

## Product datasheet for **RC227720**

### **SIRT1 (NM\_001142498) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	SIRT1 (NM_001142498) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SIRT1
Synonyms:	SIR2; SIR2alpha; SIR2L1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>RC227720 representing NM\_001142498  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGTTTGATATTGAATATTTTCAGAAAAGATCCAAGACCATTCTTCAAGTTTGCAAAGGAAATATATCCTG  
 GACAAATCCAGCCATCTCTCTGTCAAAATTCATAGCCTTGTCAGATAAGGAAGGAAAACACTCTCGCAA  
 CTATACCCAGAACATAGACACGCTGGAACAGGTTGCGGGAATCCAAGGATAATTCAGTGCATGGTTCC  
 TTTGCAACAGCATCTTGCTGATTTGTAATAACAAAGTTGACTGTGAAGCTGTACGAGGAGATATTTTAA  
 ATCAGGTAGTTCCTCGATGTCCTAGGTGCCAGCTGATGAACCGCTTGCTATCATGAAACAGAGATTGT  
 GTTTTTGGTGAAAATTTACCAGAACAGTTTCATAGAGCCATGAAGTATGACAAAGATGAAGTTGACCTC  
 CTCATTGTTATTGGTCTTCCCTCAAAGTAAGACCAGTAGCACTAATCCAAGTCCATACCCCATGAAG  
 TGCCCTCAGATATTAATTAATAGAGAACCTTTGCCTCATCTGCATTTTGTAGAGCTTCTGGAGACTG  
 TGATGTCATAATTAATGAATTGTGCATAGGTTAGGTGGTGAATATGCCAACTTTGCTGTAACCCGTGA  
 AAGCTTTCAGAAATTAAGTAAAACTCCACGAACACAAAAAGAATTGGCTTATTTGTCAGAGTTGCCAC  
 CCACACCTCTTATGTTTCAGAAGACTCAAGTTCACCAGAAAGAACTTCACCACCAGATTCTTCAGTGAT  
 TGTCACTTTTAGACCAAGCAGCTAAGAGTAATGATGATTTAGATGTGTCTGAATCAAAAGGTTGTATG  
 GAAGAAAAACACAGGAAGTACAACTTCTAGGAATGTTGAAAGTATTGCTGAACAGATGAAAAATCCGG  
 ATTTGAAGAAATGTTGGTTCTAGTACTGGGGAGAAAAATGAAAGAACTTCAGTGGCTGGAACAGTGAGAAA  
 ATGCTGGCCTAATAGAGTGGCAAAGGAGCAGATTAGTAGCGGCTTGATGGTAATCAGTATCTGTTTTG  
 CCACCAATCGTTACATTTCCATGGCGCTGAGGTATATTCAGACTCTGAAGATGACGTCTTATCCTCTA  
 GTTCTTGTGGCAGTAACAGTGATAGTGGGACATGCCAGAGTCCAAGTTTGAAGAACCCTGGAGGATGA  
 AAGTGAATTAAGAAATTTACAATGGCTTAGAAGATGAGCCTGATGTTCCAGAGAGAGCTGGAGGAGCT  
 GGATTTGGGACTGATGGAGATGATCAAGAGCAATTAATGAAGCTATATCTGTGAAACAGGAAGTAACAG  
 ACATGAATATCCATCAAAACAATCA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC227720 representing NM\_001142498  
 Red=Cloning site Green=Tags(s)

MFDIEYFRKDPFPFFKFAKEIYPGQFQPSLCHKFIALSDKEGKLLRNYTQNIIDTLEQVAGIQRIIQCHGS  
 FATASCLICKYKVDCEAVRGDIFNQVPRCPAEPALIMKPEIVFFGENLPEQFHRAMKYDKDEVLDL  
 LIVIGSSLKVRPVALIPSSIPHEVPQILINREPLPHLHFDVELLGDVDVIELCHRLGGEYAKLCCNPV  
 KLSEITEKPPRTQKELAYLSELPTPLHVEDSSPERTSPPDSSVIVTLLDQAASNDLDVSESKGCM  
 EEKPQEVQTSRNVESIAEQMENPDLKNVGSSTGEKNERTSVAGTVRKCPNRVAKEQISRRLDGNQYLFL  
 PPNRYIFHGAEVYSDSEDDVLSSSSCGNSDSGTCQSPSLEEPMEDESEIEEFYNGLEDEPDVPERAGGA  
 FFGTDGDDQEAINEAISVKQEVTDMMNYPNKS

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/ja1930\\_b03.zip](https://cdn.origene.com/chromatograms/ja1930_b03.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_001142498

**ORF Size:** 1356 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](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.

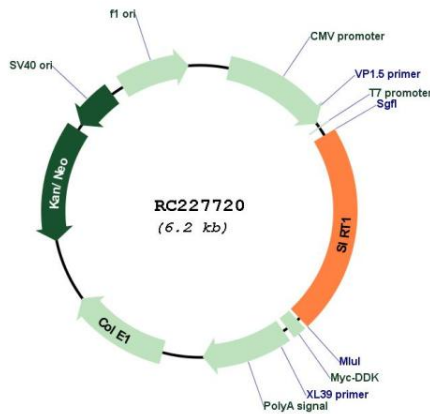
**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- 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\\_001142498.1](#), [NP\\_001135970.1](#)  
**RefSeq ORF:** 1359 bp  
**Locus ID:** 23411  
**UniProt ID:** [Q96EB6](#)  
**Cytogenetics:** 10q21.3  
**Protein Families:** Druggable Genome, Stem cell - Pluripotency, Transcription Factors  
**MW:** 50.3 kDa

**Gene Summary:** This gene encodes a member of the sirtuin family of proteins, homologs to the yeast Sir2 protein. Members of the sirtuin family are characterized by a sirtuin core domain and grouped into four classes. The functions of human sirtuins have not yet been determined; however, yeast sirtuin proteins are known to regulate epigenetic gene silencing and suppress recombination of rDNA. Studies suggest that the human sirtuins may function as intracellular regulatory proteins with mono-ADP-ribosyltransferase activity. The protein encoded by this gene is included in class I of the sirtuin family. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Dec 2008]

### Product images:



Circular map for RC227720