

Active Recombinant Human SIRT3, His-tagged

Cat. No. SIRT3-346H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human SIRT3(Ser101-Lys399), fused with an N-terminal Met and 6-His tag, was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	101-399 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. Two alternatively spliced transcript variants that encode different proteins have been described for this gene.
Predicted N Terminal	Met
Form	Supplied as a 0.2 µ filtered solution in Tris, NaCl, Brij-35 and Glycerol.
Bio-activity	Measured by its ability to remove the acetyl group from a fluorogenic peptide substrate Ac-RGK(Ac)-AMC in a coupled assay.

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Molecular Mass	Predicted Molecular Mass: 34 kDaSDS-PAGE: 30-33 kDa, reducing conditions
Endotoxin	< 1.0 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE under reducing conditions and visualized by Colloidal Coomassie® Blue stain at 5 µg per lane.
Storage	Avoid repeated freeze-thaw cycles.6 months from date of receipt, -20 to -70 °C as supplied.3 months, -20 to -70 °C under sterile conditions after opening.

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

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UniProt ID	Q9NTG7
Chromosome Location	11p15.5
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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