

## Product datasheet for **RG217770**

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

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** SIRT3 (NM\_001017524) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** SIRT3  
**Synonyms:** SIR2L3  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG217770 representing NM\_001017524  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCCGATCGCC

ATGGCGTTCTGGGGTTGGCGCGCCGCGGCAGCCCTCCGGCTGTGGGGCCGGGTAGTTGAACGGGTCGAGG  
 CCGGGGGAGGCGTGGGGCCGTTTCAGGCCCTGCGGCTGTCGGTGGTGCTTGGCGGCAGGGACGATGTGAG  
 TGCGGGGCTGAGAGGCAGCCATGGGGCCGCGGTGAGCCCTTGGACCCGGCGGCCCTTGCAGAGGCCCT  
 CCCAGACCCGAGGTGCCAGGGCATTCCGAGGCAGCCGAGGGCAGCAGCTCCAGTTTCTTCTTTTCGA  
 GTATTAAGGTGGAAGAAGGTCCATATCTTTTTCTGTGGGTGCTCAAGTGTGTTGGAAGTGGAGGCAG  
 CAGTGACAAGGGGAAGCTTTCCCTGCAGGATGTAGCTGAGCTGATTCGGGCCAGAGCCTGCCAGAGGGTG  
 GTGGTCATGGTGGGGCCGGCATCAGCACACCCAGTGGCATTCCAGACTTCAGATCGCCGGGGAGTGGCC  
 TGTACAGCAACCTCCAGCAGTACGATCTCCCGTACCCGAGGCCATTTTTGAACTCCCATTCTTCTTTCA  
 CAACCCCAAGCCCTTTTTCACTTTGGCCAAGGAGCTGTACCCTGGAACTACAAGCCCAACGTCACCTCAC  
 TACTTTCTCCGGCTGCTTCATGACAAGGGGCTGCTTCTGCGGCTCTACACGCAGAACATCGATGGGCTTG  
 AGAGAGTGTGGGCATCCCTGCCTCAAAGCTGGTTGAAGCTCATGGAACCTTTGCCTCTGCCACCTGCAC  
 AGTCTGCCAAAGACCCTTCCCAGGGGAGGACATTCGGGCTGACGTGATGGCAGACAGGGTTCCCCGCTGC  
 CCGGTCTGCACCCGGCTTGTGAAGCCGACATTGTGTTCTTTGGGAGCCGCTGCCCCAGAGGTTCTTGC  
 TGCATGTGGTTGATTTCCCATGGCAGATCTGCTGCTCATCCTTGGGACCTCCCTGGAGGTGGAGCCTTT  
 TGCCAGCTTGACCGAGGCGGTGCGGAGCTCAGTTCCCGACTGCTCATCAACCGGACTTGGTGGGGCCC  
 TTGGCTTGGCATCCTCGCAGCAGGGACGTGGCCAGCTGGGGACGTGGTTACGGCGTGGAAAGCCTAG  
 TGGAGCTTCTGGGCTGGACAGAAGAGATGCGGGACCTTGTGCAGCGGAAACTGGGAAGCTTGATGGACC  
 AGACAAA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG217770 representing NM\_001017524  
 Red=Cloning site Green=Tags(s)

MAFWGWRAAAALRLWGRVVERVEAGGGVGPFGACGCRLLVGGRRDVSAGLRGSHGARGEPLDPARPLQRP  
 PRPEVPRAFRRQPRAAAPSSFFSSIKGRRRSISFSVSGASSVVGSGSSDKGKLSLQDVAELIRARACQRV  
 VVMVGAGISTPSGIPDFRSPGSLYNSLQQYDLPYPEAIFELPFFHNPFPFFTLAKELYPGNYKPNVTH  
 YFLRLLHDKGLLLRLYTQNIIDGLERVSIGIPASKLVEAHGTFASATCTVCQRPFPGEDIRADVMADRVPRC  
 PVCTGVVKPDIIVFFGEPLPQRFLHVVDFPMADLLLILGTSLEVEPFASL TEAVRSSVPRLLINRDLVGP  
 LAWHPRSRDVAQLGDVVHGVESLVELLGWTEEMRDLVQRETGKLDGPK

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001017524

**ORF Size:** 1200 bp

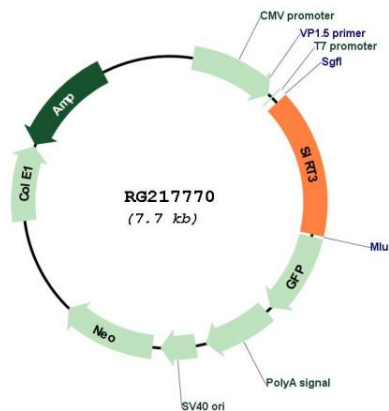
**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of 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>NM_001017524.1, NP_001017524.1</u>
<b>RefSeq Size:</b>	2773 bp
<b>RefSeq ORF:</b>	774 bp
<b>Locus ID:</b>	23410
<b>UniProt ID:</b>	<u>Q9NTG7</u>
<b>Cytogenetics:</b>	11p15.5
<b>Protein Families:</b>	Druggable Genome, Transcription Factors
<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 RG217770