Active Recombinant Human SIRT3, GST-tagged

Cat. No. SIRT3-347H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human SIRT3(amino acids 102- 399), fused with N-terminal GST tag, was expressed in E.coli expression system.
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	40 mM Tris-HCl, pH 8.0,Sirt3 Gel 110 mM NaCl, 2.2 mM KCl, and 20% glycerol.
Bio-activity	5.8 pmole/min/µg.Assay conditions: 25 mM Tris/HCl, pH 8.0, 137 mM NaCl, 2.7 mM KCl, 1 mM MgCl2, and 0.1 mg/ml BSA, 20 µM BPS HDAC substrate 1, 500 µM NAD+, and Sirtuin 3. Incubation condition: 30 min at 37ºC. Then, incubated with developer for 15 min at room temperature.
Molecular Mass	59 kDa

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Purity	≥56%
Stability	>6 months at –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_012239
Protein Refseq	NP_036371
MIM	604481
UniProt ID	Q9NTG7
Chromosome Location	11p15.5
Pathway	Energy Metabolism; Mitochondrial biogenesis; Organelle biogenesis and

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	maintenance
Function	NOT NAD+ ADP-ribosyltransferase activity; NAD-dependent histone deacetylase activity (H3-K14 specific); protein binding

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