

## Recombinant Human SIRT4

**Cat. No.** SIRT4-30846TH    **Lot. No.** (See product label)

### SPECIFICATION

|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b>   | Recombinant full length Human SIRT4 with an N terminal proprietary tag; predicted MWt 62 kDa inclusive of tag;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Species</b>            | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Source</b>             | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>ProteinLength</b>      | 314 amino acids                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Description</b>        | <p>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 IV of the sirtuin family.</p> |
| <b>Molecular Weight</b>   | 62.000kDa inclusive of tags                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Tissue specificity</b> | Detected in vascular smooth muscle and striated muscle. Detected in insulin-producing beta-cells in pancreas islets of Langerhans (at protein level). Widely expressed. Weakly expressed in leukocytes and fetal thymus.                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Form</b>               | Liquid                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

 Tel: 1-631-559-9269    1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

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|---------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Purity</b>                   | by SDS-PAGE                                                                                                                                                                                                                                                                                                                                    |
| <b>Storage buffer</b>           | Preservative: None<br>Constituents: 25% Glycerol, 50mM Tris HCl, 150mM Sodium chloride, 10mM Glutathione, 0.25mM DTT, 0.1mM EDTA, 0.1mM PMSF, pH 7.5                                                                                                                                                                                           |
| <b>Storage</b>                  | Shipped on dry ice. Upon delivery aliquot and store at -80oC. Avoid freeze / thaw cycles.                                                                                                                                                                                                                                                      |
| <b>Sequences of amino acids</b> | MKMSFALTFRSAKGRWIANPSQPCSKASIGLFVPASPPLDPEKVKELQRFITLSKRLL<br>VMTGAGISTESGIPDYRSEKVGLYARTDRRPIQHGDVFVSAPIRQRYWARNFVGWP<br>QFSSHQPNPAHWALSTWEKLGKLYWLVLTQNVDALHTKAGSRRLTELHGCM DRVLC<br>LDCGEQTPRGVLQERFQVLNPTWSAEAHGLAPDGDVFLSEEQVRSFQVPTCVQCG<br>GHLKPDVVFFGDTVNPDKVDFVHKRVKEADSLLVGSSLQVYSGYRFILTAWEKKLP<br>IALNIGPTRSDDLACLKLNSRCGELLPLIDPC |
| <b>Sequence Similarities</b>    | Belongs to the sirtuin family. Contains 1 deacetylase sirtuin-type domain.                                                                                                                                                                                                                                                                     |

## GENE INFORMATION

|                        |                                                                                                                                                                                                                                              |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | <a href="#">SIRT4 sirtuin 4 [ Homo sapiens ]</a>                                                                                                                                                                                             |
| <b>Official Symbol</b> | <a href="#">SIRT4</a>                                                                                                                                                                                                                        |
| <b>Synonyms</b>        | SIRT4; sirtuin 4; sirtuin (silent mating type information regulation 2 homolog) 4 (S. cerevisiae) , sirtuin (silent mating type information regulation 2, S. cerevisiae, homolog) 4; NAD-dependent ADP-ribosyltransferase sirtuin-4; SIR2L4; |
| <b>Gene ID</b>         | <a href="#">23409</a>                                                                                                                                                                                                                        |
| <b>mRNA Refseq</b>     | <a href="#">NM_012240</a>                                                                                                                                                                                                                    |

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|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Protein Refseq      | NP_036372                                                                                                                                                    |
| MIM                 | 604482                                                                                                                                                       |
| Uniprot ID          | Q9Y6E7                                                                                                                                                       |
| Chromosome Location | 12q24.31                                                                                                                                                     |
| Pathway             | Signaling events mediated by HDAC Class I, organism-specific biosystem;                                                                                      |
| Function            | NAD+ ADP-ribosyltransferase activity; NAD+ ADP-ribosyltransferase activity; NAD+ binding; NOT NAD-dependent protein deacetylase activity; metal ion binding; |

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