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Anti-SIRT3 Antibody (Monoclonal, 31S09)

Catalog Number: M01061

About SIRT3

NAD-dependent deacetylase sirtuin-3, mitochondrial also known as SIRT3 is a protein that in humans is encoded by the SIRT3 gene. SIRT3 encodes a member of the sirtuin family of class III histone deacetylases, homologs to the yeast Sir2 protein. The encoded protein is found exclusively in mitochondria, where it can eliminate reactive oxygen species, inhibit apoptosis, and prevent the formation of cancer cells. SIRT3 has far-reaching effects on nuclear gene expression, cancer, cardiovascular disease, neuroprotection, aging, and metabolic control.

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Overview

Product Name	Anti-SIRT3 Antibody (Monoclonal, 31S09)
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-SIRT3 Antibody (Monoclonal, 31S09) catalog # M01061. Tested in WB, IHC, IF, ICC/IF, IP, Flow Cytometry, ChIP applications. This antibody reacts with Human, Mouse, Rat.
Application	ChIP, Flow Cytometry, IP, IF, IHC, ICC, WB
Clonality	Monoclonal 31S09
Formulation	Rabbit IgG in stabilizing components, phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. 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. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	Q9NTG7

Technical Details

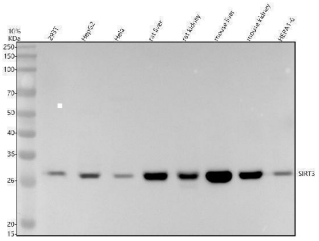
Immunogen	Recombinant protein within human SIRT3 aa 53-397.

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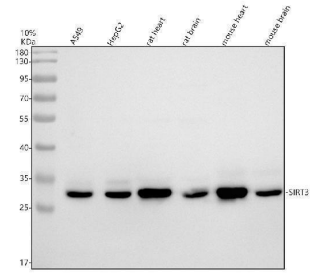
Form	Liquid
Concentration	500 ug/ml
Purification	Protein A affinity purified.
Suggested Dilutions	Western blot, 1:500-2000 Immunohistochemistry, 1:50-200 Immunofluorescence, 1:50-200 Immunocytochemistry/Immunofluorescence, 1:50-200 ImmunoPrecipitation, 1:50 Flow Cytometry (Fixed), 1:50-200

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Anti-SIRT3 Antibody (Monoclonal, 31S09) (M01061) Images



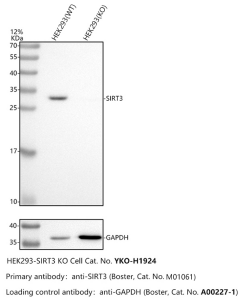
Western blot analysis of SIRT3 using anti-SIRT3 antibody (M01061). Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human 293T whole cell lysates, Lane 2: human HepG2 whole cell lysates, Lane 3: human Hela whole cell lysates, Lane 4: rat liver tissue lysates, Lane 5: rat kidney tissue lysates, Lane 6: mouse liver tissue lysates Lane 7: mouse kidney tissue lysates, Lane 8: mouse HEPA1-6 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-SIRT3 antigen affinity purified monoclonal antibody (M01061) at 1:500 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 ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for SIRT3 at approximately 28 kDa. The expected band size for SIRT3 is at 44 kDa.



Western blot analysis of SIRT3 using anti-SIRT3 antibody (M01061). Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human A549 whole cell lysates, Lane 2: human HepG2 whole cell lysates, Lane 3: rat heart tissue lysates, Lane 4: rat brain tissue lysates, Lane 5: mouse heart tissue lysates, Lane 6: mouse brain 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-SIRT3 antigen affinity purified monoclonal antibody (M01061) at 1:500 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 ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for SIRT3 at approximately 28 kDa. The expected band size for SIRT3 is at 44 kDa.

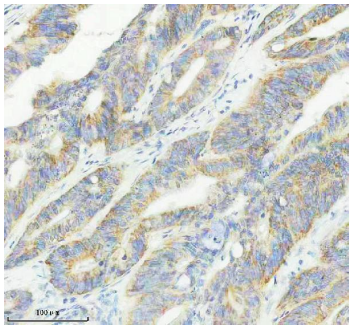
Western blot analysis of SIRT3 using anti-SIRT3 antibody (M01061). Electrophoresis was performed on a 12% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human HEK293- WT whole cell lysates, Lane 2: human HEK293-SIRT3 KO whole cell lysates.After electrophoresis, proteins

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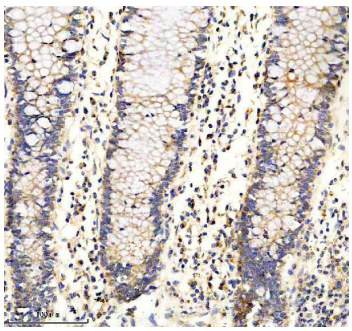


HEK293-SIRT3 KO Cell Cat. No. **YKO-H1924**
Primary antibody: anti-SIRT3 (Boster, Cat. No. M01061)
Loading control antibody: anti-GAPDH (Boster, Cat. No. **A00227-1**)

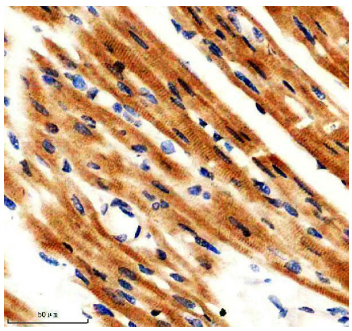
were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-SIRT3 antigen affinity purified monoclonal antibody (M01061) at 1:50 overnight at 4°C, then washed with TBS-0.1%Tween 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 ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for SIRT3 at approximately 28 kDa. The expected band size for SIRT3 is at 28 kDa.



IHC analysis of SIRT3 using anti-SIRT3 antibody (M01061). SIRT3 was detected in a paraffin-embedded section of human colon cancer 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 1:50 rabbit anti-SIRT3 Antibody (M01061) 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.



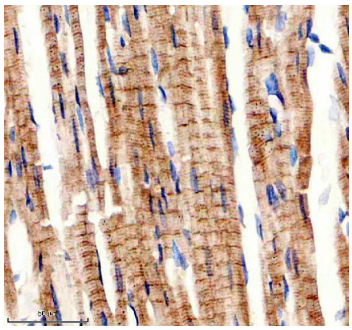
IHC analysis of SIRT3 using anti-SIRT3 antibody (M01061). SIRT3 was detected in a paraffin-embedded section of human colon tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1:50 rabbit anti-SIRT3 Antibody (M01061) 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.



IHC analysis of SIRT3 using anti-SIRT3 antibody (M01061). SIRT3 was detected in a paraffin-embedded section of mouse heart 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 1:50 rabbit anti-SIRT3 Antibody (M01061) 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.

IHC analysis of SIRT3 using anti-SIRT3 antibody (M01061). SIRT3 was detected in a paraffin-embedded section of rat heart tissue. Heat mediated antigen retrieval was performed

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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 1:50 rabbit anti-SIRT3 Antibody (M01061) 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.

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