

## Anti-SIRT7 Antibody Picoband™

Catalog Number: PB9358

### About SIRT7

SIRT7 is also known as SIR2L7. This gene encodes a member of the sirtuin family of proteins, homologs to the yeast Sir2 protein. Members of the sirtuin family are characterized by a sirtuin core domain and grouped into four classes. The functions of human sirtuins have not yet been determined; however, yeast sirtuin proteins are known to regulate epigenetic gene silencing and suppress recombination of rDNA. Studies suggest that the human sirtuins may function as intracellular regulatory proteins with mono-ADP-ribosyltransferase activity. The protein encoded by this gene is included in class IV of the sirtuin family.

### Overview

|                      |                                                                                                                                                                                                       |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Name         | Anti-SIRT7 Antibody Picoband™                                                                                                                                                                         |
| Reactive Species     | Human, Mouse, Rat                                                                                                                                                                                     |
| Description          | Boster Bio Anti-SIRT7 Antibody Picoband™ catalog # PB9358. Tested in IHC, WB applications. This antibody reacts with Human, Mouse, Rat.                                                               |
| Application          | IHC, WB                                                                                                                                                                                               |
| Clonality            | Polyclonal                                                                                                                                                                                            |
| Formulation          | Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na <sub>2</sub> HPO <sub>4</sub> , 0.05mg NaN <sub>3</sub> .                                                                                            |
| Storage Instructions | Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles. |
| Host                 | Rabbit                                                                                                                                                                                                |
| Uniprot ID           | Q9NRC8                                                                                                                                                                                                |

### Technical Details

|                               |                                                                                                                                                                                  |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Immunogen                     | E.coli-derived human SIRT7 recombinant protein (Position: R8-G350). Human SIRT7 shares 96% and 95% amino acid (aa) sequence identity with mouse and rat SIRT7, respectively.     |
| Predicted Reactive Species    | Hamster                                                                                                                                                                          |
| Recommended Detection Systems | Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P). |
| Cross Reactivity              | No cross-reactivity with other proteins.                                                                                                                                         |
| Isotype                       | Rabbit IgG                                                                                                                                                                       |
| Form                          | Lyophilized                                                                                                                                                                      |
| Concentration                 | Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.                                                                                                        |

|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Purification        | Immunogen affinity purified.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Suggested Dilutions | <p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Mouse, Rat, Human, By Heat</p> <p>Western blot, 0.1-0.5ug/ml, Human, Mouse, Rat</p> |

## Anti-SIRT7 Antibody Picoband™ (PB9358) Images

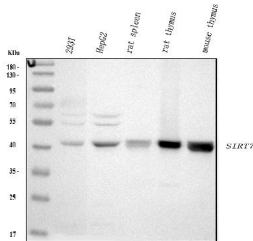


Figure 1. Western blot analysis of SIRT7 using anti-SIRT7 antibody (PB9358).

Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human 293T whole cell lysates,  
Lane 2: human HepG2 whole cell lysates,  
Lane 3: rat spleen tissue lysates,  
Lane 4: rat thymus tissue lysates,  
Lane 5: mouse thymus tissue lysates.

After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-SIRT7 antigen affinity purified polyclonal antibody (Catalog # PB9358) at 0.5 ug/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 at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for SIRT7 at approximately 40 kDa. The expected band size for SIRT7 is at 45 kDa.

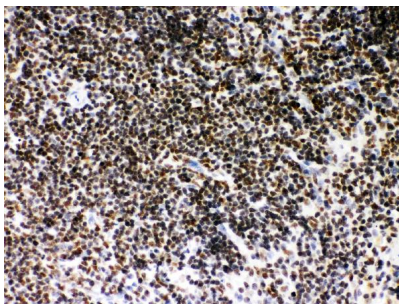


Figure 2. IHC analysis of SIRT7 using anti-SIRT7 antibody (PB9358).

SIRT7 was detected in a paraffin-embedded section of mouse spleen tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 ug/ml rabbit anti-SIRT7 Antibody (PB9358) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

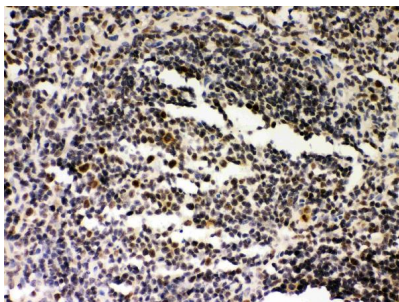


Figure 3. IHC analysis of SIRT7 using anti-SIRT7 antibody (PB9358).

SIRT7 was detected in a paraffin-embedded section of rat spleen tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 ug/ml rabbit anti-SIRT7 Antibody (PB9358) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

## 1 Publications Citing This Product

1. PubMed ID: 33274232, Sun R, Guo M, Fan X, Meng Q, Yuan D, Yang X, Yan K, Deng H. MicroRNA-148b Inhibits the Malignant Biological Behavior of Melanoma by Reducing Sirtuin 7 Expression Levels. Biomed Res Int. 2020 Nov 20;2020:9568976. doi: 10.1155/2020/9568976. PMID: 33274232;

Visit [bosterbio.com/anti-sirt7-picoband-trade-antibody-pb9358-boster.html](https://bosterbio.com/anti-sirt7-picoband-trade-antibody-pb9358-boster.html) to see all 1 publications.

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