BOSTER BIOLOGICAL TECHNOLOGY
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Anti-Sorbitol Dehydrogenase/SORD Antibody Picoband® (monoclonal, 12B10G2)

Catalog Number: M07851-1

About SORD

Sorbitol dehydrogenase is an enzyme that in humans is encoded by the SORD gene. Sorbitol dehydrogenase (SORD) catalyzes the interconversion of polyols and their corresponding ketoses, and together with aldose reductase, makes up the sorbitol pathway that is believed to play an important role in the development of diabetic complications. The first reaction of the pathway (also called the polyol pathway) is the reduction of glucose to sorbitol by ALDR1 with NADPH as the cofactor. SORD then oxidizes the sorbitol to fructose using NAD(+) cofactor.

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Overview

Product Name	Anti-Sorbitol Dehydrogenase/SORD Antibody Picoband® (monoclonal, 12B10G2)
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Sorbitol Dehydrogenase/SORD Antibody Picoband® (monoclonal, 12B10G2) catalog # M07851-1. Tested in Flow Cytometry, IHC, WB applications. This antibody reacts with Human, Mouse, Rat. 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	Flow Cytometry, IHC, WB
Clonality	Monoclonal 12B10G2
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na2HPO4.
Storage Instructions	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 freezing and thawing.
Host	Mouse
Uniprot ID	Q00796

Technical Details

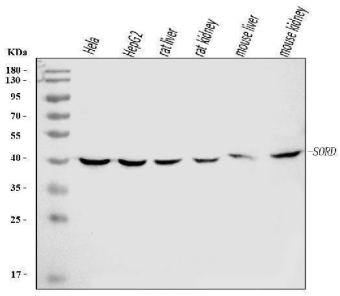
Immunogen	E.coli-derived human Sorbitol Dehydrogenase/SORD recombinant protein (Position: N8-P357).

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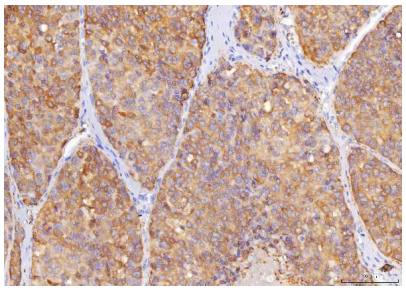
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Mouse IgG (EK1001) for Western blot, and HRP Conjugated anti-Mouse IgG Super Vision Assay Kit (SV0001-1) for IHC(P).
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Mouse IgG1
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.25-0.5 ug/ml, Human, Mouse, Rat Immunohistochemistry(Paraffin-embedded Section), 2-5 ug/ml, Human, Rat Flow Cytometry (Fixed), 1-3 ug/1x10^6 cells, Human Note: For flow cytometry (FCM), suitable for fixed cells only. Not suitable for FACS or surface flow cytometry using live cells.

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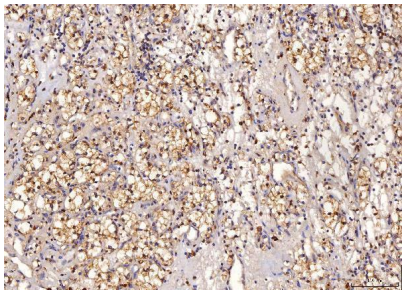
Anti-Sorbitol Dehydrogenase/SORD Antibody Picoband® (monoclonal, 12B10G2) (M07851-1) Images



Western blot analysis of Sorbitol Dehydrogenase/SORD using anti-Sorbitol Dehydrogenase/SORD antibody (M07851-1). 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 Hela whole cell lysates, Lane 2: human HepG2 whole cell lysates, Lane 3: rat liver tissue tissue lysates, Lane 4: rat kidney tissue lysates, Lane 5: mouse liver tissue lysates, Lane 6: mouse kidney 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 mouse anti-Sorbitol Dehydrogenase/SORD antigen affinity purified monoclonal antibody (Catalog # M07851-1) 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-mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1001) with Tanon 5200 system. A specific band was detected for Sorbitol Dehydrogenase/SORD at approximately 40 kDa. The expected band size for Sorbitol Dehydrogenase/SORD is at 40 kDa.



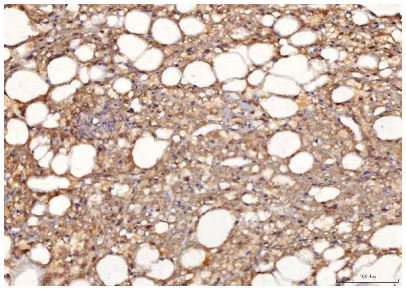
IHC analysis of Sorbitol Dehydrogenase/SORD using anti-Sorbitol Dehydrogenase/SORD antibody (M07851-1). Sorbitol Dehydrogenase/SORD was detected in a paraffin-embedded section of human liver cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml mouse anti-Sorbitol Dehydrogenase/SORD Antibody (M07851-1) overnight at 4°C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit (Catalog # SV0001) with DAB as the chromogen.



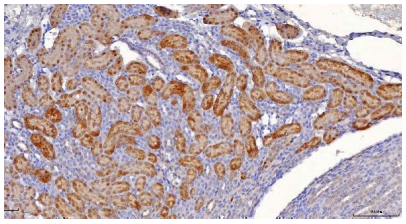
IHC analysis of Sorbitol Dehydrogenase/SORD using anti-Sorbitol Dehydrogenase/SORD antibody (M07851-1). Sorbitol Dehydrogenase/SORD was detected in a paraffin-embedded section of human renal clear cell carcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml mouse anti-Sorbitol Dehydrogenase/SORD Antibody (M07851-1) overnight at 4°C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at

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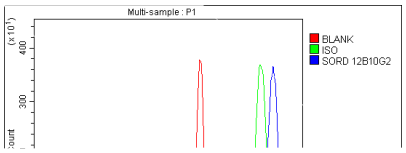
37°C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit (Catalog # SV0001) with DAB as the chromogen.



IHC analysis of Sorbitol Dehydrogenase/SORD using anti-Sorbitol Dehydrogenase/SORD antibody (M07851-1). Sorbitol Dehydrogenase/SORD was detected in a paraffin-embedded section of human SM fatty carcinoma of the left kidney 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 2 ug/ml mouse anti-Sorbitol Dehydrogenase/SORD Antibody (M07851-1) overnight at 4°C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit (Catalog # SV0001) with DAB as the chromogen.



IHC analysis of Sorbitol Dehydrogenase/SORD using anti-Sorbitol Dehydrogenase/SORD antibody (M07851-1). Sorbitol Dehydrogenase/SORD was detected in a paraffin-embedded section of rat kidney 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 2 ug/ml mouse anti-Sorbitol Dehydrogenase/SORD Antibody (M07851-1) overnight at 4°C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit (Catalog # SV0001) with DAB as the chromogen.



Flow Cytometry analysis of U20S cells using anti-Sorbitol Dehydrogenase/SORD antibody (M07851-1). Overlay histogram showing U20S cells stained with M07851-1 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-Sorbitol Dehydrogenase/SORD Antibody (M07851-1, 1 ug/1x106 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126, 5-10 ug/1x106 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG (1 ug/1x106) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

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