

# SIRT1 (Phospho Ser549) Rabbit pAb

CatalogNo: YP1624 **Orthogonal Validated** 

## Key Features

### Host Species

- Rabbit

### Reactivity

- Human, Mouse

### Applications

- WB, ELISA, IHC

### MW

- 78kD (Observed)

### Isotype

- IgG

## Storage

**Storage\*** -15°C to -25°C/1 year (Do not lower than -25°C)

**Formulation** Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

## Recommended Dilution Ratios

**WB 1:500-2000**

**IHC 1:50-300**

**ELISA 1:2000-20000**

## Basic Information

**Clonality** Polyclonal

## Immunogen Information

**Immunogen** Synthesized peptide derived from human SIRT1 (phospho-Ser549)

**Specificity** This antibody detects endogenous levels of Human, Mouse SIRT1 (phospho-Ser549). The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites): PDsSV

## Target Information

**Gene name** SIRT1 SIR2L1

**Protein Name** SIRT1 (phospho-Ser549)

Organism	Gene ID	UniProt ID
Human	<a href="#">23411</a> ;	<a href="#">Q96EB6</a> ;
Mouse	<a href="#">93759</a> ;	<a href="#">Q923E4</a> ;

**Cellular Localization**

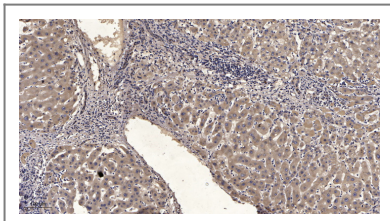
Nucleus , PML body . Cytoplasm . Nucleus . Recruited to the nuclear bodies via its interaction with PML (PubMed:12006491) . Colocalized with APEX1 in the nucleus (PubMed:19934257) . May be found in nucleolus , nuclear euchromatin , heterochromatin and inner membrane (PubMed:15469825) . Shuttles between nucleus and cytoplasm (By similarity) . Colocalizes in the nucleus with XBP1 isoform 2 (PubMed:20955178) . .; [SirtT1 75 kDa fragment]: Cytoplasm . Mitochondrion .

**Tissue specificity** Widely expressed.

**Function**

Catalytic activity:NAD (+) + an acetylprotein = nicotinamide + O-acetyl-ADP-ribose + a protein. ,cofactor:Binds 1 zinc ion per subunit. ,enzyme regulation:Inhibited by nicotinamide. Activated by resveratrol (3 ,5 ,4'-trihydroxy-trans-stilbene) , butein (3 ,4 ,2' ,4'-tetrahydroxychalcone) , piceatannol (3 ,5 ,3' ,4'-tetrahydroxy-trans-stilbene) , Isoliquiritigenin (4 ,2' ,4'-trihydroxychalcone) , fisetin (3 ,7 ,3' ,4'-tetrahydroxyflavone) and quercetin (3 ,5 ,7 ,3' ,4'-pentahydroxyflavone) . RPS19BP1/AROS acts as a positive regulator of deacetylation activity. ,Function:NAD-dependent deacetylase , which regulates processes such as apoptosis and muscle differentiation by deacetylating key proteins. Deacetylates 'Lys-382' of p53/TP53 and impairs its ability to induce proapoptotic program and modulate cell senescence. Deacetylates TAF1B and thereby represses rDNA transcription by the RNA polymerase I. Involved in HES1- and HEY2-mediated transcriptional repression. Inhibits skeletal muscle differentiation by deacetylating PCAF and MYOD1. May serve as a sensor of the cytosolic ratio of NAD (+) /NADH , which is essential in skeletal muscle cell differentiation. Despite some ability to deacetylate histones in vitro , such activity is either weak or inexistent in vivo. In case of HIV-1 infection , interacts with and deacetylates the viral Tat protein. ,miscellaneous:Red wine , which contains resveratrol , may participate in activation of sirtuin proteins , and may therefore participate in an extended lifespan as it has been observed in yeast. ,similarity:Belongs to the sirtuin family. ,similarity:Contains 1 deacetylase sirtuin-type domain. ,subcellular location:Recruited to the nuclear bodies via its interaction with PML. ,subunit:Interacts with TAF1B. Found in a complex with PCAF and MYOD1 (By similarity) . Interacts with MLLT7/FOXO4 , HES1 , HEY2 , p53/TP53 and PML. Interacts with RPS19BP1/AROS. ,tissue specificity:Widely expressed. ,

## Validation Data



Immunohistochemical analysis of paraffin-embedded human liver cancer. 1, Antibody was diluted at 1:200 (4°C overnight). 2, Tris-EDTA,pH9.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200 (room temperature, 45min).

## | Contact information

Orders: order.cn@immunoway.com  
Support: support.cn@immunoway.com  
Telephone: 400-8787-807(China)  
Website: <http://www.immunoway.com.cn>  
Address: 2200 Ringwood Ave San Jose, CA 95131 USA



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**SIRT1 (Phospho Ser549) Rabbit pAb**

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