SIRT6 Lysate – Tissue Lysate

PRODUCT OVERVIEW

Product Name	SIRT6, Lysate
Full Product Name	Human SIRT6 Protein Lysate
Product Gene Name	SIRT6 lysate
Product Synonym Names	SIRT6; SIR2L6; SIR2L6
Host	Human
Form/Format	Lyophilized
Preparation and Storage	Store at -20 degree C Once reconsituted, aliquot and store any remaining material at-20 degree C to avoid repeated freeze-thaw cycles.
Molecular Weight	41 kDa (375 aa), confirmed by MALDI-TOF.
OMIM	606211
3D Structure	ModBase 3D Structure for Q8N6T7
Related Product Information for SIRT6 lysate	Human SIRT6 Protein Lysate 20ug is provided as a Lyophilized powder. This is a Recombinant Protein Lysate produced in HEK293T cells. This protein lysate can be reconsituted using SDS Sample Buffer.
Other Notes	Small volumes of SIRT6 lysate vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for SIRT6 purchase	MBS8419480 is a lysate targeting SIRT6. Also known as Human SIRT6 Protein Lysate. Host: Human.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for SIRT6. It may not necessarily be applicable to this product.

NCBI GI #	300797577
NCBI GeneID	51548
NCBI Accession #	NP_057623
UniProt Primary Accession #	Q8N6T7
UniProt Secondary Accession #	O75291; Q6IAF5; Q6PK99; Q8NCD2; Q9BSI5; Q9BWP3; Q9NRC7; Q9UQD1; B2RCD0
UniProt Related Accession #	Q8N6T7
GenBank Nucleotide #	NM_016539
NCBI Official Full Name	NAD-dependent protein deacetylase sirtuin-6 isoform 1
NCBI Official Synonym Full Names	sirtuin 6
NCBI Official Symbol	SIRT6
NCBI Official Synonym Symbols	SIR2L6
UniProt Protein Name	NAD-dependent protein deacetylase sirtuin-6
UniProt Synonym Protein Names	Regulatory protein SIR2 homolog 6; SIR2-like protein 6

Protein Family	NAD-dependent protein deacetylase
UniProt Gene Name	SIRT6
UniProt Synonym Gene Names	SIR2L6
UniProt Entry Name	SIR6_HUMAN
NCBI Protein Information	NAD-dependent protein deacetylase sirtuin-6
NCBI Summary for SIRT6	This gene encodes a member of the sirtuin family of NAD-dependent enzymes that are implicated in cellular stress resistance, genomic stability, aging and energy homeostasis. The encoded protein is localized to the nucleus, exhibits ADP-ribosyl transferase and histone deacetylase activities, and plays a role in DNA repair, maintenance of telomeric chromatin, inflammation, lipid and glucose metabolism. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Mar 2016]
UniProt Comments for SIRT6	SIRT6: NAD-dependent protein deacetylase. Has deacetylase activity towards histone H3K9Ac and H3K56Ac. Modulates acetylation of histone H3 in telomeric chromatin during the S-phase of the cell cycle. Deacetylates histone H3K9Ac at NF-kappa-B target promoters and may down-regulate the expression of a subset of NF- kappa-B target genes. Acts as a corepressor of the transcription factor HIF1A to control the expression of multiple glycolytic genes to regulate glucose homeostasis. Required for genomic stability. Regulates the production of TNF protein. Has a role in the regulation of life span. Deacetylation of nucleosomes interferes with RELA binding to target DNA. May be required for the association of WRN with telomeres during S-phase and for normal telomere maintenance. Required for genomic stability. Required for normal IGF1 serum levels and normal glucose homeostasis. Modulates cellular senescence and apoptosis. On DNA damage, promotes DNA end resection via deacetylation of RBBP8. Has very weak deacetylase activity and can bind NAD(+) in the absence of acetylated substrate. Interacts with RELA. Interacts with RBBP8; the interaction deacetylates RBBP8. Belongs to the sirtuin family. Class IV subfamily. 3 isoforms of the human protein are produced by alternative splicing. Protein type: Deacetylase; EC 2.4.2.31; EC 3.5.1.-; Transferase Chromosomal Location of Human Ortholog: 19p13.3 Cellular Component: nucleoplasm; intracellular membrane-bound organelle; nuclear telomeric heterochromatin; nucleolus; nucleus Molecular Function: NAD(P)+-protein-arginine ADP-ribosyltransferase activity; protein binding; NAD-dependent histone deacetylase activity (H3-K9 specific); zinc ion binding; NAD-dependent histone deacetylase activity; chromatin binding; NAD+ ADP-ribosyltransferase activity Biological Process: protein amino acid ADP-ribosylation; histone deacetylation
Research Articles on SIRT6	**1.** in vitro and in vivo studies showed that gene silencing of SIRT6 suppressed cell proliferation and promoted cellular apoptosis by activating the Bax-dependent apoptotic signal pathway in Hepatocellular Carcinoma cells. Furthermore, SIRT6 knockdown could increase liver cancer cell sensitivity to chemotherapy drug doxorubicin. SIRT6 is an important protumorigenic factor in liver carcinogenesis.
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