Product Datasheet

SIRT1 Antibody

Catalog No: #32029

Package Size: #32029-1 50ul #32029-2 100ul

Orders: order@signalwayantibody.com
Support: tech@signalwayantibody.com

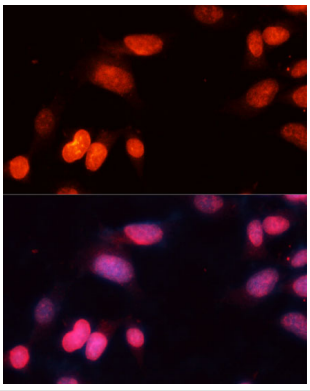
Description

Product Name	SIRT1 Antibody
Host Species	Rabbit
Clonality	Polyclonal
Purification	Antibodies were purified by affinity purification using immunogen.
Applications	WB,IF
Species Reactivity	Human,Mouse,Rat
Specificity	The antibody detects endogenous level of total SIRT1 protein.
Immunogen Type	Peptide
Immunogen Description	A synthetic peptide of human SIRT1.
Target Name	SIRT1
Other Names	SIRT1; SIR2L1;
Accession No.	Swiss-Prot:Q96EB6NCBI Gene ID:23411
Uniprot	Q96EB6
GeneID	23411;
SDS-PAGE MW	82KD
Concentration	1.0mg/ml
Formulation	Supplied at 1.0mg/mL in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage	Store at -20°C

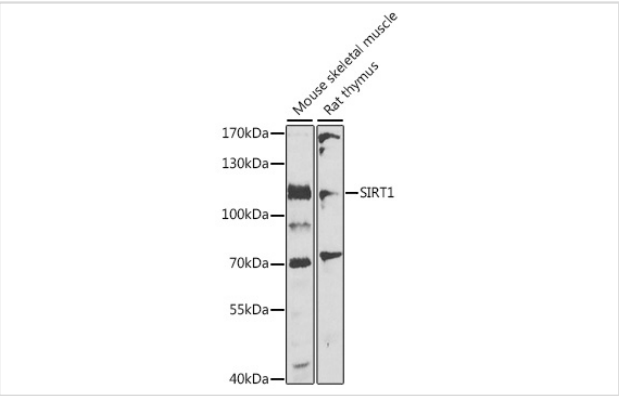
Application Details

WB□1:500 - 1:2000IF□1:50 - 1:200

Images



Immunofluorescence analysis of NIH-3T3 cells using SIRT1 Polyclonal at dilution of 1:100 (40x lens). Blue: DAPI for nuclear staining.



Western blot analysis of extracts of various cell lines, using SIRT1 at 1:1000 dilution.

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 (1). 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 (2,3), p300 (4), Ku70 (5), forkhead (FoxO) transcription factors (5,6), PPARγ (7), and the PPARγ coactivator-1α (PGC-1α) protein (8). Deacetylation of p53 and FoxO transcription factors represses apoptosis and increases cell survival (2,3,5,6). Deacetylation of PPARγ and PGC-1α regulates the gluconeogenic/glycolytic pathways in the liver and fat mobilization in white adipocytes in response to fasting (7,8). SirT1 deacetylase activity is inhibited by nicotinamide and activated by resveratrol. In addition, SirT1 activity may be regulated by phosphorylation, since it is phosphorylated on Ser27 and Ser47 in vivo, however, the function of these phosphorylation sites has not yet been determined (9).

Note: This product is for in vitro research use only