

Product datasheet for **RG227720**

SIRT1 (NM_001142498) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SIRT1 (NM_001142498) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SIRT1
Synonyms:	SIR2; SIR2alpha; SIR2L1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG227720 representing NM_001142498
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGTTTGATATTGAATATTTTCAGAAAAGATCCAAGACCATTCTTCAAGTTTGCAAAGGAAATATATCCTG
 GACAAATCCAGCCATCTCTCTGTCAAAATTCATAGCCTTGTCAGATAAGGAAGGAAAACACTTCGCAA
 CTATACCCAGAACATAGACACGCTGGAACAGGTTGCGGGAATCCAAAGGATAATTCAGTGCATGGTTCC
 TTTGCAACAGCATCTTGCTGATTTGTAATAACAAAGTTGACTGTGAAGCTGTACGAGGAGATATTTTAA
 ATCAGGTAGTTCTCGATGTCCTAGGTGCCAGCTGATGAACCGCTTGCTATCATGAAACCAGAGATTGT
 GTTTTTGGTGAAAATTTACCAGAACAGTTTCATAGAGCCATGAAGTATGACAAAGATGAAGTTGACCTC
 CTCATTGTTATTGGGTCTCCCTCAAAGTAAGACCAGTAGCACTAATCCAAGTTCATACCCCATGAAG
 TGCCCTCAGATATTAATTAATAGAGAACCTTTGCCTCATCTGCATTTTGATGTAGAGCTTCTGGAGACTG
 TGATGTCATAATTAATGAATTGTGTCATAGGTTAGGTGGTGAATATGCCAACTTTGCTGTAACCCGTGA
 AAGCTTTCAGAAATTAAGTAAAAACCTCCACGAACACAAAAAGAATTGGCTTATTTGTCAGAGTTGCCAC
 CCACACCTCTTCATGTTTCAGAAGACTCAAGTTCACCAGAAAGAACTTCACCACCAGATTCTTCAGTGAT
 TGTCACTTTTAGACCAAGCAGCTAAGAGTAATGATGATTTAGATGTGCTGAATCAAAGGTTGTATG
 GAAGAAAAACACAGGAAGTACAACTTCTAGGAATGTTGAAAGTATTGCTGAACAGATGGAAAAATCCGG
 ATTTGAAGAAATGTTGGTTCTAGTACTGGGGAGAAAAATGAAAGAACTTCAGTGGCTGGAACAGTGAGAAA
 ATGCTGGCCTAATAGAGTGGCAAAGGAGCAGATTAGTAGCGGCTTGATGGTAATCAGTATCTGTTTTG
 CCACCAATCGTTACATTTCCATGGCGCTGAGGTATATTCAGACTCTGAAGATGACGCTTATCCTCTA
 GTTCTTGTGGCAGTAACAGTGATAGTGGGACATGCCAGAGTCCAAGTTTGAAGAACCATGGAGGATGA
 AAGTGAATTAAGAAATTTACAATGGCTTAGAAGATGAGCCTGATGTTCCAGAGAGAGCTGGAGGAGCT
 GGATTTGGGACTGATGGAGATGATCAAGAGCAATTAATGAAGCTATATCTGTGAAACAGGAAGTAACAG
 ACATGAATATCCATCAAAACAATCA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG227720 representing NM_001142498
 Red=Cloning site Green=Tags(s)

MFDIEYFRKDPFPFFKFAKEIYPGQFQPSLCHKFIALSDKEGKLLRNYTQNIIDTLEQVAGIQRIIQCHGS
 FATASCLICKYKVDCEAVRGDIFNQVPRCPCPADEPLAIMKPEIVFFGENLPEQFHRAMKYDKDEVDL
 LIVIGSSLKVRPVALIPSSIPHEVPQILINREPLPHLHFDVELLGDVDVINELCHRLGGEYAKLCCNPV
 KLSEITEKPPRTQKELAYLSELPPTPLHVSEDSSSPERTSPPDSSVIVTLLDQAAKSNDDL DVSESKGCM
 EEKPQEVQTSRNVESIAEQMENPDLKNVGSSTGEKNERTSVAGTVRKCPNVRVAKEQISRRLDGNQYFL
 PPNRYIFHGAEVYSDSEDDVLSSSSCGSNSDSGTCQSPSLEEPMEDESEIEEFYNGLEDEPDVPERAGGA
 FGFTDGGDDQEAINEAISVKQEVDMNYP SNKS

TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: NM_001142498

ORF Size: 1356 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:**
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.

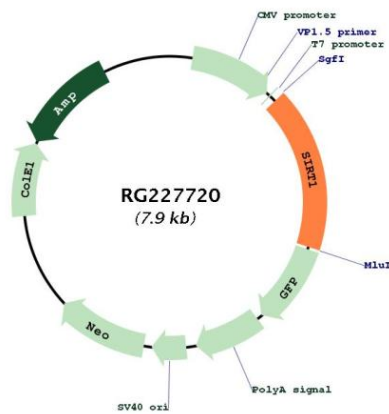
RefSeq: [NM_001142498.1](#), [NP_001135970.1](#)

RefSeq Size: 3604 bp
 RefSeq ORF: 1359 bp
 Locus ID: 23411
 UniProt ID: [Q96EB6](#)
 Cytogenetics: 10q21.3

Protein Families: Druggable Genome, Stem cell - Pluripotency, Transcription Factors

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 I of the sirtuin family. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Dec 2008]

Product images:



Circular map for RG227720