BOSTER
antibody and ELISA experts

BOSTER BIOLOGICAL TECHNOLOGY
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Anti-Hamartin/TSC1 Antibody Picoband®

Catalog Number: PB9120

About TSC1

Hamartin also known as tuberous sclerosis 1 is a protein that in humans is encoded by the TSC1 gene. It is mapped to 9q34.13. This peripheral membrane protein was implicated as a tumor suppressor. It forms a complex with TSC2 that regulates mTORC1 signaling and may be also involved in vesicular transport and docking. Hamartin and TSC2 have critical roles in neuronal polarity, and that a common pathway regulates polarization and growth in neurons and cell size in other tissues. Hamartin is a growth inhibitory protein whose biologic effect is probably dependent on its interaction with tuberin. It also can affect cell proliferation via deregulation of G1 phase. Loss or perturbation of Hamartin function leads to loss of adhesion to the cellular matrix and initiates the development of TSC hamartomas.

Overview

Product Name	Anti-Hamartin/TSC1 Antibody Picoband®
Reactive Species	Human, Rat
Description	Boster Bio Anti-Hamartin/TSC1 Antibody Picoband® catalog # PB9120. Tested in WB applications. This antibody reacts with Human, 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	WB
Clonality	Polyclonal
Formulation	Each vial contains antibody formulated with stabilizing components, 0.9 mg NaCl, 0.2 mg Na2HPO4, and 0.05 mg NaN3. *This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required.
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	Q92574

Technical Details

Immunogen	E.coli-derived human Hamartin recombinant protein (Position: D686-Y884). Human Hamartin shares 96% and 95% amino acid (aa) sequences identity with mouse and rat Hamartin, respectively.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western

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	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	Western blot, 0.1-0.5ug/ml, Human, Rat

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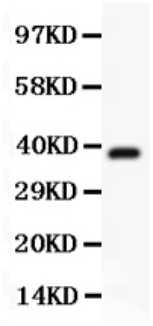
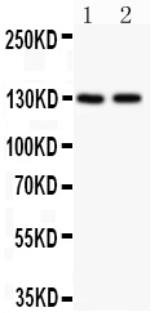
Anti-Hamartin/TSC1 Antibody Picoband® (PB9120) Images



Western blot analysis of Hamartin using anti-Hamartin antibody (PB9120). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. Lane 1: recombinant human Hamartin protein 0.5 ng 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-Hamartin antigen affinity purified polyclonal antibody (Catalog # PB9120) 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 Hamartin at approximately 38 kDa. The expected band size for Hamartin is at 38 kDa.



Western blot analysis of Hamartin using anti-Hamartin antibody (PB9120). 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: rat brain tissue lysates, Lane 2: human Hela 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-Hamartin antigen affinity purified polyclonal antibody (Catalog # PB9120) 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 Hamartin at approximately 130 kDa. The expected band size for Hamartin is at 130 kDa.