

Product datasheet for **RC200603**

SART1 (NM_005146) Human Tagged ORF Clone

Product data:

| | |
|--------------------|---|
| Product Type: | Expression Plasmids |
| Product Name: | SART1 (NM_005146) Human Tagged ORF Clone |
| Tag: | Myc-DDK |
| Symbol: | SART1 |
| Synonyms: | Ara1; HAF; HOMS1; SART1259; SNRNP110; Snu66 |
| Vector: | pCMV6-Entry (PS100001) |
| E. coli Selection: | Kanamycin (25 ug/mL) |
| Cell Selection: | Neomycin |



[View online »](#)

ORF Nucleotide Sequence:

>RC200603 representing NM_005146
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGGGTCGTCCAAGAAGCATCGCGGAGAGAAGGAGGCGGCCGGGACGACGGCGGCCGGCCGACCGGGG
 GTGCCACCGAGCAGCCGCGCGGCACCGGAACACAAAAACACAAGCACCGGAGTGGCGCAGTGGCGG
 TAGCGGTGGCGAACGACGGAAGCGGAGCCGGGAACGTGGGGGCGAGCGCGGAGCGGGCGCGGGGCC
 GAAGCTGAGGCCCGGAGCAGCACGCACGGGCGGGAGCGCAGCCAGGCAGAGCCCTCCGAGCGGCGGTGA
 AGCGGGAGAAGCGCATGACGGCTACGAGGCCGCTGCCAGCTCCAAAAGTCTCAGGCGATGCCTCCTC
 ACTCAGCATCGAGGAGACTAACAACTCCGGGCAAAGTTGGGGCTGAAACCCTTGAGGTTAATGCCATC
 AAGAAGGAGGCGGCCACCAAGGAGGAGCCCGTGACAGCTGATGTCATCAACCCTATGGCCTTGCACAGC
 GAGAGGAGCTGCGGGAGAAGCTGGCGGTGCCAAGGAGAAGCGCCTGCTGAACAAAAGCTGGGGAAGAT
 AAAGACCTAGGAGAGGATGACCCTGGCTGGACGACACTGCAGCCTGGATCGAGAGGAGCCGGCAGCTG
 CAGAAGGAGAAGGACCTGGCAGAGAAGAGGGCCAAAGTACTGGAGGAGATGGACCAAGAGTTTGGTGCA
 GCACTCTGGTGGAGGAGGAGTTCGGGCAGAGGCCGAGGACCTGTACAGTGCCCGGGACCTGCAGGGCCT
 CACCGTGGAGCATGCCATTGATTCTTCCGAGAAGGGGAGACAATGATTCTTACCCTCAAGGACAAAAGGC
 GTGCTGCAGGAGGAGGAGGACGTGCTGGTGAACGTGAACCTGGTGGATAAGGAGCGGGCAGAGAAAAATG
 TGGAGCTGCGGAAGAAGAAGCCTGACTACCTGCCTATGCCGAGGACGAGAGCGTGGACGACCTGGCGCA
 GCAAAAACCTCGCTCTATCCTGTCCAAGTATGACGAAGAGCTTGAAGGGGAGCGGCCACATTCCTCCGC
 TTGGAGCAGGGCCGACGGCTGATGGCCTGCGGGAGCGGGAGCTGGAGGAGATCCGGGCCAAGCTGCGGC
 TGCAGGCTCAGTCCCTGAGCACAGTGGGGCCCGGCTGGCTCCGAATACCTCACGCTGAGGAGATGGT
 GACCTTTAAAAAGACCAAGCGGAGGGTGAAGAAAATCCGCAAGAAGGAGAAGGAGGTAGTAGTGCGGGCA
 GATGACTTGTGCTCTCGGGGACCAGACTCAGGATGGGACTTTGGTTCAGACTGCGGGGACGGGGTTC
 GCCGCCGAGTGTCCGAAGTGGAGGAGGAGAAGGAGCCTGTGCCTCAGCCCTGCCGTGCGACGACCCCG
 AGTGGAGAACATGGACATCAGTGATGAGGAGGAAGGTGGAGCTCCACCGCGGGTCCCCGAGGTGCTG
 GAGGAGGACGAGGCGGAGCTGGAGCTGCAGAAGCAGCTGGAGAAGGACGCGGCTGCGACAGTTACAGC
 AGCTACAGCAGCTGCGAGACAGTGGCGAGAAGGTGGTGGAGATTGTGAAGAAGCTGGAGTCTCGCCAGCG
 GGGCTGGGAGGAGGATGAGGATCCCGAGCGGAAGGGGCCATCGTGTCAACGCCACGTCAGGTTCTGC
 CGCACCTTGGGGGAGATCCACCTACGGGCTGGCTGGCAATCGCGAGGAGCAGGAGGAGCTCATGGACT
 TTGAACGGGATGAGGAGCGCTCAGCCAACGGTGGCTCCGAATCTGACGGGAGGAGAACATCGGCTGGAG
 CACGGTGAACCTGGACGAGGAGAAGCAGCAGCAGGATTTCTGTCTTCTCCACCACCATCTGGACGAG
 GAACCGATCGTGAATAGGGGGCTGGCAGCTGCCCTGCTCCTGTGTGAGAACAAAGGGCTGCTGGAGACCA
 CAGTGCAGAAGGTGGCCCGGTGAAGGCCCCCAACAAGTCTGCTGCCCTCAGCCGTGACTGCATCGAGGA
 TAAGATGGCCATCGATGACAAGTACAGCCGGAGGGAGGAATACCGAGGCTTACACAGGACTTCAAGGAG
 AAGGACGGCTACAAACCCGACGTTAAGATCGAATACGTGGATGAGACGGGCCGAAACTCACACCAAGG
 AGGCTTTCCGGCAGCTGTCGACCGCTTCCATGGCAAGGGCTCAGGCAAGATGAAGACAGAGCGGGCAGT
 GAAGAAGCTGGACGAGGAGGCGCTCCTGAAGAAGATGAGCTCCAGCGACACGCCCTGGGCACCGTGGCC
 CTGCTCCAGGAGAAGCAGAAGGCTCAGAAGACCCCTACATCGTGCTCAGCGGCAGCGGCAAGAGCATGA
 ACGCGAACACCATCACCAAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC200603 representing NM_005146
Red=Cloning site Green=Tags(s)

MGSSKKHRGEKEAAGTTAAAGTGGATEQPPRHREHKHKHRSGGSGGGERRKRSRERGGGERGSGRGA
EAEARSSTHGRERSQAEPSEERRVKREKRDDGYEAAASSKTSSGDASSLSIEETNKLRAKLGKPLEVNAI
KKEAGTKEEPVTADVINPMALRQREELREKLA AAKEKRLLNQLGKIKTLGEDDPWLDATAAWIERSRQL
QKEKDLAEKRAKLEEMDQEFVSTLVEEEFGQRRQDLYSARDLQGLTVEHAIDSFREGETMILTLDKDG
VLQEEEDVLVNVNLDKERAENVELRKKKPDYLPYAEDESVDLAQKQPRISILSKYDEELEGEPHSFR
LEQGGTADGLRERELEEIRAKLRLQAQSLSTVGPRLASEYLTPEEMVTFKTKRRVKKIRKKEKEVVVRA
DDLLPLGDQTQDGFGRRLRGRRRRVSEVEEKEPVPQPLPSDDTRVENMDISDEEEGGAPPGSPQVL
EEDEAELELQKLEKGRRLRQLQQLRDSGEKVVEIVKKLESRQRGWEEDEDPERKGAIVFNATSEFC
RTLGEIPTYGLAGNREEQEELMDFERDEERSANGGSESDGEENIGWSTVNLDEEKQQQDF SASSTILDE
EPIVNRGLAAALLLCQNKGLLETTVQKVARVKAPNKSLPSAVYCIEDKMAIDDKYSRREEYRGFTQDFKE
KDGYPKPVKIEYVDETGKRLTPKEAFRQLSHRFHGKSGKMKTERRMKKLDEEALLKKMSSSDTPLGTVA
LLQEKQKAQKTPYIVLSGSGKSMNANTITK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8079_d01.zip

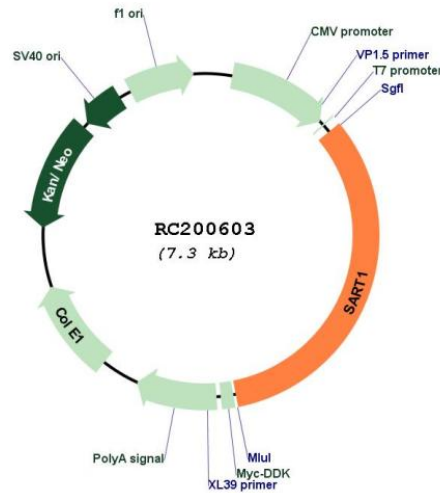
Restriction Sites: Sgfl-Mlul

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

Plasmid Map:


ACCN: NM_005146

ORF Size: 2400 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:

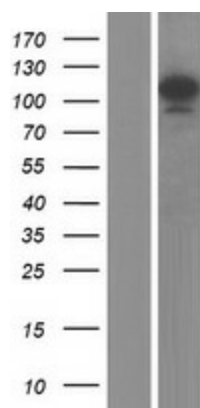
1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store 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_005146.5](#)

| | |
|-------------------|------------------------|
| RefSeq Size: | 3601 bp |
| RefSeq ORF: | 2403 bp |
| Locus ID: | 9092 |
| UniProt ID: | O43290 |
| Cytogenetics: | 11q13.1 |
| Domains: | SART-1 |
| Protein Pathways: | Spliceosome |
| MW: | 90.7 kDa |

Gene Summary: This gene encodes two proteins, the SART1(800) protein expressed in the nucleus of the majority of proliferating cells, and the SART1(259) protein expressed in the cytosol of epithelial cancers. The SART1(259) protein is translated by the mechanism of -1 frameshifting during posttranscriptional regulation; its full-length sequence is not published yet. The two encoded proteins are thought to be involved in the regulation of proliferation. Both proteins have tumor-rejection antigens. The SART1(259) protein possesses tumor epitopes capable of inducing HLA-A2402-restricted cytotoxic T lymphocytes in cancer patients. This SART1(259) antigen may be useful in specific immunotherapy for cancer patients and may serve as a paradigmatic tool for the diagnosis and treatment of patients with atopy. The SART1(259) protein is found to be essential for the recruitment of the tri-snRNP to the pre-spliceosome in the spliceosome assembly pathway. [provided by RefSeq, Jul 2008]

Product images:



Western blot validation of overexpression lysate (Cat# [LY417488]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200603 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).