BOSTER
antibody and ELISA experts

BOSTER BIOLOGICAL TECHNOLOGY
3942 B Valley Ave, Pleasanton, CA 94566
888-466-3604 | support@bosterbio.com | www.bosterbio.com

Anti-PROX1 Antibody Picoband®

Catalog Number: A01985-1

About PROX1

Prospero homeobox protein 1, also called PROX1 is a protein that in humans is encoded by the PROX1 gene. This gene is mapped to 1q32.3. The protein encoded by this gene is a member of the homeobox transcription factor family. Members of this family contain a homeobox domain that consists of a 60-amino acid helix-turn-helix structure that binds DNA and RNA. The protein encoded by this gene is conserved across vertebrates and may play an essential role during development. Altered levels of this protein have been reported in cancers of different organs, such as colon, brain, blood, breast, pancreas, liver and esophagus.

Overview

Product Name	Anti-PROX1 Antibody Picoband®
Reactive Species	Human, Rat
Description	Boster Bio Anti-PROX1 Antibody Picoband® catalog # A01985-1. Tested in ELISA, Flow Cytometry, IP, ICC, IF, 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	ELISA, Flow Cytometry, IP, IF, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
Storage Instructions	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 freezing and thawing.
Host	Rabbit
Uniprot ID	Q92786

Technical Details

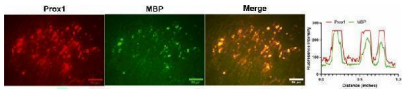
Immunogen	E.coli-derived human PROX1 recombinant protein (Position: E51-E737).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.

BOSTER BIOLOGICAL TECHNOLOGY
3942 B Valley Ave, Pleasanton, CA 94566
888-466-3604 | support@bosterbio.com | www.bosterbio.com

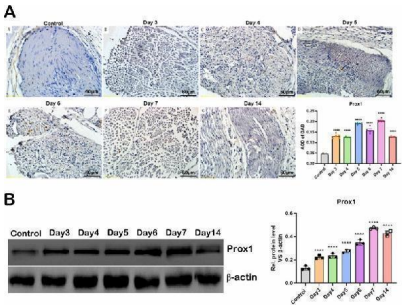
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.25-0.5 ug/ml, Human, Rat Immunocytochemistry/Immunofluorescence, 5 ug/ml, Human Immunoprecipitation, 0.5-2 ug/ml, Human Flow Cytometry (Fixed), 1-3 ug/1x10^6 cells, Human ELISA, 0.1-0.5 ug/ml, -

BOSTER BIOLOGICAL TECHNOLOGY
3942 B Valley Ave, Pleasanton, CA 94566
888-466-3604 | support@bosterbio.com | www.bosterbio.com

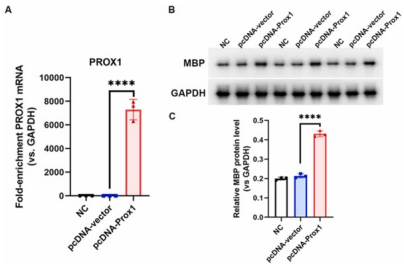
Anti-PROX1 Antibody Picoband® (A01985-1) Images



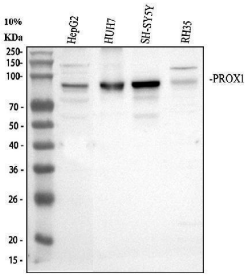
Double IF staining of Prox1 (red) and MBP (green) with IF (×200) and their intensity profile obtained using ImageJ software, along an ideal straight line (white).Index in PubMed under a CC BY license. PMID: 41078399



(A) IHC images of Prox1 proteins in sciatic nerve tissue of control sciatic nerves and injured sciatic nerves on Day 3, 4, 5, 6, 7 and 14 post-injuries (×200) and the quantification of Prox1 proteins in top right panel (P value was normalized to control group, **** P<0.0001, n = 5, One-Way ANOVA analysis was used). (B) Western blot and quantitative analysis of Prox1 protein expression in sciatic nerve tissue from control nerves and injured nerves at days 3, 4, 5, 6, 7, and 14 post-injury (**** P<0.0001, n = 3, One-Way ANOVA analysis was used).Index in PubMed under a CC BY license. PMID: 41078399



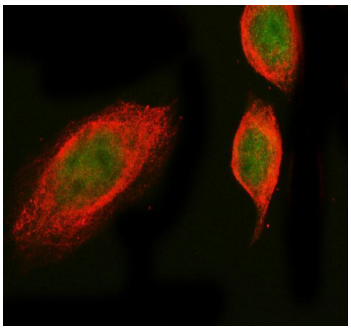
MBP protein level was significantly increased by PROX1 overexpression. (A) qPCR quantification of PROX1 overexpression, (B) WB images of MBP and GAPDH protein from cells transfected with NC, pcDNA-vector or pcDNA-prox1, (C) the quantification of (B). (**** P<0.0001, n = 3, One-Way ANOVA analysis was used).Index in PubMed under a CC BY license. PMID: 41078399



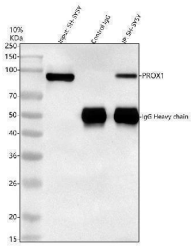
Western blot analysis of PROX1 using anti-PROX1 antibody (A01985-1). Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human HepG2 whole cell lysates, Lane 2: human HUH7 whole cell lysates, Lane 3: human SH-SY5Y whole cell lysates, Lane 4: rat RH35 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-PROX1 antigen affinity purified polyclonal antibody (A01985-1) 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 (Catalog # BA1054) at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for PROX1 at approximately 90 kDa. The expected band size for PROX1 is at 83 kDa.

IF analysis of PROX1 using anti-SGT1/ECD antibody (A01985-1) and anti-Tubulin Alpha antibody (M03989-3). PROX1 was detected in immunocytochemical section of SiHa

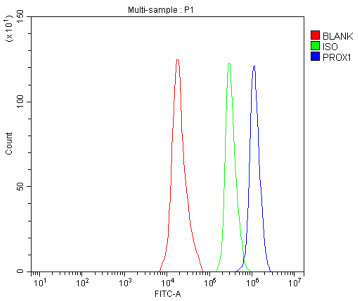
BOSTER BIOLOGICAL TECHNOLOGY
3942 B Valley Ave, Pleasanton, CA 94566
888-466-3604 | support@bosterbio.com | www.bosterbio.com



cell. 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 5 ug/mL rabbit anti-PROX1 Antibody (A01985-1) and mouse anti-Tubulin Alpha antibody (M03989-3) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) and DyLight®594 Conjugated Goat Anti-Mouse IgG (BA1141) were 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.



Immunoprecipitating (IP) PROX1 in SH-SY5Y whole cell lysate. Western blot analysis of PROX1 using anti-PROX1 antibody (A01985-1); Lane 1: SH-SY5Y whole cell lysates (30ug); Lane 2: Rabbit control IgG instead of anti-PROX1 antibody in SH-SY5Y whole cell lysate; Lane 3: anti-PROX1 antibody (2ug) + SH-SY5Y whole cell lysate (500ug). After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-PROX1 antigen affinity purified polyclonal antibody (A01985-1) 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 PROX1 at approximately 90 kDa. The expected band size for PROX1 is at 83 kDa.



Flow Cytometry analysis of SH-SY5Y cells using anti-PROX1 antibody (A01985-1). Overlay histogram showing SH-SY5Y cells stained with A01985-1 (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-PROX1 Antibody (A01985-1, 1 ug/1x106 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x106 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x106) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

Anti-PROX1 Antibody

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