

## Product datasheet for **MR225873**

### Shc1 (NM\_001113331) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Shc1 (NM_001113331) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Shc1
Synonyms:	p66; p66shc; Shc; ShcA
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**ORF Nucleotide Sequence:**

>MR225873 representing NM\_001113331  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGATCTTCTACCCCCAAGCCGAAGTACAACCCACTTCGGAATGAGTCTCTGTATCGCTGGAGGAGG  
 GGGCTTCGGGGTCTACCCCTCCGGAGGAGCTACCTTCCCATCAGCTTATCCCTGGGACCCATTCTGCC  
 TCCTCTGCCGGGGACGATAGTCCGACTACCCTGTGTTCTTCTTTCCCGGATGAGCAACCTGAAGCTG  
 GCCAATCTGCTGGGGGCGCCTGGGGCCTAAAGGGGAGCCAGGAAAGGCTGCTGAAGATGGGGAAGGGA  
 GTGCAGGGGCGAGCCCTTCGGGACTCAGGCCTCTTGCCCTCCTCCAGGACATGAACAAGCTGAGTGGAGG  
 CGGCGGGCGCAGGACTCGGGTAGAAGGGGGCCAGCTGGGGGGCAGGAGTGGACCAGACACGGGAGCTTT  
 GTCAATAAGCCCACACGAGGCTGGCTGCATCCCAACGACAAAGTCATGGGACCTGGGGTTTCTACTTGG  
 TTCGGTACATGGGCTGTGTGGAGGTCTTACAGTCAATGCGAGCCCTTGACTTCAATACCCGGACTCAGT  
 CACCAGGGAGGCCATCAGTTTGGTGTGTGAAGCTGTGCCTGGTCCAAAGGGGCGACAAGGAGGAGAAA  
 CCTTGTAGCCGCCACTCAGCTCCATCCTGGGGAGGAGTAACCTGAAGTTTCTGGAATGCCAATCACTC  
 TCACTGTGTCTACCAGCAGCCTTAACCTCATGGCAGCCGACTGCAACAGATCATTGCCAACCATACAT  
 GCAATCTATCTTTTCGGTCCGGTGGGGATCCGGACACAGCTGAGTATGTTGCCTATGTTGCCAAAGAC  
 CCTGTGAATCAGAGAGCCTGCCATATCCTGGAGTGTCTGAAGGGCTTGCTCAGGATGTCATCAGCACCA  
 TCGGGCAGGCCTTTGAGTTGCGCTTCAAACAGTATCTCAGGAATCCACCGAAGCTGGTCAACCCCATGA  
 CAGGATGGCTGGCTTTGATGGCTCAGCTTGGGATGAGGAGGAAGAAGAGCCCTGACCATCAGTACTAC  
 AATGACTTTCAGGAAGGAACCCCTCTTGGTGGGTGGTAGATATGAGGCTTCGGGAAGGGGCTGCTC  
 GACCCACTCTGCCTAGTGCCAGATGTCAGCCACTTGGGAGCTACACTGCCTATAGGGCAGCATGCTGC  
 AGGAGACCATGAAGTCCGTAAACAGATGTTGCCTCCGCCCTTGCCAGGCAGAGAACTCTTCGATGAC  
 CCTCCTATGTCAACATCCAGAATCTAGACAAGGCCCGCAGGCTGGGGGTGGGGCTGGGCCCCAAATC  
 CTTCTCTAATGGCAGTGCACCCGAGACCTTTTTGACATGAAGCCCTTTGAAGATGCACCTCGGGTGC  
 ACCCCACCGCAGTCCATGTCCATGGCTGAGCAGCTGCAAGGGGAGCCCTGGTCCACGGGAAGCTGAGC  
 CGGAGGGAGGCCGAGGCGCTGCTGCAGTCAATGGTGACTTCTTGGTGCAGAGAGCAGCACGACGCTG  
 GCCAGTATGTGCTCACTGGCCTGCAGAGTGGGCAGCCCAAGCACTTGCTGCTGGTGGACCCTGAAGGTG  
 GGTTCCGACAAAGGATCACCGCTTGGAGTGTGAGTACCTGATCAGTACCACATGGACAATCACTTG  
 CCCATCATCTCTCGGGCAGCGAACTGTGCTACAGCAACCCGTGGATCGGAAAGTG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>MR225873 representing NM\_001113331  
 Red=Cloning site Green=Tags(s)

MDLLPPKPKYNPLRNESLSSLEEGASGSTPPEELPSPSASSLGPILPPLPGDSDPTLCSFFPRMSNLKL  
 ANPAGGRLGPKGEPGKAAEDGEGSAGAALRDSGLLPLLQDMNKLSGGGRRRTRVEGGQLGGEWTRHGSF  
 VNKPTRGWLHPNDKVMGPGVSYLVRYMGCVEVLQSMRALDFNTRTQVTREAI SLVCEAVPGAAGKATRRRK  
 PCSRPLSSILGRSNLKFAGMPITLTVSTSSNLMAADCKQIIANHHMQSISFASGDPDTAEYVAYAKD  
 PVNQRACHILECPEGLAQDVISTIGQAFELRFKQYLRNPPKLVTPHDMAGFDGSAWDEEEEEPPDHQYY  
 NDFPGKEPPLGGVDMRLREGAARPTLPSAQMSSHLGATLPIGQHAAGDHEVRKQMLPPPCPGREL FDD  
 PSYVNIQNLDKARQAGGAGPPNPSLNGSAPRDLFDMKPFEDALRVPPPQSMSMAEQLQGEPWFHGKLS  
 RREAELLQLNGDFLVRESTTTPGQYVLTGLQSGQPKHLLLVDPEGVVTRKDRHFESVSHLISYHMDNHL  
 PIISAGSELCLQPVDRKV

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-Mlul



**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](mailto: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\\_001113331.2](#), [NP\\_001106802.1](#)

**RefSeq Size:** 3569 bp

**RefSeq ORF:** 1740 bp

**Locus ID:** 20416

**UniProt ID:** [P98083](#)

**Cytogenetics:** 3 39.11 cM

**MW:** 63.1 kDa

**Gene Summary:**

Signaling adapter that couples activated growth factor receptors to signaling pathways. Participates in signaling downstream of the angiopoietin receptor TEK/TIE2, and plays a role in the regulation of endothelial cell migration and sprouting angiogenesis (By similarity). Participates in a signaling cascade initiated by activated KIT and KITLG/SCF. Isoform p47Shc and isoform p52Shc, once phosphorylated, couple activated receptor kinases to Ras via the recruitment of the GRB2/SOS complex and are implicated in the cytoplasmic propagation of mitogenic signals. Isoform p47Shc and isoform p52 may thus function as initiators of the Ras signaling cascade in various non-neuronal systems. Isoform p66Shc does not mediate Ras activation, but is involved in signal transduction pathways that regulate the cellular response to oxidative stress and life span. Isoform p66Shc acts as a downstream target of the tumor suppressor p53 and is indispensable for the ability of stress-activated p53 to induce elevation of intracellular oxidants, cytochrome c release and apoptosis. The expression of isoform p66Shc has been correlated with life span.[UniProtKB/Swiss-Prot Function]