

# SIRT5 (FL-310): sc-135054

## 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 an 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. SIRT5 (NAD-dependent deacetylase sirtuin-5), also known as SIR2L5, is a 310 amino acid member of the class III sirtuins. Localized to mitochondria and expressed throughout the body, SIRT5 is an NAD-dependent deacetylase that may link metabolic aging processes in humans. SIRT5 contains one deacetylase-sirtuin-type domain and can be deactivated by suramin, a drug that blocks the binding of various growth factors. Two isoforms of SIRT5 exist due to alternative splicing events.

## CHROMOSOMAL LOCATION

Genetic locus: SIRT5 (human) mapping to 6p23; Sirt5 (mouse) mapping to 13 A4.

## SOURCE

SIRT5 (FL-310) is a rabbit polyclonal antibody raised against amino acids 1-310 representing full length SIRT5 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.

## STORAGE

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

## APPLICATIONS

SIRT5 (FL-310) is recommended for detection of SIRT5 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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).

SIRT5 (FL-310) is also recommended for detection of SIRT5 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for SIRT5 siRNA (h): sc-63026, SIRT5 siRNA (m): sc-63027, SIRT5 shRNA Plasmid (h): sc-63026-SH, SIRT5 shRNA Plasmid (m): sc-63027-SH, SIRT5 shRNA (h) Lentiviral Particles: sc-63026-V and SIRT5 shRNA (m) Lentiviral Particles: sc-63027-V.

Molecular Weight of SIRT5 isoform 1: 34 kDa.

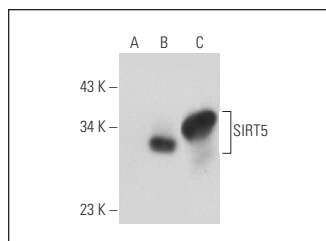
Molecular Weight of SIRT5 isoform 2: 33 kDa.

Positive Controls: SIRT5 (m): 293T Lysate: sc-123559 or rat small intestine extract: sc-364811.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



SIRT5 (FL-310): sc-135054. Western blot analysis of SIRT5 expression in non-transfected: sc-117752 (A) and mouse SIRT5 transfected: sc-123559 (B) 293T whole cell lysates and rat small intestine tissue extract (C).

## RESEARCH USE

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

## PROTOCOLS

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Try **SIRT5 (G-2): sc-271635**, our highly recommended monoclonal alternative to SIRT5 (FL-310). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **SIRT5 (G-2): sc-271635**.