

Product datasheet for **RG225982**

SHC (SHC1) (NM_001130040) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SHC (SHC1) (NM_001130040) 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:

>RG225982 representing NM_001130040
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGATCTCTGCCCCCAAGCCAAGTACAATCCACTCCGGAATGAGTCTCTGTATCGCTGGAGGAAG
 GGGCTTCTGGGTCCACCCCGGAGGAGCTGCCTTCCCATCAGCTTCATCCCTGGGGCCATCCTGCC
 TCCTCTGCCTGGGGACGATAGTCCCACTACCCTGTGCTCCTTCTCCCGGATGAGCAACCTGAGGCTG
 GCCAACCCGGCTGGGGGCGCCAGGGTCTAAGGGGGAGCCAGGAAGGGCAGCTGATGATGGGGAGGGGA
 TCGTAGGGGACGATGCCAGACTCAGGCCCTACCCCTCCTCCAGGACATGAACAAGCTGAGTGGAGG
 CGGCGGGCAGGACTCGGGTGAAGGGGGCCAGCTTGGGGGCGAGGAGTGGACCCGCCACGGGAGCTTT
 GTCAATAAGCCCACGCGGGGCTGGCTGCATCCCAACGACAAAGTCATGGGACCCGGGTTTCTACTTGG
 TTCGGTACATGGGTTGTGTGGAGGTCTCCAGTCAATGCGTGCCTGGACTTCAACACCCGGACTCAGT
 CACCAGGAGGCCATCAGTCTGGTGTGTGAGGCTGTGCCGGTGTAAAGGGGCGACAAGGAGGAGAAA
 CCCTGTAGCCGCCGCTCAGCTCTATCCTGGGGAGGAGTAACTGAAATTTGCTGGAATGCCAATCACTC
 TCACCGTCTCCACCAGCAGCCTCAACCTCATGGCCGAGACTGCAACAGATCATCGCAACCACCAT
 GCAATCTATCTCATTTGCATCCGGCGGGATCCGGACACAGCCGAGTATGTCGCCTATGTTGCCAAAGAC
 CCTGTGAATCAGAGAGCCTGCCACATTCGGAGTGTCCGAAGGGCTTGGCCAGGATGTCATCAGCACCA
 TTGGCCAGGCCTTCGAGTTGCGCTTCAAACAATACCTCAGGAACCCAACTGGTCAACCCCTCATGA
 CAGGATGGCTGGCTTTGATGGCTCAGCATGGGATGAGGAGGAGGAAGAGCCACCTGACCATCAGTACTAT
 AATGACTTCCCGGGAAGGAACCCCTTGGGGGGGTGGTAGACATGAGGCTTCGGGAAGGAGCCGCTC
 CAGGGGTGCTCGACCCACTGCACCCAATGCCAGACCCCACTTGGGAGCTACATGCCTGTAGG
 ACAGCCTGTTGGGGGAGATCCAGAAGTCCGCAACAGATGCCACCTCCACCACCTGTCCAGCAGGCAGA
 GAGCTTTTTGATGATCCCTCCTATGTCAACGTCCAGAACCTAGACAAGGCCCGGCAAGCAGTGGGTGGT
 CTGGGCCCCCAATCCTGCTATCAATGGCAGTGCACCCCGGGACCTGTTTGACATGAAGCCCTTCGAAGA
 TGCTCTTCGCGTGCCTCCACCTCCCACTCGGTGTCCATGGCTGAGCAGCTCCGAGGGGAGCCCTGGTTC
 CATGGGAAGCTGAGCCGGCGGGAGGCTGAGGCACTGCTGCAGCTCAATGGGACTTCTGGTACGGGAGA
 GCACGACCACCTGGCCAGTATGTGCTACTGGCTTGCAGAGTGGCAGCCTAAGCATTGCTACTGGT
 GGACCTGAGGGTGTGGTTCGGACTAAGGATCACCGCTTGAAGTGTGAGTACCTTATCAGTACCAC
 ATGGACAATCACTGCCATCATCTCTGCGGGCAGCGAAGTGTGTCTACAGCAACCTGTGGAGCGGAAAC
 TG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG225982 representing NM_001130040
 Red=Cloning site Green=Tags(s)

MDLLPPKPKYNPLRNESLSSLEEGASGTPPEELPSPSASSLGPILPPLPGDSDPTTLCFFPRMSNLRL
 ANPAGGRPGSKGEPGRAADDGEGIVGAAMPDSGPLPLLQDMNKLSGGGRRRTRVEGGQLGGEWTRHGSF
 VNKPTRGWLHPNDKVMGPVSYLVRYMGCVEVLQSMRALDFNTRTQVTREAI SLVCEAVPGAKGATRRRK
 PCSRPLSSILGRSNLKFAGMPITLTVSTSSLNLMAADCKQIIANHHMQSISFASGGDPDTAEYVAVYAKD
 PVNQRACHILECPEGLAQDVIISTIGQAFELRFKQYLRNPPKLVTPHDMAGFDGSAWDEEEEEPPDHQYY
 NDFPGKEPPLGGVDMRLREGAAPGAARPTAPNAQTPSHLGATLPVGPVGGDPEVRKQMPPPPPCPAGR
 ELFDDPSYVNVQNLDKARQAVGGAGPPNPAINGSAPRDLFDMKPFEDALRVPPPPQSVSMAEQLRGEPWF
 HGKLSRREAELQLNGDFLVRESTTTPGQYVLTGLQSGQPKHLLLVDPGQVVRTKDHRFESVSHLISYH
 MDNHLPIISAGSELCLQQPVERKL

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_001130040

ORF Size: 1752 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:

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_001130040.2](#)

RefSeq Size: 3496 bp

RefSeq ORF: 1755 bp

Locus ID: 6464

UniProt ID: [P29353](#)

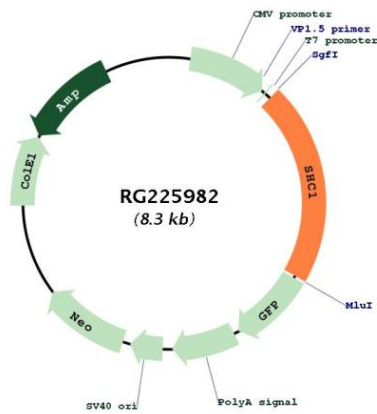
Cytogenetics: 1q21.3

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 RG225982