



DB083: SIRT1 (C19)

Background:

The Sir2 protein in yeast is known to function in transcriptional silencing processes through the deacetylation of histones H3 and H4 (1). The more recently described human homologue of Sir2, known as SIRT1, has been found to associate with the tumor suppressor protein p53 (1-3). SIRT1 binds and deacetylates p53 with specificity for its C-terminal Lys382 residue in response to the upregulation of promyelocytic leukemia protein (PML) nuclear bodies or oncogenic Ras (2&3). The deacetylation of p53 SIRT1 has been shown to negatively regulate p53-mediated transcription, preventing cellular senescence and apoptosis induced by DNA damage and stress (1-3).

Origin:

SIRT1 (C19) is provided as an affinity purified rabbit polyclonal antibody, raised against a peptide mapping to the carboxy terminal domain of human SIRT1.

Product Details:

Each vial contains 200 µg/ml of affinity purified rabbit IgG, SIRT1 (C19) DB083, in 1 ml PBS containing 0.1 % sodium azide and 0.2% gelatin.

Competition Studies:

A blocking peptide is also available, DB083P, for use in competition studies. Each vial contains 100 µg of peptide in 0.5 ml PBS with 0.1% sodium azide and 100 µg BSA.

Specificity:

SIRT1 (C19) is recommended to detect human SIRT1 in Western blotting, immunoprecipitation, and CHIP assays. Recommended Western blotting starting dilution 1:400.

Storage:

Store this product at 4° C, do not freeze. The product is stable for one year from the date of shipment.

References:

1. Smith J. 2002. Human Sir2 and the 'silencing' of p53 activity. Trends Cell Biol. 12(9):404-406.
2. Vaziri H, Dessain SK, Ng Eaton E, Imai SI, Frye RA, Pandita TK, Guarente L, Weinberg RA. 2001. HSIR2(SIRT1) functions as an NAD-dependent p53 deacetylase. Cell 107(2):149-159.
3. Langley E, Pearson M, Faretta M, Bauer UM, Frye RA, Minucci S, Pelicci PG, Kouzarides T. 2002. Human SIR2 deacetylates p53 and antagonizes PML/p53-induced cellular senescence. EMBO J. 21(10):2383-2396.