

## Product datasheet for **SC325096**

### SIRT1 (NM\_001142498) Human Untagged Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** SIRT1 (NM\_001142498) Human Untagged Clone  
**Tag:** Tag Free  
**Symbol:** SIRT1  
**Synonyms:** SIR2; SIR2alpha; SIR2L1  
**Mammalian Cell Selection:** None  
**Vector:** pCMV6-XL4  
**E. coli Selection:** Ampicillin (100 ug/mL)

**Fully Sequenced ORF:** >OriGene ORF sequence for NM\_001142498 edited  
 ATGTTTGATATTGAATATTTTCAGAAAAGATCCAAGACCATTCTTCAAGTTTGCAAAGGAA  
 ATATATCCTGGACAATCCAGCCATCTCTGTGCACAAATTCATAGCCTTGTGAGATAAG  
 GAAGGAAAACACTTTCGCAACTATACCCAGAACATAGACACGCTGGAACAGGTTGCGGGA  
 ATCCAAAGGATAATTCAGTGTATGTTTCTTTGCAACAGCATCTTGCCTGATTTGTAAA  
 TACAAAGTTGACTGTGAAGCTGTACGAGGAGATATTTTAAATCAGGTAGTTCTCGATGT  
 CCTAGGTGCCAGCTGATGAACCGCTTGTATCATGAAACCAGAGATTGTGTTTTTGGT  
 GAAAATTTACCAGAACAGTTTCATAGAGCCATGAAGTATGACAAAGATGAAGTTGACCTC  
 CTCATTGTTATTGGTCTTCCCTCAAAGTAAGACCAGTAGCACTAATCCAAGTTCCATA  
 CCCCATGAAGTGCCTCAGATATTAATTAATAGAGAACCTTTGCCTCATCTGCATTTTGT  
 GTAGAGCTTCTTGAGACTGTGATGTCATAATTAATGAATTGTGTCATAGTTAGGT:GG  
 TGAATATGCCAAACTTTGCTGTAACCCTGTAAAGCTTTCAGAAATTAAGTAAAAACCTCC  
 ACGAACACAAAAAGAATTGGCTTATTTGTGAGAGTTGCCACCCACACCTTTCATGTTTC  
 AGAAGACTCAAGTTCACCAGAAAGAACTTCACCACCAGATTCTTCAGTGATTGTCACACT  
 TTTAGACCAAGCAGCTAAGAGTAATGATGATTTAGATGTGTCTGAATCAAAGGTTGTAT  
 GGAAGAAAAACCACAGGAAGTACAACTTCTAGGAATGTTGAAAGTATTGCTGAACAGAT  
 GGAAAAATCCGGATTTGAAGAATGTTGGTTCTAGTACTGGGAGAAAAATGAAAGAACTTC  
 AGTGGCTGGAACAGTGAGAAAAATGCTGGCCTAATAGAGTGGCAAAGGAGCAGATTAGTAG  
 GCGGCTTGATGGTAATCAGTATCTGTTTTTGGCCACAAATCGTTACATTTTCCATGGCGC  
 TGAGGTATATTCAGACTCTGAAGATGACGTCTTATCCTCTAGTTCTTGTGGCAGTAACAG  
 TGATAGTGGGACATGCCAGAGTCCAAGTTTGAAGAACCATGGAGGATGAAAGTGAAAT  
 TGAAGAATTCTACAATGGCTTAGAAGATGAGCCTGATGTTCCAGAGAGAGCTGGAGGAGC  
 TGGATTTGGGACTGATGGAGATGATCAAGAGGCAATTAATGAAGCTATATCTGTGAAACA  
 GGAAGTAACAGACATGAACTATCCATCAAACAAATCATAG

**Restriction Sites:** Please inquire



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<b>ACCN:</b>	NM_001142498
<b>Insert Size:</b>	3600 bp
<b>OTI Disclaimer:</b>	<p>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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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. <a href="#">More info</a></p>
<b>OTI Annotation:</b>	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<u><a href="#">NM_001142498.1</a></u> , <u><a href="#">NP_001135970.1</a></u>
<b>RefSeq Size:</b>	3604 bp
<b>RefSeq ORF:</b>	1359 bp
<b>Locus ID:</b>	23411
<b>UniProt ID:</b>	<u><a href="#">Q96EB6</a></u>
<b>Cytogenetics:</b>	10q21.3
<b>Protein Families:</b>	Druggable Genome, Stem cell - Pluripotency, Transcription Factors

**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]

Transcript Variant: This variant (2) contains an alternate in-frame exon in the 5' coding region and uses a downstream start codon, compared to variant 1. Isoform b has a shorter N-terminus, compared to isoform a.