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Product datasheet for MG203221

Sirt7 (NM_153056) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Sirt7 (NM_153056) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Sirt7
Synonyms:	MGC31235; MGC37560
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>MG203221 representing NM_153056
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGAGCATCACCCGTTTGCATGAGCAAAAGCTGGTGCAACACGTGGTGTCTCAGAACTGTGATGGGCTCC
ACCTGCGGAGTGGGTTGCCCCGGACCGCCATCTCAGAGCTCCATGGGAATATGTATATTGAAGTCTGCAC
CTCCTGCATCCCTAACAGAGAGTATGTACGAGTGTTTGATGTGACTGAGCGTACTGCCCTTCACCGACAC
CTGACAGGCCGGACCTGCCACAAGTGCGGGACCCAGCTTCGGGATACCATTGTGCACTTTGGGGAGAGGG
GGACATTAGGGCAGCCTCTGAACTGGGAGGCAGCGACCGAGGCTGCTAGCAAAGCAGACACAATCCTGTG
TTTAGGGTCCAGCTTGAAGGTACTAAAGAAATATCCCCGCCTCTGGTGCATGACGAAGCCTCCAAGCCGT
CGACCCAAACTCTACATCGTGAACCTGCAGTGGACCCCGAAGGATGACTGGGCTGCCCTGAAACTCCATG
GGAAGTGTGATGATGTCATGCAACTCCTCATGAATGAACTGGGCCTGGAGATTCCTGTCTACAACCGGTG
GCAGGATCCAATCTTCTCCTTGGCGACCCCCCTCCGTGCTGGTGAAGAAGGCAGCCACAGTAGGAAGTCA
CTATGCAGAAGCAGAGAAGAAGCCCCACCTGGGGACCAGAGTGACCCCCTTGCCTCAGCTCCCCCTATCC
TAGGAGGCTGGTTTGGCAGGGGTTGTGCCAAGCGTGCAAAAAGGAAGAAAGTGGCA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

View online »

Protein Sequence:

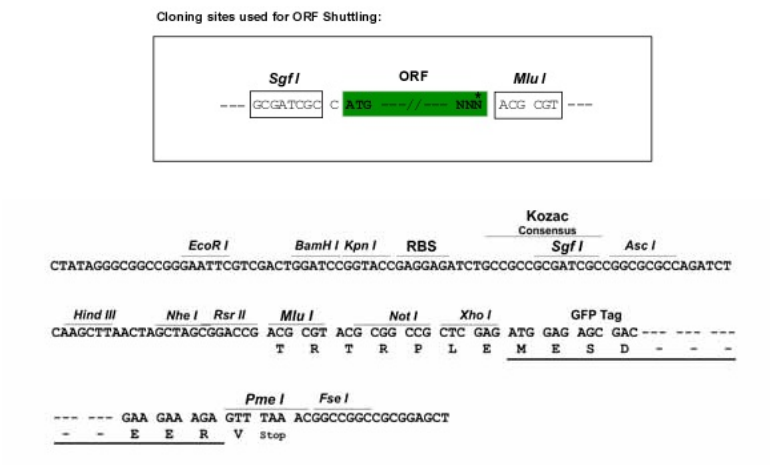
>MG203221 representing NM_153056
Red=Cloning site Green=Tags(s)

MSITRLHEQKLVQHVVSQNCDGLHLRSGLPRTAISELHGNMYIEVCTSCIPNREYVRVFDVTERTALHRH
LTGRTCHKCGTQLRDTIVHFGERGTLGQPLNWEAATEAASKADTILCLGSSLKVLKKYPRLWCMTKPPSR
RPKLYIVNLQWTPKDDWAALKLHGKCDDVMQLLMNELGLEIPVYNRWQDPIFSLATPLRAGEEGSHSRKS
LCRSREEAPPGDQSDPLASAPPILGGWFGRGCAKRAKRKKVA

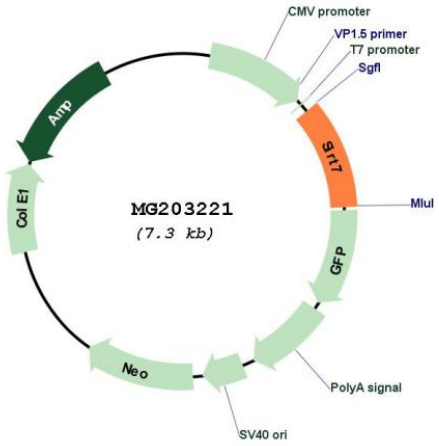
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_153056

ORF Size: 756 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.
RefSeq:	NM_153056.1, NP_694696.1
RefSeq Size:	1712 bp
RefSeq ORF:	1209 bp
Locus ID:	209011
UniProt ID:	Q8BKJ9
Cytogenetics:	11 E2
Gene Summary:	NAD-dependent protein deacetylase that specifically mediates deacetylation of histone H3 at 'Lys-18' (H3K18Ac). In contrast to other histone deacetylases, displays selectivity for a single histone mark, H3K18Ac, directly linked to control of gene expression. H3K18Ac is mainly present around the transcription start site of genes and has been linked to activation of nuclear hormone receptors. SIRT7 thereby acts as a transcription repressor. Moreover, H3K18 hypoacetylation has been reported as a marker of malignancy in various cancers and seems to maintain the transformed phenotype of cancer cells. These data suggest that SIRT7 may play a key role in oncogenic transformation by suppresses expression of tumor suppressor genes by locus-specific deacetylation of H3K18Ac at promoter regions (By similarity). Required to restore the transcription of ribosomal RNA (rRNA) at the exit from mitosis. Promotes the association of RNA polymerase I with the rDNA promoter region and coding region. Stimulates transcription activity of the RNA polymerase I complex. May also deacetylate p53/TP53 and promotes cell survival, however such data need additional confirmation.[UniProtKB/Swiss-Prot Function]