BOSTER BIOLOGICAL TECHNOLOGY
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Anti-Sorbitol Dehydrogenase/SORD Antibody Picoband®

Catalog Number: A07851-1

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®
Reactive Species	Human, Monkey, Mouse, Rat
Description	Boster Bio Anti-Sorbitol Dehydrogenase/SORD Antibody Picoband® catalog # A07851-1. Tested in ELISA, Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Human, Monkey, 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	ELISA, Flow Cytometry, IF, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.01mg NaN3.
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	Q00796

Technical Details

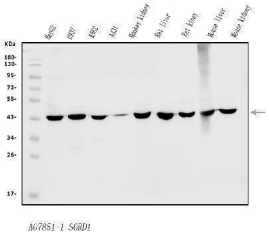
Immunogen	E.coli-derived human Sorbitol Dehydrogenase/SORD recombinant protein (Position: N8-P357).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P) and ICC.

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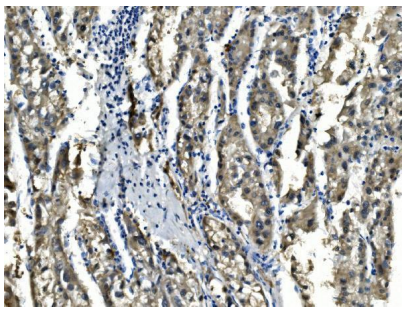
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.25ug/ml, Human, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 2-5ug/ml, Human Immunocytochemistry/Immunofluorescence, 5ug/ml, Human Flow Cytometry (Fixed), 1-3ug/1x10^6 cells, Human ELISA, 0.1-0.5ug/ml, - 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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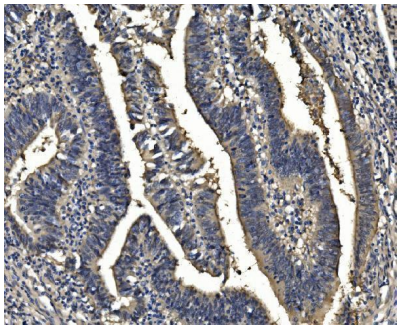
Anti-Sorbitol Dehydrogenase/SORD Antibody Picoband® (A07851-1) Images



Western blot analysis of Sorbitol Dehydrogenase/ SORD using anti-Sorbitol Dehydrogenase/ SORD antibody (A07851-1). 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 50ug of sample under reducing conditions. Lane 1: human HepG2 whole cell lysates, Lane 2: human U937 whole cell lysates, Lane 3: human K562 whole cell lysates, Lane 4: human A431 whole cell lysates, Lane 5: monkey kidney tissue lysates, Lane 6: rat liver tissue lysates, Lane 7: rat kidney tissue lysates, Lane 8: mouse liver tissue lysates, Lane 9: mouse kidney tissue lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA 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-Sorbitol Dehydrogenase/ SORD antigen affinity purified polyclonal antibody (Catalog # A07851-1) at 0.25 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 Sorbitol Dehydrogenase/ SORD at approximately 43KD. The expected band size for Sorbitol Dehydrogenase/ SORD is at 38KD.



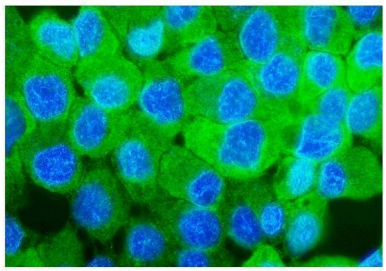
IHC analysis of Sorbitol Dehydrogenase/ SORD using anti-Sorbitol Dehydrogenase/ SORD antibody (A07851-1). Sorbitol Dehydrogenase/ SORD was detected in paraffin-embedded section of human liver cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-Sorbitol Dehydrogenase/ SORD Antibody (A07851-1) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.



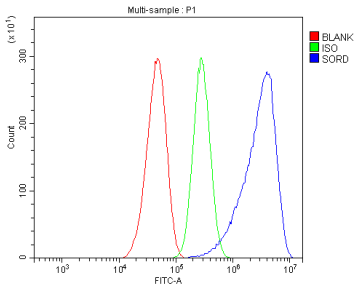
IHC analysis of Sorbitol Dehydrogenase/ SORD using anti-Sorbitol Dehydrogenase/ SORD antibody (A07851-1). Sorbitol Dehydrogenase/ SORD was detected in paraffin-embedded section of human rectal cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-Sorbitol Dehydrogenase/ SORD Antibody (A07851-1) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog

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SA1022) with DAB as the chromogen.



IF analysis of Sorbitol Dehydrogenase/ SORD using anti-Sorbitol Dehydrogenase/ SORD antibody (A07851-1). Sorbitol Dehydrogenase/ SORD was detected in 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 5ug/mL rabbit anti-Sorbitol Dehydrogenase/ SORD Antibody (A07851-1) 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.



Flow Cytometry analysis of CACO-2 cells using anti-Sorbitol Dehydrogenase/ SORD antibody (A07851-1). Overlay histogram showing CACO-2 cells stained with A07851-1 (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 rabbit anti-Sorbitol Dehydrogenase/ SORD Antibody (A07851-1, 1ug/1x106 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x106 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/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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