

## Product datasheet for MC227243

### Sh3glb1 (NM\_001282042) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Sh3glb1 (NM_001282042) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Sh3glb1
Synonyms:	AA409932; AI314629; AU015566; Bif-1; mKIAA0491
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>MC227243 representing NM_001282042 Red=Cloning site Blue=ORF Orange=Stop codon

TTTGTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGC**C

ATGAACATCATGGATTTCAACGTGAAGAAGCTGGCGGCCGACGCGGGCACCTTCCTCAGCCGGGCCGTGC  
AGTTCACAGAAGAAAAGCTTGGCCAGGCAGAGAAGACAGAAGCTGGACGCTCACCTGGAAAACCTCCTTAG  
CAAAGCTGAATGTACCAAAATATGGACAGAAAAGATAATGAAGCAGACCGAAGTGTCTGTCAGCCAAAT  
CCAAATGCCAGGATAGAAGAATTTGTTTATGAGAACTGGATAGAAAAGCACCAAGTCGTATAAACAACC  
CGGAACTTTGGGACAATATATGATTGATGCAGGAAGTGTGTTGGCCAGGGACAGCTTATGGAAATGC  
CCTTATTAATGTGGAGAAACACAGAAGCGAATTGGAACAGCTGACCGAGAGCTGATTCAAACATCAGCC  
TAAATTTCTCACTCCTTTAAGAACTTTATAGAAGGGGATTACAAAACAATCGCAAAAGAAAGGAAAC  
TATTACAGAATAAGAGACTGGATTTGGATGCTGCAAAAACAAGACTAAAAAGGCAAAAGCTGCAGAAAC  
TAAAGTTCATCTGAACAGGAATTGAGAATAACTCAAAGTGAATTTGATCGTCAGGCAGAGATTACCCGA  
CTCCTGCTTGAGGAATCAGCAGTACACACGCCCATCATCTCCGCTGTCTGAATGACTTTGTAGAAGCCC  
AGATGACTTACTATGCACAGTGTACCAAGTATATGCTAGACCTACAGAAGCAACTGGGAAGTTTCCATC  
CAATTATCTTTCTAACACAATCAGACCTCTGGGACACCAAGTCCCATATGCTTTGTCAAATGCAATTGGT  
CCTTCTGCCAGGCTTCAACGGGTAGCCTTGTAAATCACCTGTCTTAACCTCAATGACCTTAAAGAAT  
CCAGCAACAACAGGAAGGCTAGGGTCTCTATGATTATGATGCTGCAAAATAGCACTGAAGTGTCACTCCT  
GGCCGATGAGGTAACTACTGTGTTCAGTGTCTTGAATGGACTCCGACTGGCTAATGGGAGAGAGAGGA  
AATCAAAGGGCAAG**TAA**

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI



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<b>ACCN:</b>	NM_001282042
<b>Insert Size:</b>	1068 bp
<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>OTI Annotation:</b>	Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<u>NM_001282042.1</u> , <u>NP_001268971.1</u>
<b>RefSeq Size:</b>	2809 bp
<b>RefSeq ORF:</b>	1068 bp
<b>Locus ID:</b>	54673
<b>UniProt ID:</b>	<u>Q9JK48</u>
<b>Cytogenetics:</b>	3 H2

**Gene Summary:**

May be required for normal outer mitochondrial membrane dynamics. Required for coatamer-mediated retrograde transport in certain cells (PubMed:17086176). May recruit other proteins to membranes with high curvature. May promote membrane fusion (By similarity). Involved in activation of caspase-dependent apoptosis by promoting BAX/BAK1 activation (PubMed:16227588). Isoform 1 acts proapoptotic in fibroblasts (PubMed:24523556). Involved in caspase-independent apoptosis during nutrition starvation and involved in the regulation of autophagy. Activates lipid kinase activity of PI3KC3 during autophagy probably by associating with the PI3K complex II (PI3KC3-C2). Associated with PI3KC3-C2 during autophagy may regulate the trafficking of ATG9A from the Golgi complex to the peripheral cytoplasm for the formation of autophagosomes by inducing Golgi membrane tubulation and fragmentation. Involved in regulation of degradative endocytic trafficking and cytokinesis, probably in the context of PI3KC3-C2 (By similarity). Isoform 2 acts antiapoptotic in neuronal cells; involved in maintenance of mitochondrial morphology and promotes neuronal viability (PubMed:24523556).[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (3) uses an alternate splice site and alternate exon in the 3' coding region, compared to variant 1. The encoded protein (isoform 3) is shorter and has a distinct C-terminus, compared to isoform 1. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.