

## Product datasheet for SC126613

### SHC (SHC1) (NM\_003029) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	SHC (SHC1) (NM_003029) Human Untagged Clone
Tag:	Tag Free
Symbol:	SHC
Synonyms:	SHC; SHCA
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL6</u>
E. coli Selection:	Ampicillin (100 ug/mL)

**Fully Sequenced ORF:** >OriGene sequence for NM\_003029 edited  
GGGGAGAAAGTTGGAGCGGTAACCTAAGCTGGCAGTGGCGTGATCCGGCACCAAATCGGG  
CCGCGGTGCGGTGCGGAGACTCCATGAGGCCCTGGACATGAACAAGCTGAGTGGAGGCGG  
CGGGCGCAGGACTCGGGTGAAGGGGGCCAGCTTGGGGCGAGGAGTGGACCCGCCACGG  
GAGCTTTGTCAATAAGCCACGCGGGGCTGGCTGCATCCCAACGACAAAGTCATGGGACC  
CGGGGTTTCTACTTGGTTTCGGTACATGGGTTGTGTGGAGGTCCTCCAGTCAATGCGTGC  
CCTGGACTTCAACACCCGGACTCAGGTCACCAGGGAGGCCATCAGTCTGGTGTGTGAGGC  
TGTGCCGGGTGCTAAGGGGGCGACAAGGAGGAGAAAGCCCTGTAGCCGCCGCTCAGCTC  
TATCCTGGGGAGGAGTAACCTGAAATTTGCTGGAATGCCAATCACTCTCACCGTCTCCAC  
CAGCAGCCTCAACCTCATGGCCGAGACTGCAAACAGATCATCGCAACCACCACATGCA  
ATCTATCTCATTTGCATCCGGCGGGGATCCGGACACAGCCGAGTATGTGCGCTATGTTGC  
CAAAGACCCTGTGAATCAGAGAGCCTGCCACATTTCTGGAGTGTCCGAAGGGCTTGCCCA  
GGATGTCATCAGCACCATTGGCCAGGCCTTCGAGTTGCGCTTCAAACAATACCTCAGGAA  
CCCACCCAAACTGGTCACCCCTCATGACAGGATGGCTGGCTTTGATGGCTCAGCATGGGA  
TGAGGAGGAGGAAGGCCACCTGACCATCAGTACTATAATGACTTCCCGGGGAAGGAACC  
CCCCTTGGGGGGGTGGTAGACATGAGGCTTCGGGAAGGAGCCGCTCCAGGGGCTGCTCG  
ACCCACTGCACCAATGCCAGACCCCAAGCCACTTGGGAGCTACATTGCCTGTAGGACA  
GCCTGTTGGGGGAGATCCAGAAGTCCGCAACAGATGCCACCTCCACCACCCTGTCCAGG  
CAGAGAGCTTTTTGATGATCCCTCCTATGTCAACGTCCAGAACCTAGACAAGCCCGGCA  
AGCAGTGGGTGGTGTGCTGGGCCCCCAATCCTGCTATCAATGGCAGTGCACCCCGGACCT  
GTTTGACATGAAGCCCTTCGAAGATGCTCTTCGCGTGCCTCCACCTCCCAAGTGGTGTG  
CATGGCTGAGCAGCTCCGAGGGGAGCCCTGGTTCCATGGGAAGCTGAGCCGGCGGGAGGC  
TGAGGCACTGCTGCAGCTCAATGGGACTTCTGGTACGGGAGAGCACGACCACACCTGG  
CCAGTATGTGCTCACTGGCTTGCAGAGTGGGCAGCCTAAGCATTGCTACTGGTGGACCC  
TGAGGGTGTGGTTCGGACTAAGGATCACCGCTTTGAAAGTGTGAGTACACCTTATCAGCTA  
CCACATGGACAATCACTTGGCCATCATCTCTGCGGGCAGCGAACTGTGTCTACAGCAACC  
TGTGGAGCGAAACTGTGATCTGCCCTAGCGCTCTCTCCAGAAGATGCCCTCCAATCCT



[View online »](#)

TTCCACCTATTCCCTAACTCTCGGGACCTCGTTTGGGAGTGTTCTGTGGGCTTGGCCTT  
 GTGTCAGAGCTGGGAGTAGCATGGACTCTGGGTTTCATATCCAGCTGAGTGAGAGGGTTT  
 GAGTCAAAGCCTGGGTGAGAATCTGCCTCTCCCAAACATTAATCACCAAAGTATTA  
 TGTACAGAGTGGCCCTCACCTGGGCTTCTGTGCCAACCTGATGCCCTTCCCAAG  
 AAGGTGAGTGCTGTATGAAAATGCTGTGGTGACAGGCCAGTGGAACAGTACCC  
 TTCTGGCAAGGGGAACAAATCACACCTCTGGGCTTCCAGGTATCCCAGACCCCTCTCA  
 ACACCCGCCCCCATGTTTAACTTTGTGCTTTGACCATCTCTTAGGTCTAATGATA  
 TTTTATGCAAACAGTTCTTGGACCCCTGAATCAATGACAGGGATGCCAACACCTTCTTG  
 GCTTCTGGGACCTGTGTTCTTGCTGAGCACCTCTCCGGTTTGGGTTGGGATAACAGAGG  
 CAGGAGTGGCAGCTGTCCCTCTCCCTGGGGATATGCAACCTTAGAGATTGCCCCAGAG  
 CCCCCTCCCGGCCAGGCGGGAGATGGACCCCTCCCTTGCTCAGTGCCTCTGGCCGGGG  
 CCCCTCACCCCAAGGGTCTGTATACATTTTATAAGGCCTGCCCTCCCATGTTGCATG  
 CCTATGTACTCTACGCAAAGTGCAGCCCTTCTCCTGAAGCCTCTGCCCTGCCTCCCTT  
 TCTGGGAGGGCGGGTGGGGTACTGAATTTGGGCTCTGTACAGTAACTCTCCAG  
 GTGGATTTTGTGGAGGTGAGAAAAGGGCATTGAGACTATAAAGCAGTAGACAATCCCC  
 ACATACCATCTGTAGAGTTGAACTGCATTCTTTTAAAGTTTATATGCATATATTTTAG  
 GGCTGTAGACTTACTTTCTATTTTCTTTTCCATTGCTTATTCTTGAGCACAAAATGATA  
 ATCAATTATTACATTTATACATCACCTTTTGGACTTTTCCAAGCCCTTTTACAGCTCTTG  
 GCATTTTCTCGCTAGGCTGTGAGGTAAGTGGGATCGCACCTTTTATACCAGAGACCT  
 GAGGCAGATGAAATTTATTTCCATCTAGGACTAGAAAACTTGGGTCTCTTACCAGGAGA  
 CTGAGAGGCAGAGTACAGCCGAATGCCTGTGAGTTTCTGAGGGGAAACGCAAACT  
 GCAGTTCTGAGTACCTTCTACAGGCCCGCCAGCCTAGGCCGGGGTGGCCACACCAC  
 GCAAGCCGGCCCCCTCTTTTGGCCTTGTGGATAAGGGAGAGTTGACCGTTTTTATCC  
 TGGCCTCCTTTTGTGTTGGATGTTTCCACGGGTCTCACTTATACCAAAGGGAAAACTC  
 TTCATTAAGTCCGTATTTCTTCTAAAAAATAAAAAAAAAAAAAAAAAAAAAA

**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_003029 unedited  
 NNNCCATATAACACCCGCCGTTGNCGCAATGGGCGGTAGGCGTGTACGGTGGGAGGTCT  
 ATATAAGCAGAGCTCATTTAGGTGACACTATGAGAATACACAGCTTACGTTGTTCTTTT  
 TGCAGNCCGGCCTGCGAATCTGGCACTGAGGGCTGGGAGAAAGTTGGAGCGGTAACT  
 AAGCTGGCAGTGGCGTGATCCGGCACAAATCGGCCCGCGGTGCGGTGCGGAGACTCCAT  
 GAGGCCCTGGACATGAACAAGCTGAGTGGAGGCGGCGGCGCAGGACTCGGGTGAAGGG  
 GGCCAGCTTGGGGCGAGGAGTGGACCCGCCACGGGAGCTTTGTCAATAAGCCCACGCGG  
 GGCTGGCTGCATCCCAACGACAAAGTCAATGGGACCCGGGGTTTCTACTTGGTTCGGTAC  
 ATGGGTTGTGTGGAGTCTCCAGTCAATGCGTGCCCTGGACTTCAACACCCGGACTCAG  
 GTCACCAGGGAGGCCATCAGTCTGGTGTGTGAGGCTGTGCCGGGTGCTAAGGGGGCACA  
 AGGAGGAGAAAGCCCTGTAGCCGCCGCTCAGCTCTATCTGGGAGGAGTAACCTGAAA  
 TTTGCTGGAATGCCAATCACTCTCACCGTCTCCACCAGCAGCCTCAACCTCATGGCCGA  
 GACTGCAAACAGATCATCGCCAACCACCACATGCAATCTATCTCATTTGCATCCTGGCGG  
 NGATCCGGACACAGCCTGAGTATGTCGCCTATGTTGCCAAAGACCCTGTGAATCAGAGAG  
 CCTGCCAATTCTGGAGTGTCCCTGAAGGGCTTGTCCAGGATGTCATCAGCACCATTGG  
 CCAGGCCTTTCGAGTTGCGCTTCAACAGTACCTCAGGAACCACCCAGACTGGTACTCTCA  
 TCACGNAC

<b>3' Read Nucleotide Sequence:</b>	>OriGene 3' read for NM_003029 unedited NGGGAATTACTATGNACCGCGCCGATTCTANGATCGAGTTTTTTTTTTTTTTTTTTTTTTTT TAAAAAAAAACGGACTTTAATGAAGAGTTTTCCCTTTGGTATAAGTGAGACCCGTGGAAA CATCCAAACAGCAAAAGGAGGCCAGGATGAAAACGGTCAACTCTCCCTTATCCACAAGGC CAAAAGAGGGGGGGCCGGCTTGTGTGGTGTGGCCACCCCGGCCCTAGGCTGGGCCGGGC CTGTAGAAGGTAAGTCTCAGGAACTGCAGGTTTTGCGTTTTCCCTCCATGAAACTGACAGGCA TTCGGGCTGACTTCTGCCTCTCAGTCTCGCGGTAAGAGACCCAAGTTTTTCTAGTCCTAG ATGGAAATAAATTCATCTGCCTCAGGTCTCTGGTATAAAAGGTGCGATCCCAGTTACCT CACAGGCCTAGGCGAGGAAAATGCCAAGAGCTGTAAAAGGGCTTGAAAAAGTCAAAAAGG TGATGTATAAATGTAATAATTGATTATCATTGTTGTGCTCAAGAATAAGCAATGGAAAAGA AAATAGGAAAGTAAGTCTACAGCCCTAAAATATATGCATATAAACTTTAAAAGAATGCA GTTCCAACCTACAGATGGTATGTGGGGATTGTCTACTGCTTTATAGTCTCAATGCCCC CTTTCTCACCTCCACAAAATCCACCTGGGGAGAGTTAACTGTACAAGAAGCCCAAATTCA GTCACCCCAACCCGCCCTCCAAAAAGGAGGCAGGGCAAAGGCCTTCAGGAGAAAAGG CTGCACCTTTGGCGTAAAGTACATAGGCATGCACCATGGGAGGGCAGCCCTATGAAAAG TATTACCGACCCCTGGGGTGAAGGGCCCGCCAGGAGCACTGAACAAGGAGGGGTCCATC TCCGCTGGCCGGA
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_003029
<b>Insert Size:</b>	3200 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>	The ORF of this clone has been fully sequenced and found to contain 3bp deletion compared with NM_003029.3.
<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>	<u><a href="#">NM_003029.3</a></u> , <u><a href="#">NP_003020.2</a></u>
<b>RefSeq Size:</b>	3076 bp
<b>RefSeq ORF:</b>	1425 bp
<b>Locus ID:</b>	6464
<b>UniProt ID:</b>	<u><a href="#">P29353</a></u>
<b>Cytogenetics:</b>	1q21.3

<b>Domains:</b>	SH2, PID
<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>Gene Summary:</b>	<p>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]</p> <p>Transcript Variant: This variant (2) has an alternate 5' sequence, as compared to variant 3. The resulting isoform (2) has a shorter N-terminus, as compared to isoform 3.</p>