

SIRT1 Mouse mAb

CatalogNo: YM1416

Orthogonal Validated Comparable Abs 

Key Features

Host Species

- Mouse

Reactivity

- Human

Applications

- WB,IP

MW

- 85-110kD (Observed)

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 1:1000

Basic Information

Clonality Monoclonal

Clone Number 12A9

Immunogen Information

Immunogen Purified recombinant human SIRT1 protein fragments expressed in E.coli.

Specificity This antibody detects endogenous levels of SIRT1 and does not cross-react with related proteins.

| Target Information

Gene name sirt1

Protein Name

Organism	Gene ID	UniProt ID
Human	23411 ;	Q96EB6 ;
Mouse	93759 ;	Q923E4 ;

Cellular Localization

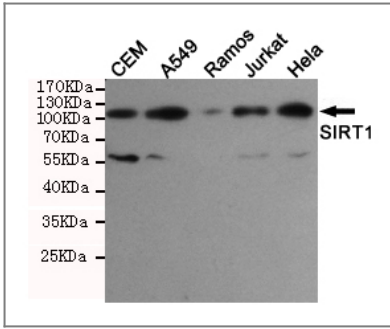
Nucleus, PML body . Cytoplasm . Nucleus . Recruited to the nuclear bodies via its interaction with PML (PubMed:12006491). Colocalized with APEX1 in the nucleus (PubMed:19934257). May be found in nucleolus, nuclear euchromatin, heterochromatin and inner membrane (PubMed:15469825). Shuttles between nucleus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

Tissue specificity Widely expressed.

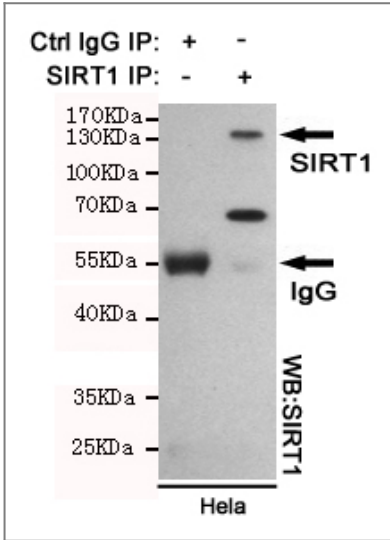
Function

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



Western blot detection of SIRT1 in HeLa, Jurkat, Ramos, A549 and CEM cell lysates using SIRT1 mouse mAb (1:1000 diluted). Predicted band size: 120KDa. Observed band size: 120KDa.



Immunoprecipitation analysis of HeLa cell lysates using SIRT1 mouse mAb.

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 Mouse mAb

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