

## Product datasheet for **RG225801**

### SHC (SHC1) (NM\_001130041) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	SHC (SHC1) (NM_001130041) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SHC
Synonyms:	SHC; SHCA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG225801 representing NM\_001130041  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGAACAAGCTGAGTGGAGGCGGGCGCAGGACTCGGGTGAAGGGGGCCAGCTTGGGGCGAGGAGT  
 GGACCCGCCACGGGAGCTTTGTCAATAAGCCCACGCGGGGCTGGCTGCATCCCAACGACAAAAGTCATGGG  
 ACCCGGGTTTCTACTTGGTTCGGTACATGGGTGTGTGGAGGTCTCCAGTCAATGCGTGCCCTGGAC  
 TTCAACACCCGGACTCAGGTCACCAGGGAGGCCATCAGTCTGGTGTGTGAGGCTGTGCCGGTGTAAAGG  
 GGGCGACAAGGAGGAGAAAGCCCTGTAGCCGCCGCTCAGCTCTATCCTGGGAGGAGTAACCTGAAATT  
 TGCTGGAATGCCAATCACTCTCACCGTCTCCACCAGCAGCCTCAACCTCATGGCCGAGACTGCAAAACAG  
 ATCATCGCAACCACCACATGCAATCTATCTATTTGCATCCGGCGGGGATCCGGACACAGCCGAGTATG  
 TCGCCTATGTTGCCAAAGACCCTGTGAATCAGAGAGCCTGCCACATTCTGGAGTGTCCCAGGGCTTGC  
 CCAGGATGTCATCAGCACCATTGGCCAGGCCTTCGAGTTGCGCTTCAAACAATACCTCAGGAACCCACCC  
 AAAGTGGTCAACCCCTCATGACAGGATGGCTGGCTTTGATGGCTCAGCATGGGATGAGGAGGAGGAAGAGC  
 CACCTGACCATCAGTACTATAATGACTTCCCGGGGAAGGAACCCCTTGGGGGGGGTGGTAGACATGAG  
 GCTTCGGGAAGGAGCCGCTCCAGGGGCTGCTCGACCCACTGCACCCAATGCCAGACCCCGACCCACTTG  
 GGAGCTACATTGCCTGTAGGACAGCCTGTTGGGGGAGATCCAGAAGTCCGCAAACAGATGCCACCTCCAC  
 CACCCTGTCCAGGCAGAGAGCTTTTTGATGATCCCTCCTATGTCAACGTCCAGAACCTAGACAAGGCCCG  
 GCAAGCAGTGGTGGTGTGGCCCCCAATCCTGCTATCAATGGCAGTGCACCCGGGACCTGTTTGAC  
 ATGAAGCCCTTCGAAGATGCTCTTCGCGTGCCTCCACCTCCCAAGTCCGTTGCTGAGCAGCTCC  
 GAGGGGAGCCCTGGTTCATGGGAAGCTGAGCCGGCGGGAGGCTGAGGCACTGCTGCAGTCAATGGGGA  
 CTTCTGGTACGGGAGAGCACGACCACACTGGCCAGTATGTGCTCACTGGCTTGCAGAGTGGGCGACCT  
 AAGCATTGCTACTGGTGGACCCTGAGGGTGTGGTTCGGACTAAGGATCACCGCTTTGAAAGTGTAGTC  
 ACCTTATCAGCTACCACATGGACAATCACTTGCCCATCATCTCTGCGGGCAGCGAACTGTGTCTACAGCA  
 ACCTGTGGAGCGGAAACTG

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>RG225801 representing NM\_001130041  
 Red=Cloning site Green=Tags(s)

MNKL SGGGRRTRVEGGQLGGEWTRHGSFVNKPTRGWLHPNDKVMGPGVSYLVRYMGCVEVLQSMRALD  
 FNTRTQVTREAI SLVCEAVPGAKGATRRRKPCSRPLSSILGRSNLKFAGMPITLTVSTSSLNLMAADCKQ  
 IIANHHMQSISFASGGDPDAEYVAYVAKDPVNQRACHILECPEGLAQDVI STIGQAFELRFKQYLRNPP  
 KLVTPHDRMAGFDGSAWDEEEEEPPDHQYNDFFPGKEPPLGGVDMRLREGAAPGAARPTAPNAQTPSHL  
 GATLPVGPVGGDPEVRKQMPPPPPCPGREL FDDPSYVNVQNLDKARQAVGGAGPPNPAINGSAPRDLFD  
 MKPFEDALRVPPPQSVSMAEQLRGEFHFHGLSRREAEALLQLNGDFLVRESTTTPGQYVLTGLQSGQP  
 KLLLLVDEPVGVRKDHREFESVSHLISYHMDNHLPIISAGSELCLQQPVERKL

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

Sgfl-MluI



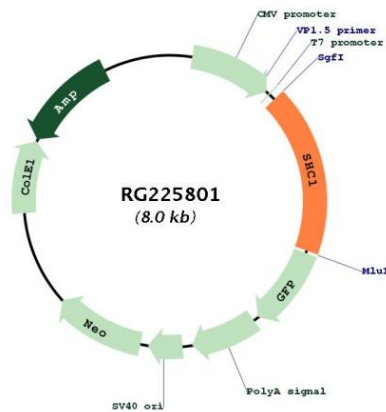
**Cytogenetics:** 1q21.3

**Protein Families:** Druggable Genome

**Protein Pathways:** 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

**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]

**Product images:**



Circular map for RG225801