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antibody and ELISA experts

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Anti-Xanthine Oxidase/XDH Antibody Picoband™

Catalog Number: A01884

About XDH

Xanthine dehydrogenase, also known as XDH, is a protein that, in humans, is encoded by the XDH gene. Xanthine dehydrogenase belongs to the group of molybdenum-containing hydroxylases involved in the oxidative metabolism of purines. The encoded protein has been identified as a moonlighting protein based on its ability to perform mechanistically distinct functions. Xanthine dehydrogenase can be converted to xanthine oxidase by reversible sulfhydryl oxidation or by irreversible proteolytic modification. Defects in xanthine dehydrogenase cause xanthinuria, may contribute to adult respiratory stress syndrome, and may potentiate influenza infection through an oxygen metabolite-dependent mechanism.

Overview

Product Name	Anti-Xanthine Oxidase/XDH Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Xanthine Oxidase/XDH Antibody Picoband™ catalog # A01884. Tested in Flow Cytometry, IHC, IHC-F, ICC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	Flow Cytometry, IHC, IHC-F, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2mg Na2HPO4, 0.05 mg 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	P47989

Technical Details

Immunogen	E. coli-derived human Xanthine Oxidase recombinant protein (Position: T2-K343). Human Xanthine Oxidase shares 86.8% and 89.2% amino acid (aa) sequence identity with mouse and rat Xanthine Oxidase, respectively.
Predicted Reactive Species	Human
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), IHC(F) and ICC.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized

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Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Western blot, 0.1-0.5ug/ml, Mouse, Rat, Human Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Mouse, Rat, Human, By Heat Immunohistochemistry (Frozen Section), 0.5-1ug/ml, Human Immunocytochemistry, 0.5-1ug/ml, Human Flow Cytometry, 1-3ug/1x10^6 cells, Human

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Anti-Xanthine Oxidase/XDH Antibody Picoband™ (A01884) Images

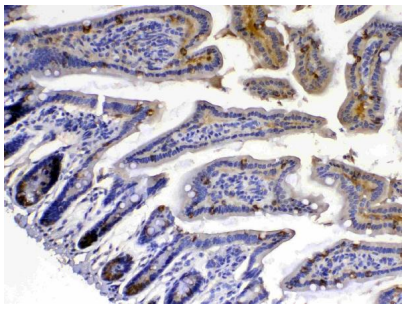

Figure 2. IHC analysis of Xanthine Oxidase using anti-Xanthine Oxidase antibody (A01884).
Xanthine Oxidase was detected in paraffin-embedded section of mouse intestine tissue . Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-Xanthine Oxidase Antibody (A01884) 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.

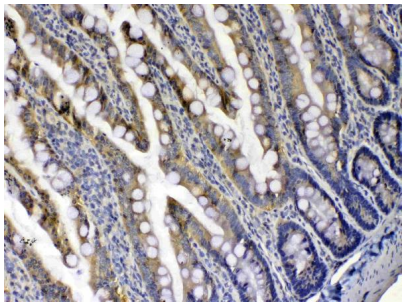

Figure 3. IHC analysis of Xanthine Oxidase using anti-Xanthine Oxidase antibody (A01884).
Xanthine Oxidase was detected in paraffin-embedded section of rat intestine tissue . Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-Xanthine Oxidase Antibody (A01884) 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.

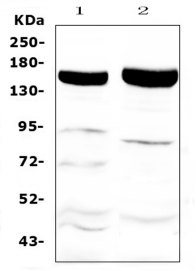

Figure 1. Western blot analysis of Xanthine Oxidase using anti-Xanthine Oxidase antibody (A01884).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.
Lane 1: rat liver tissue lysate,
Lane 2: mouse liver tissue lysate.
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-Xanthine Oxidase antigen affinity purified polyclonal antibody (Catalog # A01884) 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 1:10000 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 Xanthine Oxidase at approximately 146KD. The expected band size for Xanthine Oxidase is at 146KD.

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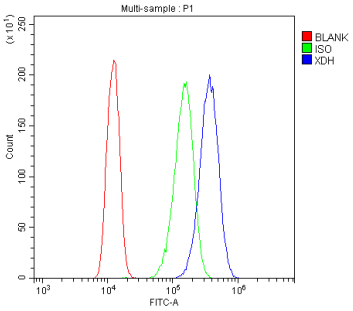

Figure 4. Flow Cytometry analysis of A431 cells using anti-Xanthine Oxidase antibody (A01884).
Overlay histogram showing A431 cells stained with A01884 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-Xanthine Oxidase Antibody (A01884,1ug/1x10^6 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10^6 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

1 Publications Citing This Product

1. PubMed ID: 27034731, Effect of Blueberry Anthocyanins Malvidin and Glycosides on the Antioxidant Properties in Endothelial Cells

Visit bosterbio.com/anti-xanthine-oxidase-picoband-trade-antibody-a01884-boster.html to see all 1 publications.