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+-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 SSGLVPRGSH MSDKGKLSLQ DVAELIRARA CQRVVVMVGA GISTPSGIPD FRSPGSGLYS NLQQYDLPYP EAIFELPFFF HNPKPFFTLA KELYPGNYKP NVTHYFLRLL HDKGLLLRLY TQNIDGLERV SGIPASKLVE AHGTFASATC TVCQRPFPGE DIRADVMADR VPRCPVCTGV VKPDIVFFGE PLPQRFLLHV VDFPMADLLL ILGTSLEVEP FASLTEAVRS SVPRLLINRD LVGPLAWHPR SRDVAQLGDV VHGVESLVEL LGWTEEMRDL VQRETGKLDG PDK

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

Purity	> 95% by SDS – PAGE.
Form	Liquid. In 20mM Tris-HCl buffer (pH 8.0) containing 1mM DTT, 10% glycerol, 0.1M NaCl.
Concentration	1 mg/ml (determined by Bradford assay).
Storage	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

Gene Name	SIRT3 sirtuin 3 [Homo sapiens]
Synonyms	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, S.cerevisiae, homolog 3; sir2-like 3; sirtuin (silent mating type information regulation 2, S.cerevisiae, homolog) 3; sirtuin type 3
Gene ID	23410
mRNA Refseq	NM_001017524
Protein Refseq	NP_001017524
MIM	604481
UniProt ID	Q9NTG7
Chromosome	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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