

Active Recombinant Human SIRT3 Protein, His-tagged

Cat. No. SIRT3-112H Lot. No. (See product label)

SPECIFICATION

Product Overview	Active recombinant N-terminal His-tagged human SIRT3 protein (101-399) was purified from E. coli.
Species	Human
Source	E.coli
ProteinLength	101-399
Description	SIRT3 encodes a member of the sirtuin family of class III histone deacetylases, homologs to the yeast Sir2 protein. The encoded protein is found exclusively in mitochondria, where it can eliminate reactive oxygen species, inhibit apoptosis, and prevent the formation of cancer cells. SIRT3 has far-reaching effects on nuclear gene expression, cancer, cardiovascular disease, neuroprotection, aging, and metabolic control.
Molecular Mass	37 kDa (theoretical); 33.5 kDa (observed). The identity of SIRT3 protein was confirmed by mass spectrometry.
Purity	≥60% as determined by SDS-PAGE
Unit Definition	One unit is defined as the amount of enzyme required to produce 1 nmole of 7-amino-4-methylcoumarin per minute at 25 centigrade in 50 mM Tris-HCl, pH 8.0, containing 137 mM NaCl, 2.7 mM KCl, 1 mM MgCl ₂ , 125 μM p53 amino acids 317-320 (Gln-Pro-Lys-Lys(e-acetyl)-AMC), and 6mM NAD ⁺ .

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Stability	≥ 1 year
Storage	At -80 centigrade.
Storage Buffer	50 mM sodium phosphate, pH 7.2, containing 100 mM sodium chloride and 20% glycerol

GENE INFORMATION

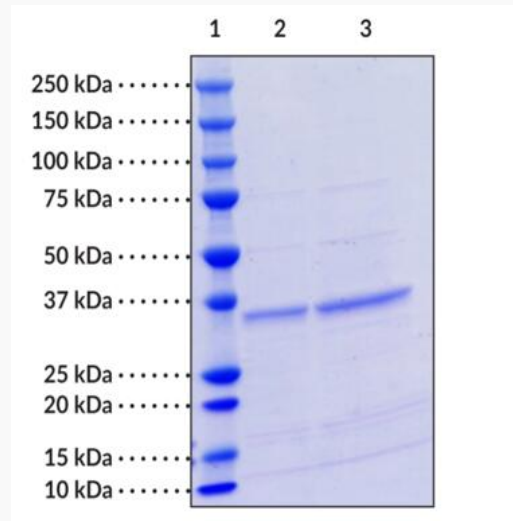
Gene Name	SIRT3 sirtuin 3 [Homo sapiens (human)]
Official Symbol	SIRT3
Synonyms	SIRT3; sirtuin 3; SIR2L3; NAD-dependent protein deacetylase sirtuin-3, mitochondrial; NAD-dependent deacetylase sirtuin-3, mitochondrial; SIR2-like protein 3; mitochondrial nicotinamide adenine dinucleotide-dependent deacetylase; regulatory protein SIR2 homolog 3; silent mating type information regulation 2, S.cerevisiae, homolog 3; sir2-like 3; sirtuin type 3; EC 2.3.1.286
Gene ID	23410
mRNA Refseq	NM_012239
Protein Refseq	NP_036371
MIM	604481
UniProt ID	Q9NTG7

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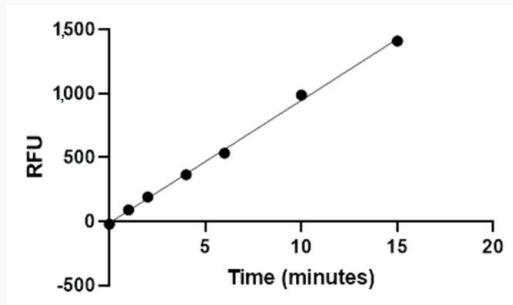
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**SDS-PAGE analysis
of SIRT3**



Lane 1: MW Markers
Lane 2: SIRT3 (2 μ g)
Lane 3: SIRT3 (4 μ g)

SIRT3 Activity



SIRT3 activity was determined using SIRT3 Direct Fluorescent Screening Assay Kit

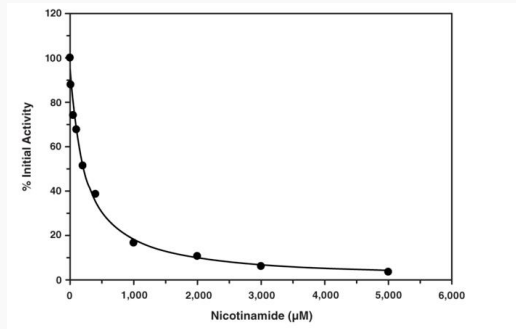
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**Inhibition of SIRT3
(human
recombinant) by
nicotinamide (IC50 =
200 μ M)**



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