

SIRT1 monoclonal antibody

Catalog: MB67173

Host: Mouse

Reactivity: Human, Mouse

BackGround:

The Silent Information Regulator (SIR2) family of genes is a highly conserved group of genes that encode nicotinamide adenine dinucleotide (NAD)-dependent protein deacetylases, also known as class III histone deacetylases. The first discovered and best characterized of these genes is *Saccharomyces cerevisiae* SIR2, which is involved in silencing of mating type loci, telomere maintenance, DNA damage response, and cell aging. SirT1, the mammalian ortholog of Sir2, is a nuclear protein implicated in the regulation of many cellular processes, including apoptosis, cellular senescence, endocrine signaling, glucose homeostasis, aging, and longevity. Targets of SirT1 include acetylated p53, p300, Ku70, forkhead (FoxO) transcription factors, PPAR γ , and the PPAR γ coactivator-1 α (PGC-1 α) protein. Deacetylation of p53 and FoxO transcription factors represses apoptosis and increases cell survival. Deacetylation of PPAR γ and PGC-1 α regulates the gluconeogenic/glycolytic pathways in the liver and fat mobilization in white adipocytes in response to fasting. SirT1 deacetylase activity is inhibited by nicotinamide and activated by resveratrol. In addition, SirT1 activity may be regulated by phosphorylation, as it is phosphorylated at Ser27 and Ser47 *in vivo*; however, the function of these phosphorylation sites has not yet been determined.

Product:

Mouse IgG3 kappa. Liquid in PBS, pH 7.3, 30% glycerol, and 0.01% sodium azide.

Molecular Weight:

~ 130 kDa

Swiss-Prot:

Q96EB6

Purification&Purity:

This antibody is purified through a protein G column.

Applications:

WB (1/500 - 1/1000)

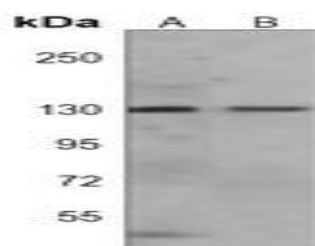
Storage&Stability:

Store at 4 °C short term. Aliquot and store at -20 °C long term. Avoid freeze-thaw cycles.

Specificity:

Recognizes endogenous levels of SIRT1 protein.

DATA:



Western blot analysis of SIRT1 expression in Jurkat (A), F9 (B) whole cell lysates.

Note:

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

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