

## Active Recombinant Human SIRT3, His-tagged

Cat. No. SIRT3-345H Lot. No. (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant Human SIRT3, fused with N-terminal His-tagged, was expressed in E. coli.
<b>Species</b>	Human
<b>Source</b>	E.coli
<b>Description</b>	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. Two alternatively spliced transcript variants that encode different proteins have been described for this gene.
<b>Form</b>	50 mM sodium phosphate, pH 7.2, containing 100 mM sodium chloride and 20% glycerol
<b>Bio-activity</b>	batch specific nmoles/min/mg; one unit is defined as the amount of enzyme required to produce 1 nmole of 7-amino-4-methylcoumarin per minute at 25°C in 50 mM Tris-HCl, pH 8.0, containing 137 mM NaCl, 2.7 mM KCl, 1 mM MgCl <sub>2</sub> , 125 μM p53 amino acids 317-320 (Gln-Pro-Lys-Lys(ε-acetyl)-AMC), and 6 mM NAD <sup>+</sup>

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<b>Molecular Mass</b>	37 kDa
<b>Purity</b>	≥90%
<b>Storage</b>	-80°C
<b>GENE INFORMATION</b>	
<b>Gene Name</b>	SIRT3 sirtuin 3 [ Homo sapiens (human) ]
<b>Official Symbol</b>	SIRT3
<b>Synonyms</b>	SIRT3; sirtuin (silent mating type information regulation 2 homolog) 3 (S. cerevisiae); SIR2L3; NAD-dependent deacetylase sirtuin-3, mitochondrial; EC 3.5.1.-; SIR2-like protein 3; hSIRT3; mitochondrial nicotinamide adenine dinucleotide-dependent deacetylase 2; silent mating type information regulation 2, S.cerevisiae, homolog 3; sir2-like 3; sirtuin (silent mating type information regulation 2, S.cerevisiae, homolog) 3; sirtuin 3; sirtuin type 3
<b>Gene ID</b>	23410
<b>mRNA Refseq</b>	NM_001017524
<b>Protein Refseq</b>	NP_001017524
<b>MIM</b>	604481
<b>UniProt ID</b>	Q9NTG7
<b>Chromosome Location</b>	11p15.5

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<b>Pathway</b>	Energy Metabolism; Mitochondrial biogenesis; Organelle biogenesis and maintenance
<b>Function</b>	NOT NAD+ ADP-ribosyltransferase activity; NAD-dependent histone deacetylase activity (H3-K14 specific); protein binding

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