

Product datasheet for **RC205010**

SDHC (NM_003001) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: SDHC (NM_003001) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: SDHC
Synonyms: CYB560; CYBL; PGL3; QPS1; SDH3
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
ORF Nucleotide Sequence: >RC205010 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCTGCGCTGTTGCTGAGACACGTTGGTCGTCATTGCCTCCGAGCCCACTTTAGCCCTCAGCTCTGTA
TCAGAAATGCTGTTCTTTGGGAACACGCAAAAGAAGAGATGGAGCGTTCTGGAATAAGAATATAGG
TTCAAACCGTCTCTGTCTCCCCACATTACTATCTACAGTTGGTCTCTTCCCATGGCGATGCCATCTGC
CACCGTGGCACTGGTATTGCTTTGAGTGCAGGGTCTCTCTTTTGGCATGTCGGCCCTGTTACTCCCTG
GGAACCTTTGAGTCTTATTTGGAACCTGTGAAGTCCCTGTGTCTGGGGCCAGCACTGATCCACACAGCTAA
GTTTGCACTTGTCTTCCCTCTCATGTATCATACCTGGAATGGGATCCGACACTTGATGTGGGACCTAGGA
AAAGGCCTGAAGATCCCCAGCTATACCAGTCTGGAGTGGTTGTCTGGTTCTTACTGTGTTGTCCTCTA
TGGGGCTGGCAGCCATG

ACGCGTACGCGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC205010 protein sequence
Red=Cloning site Green=Tags(s)

MAALLLRHVGRHCLRAHFSPQLCIRNAVPLGTTAKEEMERFWNKNIGSNRPLSPHITIIYSWLPAMASIC
HRGTGIALSAGVSLFGMSALLLPGNFESYLELVKSLCLGPALIHAKFALVFPLMYHTWNGIRHLMWDLG
KGLKIPQLYQSGVVVLVLTVLSSMGLAAM

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

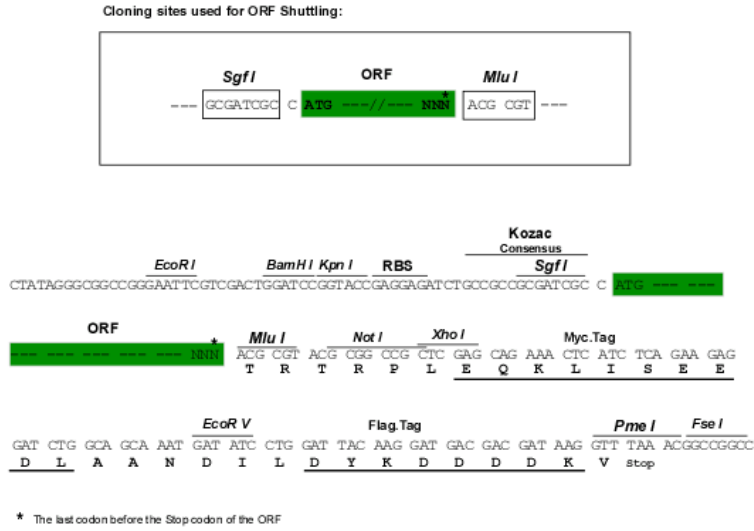
Chromatograms: https://cdn.origene.com/chromatograms/mk6439_b04.zip



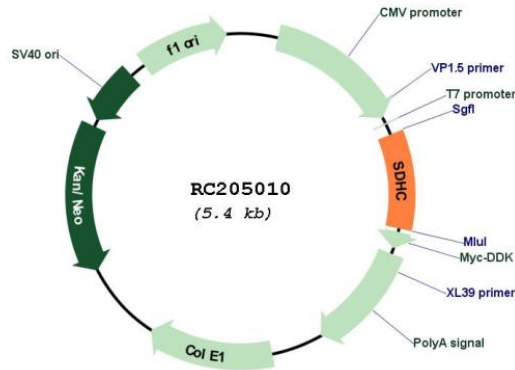
[View online >](#)

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



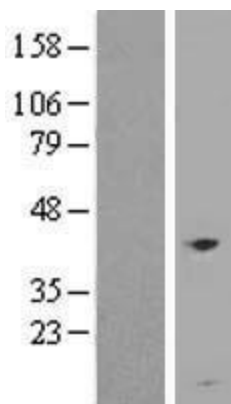
ACCN: NM_003001

ORF Size: 507 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:	<ol style="list-style-type: none">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:	<u>NM_003001.5</u>
RefSeq Size:	2858 bp
RefSeq ORF:	510 bp
Locus ID:	6391
UniProt ID:	<u>Q99643</u>
Cytogenetics:	1q23.3
Domains:	Sdh_cyt
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Alzheimer's disease, Citrate cycle (TCA cycle), Huntington's disease, Metabolic pathways, Oxidative phosphorylation, Parkinson's disease
MW:	18.6 kDa
Gene Summary:	This gene encodes one of four nuclear-encoded subunits that comprise succinate dehydrogenase, also known as mitochondrial complex II, a key enzyme complex of the tricarboxylic acid cycle and aerobic respiratory chains of mitochondria. The encoded protein is one of two integral membrane proteins that anchor other subunits of the complex, which form the catalytic core, to the inner mitochondrial membrane. There are several related pseudogenes for this gene on different chromosomes. Mutations in this gene have been associated with paragangliomas. Alternatively spliced transcript variants have been described. [provided by RefSeq, May 2013]

Product images:

Western blot validation of overexpression lysate (Cat# [LY418956]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205010 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).