

SIRT1 Rabbit mAb [H580]

Cat NO. :A78330

Information:

| Applications | Reactivity: | UniProt ID: | MW(kDa) | Host | Isotype | Size |
|------------------|-------------|-------------|---------|--------|---------|------------------|
| WB IHC ICC/IF IP | Human | Q96EB6 | 110kDa | Rabbit | IgG | 50ul,100ul,200ul |

Applications detail:

| Application | Dilution |
|--|-------------|
| WB | 1:1000-2000 |
| IHC | 1:100 |
| ICC/IF | 1:100 |
| The optimal dilutions should be determined by the end user | |

Conjugate:

UnConjugate

Form:

Liquid

sensitivity:

Endogenous

Purification:

Affinity-chromatography

Specificity:

Antibody is produced by immunizing animals with A synthesized peptide derived from human SIRT1

Storage buffer and conditions :

Antibody store in 10 mM PBS, 0.5mg/ml BSA, 50% glycerol (buffer) .

Shipped at 4°C. Store at -20°C or -80°C.

Products are valid for one natural year of receipt.Avoid repeated freeze / thaw cycles.

Tissue specificity:

Widely expressed..

Subcellular location:

Nucleus, PML body. Cytoplasm. Nucleus.

Function:

NAD-dependent protein deacetylase that links transcriptional regulation directly to intracellular energetics and participates in the coordination of several separated cellular functions such as cell cycle, response to DNA damage, metabolism, apoptosis and autophagy (PubMed:11672523, PubMed:12006491, PubMed:14976264, PubMed:14980222, PubMed:15126506, PubMed:15152190, PubMed:15205477, PubMed:15469825, PubMed:15692560, PubMed:16079181, PubMed:16166628, PubMed:16892051, PubMed:16998810, PubMed:17283066, PubMed:17290224, PubMed:17334224, PubMed:17505061, PubMed:17612497, PubMed:17620057, PubMed:17936707, PubMed:18203716, PubMed:18296641, PubMed:18662546,

Introduction: **WB:** Western Blot **IP:** Immunoprecipitation **IHC:** Immunohistochemistry **ChIP:** Chromatin Immunoprecipitation **ICC/IF:** Immunocytochemistry/Immunofluorescence **F:** Flow Cytometry

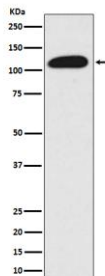
Cross Reactivity: **H:** human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vr:** virus **Ml:** mink **C:** chicken **Dm** D. melanogaster **X:** Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Hr:** horse

For Research Use Only. Not For Use In Diagnostic Procedures.

PubMed:18687677, PubMed:19188449, PubMed:19220062, PubMed:19364925, PubMed:19690166, PubMed:19934257, PubMed:20097625, PubMed:20100829, PubMed:20203304, PubMed:20375098, PubMed:20620956, PubMed:20670893, PubMed:20817729, PubMed:20955178, PubMed:21149730, PubMed:21245319, PubMed:21471201, PubMed:21504832, PubMed:21555002, PubMed:21698133, PubMed:21701047, PubMed:21775285, PubMed:21807113, PubMed:21841822, PubMed:21890893, PubMed:21947282, PubMed:22274616, PubMed:24415752, PubMed:24824780, PubMed:29765047, PubMed:30409912). Can modulate chromatin function through deacetylation of histones and can promote alterations in the methylation of histones and DNA, leading to transcriptional repression (PubMed:15469825). Deacetylates a broad range of transcription factors and coregulators, thereby regulating target gene expression positively and negatively (PubMed:15152190, PubMed:14980222, PubMed:14976264). Serves as a sensor of the cytosolic ratio of NAD(+)/NADH which is altered by glucose deprivation and metabolic changes associated with caloric restriction (PubMed:15205477). Is essential in skeletal muscle cell differentiation and in response to low nutrients mediates the inhibitory effect on skeletal myoblast differentiation which also involves 5'-AMP-activated protein kinase (AMPK) and nicotinamide phosphoribosyltransferase (NAMPT) (By similarity). Component of the eNoSC (energy-dependent nucleolar silencing) complex, a complex that mediates silencing of rDNA in response to intracellular energy status and acts by recruiting histone-modifying enzymes (PubMed:18485871). The eNoSC complex is able to sense the energy status of cell: upon glucose starvation, elevation of NAD(+)/NADP(+) ratio activates SIRT1, leading to histone H3 deacetylation followed by dimethylation of H3 at 'Lys-9' (H3K9me2) by SUV39H1 and the formation of silent chromatin in the rDNA locus (PubMed:18485871, PubMed:21504832). Deacetylates 'Lys-266' of SUV39H1, leading to its activation (PubMed:21504832). Inhibits skeletal muscle differentiation by deacetylating PCAF and MYOD1 (PubMed:19188449). Deacetylates H2A and 'Lys-26' of H1-4 (PubMed:15469825). Deacetylates 'Lys-16' of histone H4 (in vitro). Involved in NR0B2/SHP corepression function through chromatin remodeling: Recruited to LRH1 target gene promoters by NR0B2/SHP thereby

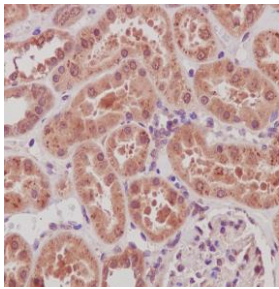
Validation Data:

SIRT1 Rabbit mAb [H580] Images

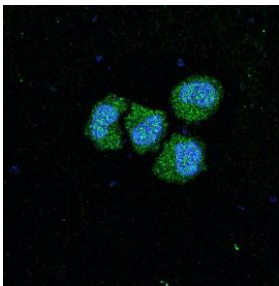


Western blot (SDS PAGE) analysis of extracts from Jurkat cell lysate.Using SIRT1 Rabbit mAb [H580]at dilution of 1:1000 incubated at 4°C over night.

View more information on <http://naturebios.com>



Immunohistochemical analysis of paraffin-embedded human kidney, .Using SIRT1 Rabbit mAb [H580] at dilution of 1:100 incubated at 4°C over night. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunofluorescent analysis of HeLa cells, Using SIRT1 Rabbit mAb [H580] at dilution of 1:100 incubated at 4°C over night.

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 1% w/v Milk, 1X TBST at 4°C overnight.