Active Recombinant Human SIRT3, His-tagged

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

SPECIFICATION

Product Overview	Recombinant Human SIRT3, fused with N-terminal His-tagged, was expressed in E. coli.
Species	Human
Source	E.coli
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. Two alternatively spliced transcript variants that encode different proteins have been described for this gene.
Form	50 mM sodium phosphate, pH 7.2, containing 100 mM sodium chloride and 20% glycerol
Bio-activity	batch specific nmoles/min/mg; one unit is defined as the amount of enzyme required t o produce 1 nmole of 7-amino-4-methylcoumarin per minute at 25°C in 50 mM Tris-H Cl, pH 8.0, containing 137 mM NaCl, 2.7 mM KCl, 1 mM MgCl2, 125 μM p53 amino aci ds 317-320 (Gln-Pro-Lys-Lys(ε-acetyl)-AMC), and 6 mM NAD+

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Molecular Mass	37 kDa
Purity	≥90%
Storage	-80°C

GENE INFORMATION

Gene Name	SIRT3 sirtuin 3 [Homo sapiens (human)]
Official Symbol	SIRT3
Synonyms	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
Gene ID	23410
mRNA Refseq	NM_001017524
Protein Refseq	NP_001017524
MIM	604481
UniProt ID	Q9NTG7
Chromosome Location	11p15.5

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

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