

## Recombinant Human Sirtuin 3, His-tagged

Cat. No. SIRT3-2747H Lot. No. (See product label)

### SPECIFICATION

**Product Overview** Recombinant human SIRT3 protein, fused to His-tag at N-terminus, was expressed in *E.coli* and purified by using conventional chromatography techniques. MW =33.5kDa (303aa) confirmed by MALDI-TOF.

**Species** Human

**Source** E.coli

**Description** NAD-dependent deacetylase sirtuin-3, mitochondrial, also known as SIRT3, belongs to the sirtuin family of proteins. Members of the sirtuin family are characterized by a sirtuin core domain and grouped into four classes. The functions of human sirtuins have a range of molecular functions and have emerged as important proteins in aging, stress resistance and metabolic regulation. SIRT3 exhibits NAD<sup>+</sup>-dependent deacetylase activity in the mitochondria. Over-expression of SIRT3 results in increased levels of the mitochondrial uncoupling protein 1. SIRT3 protein levels are also elevated in certain breast cancers.

**Sequences Of Amino Acids** MGSSHHHHHH SSSLVPRGSH MSDKGKLSLQ DVAELIRARA CQRVVVMVGA  
GISTPSGIPD FRSPGSGLYS NLQQYDLPYP EAFELPFFF HNPKPFFTLA  
KELYPGNYKP NVTHYFLRLL HDKGLLLRLY TQNIDGLERV SGIPASKLVE  
AHGTFASATC TVCQRPFPG EDIRADMADR VPRCPVCTGV VKPDIVFFGE  
PLPQRFLHV VDFPMADLLL ILGTSLEVEP FASLTEAVRS SVPRLINRD  
LVGPLAWHPR SRDVAQLGDV VHGVESLVEL LGWTEEMRDL VQRETGKLDG PDK

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<b>Purity</b>	> 95% by SDS – PAGE.
<b>Form</b>	Liquid. In 20mM Tris-HCl buffer (pH 8.0) containing 1mM DTT, 10% glycerol, 0.1M NaCl.
<b>Concentration</b>	1 mg/ml (determined by Bradford assay).
<b>Storage</b>	Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

## GENE INFORMATION

<b>Gene Name</b>	<a href="#">SIRT3 sirtuin 3 [ Homo sapiens ]</a>
<b>Synonyms</b>	SIRT3; sirtuin 3; 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, <i>S.cerevisiae</i> , homolog 3; sir2-like 3; sirtuin (silent mating type information regulation 2, <i>S.cerevisiae</i> , homolog) 3; sirtuin type 3
<b>Gene ID</b>	<a href="#">23410</a>
<b>mRNA Refseq</b>	<a href="#">NM_001017524</a>
<b>Protein Refseq</b>	<a href="#">NP_001017524</a>
<b>MIM</b>	<a href="#">604481</a>
<b>UniProt ID</b>	<a href="#">Q9NTG7</a>
<b>Chromosome</b>	11p15.5

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**Location**

**Function**

NAD binding; NAD+ ADP-ribosyltransferase activity; hydrolase activity; hydrolase activity, acting on carbon-nitrogen (but not peptide) bonds, in linear amides; metal ion binding; protein binding; zinc ion binding

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