

Product datasheet for RC200189

SIRT5 (NM_012241) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SIRT5 (NM_012241) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SIRT5
Synonyms:	SIR2L5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC200189 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC

ATGCGACCTCTCCAGATTGTCCCAAGTCGATTGATTTCCAGCTATATTGTGGCCTGAAGCCTCCAGCGTCCACACGAAACCAGATTTGCCTGAAAATGGCTCGGCCAAGTTCAAGTATGGCAGATTTTCGAAAATTTTTGCAAAAGCAAAGCACATAGTCATCATCTCAGGAGCTGGTGTAGTGCAGAAAGTGGTGTCCGACCTTAGAGGAGCTGGAGTTATTGGAGAAAATGGCAAGCCAGGACCTGGCGACTCCCCTGGCCTTTGCCACAACCCGTCGCCGGTGTGGGAGTTCTACCACTACCGCGGGAGGTCATGGGGAGCAAGGAGCCCAACGCCGGGCACCGCCCATAGCCGAGTGTGAGACCCGGCTGGGCAAGCAGGGCCGGCGAGTCGTGGTATCACCCAGAACATCGATGAGCTGCACCGCAAGGCTGGCACCAAGAACCTTCTGGAGATCCATGGTAGCTTATTTAAAACTCGATGTACCTCTTGTGGAGTTGTGGCTGAGAATTACAAGAGTCCAATTTGTCCAGCTTTATCAGGAAAAGGTGCTCCAGAACCTGGAACCTCAAGATGCCAGCATCCCAGTTGAGAAAACCTCCCGGTGTGAAGAGGCAAGCTGCGGGGGCTTGTGCGACCTCATGTCGTGTGTTTGGAGAAAACCTGGATCCTGCCATTCTGGAGGAGGTTGACAGAGAGCTCGCCACTGTGATTTATGTCTAGTGGTGGCACTTCTCTGTGGTGTACCCAGCAGCCATGTTTGCCTCCAGGTGGCTGCCAGGGCGTCCAGTGGCTGAATTTAACACGGAGACCACCCCACTACGAAACAGATTCAGTTTTCATTTCCAGGGACCCTGTGGAACGACTCTTCTGAAGCCCTTGCCTGTCATGAAAATGAAACTGTTTCT

ACGCGTACGCGGCCGCTCGAGCAGAAAACCTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATTACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC200189 protein sequence
Red=Cloning site Green=Tags(s)

MRPLQIVPSRLISQLYCGLKPPASTRNQICLKMARPSSSMADFRKFFAKAKHIVIISGAGVSAESGVPTF
 RGAGGYWRKWQAQDLATPLAFAHNPSRVWEFYHYRREVMGSKEPNAGHRAIAECETRLGKQGRVVITQ
 NIDELHRKAGTKNLLIEHGSLFKTRCTSCGVVAENYKSPICPALSGKGAPEPGTQDASIPVEKLPRCEEA
 GCGGLLRPHVVWFGENLDPAILLEEVDRELAHCDLCLVVGTSVVVYPAAMFAPQVAARGVPVAEFNTETTP
 ATNRRFRHFHQGPCGTTLPEALACHENETVS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6583_c02.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_012241

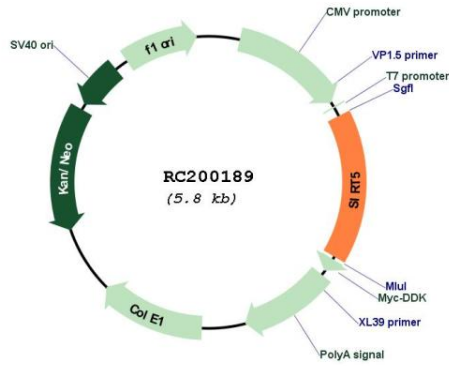
ORF Size: 930 bp

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 or by calling 301.340.3188 option 3 for pricing and delivery.

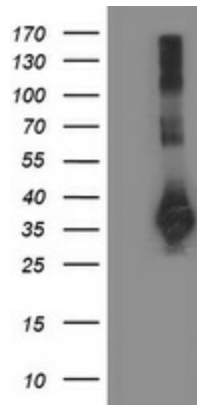
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in 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.
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:	<ol style="list-style-type: none">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_012241.5
RefSeq Size:	4538 bp
RefSeq ORF:	933 bp
Locus ID:	23408
UniProt ID:	Q9NXA8
Cytogenetics:	6p23
Protein Families:	Druggable Genome, Transcription Factors
MW:	33.9 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 III of the sirtuin family. Alternative splicing of this gene results in multiple transcript variants. [provided by RefSeq, Jul 2010]

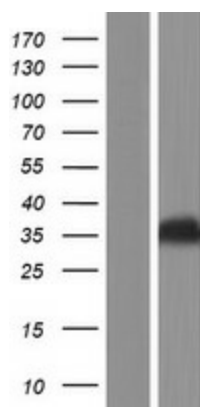
Product images:



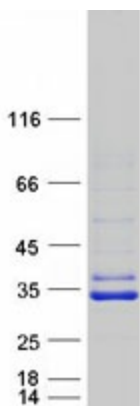
Circular map for RC200189



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY SIRT5 (Cat# RC200189, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-SIRT5 (Cat# [TA503232]). Positive lysates [LY415885] (100ug) and [LC415885] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY415885]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200189 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified SIRT5 protein (Cat# [TP300189]). The protein was produced from HEK293T cells transfected with SIRT5 cDNA clone (Cat# RC200189) using MegaTran 2.0 (Cat# [TT210002]).