

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 37°C. 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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