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Anti-SIRT1 Antibody Picoband®

Catalog Number: PB9159

About SIRT1

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-alpha/ERR-alpha complex, which are essential metabolic regulatory transcription factors.

Overview

Product Name	Anti-SIRT1 Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-SIRT1 Antibody Picoband® catalog # PB9159. Tested in IF, ICC, WB applications. This antibody reacts with Human. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	IF, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains antibody formulated with stabilizing components, 0.9 mg NaCl, 0.2 mg Na2HPO4, and 0.05 mg NaN3. *This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required.
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	Q96EB6

Technical Details

Immunogen	E.coli-derived human SIRT1 recombinant protein (Position: R112-K311). Human SIRT1 shares 90% amino acid (aa) sequence identity with mouse SIRT1.
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 ICC.

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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	Western blot, 0.1-0.5ug/ml, Human Immunocytochemistry/Immunofluorescence, 5 ug/ml, Human

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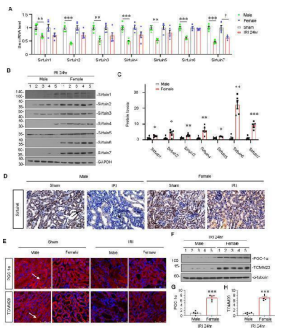
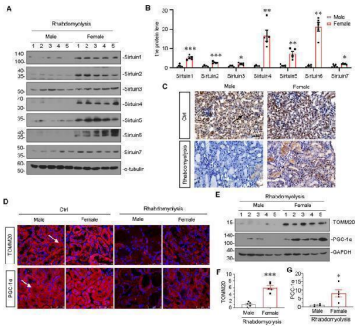
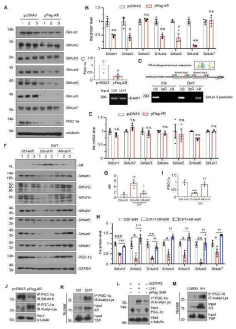
Anti-SIRT1 Antibody Picoband® (PB9159) Images



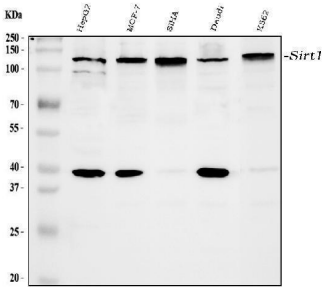
Sirtuin 6 is the possible contributor to gender differences upon IRI. A Graphical representations show the relative abundance of Sirtuin 1-7 mRNA in different groups. ** P



The expression of Sirtuin 6 was the key regulator for gender differences in rhabdomyolysis-induced AKI. A , B Representative western blot (A) and graphical representations of (B) Sirtuin 1-7 protein expression levels are shown. * P



AR increases acetylation of PGC-1alpha by downregulating Sirtuin 6 expression. A – C Representative western blot (A) and graphical representations of (B) Sirtuin 1-7 and (C) PGC-1alpha protein expression levels are shown. * P



Western blot analysis of SIRT1 using anti-SIRT1 antibody (PB9159). 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 HepG2 whole cell lysates, Lane 2: human MCF-7 whole cell lysates, Lane 3: huamn SiHa whole cell lysates, Lane 4: huamn Daudi whole cell lysates, Lane 5: huamn K562 whole cell 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-SIRT1 antigen affinity purified polyclonal antibody (Catalog # PB9159) 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

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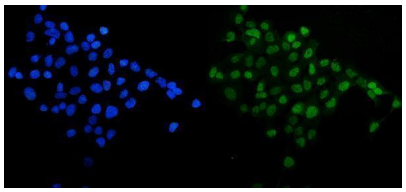
band was detected for SIRT1 at approximately 120 kDa. The expected band size for SIRT1 is at 82 kDa.



IF analysis of SIRT1 using anti-SIRT1 antibody (PB9159). SIRT1 was detected in an immunocytochemical section of A431 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/mL rabbit anti-SIRT1 Antibody (PB9159) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

1 Publications Citing This Product

1. PubMed ID: 25162824, Hou S, Zheng F, Li Y, Gao L, Zhang J. Int J Mol Sci. 2014 Aug 26;15(9):15026-43. Doi: 10.3390/Ijms150915026. The Protective Effect Of Glycyrrhizic Acid On Renal Tubular Epithelial Cell Injury Induced By High Glucose.

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Anti-SIRT1 Antibody

For Research Use Only. Not for use in diagnostic procedures.