OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for RC204362

SHC (SHC1) (NM_003029) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SHC (SHC1) (NM_003029) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SHC1
Synonyms:	SHC; SHCA
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin

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ORF Nucleotide Sequence:

>RC204362 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGAACAAGCTGAGTGGAGGCGGCGGGCGCAGGACTCGGGTGGAAGGGGGCCAGCTTGGGGGCGAGGAGT
GGACCCGCCACGGGAGCTTTGTCAATAAGCCCACGCGGGGCTGGCTGCATCCCAACGACAAAGTCATGGG
ACCCGGGGTTTCCTACTTGGTTCGGTACATGGGTTGTGTGGAGGTCCTCCAGTCAATGCGTGCCCTGGAC
TTCAACACCCGGACTCAGGTCACCAGGGAGGCCATCAGTCTGGTGTGTGAGGCTGTGCCGGGTGCTAAGG
GGGCGACAAGGAGGAGAAAGCCCTGTAGCCGCCCGCTCAGCTCTATCCTGGGGAGGAGTAACCTGAAATT
TGCTGGAATGCCAATCACTCTCACCGTCTCCACCAGCAGCCTCAACCTCATGGCCGCAGACTGCAAACAG
ATCATCGCCAACCACCACATGCAATCTATCTCATTTGCATCCGGCGGGGATCCGGACACAGCCGAGTATG
TCGCCTATGTTGCCAAAGACCCTGTGAATCAGAGAGCCTGCCACATTCTGGAGTGTCCCGAAGGGCTTGC
CCAGGATGTCATCAGCACCATTGGCCAGGCCTTCGAGTTGCGCTTCAAACAATACCTCAGGAACCCACCC
AAACTGGTCACCCCTCATGACAGGATGGCTGGCTTTGATGGCTCAGCATGGGATGAGGAGGAGGAAGAGC
CACCTGACCATCAGTACTATAATGACTTCCCGGGGAAGGAACCCCCCTTGGGGGGGGTGGTAGACATGAG
GCTTCGGGAAGGAGCCGCTCCAGGGGCTGCTCGACCCACTGCACCCAATGCCCAGACCCCCAGCCACTTG
GGAGCTACATTGCCTGTAGGACAGCCTGTTGGGGGAGATCCAGAAGTCCGCAAACAGATGCCACCTCCAC
CACCCTGTCCAGCAGGCAGAGAGCTTTTTGATGATCCCTCCTATGTCAACGTCCAGAACCTAGACAAGGC
CCGGCAAGCAGTGGGTGGTGCTGGGCCCCCCAATCCTGCTATCAATGGCAGTGCACCCCGGGACCTGTTT
GACATGAAGCCCTTCGAAGATGCTCTTCGCGTGCCTCCACCTCCCCAGTCGGTGTCCATGGCTGAGCAGC
TCCGAGGGGAGCCCTGGTTCCATGGGAAGCTGAGCCGGCGGGAGGCTGAGGCACTGCTGCAGCTCAATGG
GGACTTCCTGGTACGGGAGAGCACGACCACACCTGGCCAGTATGTGCTCACTGGCTTGCAGAGTGGGCAG
CCTAAGCATTTGCTACTGGTGGACCCTGAGGGTGTGGTTCGGACTAAGGATCACCGCTTTGAAAGTGTCA
GTCACCTTATCAGCTACCACATGGACAATCACTTGCCCATCATCTCTGCGGGCAGCGAACTGTGTCTACA
GCAACCTGTGGAGCGGAAACTG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC204362 protein sequence
Red=Cloning site Green=Tags(s)

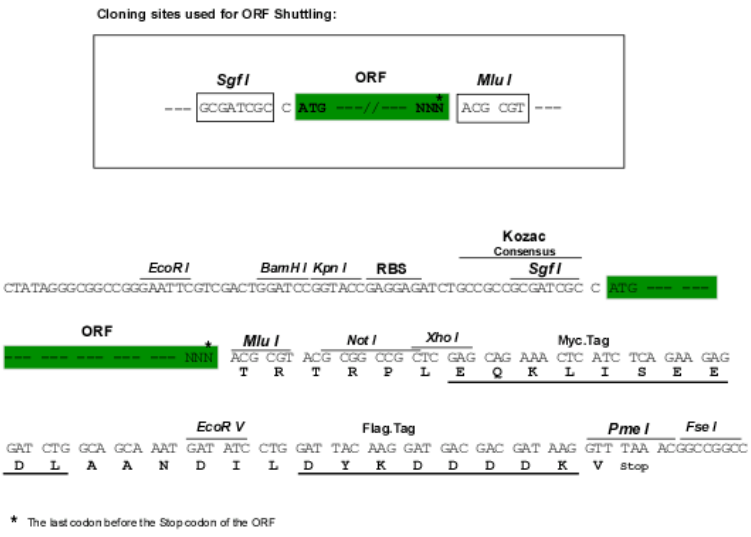
MNKLSGGGGRRTRVEGGQLGGEEWTRHGSFVNKPTRGWLHPNDKVMGPGVSYLVRYMGCVEVLQSMRALD
FNTRTQVTREAISLVCEAVPGAKGATRRRKPCSRPLSSILGRSNLKFAGMPITLTVSTSSLNLMAADCKQ
IIANHHMQSISFASGGDPDTAEYVAYVAKDPVNQRACHILECPEGLAQDVISTIGQAFELRFKQYLRNPP
KLVTPHDRMAGFDGSAWDEEEEEPPDHQYYNDFPGKEPPLGGVVDMRLREGAAPGAARPTAPNAQTPSHL
GATLPVGQPVGGDPEVRKQMPPPPPCPAGRELFDDPSYVNVQNLDKARQAVGGAGPPNPAINGSAPRDLF
DMKPFEDALRVPPPPQSVSMAEQLRGEPWFHGKLSRREAEALLQLNGDFLVRESTTTPGQYVLTGLQSGQ
PKHLLLVDPEGVVRTKDHRFESVSHLISYHMDNHLPIISAGSELCLQQPVERKL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

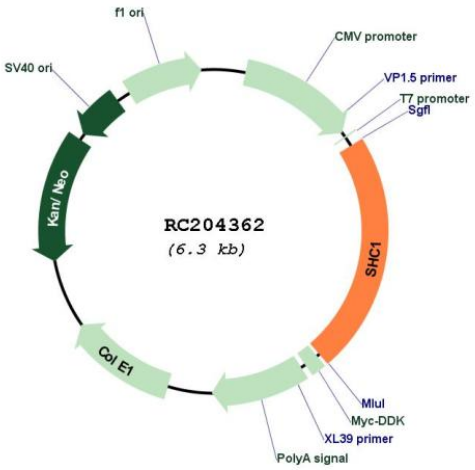
Chromatograms: https://cdn.origene.com/chromatograms/mk6175_d09.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



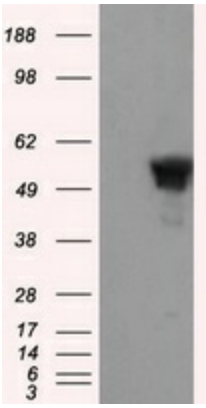
Plasmid Map:



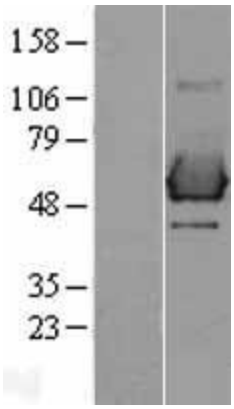
ACCN:	NM_003029
ORF Size:	1422 bp
OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own 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.
RefSeq:	NM_003029.5
RefSeq Size:	3195 bp
RefSeq ORF:	1425 bp

Locus ID:	6464
UniProt ID:	P29353
Domains:	SH2, PID
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:	51.7 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]

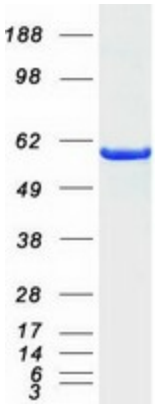
Product images:



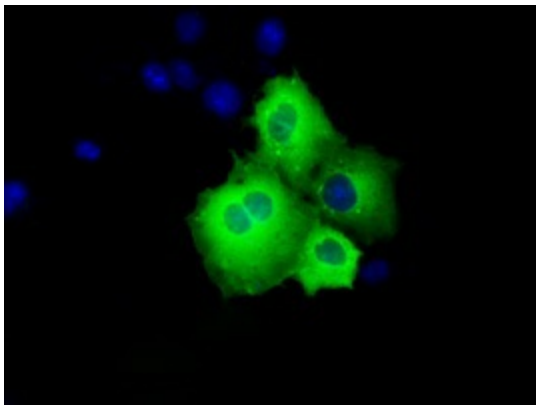
HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY SHC1 (Cat# RC204362, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-SHC1 (Cat# [TA501056]). Positive lysates [LY401060] (100ug) and [LC401060] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY401060]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204362 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified SHC1 protein (Cat# [TP304362]). The protein was produced from HEK293T cells transfected with SHC1 cDNA clone (Cat# RC204362) using MegaTran 2.0 (Cat# [TT210002]).



Anti-SHC1 mouse monoclonal antibody ([TA501056]) immunofluorescent staining of COS7 cells transiently transfected by pCMV6-ENTRY SHC1 (RC204362).