

Product datasheet for RC200190

SIRT3 (NM_012239) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SIRT3 (NM_012239) 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:	>RC200190 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGTTCTGGGGTTGGCGCGCCGCGGCAGCCCTCCGGCTGTGGGGCCGGGTAGTTGAACGGGTCGAGG
CCGGGGGAGGCGTGGGGCCGTTTCAGGCCCTGCGGCTGTCGGTGGTGCTTGGCGGCAGGGACGATGTGAG
TGCGGGGCTGAGAGGCAGCCATGGGGCCGCGGTGAGCCCTTGGACCCGGCGGCCCTTGCAGAGGCT
CCCAGACCCGAGGTGCCAGGGCATTCCGAGGCAGCCGAGGGCAGCAGCTCCAGTTTCTTCTTTTCGA
GTATTAAGGTGGAAGAAGTCCATATCTTTTTCTGTGGTGCTCAAGTGTGTTGGAAGTGGAGGCAG
CAGTGACAAGGGGAAGCTTCCCTGCAGGATGTAGCTGAGCTGATTCGGGCCAGAGCCTGCCAGAGGGTG
GTGGTCATGGTGGGGCCGGCATCAGCACACCCAGTGGCATTCCAGACTTCAGATCGCCGGGAGTGGCC
TGTACAGCAACCTCCAGCAGTACGATCTCCCGTACCCGAGGCCATTTTTGAACTCCCATTCTTCTTTCA
CAACCCCAAGCCCTTTTTCACTTTGGCCAAGGAGCTGTACCCTGGAAACTACAAGCCCAACGTCACCTCAC
TACTTTCTCCGGCTGCTTCATGACAAGGGGCTGCTTCTGCGGCTCTACACGCAGAACATCGATGGGCTTG
AGAGAGTGTGGGCATCCCTGCCTCAAAGCTGGTGAAGCTCATGGAACCTTTCCTCTGCCACCTGCAC
AGTCTGCCAAAGACCCTTCCCAGGGGAGGACATTCGGGCTGACGTGATGGCAGACAGGGTCCCCGCTGC
CCGGTCTGCACCCGGCTTGTGAAGCCGACATTGTGTTCTTTGGGAGCCGCTGCCCCAGAGGTTCTTGC
TGATGTGGTTGATTTCCCATGGCAGATCTGCTGCTCATCCTTGGGACCTCCCTGGAGGTGGAGCCTTT
TGCCAGCTTGACCGAGGCGTGGGAGCTCAGTCCCCGACTGCTCATCAACCGGACTTGGTGGGGCCC
TTGGCTTGGCATCCTCGCAGCAGGGACGTGGCCAGCTGGGGACGTGGTTACGGCGTGGAAAGCCTAG
TGGAGCTTCTGGGCTGGACAGAAGAGATGCGGGACCTTGTGCAGCGGAAACTGGGAAGCTTGTGGACC
AGACAAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC200190 protein sequence
Red=Cloning site Green=Tags(s)

MAFWGWRAAAALRLWGRVVERVEAGGGVGPFGACGCRLLVGGRRDVSAGLRGSHGARGEPLDPARPLQRP
 PRPEVPRAFRRQPRAAAPSFSSSIKGGRRSISFSVSGASSVVGSGGSSDKGKLSLQDVAELIRARACQRV
 VVMVGAGISTPSGIPDFRSPGSLYNSLQQYDLPYPEAIFELPFFHNPFPFFTLAKELYPGNYKPNVTH
 YFLRLLHDKGLLLRLYTQNIIDGLERLVSGIPASKLVEAHGTFASATCTVCQRPFGEDIRADVMADRVPRC
 PVCTGVVKPDIVFFGEPLPQRFLLHVVDFFPMADLLLILGTSLVEVPPFASL TEAVRSSVPRLLINRDLVGP
 LAWHPRSRDVAQLGDVVHGVESLVELLGWTEEMRDLVQRETGKLDGDPDK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6078_a11.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

ACCN: NM_012239

ORF Size: 1197 bp

OTI Disclaimer: 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_012239.6](#)

RefSeq Size: 2919 bp

RefSeq ORF: 1200 bp

Locus ID: 23410

UniProt ID: [Q9NTG7](#)

Cytogenetics: 11p15.5

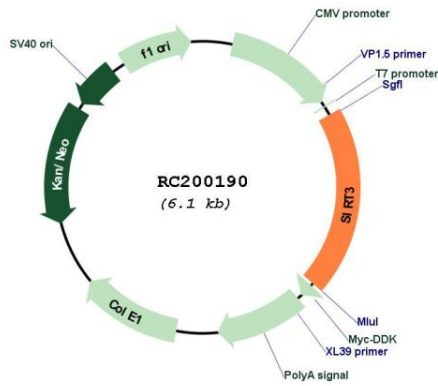
Domains: SIR2

Protein Families: Druggable Genome, Transcription Factors

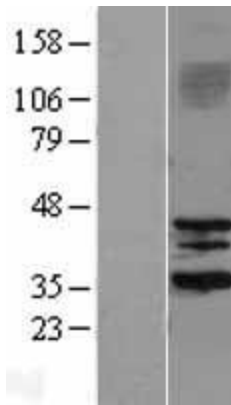
MW: 43.6 kDa

Gene Summary: 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 RC200190



Western blot validation of overexpression lysate (Cat# [LY402174]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200190 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).