

## Product datasheet for RC217770

### SIRT3 (NM\_001017524) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	SIRT3 (NM_001017524) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SIRT3
Synonyms:	SIR2L3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC217770 representing NM_001017524 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCGTTCTGGGGTTGGCGCGCCGCGGCAGCCCTCCGGCTGTGGGGCCGGGTAGTTGAACGGTTCGAGG  
CCGGGGGAGGCGTGGGGCCGTTTCAGGCCCTGCGGCTGTCGGTGGTGCTTGGCGGCAGGGACGATGTGAG  
TGCGGGGCTGAGAGGCAGCCATGGGGCCGCGGTGAGCCCTTGGACCCGGCGGCCCTTGCAGAGGCCCT  
CCCAGACCCGAGGTGCCAGGGCATTCCGAGGCAGCCGAGGGCAGCAGCTCCAGTTTCTTCTTTTCGA  
GTATTAAGGTGGAAGAAGTCCATATCTTTTTCTGTGGTGCTCAAGTGTGTTGGAAGTGGAGGCAG  
CAGTGACAAGGGGAAGCTTCCCTGCAGGATGTAGCTGAGCTGATTCGGGCCAGAGCCTGCCAGAGGGTG  
GTGGTCATGGTGGGGCCGGCATCAGCACACCCAGTGGCATTCCAGACTTCAGATCGCCGGGAGTGGCC  
TGTACAGCAACCTCCAGCAGTACGATCTCCCGTACCCGAGGCCATTTTTGAACTCCCATTTCTTTTCA  
CAACCCCAAGCCCTTTTCACTTTGGCCAAGGAGCTGTACCCTGGAACTACAAGCCCAACGTCACCTCAC  
TACTTTCTCCGGCTGCTTCATGACAAGGGGCTGCTTCTGCGGCTCTACACGCAGAACATCGATGGGCTTG  
AGAGAGTGTGGGCATCCCTGCCTCAAAGCTGGTTGAAGCTCATGGAACCTTTCCTCTGCCACCTGCAC  
AGTCTGCCAAAGACCTTCCCAGGGGAGGACATTCGGGCTGACGTGATGGCAGACAGGGTTCCCCGCTGC  
CCGGTCTGCACCCGGCTTGTGAAGCCCGACATTGTGTTCTTTGGGGAGCCGCTGCCCCAGAGGTTCTTGC  
TGATGTGGTTGATTTCCCATGGCAGATCTGCTGCTCATCCTTGGGACCTCCCTGGAGGTGGAGCCTTT  
TGCCAGCTTGACCGAGGCGTGGCGAGCTCAGTTCCCGACTGCTCATCAACCGGACTTGGTGGGGCCC  
TTGGCTTGGCATCCTCGCAGCAGGGACGTGGCCAGCTGGGGACGTGGTTACGGCGTGGAAAGCCTAG  
TGGAGCTTCTGGGCTGGACAGAAGAGATGCGGGACCTTGTGCAGCGGAAACTGGGAAGCTTGTGGACC  
AGACAAA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



**Protein Sequence:** >RC217770 representing NM\_001017524  
 Red=Cloning site Green=Tags(s)

MAFWGWRAAAALRLWGRVVERVEAGGGVGPFFQACGCRLLVGGRRDVSAGLRGSHGARGEPLDPARPLQRP  
 PRPEVPRAFRRQPRAAAPSFSSSIKGGRRSISFSVSGASSVVGSGSSDKGKLSLQDVAELIRARACQRV  
 VVMVGAGISTPSGIPDFRSPGSLYNSLQQYDLPYPEAIFELPFFHNPFPFFTLAKELYPGNYKPNVTH  
 YFLRLLHDKGLLLRLYTQNIIDGLERVSIGIPASKLVEAHGTFASATCTVCQRPFPFGEDIRADVMADRVPRC  
 PVCTGVVCPDIVFFGEPLPQRFLLHVVDVFPMDLLLLILGTSLEVEPFASL TEAVRSSVPRLLINRDLVGP  
 LAWHPRSRDVAQLGDVVHGVESLVELLGWTEEMRDLVQRETGKLDGDPDK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_001017524

**ORF Size:** 1197 bp

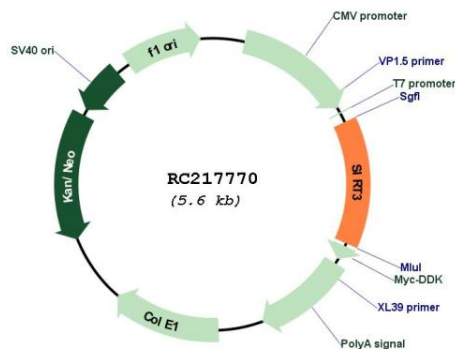
**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of 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.

<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_001017524.1</a></u> , <u><a href="#">NM_001017524.2</a></u> , <u><a href="#">NP_001017524.1</a></u>
<b>RefSeq Size:</b>	2773 bp
<b>RefSeq ORF:</b>	774 bp
<b>Locus ID:</b>	23410
<b>UniProt ID:</b>	<u><a href="#">Q9NTG7</a></u>
<b>Cytogenetics:</b>	11p15.5
<b>Protein Families:</b>	Druggable Genome, Transcription Factors
<b>MW:</b>	43.6 kDa
<b>Gene Summary:</b>	SIRT3 encodes a member of the sirtuin family of class III histone deacetylases, homologs to the yeast Sir2 protein. The encoded protein is found exclusively in mitochondria, where it can eliminate reactive oxygen species, inhibit apoptosis, and prevent the formation of cancer cells. SIRT3 has far-reaching effects on nuclear gene expression, cancer, cardiovascular disease, neuroprotection, aging, and metabolic control. [provided by RefSeq, May 2019]

### Product images:



Circular map for RC217770