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Product datasheet for RN214928

Sirt7 (NM_001107073) Rat Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Sirt7 (NM_001107073) Rat Untagged Clone
Tag:	Tag Free
Symbol:	Sirt7
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>RN214928 representing NM_001107073 Red=Cloning site Blue=ORF Orange=Stop codon TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC ATGGCAGCCGGTGGCGGTCTGAGCCGCTCGGAGCGCAAAGCGGCTGAGCGGGTCCGGAGGTTGCGGGAGG AGCAGCAGCGGGAGCGCCTCCGTCAGGTGTCACGCATCCTGAGGAAGGCGGCTGCAGAGCGCAGCGCGGA GGAGGGCCGGCTTCTAGCTGAGAGTGAGGATCTGGTGACCGAGCTTCAGGGTCGGAGCCGGCGGCGTGAG GGCCTCAAGCGCCGCCAGGAGGAGGTGTGTGATGACCCAGAGGAGTTGCGGAGGAAGGTCCGCGAACTAG CCGGAGCTGTCCGAAGTGCCAGACACTTGGTTGTCTACACAGGCGCTGGGATCAGCACGGCAGCCTCTAT CCCAGATTACCGGGGTCCTAATGGAGTGTGGACACTGCTCCAGAAAGGAAGGCCTGTGAGTGCTGCCGAC CTAAGCGAAGCAGAGCCTACCCTCACCCACATGAGCATCACCCAGCTGCACAAGCATAAGCTGGTGCAAC ACGTGGTGTCTCAGAACTGCGACGGGCTCCACCTGCGCAGTGGGCTGCCACGGACCGCCATCTCTGAGCT CCATGGGAATATGTATATTGAAGTCTGCACCTCCTGCATCCCTAACAGAGAGTACGTCCGAGTGTTTGAC GTGACGGAGCGTACCGCCCTTCACCGACACCTGACAGGCCGGACGTGCCACAAGTGTGGGACTCAGCTTC GGGACACCATTGTGCACTTTGGGGAGAGGGGGACGCTAGGGCAGCCCCTGAACTGGGAGGCAGCGACTGA GGCCGCTAGCAAAGCAGACACAATCCTGTGTTTAGGGTCCAGCTTGAAGGTACTGAAGAAGTACCCCCGT CTCTGGTGCATGACGAAGCCCCCAAGCCGTCGGCCCAAACTCTACATTGTGAACCTGCAGTGGACCCCGA AGGATGACTGGGCTGCCCTGAAGCTTCATGGGAAATGTGATGATGTAATGCGGCTCCTCATGGACGAACT GGGCCTGGAGATCCCTGTCTACAACCGGTGGCAGGACCCAATCTTCTCCTTGGCAACTCCACTCCGTGCT GGCGAAGAAGGTAGCCACAGTAGGAAGTCACTGTGCAGGAGCAGAGAAGAGCCCCCACCCGGGGACCAGA GTGCCCCTCTTGCCTCAGCCACCCCCATCCTAGGAGGCTGGTTCGGCAGGGGCTGTGCTAAGCGTGCAAA AAGGAAGAAAGCGGCGTAG ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT ACAAGGATGACGACGATAAGGTTTAA
Restriction Sites:	SgfI-MluI

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ACCN:	NM_001107073
Insert Size:	1209 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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_001107073.1, NP_001100543.1
RefSeq Size:	1717 bp
RefSeq ORF:	1209 bp
Locus ID:	303745
UniProt ID:	B2RZ55
Cytogenetics:	10q32.3
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. Also 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 (By similarity).[UniProtKB/Swiss-Prot Function]