

Anti-SDHA Antibody Picoband™

Catalog Number: PB9433

About SDHA

Complex II of the mitochondrial respiratory chain, also known as succinate dehydrogenase or succinate:ubiquinone oxidoreductase, consists of 4 nuclear-encoded polypeptides, these are the flavoprotein subunit (SDHA), the iron sulfur protein subunit (SDHB), and the integral membrane protein subunits SDHC and SDHD. SDHA is an acronym for succinate dehydrogenase complex subunit A. The succinate dehydrogenase (SDH) protein complex catalyzes the oxidation of succinate (succinate + ubiquinone => fumarate + ubiquinol). The SDHA subunit is connected to the SDHB subunit on the hydrophilic, catalytic end of the complex, and weighs 72.7 kDA. Mutations in the SDHA subunit have a distinct pathology from mutations in the SDHB/SDHC/SDHD subunits; it is the only subunit to never have shown tumor suppressor behaviour. Heterozygous carriers of an SDHA mutation do not develop paragangliomas as has been seen for mutations in the other subunits. This appears to be due to the expression of two similar SDHA genes (Types I and II) in the paraganglia system.

Overview

Product Name	Anti-SDHA Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-SDHA Antibody Picoband™ catalog # PB9433. Tested in WB applications. This antibody reacts with Human, Mouse, Rat.
Application	WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg 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	P31040

Technical Details

Immunogen	E.coli-derived human SDHA recombinant protein (Position: S44-L380). Human SDHA shares 98.2% and 97.6% amino acid (aa) sequence identity with mouse and rat SDHA, respectively.
Predicted Reactive Species	Hamster
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
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	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, Human, Mouse, Rat

Anti-SDHA Antibody Picoband™ (PB9433) Images



Figure 1. Western blot analysis of SDHA using anti-SDHA antibody (PB9433).

Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours.

Lane 1: Rat Liver Tissue Lysate at 50ug,

Lane 2: Mouse Liver Tissue Lysate at 50ug,

Lane 3: Rat Brain Tissue Lysate at 50ug,

Lane 4: Mouse Brain Tissue Lysate at 50ug,

Lane 5: SMMC Whole Cell Lysate at 40ug,

Lane 6: Human Placenta Tissue Lysate at 50ug,

Lane 7: SW620 Whole Cell Lysate at 40ug.

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-SDHA antigen affinity purified polyclonal antibody (Catalog # PB9433) 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 using an Enhanced Chemiluminescent detection (ECL) kit

(Catalog # EK1002) with Tanon 5200 system. A specific band was detected for SDHA at approximately 73 kDa. The expected band size for SDHA is at 73 kDa.

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