BOSTER BIOLOGICAL TECHNOLOGY
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888-466-3604 | support@bosterbio.com | www.bosterbio.com

Anti-SDHB Antibody Picoband®

Catalog Number: PA1718

About SDHB

SDHB (Succinate Dehydrogenase Complex, Subunit B, iron sulfur protein), also known as iron-sulfur subunit of complex II (Ip) or SDH2, HOMOLOG OF, is a protein that in humans is encoded by the SDHB gene. SDHB is one of four protein subunits forming succinate dehydrogenase, the other three being SDHA, SDHC and SDHD. The SDHB subunit is connected to the SDHA subunit on the hydrophilic, catalytic end of the SDH complex. The SDHB gene is mapped on 1p36.13. The entire SDHB transcript is encoded by 8 exons within approximately 40 kb by Au et al (1995). Pollard et al. (2005) stated that the nuclear-encoded Krebs cycle enzymes fumarate hydratase and succinate dehydrogenases like SDHB act as tumor suppressors, and germline mutations in these genes predispose individuals to leiomyomas and renal cancer and to paragangliomas, respectively. In affected members of families with paragangliomas-4, mutations were identified in the SDHB gene.

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Overview

Product Name	Anti-SDHB Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-SDHB Antibody catalog # PA1718. Tested in IF, IP, 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	IP, IF, IHC, 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	P21912

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human SDHB, different from

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	the related rat sequence by one amino acid and mouse sequence by two amino acids.
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).
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, Mouse, Rat Immunofluorescence, 5 ug/ml, Human Immunohistochemistry (Paraffin-embedded Section), 2-5ug/ml, Human Immunoprecipitation, 0.5-2 ug/ml, Human

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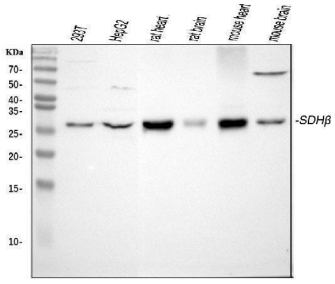
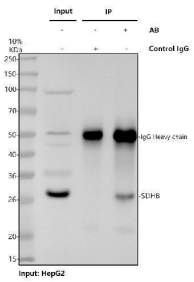
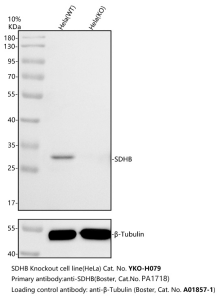
Anti-SDHB Antibody Picoband® (PA1718) Images



Western blot analysis of SDHB using anti-SDHB antibody (PA1718). 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 293T 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-SDHB antigen affinity purified polyclonal antibody (Catalog # PA1718) 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 fo r 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 SDHB at approximately 29 kDa. The expected band size for SDHB is at 29 kDa.



Immunoprecipitating (IP) SDHB in HepG2 whole cell lysate. Western blot analysis of SDHB using anti-SDHB antibody (PA1718); Lane 1: HepG2 whole cell lysates (30ug); Lane 2: Rabbit control IgG instead of anti-SDHB antibody in HepG2 whole cell lysate; Lane 3: anti-SDHB antibody (2ug) + HepG2 whole cell lysate (500ug). After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-SDHB antigen affinity purified polyclonal antibody (PA1718) at a dilution of 0.5 ug/mL and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1196-200). A specific band was detected for SDHB at approximately 29 kDa. The expected band size for SDHB is at 32 kDa.



Western blot analysis of SDHB using anti-SDHB antibody (PA1718). 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 Hela-WT whole cell lysates, Lane 2: human Hela-SDHB KO 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-SDHB antigen affinity purified polyclonal antibody (PA1718) 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

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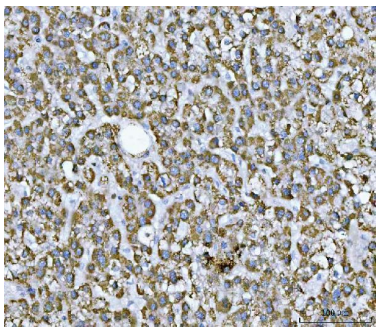
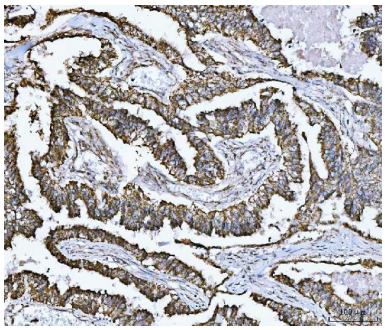
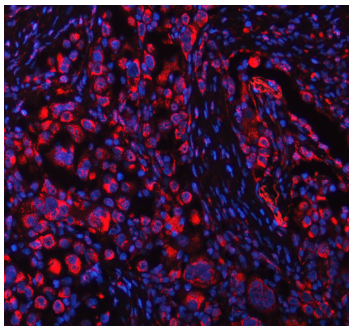
using an ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for SDHB at approximately 29 kDa. The expected band size for SDHB is at 29 kDa.



IHC analysis of SDHB using anti-SDHB antibody (PA1718). SDHB 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 rabbit anti-SDHB Antibody (PA1718) 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 SDHB using anti-SDHB antibody (PA1718). SDHB was detected in a paraffin-embedded section of human lung adenocarcinoma 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 rabbit anti-SDHB Antibody (PA1718) 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.



IF analysis of SDHB using anti-SDHB antibody (PA1718). SDHB was detected in a paraffin-embedded section of human lung 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 5 ug/mL rabbit anti-SDHB Antibody (PA1718) overnight at 4°C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) was used as secondary antibody at 1:500 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.

Anti-SDHB Antibody

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