

## Active Recombinant Human SIRT1, His-tagged

Cat. No. SIRT1-463H Lot. No. (See product label)

### SPECIFICATION

**Product Overview** Human sirtuin 1 (aa 2-555) is fused at the N-terminus to a His-tag.

**Species** Human

**Source** E.coli

**ProteinLength** 2-555 a.a.

**Description**

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.

**Form** Liquid. 0.2µm-filtered solution in 55mM TRIS-Cl, pH 8.2, containing 150mM NaCl.

**Bio-activity** HDAC activity.

**Molecular Mass** ~70kDa (SDS-PAGE)

**Endotoxin** <1EU/µg purified protein (LAL test; Lonza).

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<b>Purity</b>	≥95% (SDS-PAGE).
<b>Stability</b>	Working aliquots are stable for up to 3 months when stored at -20°C.
<b>Storage</b>	Short Term Storage: +4°C Long Term Storage: -20°C Handling Advice: After opening, prepare aliquots and store at -20°C. Avoid freeze/thaw cycles.
<b>GENE INFORMATION</b>	
<b>Gene Name</b>	SIRT1 sirtuin 1 [ Homo sapiens (human) ]
<b>Official Symbol</b>	SIRT1
<b>Synonyms</b>	SIRT1; SIR2L1; sirtuin 1; NAD-dependent protein deacetylase sirtuin-1; hSIR2; hSIRT1; SIR2alpha; sir2-like 1; sirtuin type 1; SIR2-like protein 1; regulatory protein SIR2 homolog 1; NAD-dependent deacetylase sirtuin-1
<b>Gene ID</b>	23411
<b>mRNA Refseq</b>	NM_001142498
<b>Protein Refseq</b>	NP_001135970
<b>MIM</b>	604479
<b>UniProt ID</b>	Q96EB6
<b>Chromosome Location</b>	10q21.3
<b>Pathway</b>	Amphetamine addiction; Androgen receptor signaling pathway; FoxO signaling pathway

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**Function**

HLH domain binding; NOT NAD+ ADP-ribosyltransferase activity; NAD-dependent histone deacetylase activity

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