

Basic Information

Product Name	Anti-SIRT1 Antibody	
Gene Name	SIRT1	
Source	Rabbit	
Isotype	IgG	
Species Reactivity	human, mouse, rat	
Tested Application	WB, IHC, ICC/IF, FCM, ELISA	
Contents	500 ug/ml antibody with PBS , 0.02% NaN ₃ , 1 mg BSA and 50% glycerol.	
Immunogen	E.coli-derived human SIRT1 recombinant protein (Position: Y142-H533).	
concentration	500 ug/ml	
Purification	Immunogen affinity purified.	
Observed MW	110-120KD	
Dilution Ratios	Western blot(WB): 1:500-2000 Immunohistochemistry in paraffin section (IHC): 1:50-400 Immunocytochemistry in fixed cells: 1:50-400 Flow cytometry (FCM): 1-3 µg/1x10 ⁶ cells (ELISA): 1:100-1000 (Boiling the paraffin sections in 10mM citrate buffer,pH6.0,or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

Storage

12 months from date of receipt, -20°C as supplied. 6 months 2 to 8°C after reconstitution. Avoid repeated freezing and thawing.

Background Information

Sirtuin 1, also known as SIR2L1 or SIRT1, is a protein that in humans is encoded by the SIRT1 gene. It is mapped to 10q21.3. Sirtuin 1 is a member of the sirtuin family of proteins, homologs of the Sir2 gene in *S. cerevisiae*. Members of the sirtuin family are characterized by a sirtuin core domain and grouped into four classes. Sirtuin 1 is downregulated in cells that have high insulin resistance and inducing its expression increases insulin sensitivity, suggesting the molecule is associated with improving insulin sensitivity. Furthermore, Sirtuin 1 was shown to de-acetylate and affect the activity of both members of the PGC1- α /ERR- α complex, which are essential metabolic regulatory transcription factors.

Reference

Anti-SIRT1 Antibody被引用在2文献中。

Selected Validation Data

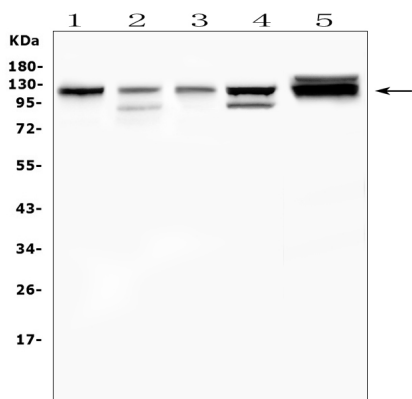


Figure 6. Western blot analysis of SIRT1 using anti-SIRT1 antibody (A00018-1).

Lane 1: rat testicular tissue lysates,
Lane 2: mouse thymus tissue lysates,
Lane 3: mouse testicular tissue lysates,
Lane 4: mouse NIH3T3 whole cell lysates,
Lane 5: human HL-60 whole cell lysates.

-SIRT1 antigen affinity purified polyclonal antibody (Catalog # A00018-1) at 0.5 µg/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody . The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) A specific band was detected for SIRT1 at approximately 120KD. The expected band size for SIRT1 is at 82KD.

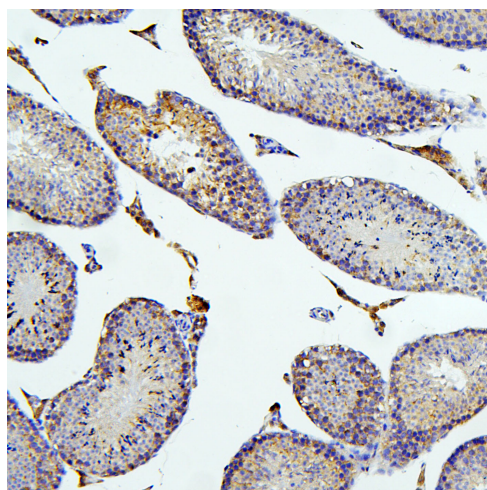


Figure 3. IHC analysis of SIRT1 using anti-SIRT1 antibody (A00018-1).

SIRT1 was detected in paraffin-embedded section of mouse testis tissues. anti-SIRT1 Antibody (A00018-1) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

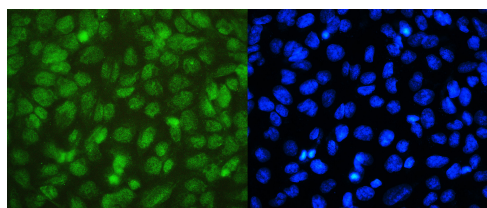


Figure 1. IF analysis of SIRT1 using anti- SIRT1 antibody (A00018-1)
SIRT1 was detected in immunocytochemical section of U2OS cell. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2µg/mL rabbit anti- SIRT1 Antibody (A00018-1) overnight at 4°C. DyLight488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label.

used.

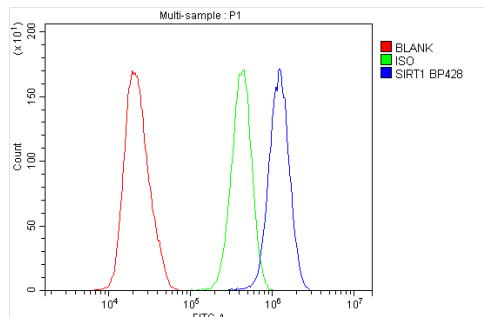


Figure 2. Flow Cytometry analysis of HeLa cells using anti-SIRT1 antibody (A00018-1).

Overlay histogram showing HeLa cells stained with A00018-1 (Blue line).. And then incubated with rabbit anti-SIRT1 Antibody (A00018-1, 1 μ g/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 μ g/1x10⁶ cells) was used as secondary antibody Isotype control antibody (Green line) was rabbit IgG (1 μ g/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.