

Product datasheet for **RC224734**

SHC (SHC1) (NM_183001) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SHC (SHC1) (NM_183001) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SHC
Synonyms:	SHC; SHCA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC224734 representing NM_183001
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGATCTCTGCCCCCAAGCCAAGTACAATCCACTCCGGAATGAGTCTCTGTATCGCTGGAGGAAG
 GGGCTTCTGGGTCCACCCCGGAGGAGCTGCCTTCCCATCAGCTTCATCCCTGGGGCCATCCTGCC
 TCCTCTGCCTGGGGACGATAGTCCCACTACCCTGTGCTCCTTCTCCCGGATGAGCAACCTGAGGCTG
 GCCAACCCGGCTGGGGGCGCCAGGGTCTAAGGGGGAGCCAGGAAGGGCAGCTGATGATGGGGAGGGGA
 TCGTAGGGGACGATGCCAGACTCAGGCCCTACCCCTCCTCCAGGACATGAACAAGCTGAGTGGAGG
 CGGCGGGCAGGACTCGGGTGAAGGGGGCCAGCTTGGGGGCGAGGAGTGACCCGCCACGGGAGCTTT
 GTCAATAAGCCCACGCGGGGCTGGCTGCATCCCAACGACAAAGTCATGGGACCCGGGTTTCTACTTGG
 TTCGGTACATGGGTTGTGTGGAGGTCTCCAGTCAATGCGTGCCTGGACTTCAACACCCGGACTCAGT
 CACCAGGAGGCCATCAGTCTGGTGTGTGAGGCTGTGCCGGTGTAAAGGGGCGACAAGGAGGAGAAAG
 CCCTGTAGCCGCCGCTCAGCTCTATCCTGGGGAGGAGTAACCTGAAATTTGCTGGAATGCCAATCACTC
 TCACCGTCTCCACCAGCAGCCTCAACCTCATGGCCGAGACTGCAACAGATCATCGCAACCACCAT
 GCAATCTATCTCATTTGCATCCGGCGGGATCCGGACACAGCCGAGTATGTCGCCTATGTTGCCAAAGAC
 CCTGTGAATCAGAGAGCCTGCCACATCTGGAGTGTCCGAAGGGCTTCCCAGGATGTCATCAGCACCA
 TTGGCCAGGCCTTCGAGTTGCGCTTCAAACAATACCTCAGGAACCCACCAAACTGGTCAACCCTCATGA
 CAGGATGGCTGGCTTTGATGGCTCAGCATGGGATGAGGAGGAGGAAGAGCCACCTGACCATCAGTACTAT
 AATGACTTCCCGGGAAGGAACCCCTTGGGGGGGTGGTAGACATGAGGCTTCGGGAAGGAGCCGCTC
 CAGGGGTGCTCGACCCACTGCACCCAATGCCAGACCCCAAGCCACTTGGGAGCTACATGCCTGTAGG
 ACAGCCTGTTGGGGAGATCCAGAAGTCCGCAACAGATGCCACCTCCACCACCTGTCCAGGCAGAGAG
 CTTTTGATGATCCCTCCTATGTCAACGTCAGAACCTAGACAAGGCCCGCAAGCAGTGGTGGTGTG
 GGCCCCCAATCTGCTATCAATGGCAGTGCACCCCGGACCTGTTTGACATGAAGCCCTTCAAGATGC
 TCTTCGCTGCCTCCACCTCCCACTCGGTGTCCATGGCTGAGCAGCTCCGAGGGGAGCCCTGGTCCAT
 GGAAGCTGAGCCGGCGGGAGGCTGAGGCACTGCTGCAGCTCAATGGGACTTCTGGTACGGGAGAGCA
 CGACCACCTGGCCAGTATGTGCTCACTGGCTGCAGAGTGGGAGCCTAAGCATTTGCTACTGGTGA
 CCCTGAGGGTGTGGTTCGACTAAGGATACCCGCTTTGAAAGTGCAGTACCTTATCAGTACCACATG
 GACAATCACTTGGCCATCATCTCTCGGGCAGCGAACTGTGTCTACAGCAACCTGTGGAGCGGAAACTG

**ACGGTACGCGGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA**

Protein Sequence:

>RC224734 representing NM_183001
 Red=Cloning site Green=Tags(s)

MDLLPPKPKYNPLRNESLSSLEEGASGTPPEELPSPSASSLGPILPPLPGDSDPTTLCFFPRMSNLRL
 ANPAGGRPGSKGEPGRAADDGEGIVGAAMPDSGPLPLLQDMNKLSGGGRRRTRVEGGQLGGEWTRHGSF
 VNKPTRGWLHPNDKVMGPVSYLVRYMGCVEVLQSMRALDFNTRTQVTREAI SLVCEAVPGAKGATRRRK
 PCSRPLSSILGRSNLKFAGMPITLTVSTSSLNLMAADCKQIIANHHMQSISFASGGDPDTAEYVAVYAKD
 PVNQRACHILECPEGLAQDVIISTIGQAFELRFKQYLRNPPKLVTPHDMAGFDGSAWDEEEEEPPDHQYY
 NDFPGKEPPLGGVDMRLREGAAPGAARPTAPNAQTPSHLGATLPVGPVGGDPEVRKQMPPPPPCPGRE
 LFDDPSYVNVQNLDKARQAVGGAGPPNPAINGSAPRDLFDMKPFEDALRVPPPPQSVMAEQLRGEPWFH
 GKLSRREAEALLQLNGDFLVRETTTPGQYVLTGLQSGQPKHLLLVDPGQVVRTKDHRFESVSHLISYHM
 DNHLPIISAGSELCLQQPVERKL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk8068_d06.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:

ACCN: NM_183001

ORF Size: 1749 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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](#)

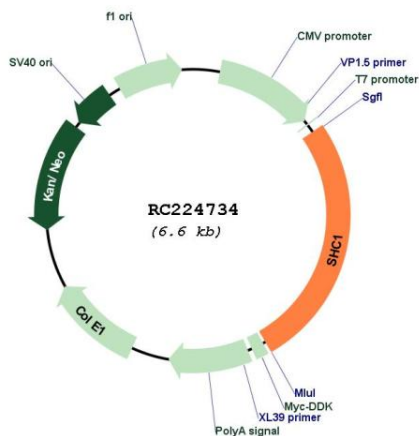
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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).

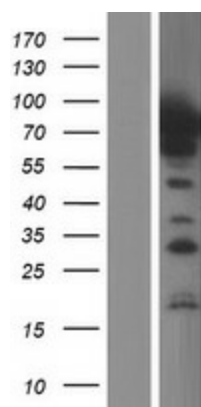
- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
 3. Close the tube and incubate for 10 minutes at room temperature.
 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the 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_183001.5
RefSeq Size:	1752 bp
RefSeq ORF:	1752 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
MW:	62.6 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]

Product images:



Circular map for RC224734



Western blot validation of overexpression lysate (Cat# [LY405300]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC224734 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).