

SIRT2 (K-15): sc-31912

BACKGROUND

The silent information regulator (SIR2) family of genes are highly conserved from prokaryotes to eukaryotes and are involved in diverse processes, including transcriptional regulation, cell cycle progression, DNA-damage repair and aging. In *S. cerevisiae*, SIR2P deacetylates histones in a NAD-dependent manner, which regulates silencing at the telomeric, rDNA and silent mating-type loci. SIR2P is the founding member of a large family, designated sirtuins, which contain a conserved catalytic domain. The human homologs, which include SIRT1-7, are divided into four main branches: SIRT1-3 are class I, SIRT4 is class II, SIRT5 is class III and SIRT6-7 are class IV. SIRT proteins may function via mono-ADP-ribosylation of proteins. SIRT2 contains a 323 amino acid catalytic core domain with a NAD-binding domain and a large groove which is the likely site of catalysis.

REFERENCES

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2. Frye, R.A. 1999. Characterization of five human cDNAs with homology to the yeast SIR2 gene: SIR2-like proteins (sirtuins) metabolize NAD and may have protein ADP-ribosyltransferase activity. *Biochem. Biophys. Res. Commun.* 260: 273-279.
3. Frye, R.A. 2000. Phylogenetic classification of prokaryotic and eukaryotic SIR2-like proteins. *Biochem. Biophys. Res. Commun.* 273: 793-798.
4. Defossez, P.A., Lin, S.J. and McNabb, D.S. 2001. Sound silencing: the SIR2 protein and cellular senescence. *Bioessays* 23: 327-332.
5. Grozinger, C.M., Chao, E.D., Blackwell, H.E., Moazed, D. and Schreiber, S.L. 2001. Identification of a class of small molecule inhibitors of the sirtuin family of NAD-dependent deacetylases by phenotypic screening. *J. Biol. Chem.* 276: 38837-38843.
6. Finnin, M.S., Donigian, J.R. and Pavletich, N.P. 2001. Structure of the histone deacetylase SIRT2. *Nat. Structural Biol.* 8: 621-625.

CHROMOSOMAL LOCATION

Genetic locus: SIRT2 (human) mapping to 19q13.2; Sirt2 (mouse) mapping to 7 A3.

SOURCE

SIRT2 (K-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of SIRT2 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-31912 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

SIRT2 (K-15) is recommended for detection of SIRT2 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

SIRT2 (K-15) is also recommended for detection of SIRT2 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for SIRT2 siRNA (h): sc-40988, SIRT2 siRNA (m): sc-40989, SIRT2 shRNA Plasmid (h): sc-40988-SH, SIRT2 shRNA Plasmid (m): sc-40989-SH, SIRT2 shRNA (h) Lentiviral Particles: sc-40988-V and SIRT2 shRNA (m) Lentiviral Particles: sc-40989-V.

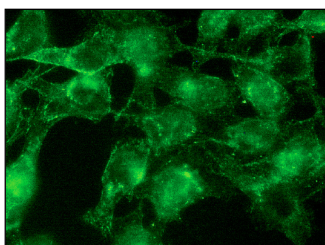
Molecular Weight of SIRT2: 43 kDa.

Positive Controls: 3611-RF whole cell lysate: sc-2215 or HeLa whole cell lysate: sc-2200.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



SIRT2 (K-15): sc-31912. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoskeletal localization.

STORAGE

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


 MONOS
 Satisfaction
 Guaranteed

Try **SIRT2 (A-5): sc-28298**, our highly recommended monoclonal alternative to SIRT2 (K-15). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **SIRT2 (A-5): sc-28298**.