

## Product datasheet for **SC331475**

### SHC (SHC1) (NM\_001202859) Human Untagged Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** SHC (SHC1) (NM\_001202859) Human Untagged Clone  
**Tag:** Tag Free  
**Symbol:** SHC  
**Synonyms:** SHC; SHCA  
**Vector:** pCMV6-Entry (PS100001)  
**Fully Sequenced ORF:** >SC331475 representing NM\_001202859.  
Blue=Insert sequence Red=Cloning site Green=Tag(s)

```
ATGGGACCCGGGTTTCTACTTGGTTCGGTACATGGGTTGTGTGGAGGTCCTCCAGTCAATGCGTGCC
CTGGACTTCAACACCCGGACTCAGGTCACCAGGGAGGCCATCAGTCTGGTGTGTGAGGCTGTGCCGGT
GCTAAGGGGGCGACAAGGAGGAGAAAGCCCTGTAGCCGCCGCTCAGCTCTATCTGGGGAGGAGTAAC
CTGAAATTTGCTGGAATGCCAATCACTCTCACCCTCCACCAGCAGCCTCAACCTCATGGCCGAGAC
TGCAAACAGATCATCGCAAACCACCACATGCAATCTATCTCATTTCATCCGGCGGGGATCCGGACACA
GCCGAGTATGTCGCTATGTTGCCAAAGACCCTGTGAATCAGAGAGCCTGCCACATTCTGGAGTGTCCC
GAAGGGCTTGCCAGGATGTCATCAGCACCATTGGCCAGGCTTCGAGTTGCGCTTCAAACAATACCTC
AGGAACCCACCCAACTGGTCACCCCTCATGACAGGATGGCTGGCTTTGATGGCTCAGCATGGGATGAG
GAGGAGGAAGAGCCACCTGACCATCAGTACTATAATGACTTCCCAGGGAAGGAACCCCTTGGGGGGG
GTGGTAGACATGAGGCTTCGGGAAGGAGCCGCTCCAGGGGCTGCTCGACCCACTGCACCAATGCCAG
ACCCAGCCACTTGGGAGCTACATTGCCTGTAGGACAGCCTGTTGGGGAGATCCAGAAGTCCGCAAA
CAGATGCCACCTCCACCACCTGTCCAGGCAGAGAGCTTTTTGATGATCCCTCTATGTCAACGTCCAG
AACCTAGACAAGGCCCGCAAGCAGTGGTGGTGTGCTGGCCCCCAATCCTGCTATCAATGGCAGTGCA
CCCCGGACCTGTTTGACATGAAGCCCTTCGAAGATGCTTTCGGTGCCTCCACCTCCCAGTCGGTG
TCCATGGCTGAGCAGCTCCGAGGGGAGCCCTGGTTCCATGGGAAGCTGAGCCGGCGGAGGCTGAGGCA
CTGCTGCAGCTCAATGGGACTTCTGGTACGGGAGAGCACGACCACCTGGCCAGTATGTGCTCACT
GGCTTGCAGAGTGGGAGCCTAAGCATTGCTACTGGTGGACCCTGAGGGTGTGGTTCGGACTAAGGAT
CACCGCTTTGAAAGTGTGAGTACCTTATCAGCTACCACATGGACAATCACTTGCCCATCATCTCTGCG
GGCAGCGAACTGTGTCTACAGCAACCTGTGGAGCGGAACTGTGA
```

**Restriction Sites:** SgfI-MluI  
**ACCN:** NM\_001202859  
**Insert Size:** 1287 bp



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<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>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>RefSeq:</b>	<a href="#">NM_001202859.1</a>
<b>RefSeq Size:</b>	3192 bp
<b>RefSeq ORF:</b>	1287 bp
<b>Locus ID:</b>	6464
<b>UniProt ID:</b>	<a href="#">P29353</a>
<b>Cytogenetics:</b>	1q21.3
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Adherens junction, Arrhythmogenic right ventricular cardiomyopathy (ARVC), Chemokine signaling pathway, Chronic myeloid leukemia, Dilated cardiomyopathy, ErbB signaling pathway, Focal adhesion, Glioma, Hypertrophic cardiomyopathy (HCM), Insulin signaling pathway, Leukocyte transendothelial migration, Natural killer cell mediated cytotoxicity, Neurotrophin signaling pathway, Pathogenic Escherichia coli infection, Regulation of actin cytoskeleton, Tight junction, Vibrio cholerae infection, Viral myocarditis
<b>MW:</b>	46.7 kDa

**Gene Summary:**

This gene encodes three main isoforms that differ in activities and subcellular location. While all three are adapter proteins in signal transduction pathways, the longest (p66Shc) may be involved in regulating life span and the effects of reactive oxygen species. The other two isoforms, p52Shc and p46Shc, link activated receptor tyrosine kinases to the Ras pathway by recruitment of the GRB2/SOS complex. p66Shc is not involved in Ras activation. Unlike the other two isoforms, p46Shc is targeted to the mitochondrial matrix. Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Feb 2011]

Transcript Variant: This variant (5) has an alternate 5' sequence and an alternate splice site in the CDS, as compared to variant 3. The resulting isoform (5), also known as p46Shc, has a shorter N-terminus and lacks an internal amino acid, as compared to isoform 3. Variants 4 and 5 have the same nucleotide sequence, but variant 5 represents use of a downstream AUG compared to variant 4.