BOSTER
antibody and ELISA experts

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Anti-PC4/SUB1 Antibody Picoband®

Catalog Number: PB10098

About SUB1

Activated RNA polymerase II transcriptional coactivator p15, also known as positive cofactor 4 (PC4) or SUB1 homolog, is a protein that in humans is encoded by the SUB1 gene. This gene is mapped to 5p13.3. The transcriptional cofactor PC4 is an ancient single-strand DNA (ssDNA)-binding protein that has a homologue in bacteriophage T5 where it is likely the elusive replicative ssDNA-binding protein. The recombinant PC4 is shown to function identically to the native protein through its interaction with TAFs.

Overview

Product Name	Anti-PC4/SUB1 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-PC4/SUB1 Antibody Picoband® catalog # PB10098. Tested in IF, 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	IF, IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na2HPO4.
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	P53999

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human PC4, different from the related mouse and rat sequences by one amino acid.
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.

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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 Immunohistochemistry (Paraffin-embedded Section), 2-5ug/ml, Human, By Heat Immunofluorescence, 5 ug/ml, Human

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Anti-PC4/SUB1 Antibody Picoband® (PB10098) Images

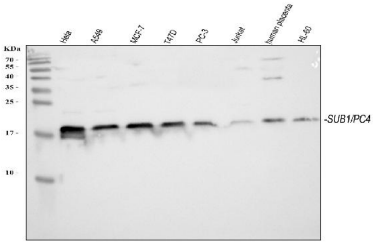

Figure 1. Western blot analysis of PC4/SUB1 using anti-PC4/SUB1 antibody (PB10098).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: human Hela whole cell lysates,
Lane 2: human A549 whole cell lysates,
Lane 3: human MCF-7 whole cell lysates,
Lane 4: human T47D whole cell lysates,
Lane 5: human PC-3 whole cell lysates,
Lane 6: human Jurkat whole cell lysates,
Lane 7: human placenta tissue lysates,
Lane 8: human HL-60 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-PC4/SUB1 antigen affinity purified polyclonal antibody (Catalog # PB10098) 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 PC4/SUB1 at approximately 19 kDa. The expected band size for PC4/SUB1 is at 14 kDa.

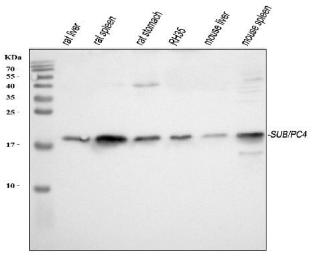

Figure 2. Western blot analysis of PC4/SUB1 using anti-PC4/SUB1 antibody (PB10098).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: rat liver tissue lysates,
Lane 2: rat spleen tissue lysates,
Lane 3: rat stomach tissue lysates,
Lane 4: rat RH35 whole cell lysates,
Lane 5: mouse liver tissue lysates,
Lane 6: mosue spleen 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-PC4/SUB1 antigen affinity purified polyclonal antibody (Catalog # PB10098) 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 PC4/SUB1 at approximately 19 kDa. The expected band size for PC4/SUB1

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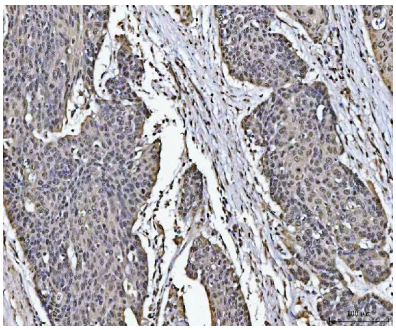

Figure 3. IHC analysis of PC4/SUB1 using anti-PC4/SUB1 antibody (PB10098).
PC4/SUB1 was detected in a paraffin-embedded section of human esophageal squamous carcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-PC4/SUB1 Antibody (PB10098) 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.

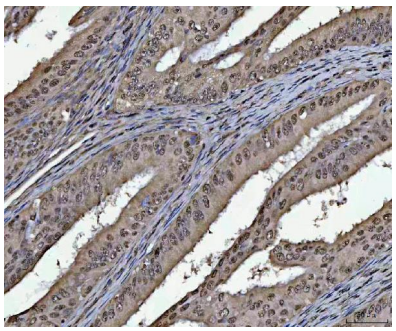

Figure 4. IHC analysis of PC4/SUB1 using anti-PC4/SUB1 antibody (PB10098).
PC4/SUB1 was detected in a paraffin-embedded section of human endometrioid adenocarcinoma type I tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-PC4/SUB1 Antibody (PB10098) 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.

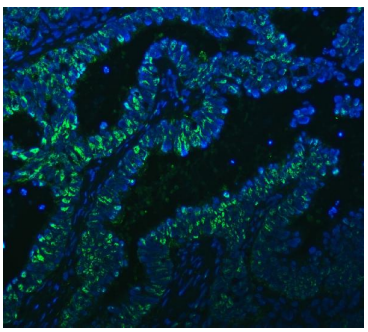

Figure 5. IF analysis of PC4/SUB1 using anti-PC4/SUB1 antibody (PB10098).
PC4/SUB1 was detected in a paraffin-embedded section of human intestinal cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 5 ug/mL rabbit anti-PC4/SUB1 Antibody (PB10098) overnight at 4°C. DyLight488 Conjugated Goat Anti-Rabbit IgG (BA1127) 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.