SANTA CRUZ BIOTECHNOLOGY, INC.

SIRT6 (6C9-D10-D3): sc-517556

BACKGROUND

Sirtuins (SIRT1-7) are human homologs of the yeast Sir2 (silent information regulator-2) protein and are divided into four main classes: SIRT1-3 are class I, SIRT4 is class II, SIRT5 is class III and SIRT6-7 are class IV. In *S. cerevisiae,* Sir2 deacetylates histones in a NAD-dependent manner, which regulates silencing at the telomeric, rDNA (ribosomal DNA) and silent mating-type loci. The human SIRT proteins are NAD-dependent deacetylases that act as intracellular regulators and are thought to have ribosyltransferase activity. SIRT6 (sirtuin 6), also known as SIR2L6, is a 355 amino acid protein that contains one deacetylase sirtuin-type domain and belongs to the sirtuin family. Localized to the nucleus, SIRT6 functions as an NAD^+-dependent Histone H3 lysine 9 (H3K9) deacetylase that modulates telomeric chromatin and is involved in DNA repair and telomeric longevity. SIRT6 binds zinc as a cofactor and is expressed as four isoforms that are produced as a result of alternative splicing events.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: SIRT6 (human) mapping to 19p13.3; Sirt6 (mouse) mapping to 10 C1.

SOURCE

SIRT6 (6C9-D10-D3) is a mouse monoclonal antibody raised against recombinant SIRT6 protein fragments of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide, 0.1% gelatin and 5% glycerol.

APPLICATIONS

SIRT6 (6C9-D10-D3) is recommended for detection of SIRT6 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for SIRT6 siRNA (h): sc-63028, SIRT6 siRNA (m): sc-63029, SIRT6 shRNA Plasmid (h): sc-63028-SH, SIRT6 shRNA Plasmid (m): sc-63029-SH, SIRT6 shRNA (h) Lentiviral Particles: sc-63028-V and SIRT6 shRNA (m) Lentiviral Particles: sc-63029-V.

Molecular Weight of SIRT6: 40 kDa.

SELECT PRODUCT CITATIONS

1. Das, A., Huang, G.X., Bonkowski, M.S., Longchamp, A., Li, C., Schultz, M.B., Kim, L.J., Osborne, B., Joshi, S., Lu, Y., Treviño-Villarreal, J.H., Kang, M.J., Hung, T.T., Lee, B., Williams, E.O., Igarashi, M., Mitchell, J.R., et al. 2018. Impairment of an endothelial NAD^+-H_2S signaling network is a reversible cause of vascular aging. Cell 173: 74-89.
2. Kim, J.S., Jeon, J., An, J.J. and Yi, H.K. 2019. Interval running training improves age-related skeletal muscle wasting and bone loss: animal experiment in ovariectomized rats. Exp. Physiol. 104: 691-703.
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STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.