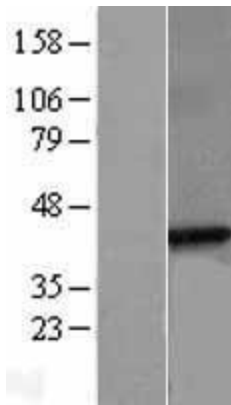
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

| | |
|-------------------------------|---|
| Reconstitution Method: | <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_000232.5 |
| RefSeq Size: | 4295 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 |
| MW: | 34.8 kDa |
| 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] |

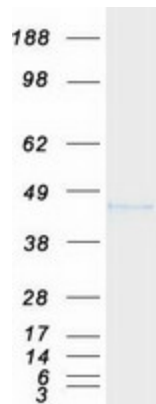
Product images:



Circular map for RC204699



Western blot validation of overexpression lysate (Cat# [LY400093]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204699 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified SGCB protein (Cat# [TP304699]). The protein was produced from HEK293T cells transfected with SGCB cDNA clone (Cat# RC204699) using MegaTran 2.0 (Cat# [TT210002]).