

## Product datasheet for RC212226

### SIRT4 (NM\_012240) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	SIRT4 (NM_012240) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SIRT4
Synonyms:	SIR2L4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC212226 representing NM_012240 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGAAGATGAGCTTTGCGTTGACTTTCAGGTCAGCAAAGGCCGTTGGATCGCAAACCCAGCCAGCCGT  
GCTCGAAAGCCTCATTGGGTTATTTGTGCCAGCAAGTCTCTCTGGACCCTGAGAAGGTCAAAGAGTT  
ACAGCGTTCATCACCTTTCCAAGAGACTCCTTGATGACTGGGGCAGGAATCTCCACGAATCGGG  
ATACCAGACTACAGGTCAGAAAAAGTGGGGCTTTATGCCCGCACTGACCGCAGGCCATCCAGCATGGT  
ATTTTGTCCGGAGTGCCCAATCCGCCAGCGGTACTGGCGGAGAACTTCGTAGGCTGGCCTCAATTCTC  
CTCCACAGCCTAACCTGCACACTGGGCTTTGAGCACCTGGGAGAACTCGGAAAGCTGACTGGTTG  
GTGACCCAAAATGTGGATGCTTTGCACACCAAGCGGGGAGTCGGCGCCTGACAGAGCTCCACGGATGCA  
TGGACAGGGTCTGTGCTTGGATTGTGGGGAACAGACTCCCCGGGGGTGCTGCAAGAGCGTTTCCAAGT  
CCTGAACCCACCTGGAGTGCTGAGGCCATGGCCTGGCTCCTGATGGTGACGTCTTTCTCAGAGGAG  
CAAGTCCGGAGCTTTCAGGTCCAACCTGCGTTCAATGTGGAGGCCATCTGAAACCAGATGTCGTTTTCT  
TCGGGGACACAGTGAACCTGACAAGTTGATTTTGTGCAACAAGCGTGAAAAGAAGCCGACTCCCTCTT  
GGTGGTGGGATCATCCTTGCAAGTATACTCTGGTTACAGGTTTATCCTCACTGCCTGGGAGAAGAAGCTC  
CCGATTGCAATACTGAACATTGGGCCACACGGTCGGATGACTTGGCGTGTCTGAAACTGAATTCGTT  
GTGGAGAGTTGCTGCCTTTGATAGACCCATGC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC212226 representing NM\_012240  
Red=Cloning site Green=Tags(s)

MKMSFALTFRSAKGRWIANPSQPCSKASIGLFVPASPPLDPEKVKELQRFITLSKRLLVMTGAGISTESG  
 IPDYRSEKVGLYARTDRRPIQHGFVRSAPIRQRYWARNFVGWPQFSSHQPNPAHWALSTWEKLGKLYWL  
 VTQNVLDALHTKAGSRRL TELHGCM DRVLCDCGEQTPRGVLQERFQVLLNPTWSAEAHGLAPDGDVFLSEE  
 QVRSFQVPTCVQC GGHLKPDVVFVFGDTVNPDKVDFVHKRVKEADSLLVGSSSLQVYSGYRFLTAWEKKL  
 PIAILNIGPTRSDDLACLKLNRCGELLPLIDPC

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6120\\_h06.zip](https://cdn.origene.com/chromatograms/mk6120_h06.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



**ACCN:** NM\_012240

**ORF Size:** 942 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\\_012240.2](#)

**RefSeq Size:** 1174 bp

**RefSeq ORF:** 945 bp

**Locus ID:** 23409

**UniProt ID:** [Q9Y6E7](#)

**Cytogenetics:** 12q24.23-q24.31

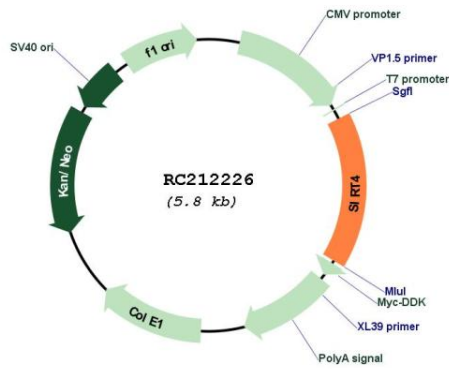
**Domains:** SIR2

**Protein Families:** Druggable Genome, Transcription Factors

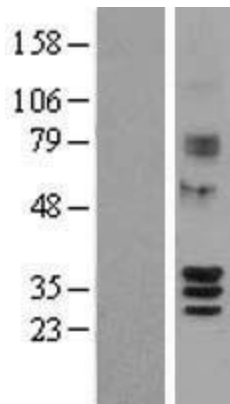
**MW:** 35 kDa

**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 IV of the sirtuin family. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC212226



Western blot validation of overexpression lysate (Cat# [LY402175]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC212226 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).