

Recombinant Human SIRT1, His-tagged

Cat. No. SIRT1-132H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	SIRT1, 254-495aa, Human, His tag, E.coli
Species	Human
Source	E.coli
ProteinLength	254-495aa
Description	SIRT1 is 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. Alternative splicing results in multiple transcript variants. Recombinant human SIRT1 protein, fused to His-tag at N-terminus, was expressed in E.coli .
Form	Liquid. In 20mM Tris-HCl buffer (pH 8.0) containing 10% glycerol, 0.4M Urea
Molecular Mass	31.6 kDa (280 aa)
AA Sequence	MRGSHHHHHH GMASMTGGQQ MGRDLYDDDD KDRWGSHMKK IIVLTGAGVS VSCGIPDFRS RDGIYARLAV DFPDLPDPQA MFDIEYFRKD PRPFFKFAKE IYPGQFQPSL CHKFIALSDK EGKLLRNYTQ NIDTLEQVAG IQRIIQCHGS

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FATASCLICK YKVDCEAVRG DIFNQVVPRC PRCPADEPLA IMKPEIVFFG
 ENLPEQFHRA MKYDKDEVDL LIVIGSSLKV RPVALIPSSI PHEVPQILIN
 REPLPHLHFD VELLGDCDVI INELCHRLGG

Purity >90 % by SDS - PAGE

Storage Can be stored at +4C short term (1-2 weeks). For long term storage, aliquot and store at -20C or -70C. Avoid repeated freezing and thawing cycles.

Concentration 0.5 mg/ml (determined by Bradford assay)

GENE INFORMATION

Gene Name [SIRT1 sirtuin 1 \[Homo sapiens \]](#)

Official Symbol SIRT1

Synonyms SIRT1; sirtuin 1; sirtuin (silent mating type information regulation 2 homolog) 1 (S. cerevisiae) , sirtuin (silent mating type information regulation 2, S. cerevisiae, homolog) 1; NAD-dependent deacetylase sirtuin-1; SIR2L1; hSIR2; hSIRT1; SIR2alpha; sir2-like 1; sirtuin type 1; SIR2-like protein 1;

Gene ID [23411](#)

mRNA Refseq [NM_001142498](#)

Protein Refseq [NP_001135970](#)

MIM [604479](#)

UniProt ID [Q96EB6](#)

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Chromosome Location	10q21
Pathway	Amphetamine addiction, organism-specific biosystem; Amphetamine addiction, conserved biosystem; E2F transcription factor network, organism-specific biosystem; Energy Metabolism, organism-specific biosystem; FoxO family signaling, organism-specific biosystem; HIF-2-alpha transcription factor network, organism-specific biosystem; Regulation of Androgen receptor activity, organism-specific biosystem;
Function	HLH domain binding; NOT NAD+ ADP-ribosyltransferase activity; NAD+ binding; NAD-dependent histone deacetylase activity; NAD-dependent histone deacetylase activity (H3-K9 specific); NAD-dependent protein deacetylase activity; NAD-dependent protein deacetylase activity; bHLH transcription factor binding; deacetylase activity; enzyme binding; histone binding; histone deacetylase activity; identical protein binding; metal ion binding; mitogen-activated protein kinase binding; p53 binding; protein C-terminus binding; protein binding; protein deacetylase activity; transcription corepressor activity; transcription corepressor activity; zinc ion binding;