

Anti-PRC1 Antibody Picoband®

Catalog Number: PB9814

About PRC1

Protein Regulator of cytokinesis 1 (PRC1) is a protein that in humans is encoded by the PRC1 gene and is involved in cytokinesis. This gene is mapped to chromosome 15q26.1 based on an alignment of the PRC1 sequence with the genomic sequence. PRC1 protein is expressed at relatively high levels during S and G2/M phases of the cell cycle before dropping dramatically after mitotic exit and entrance into G1 phase. It is located in the nucleus during interphase, becomes associated with the mitotic spindle in a highly dynamic manner during anaphase, and localizes to the cell midbody during cytokinesis. And this protein has been shown to be a substrate of several cyclin-dependent kinases (CDKs). It is necessary for polarizing parallel microtubules and concentrating the factors responsible for contractile ring assembly. Alternative splicing results in multiple transcript variants.

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Overview

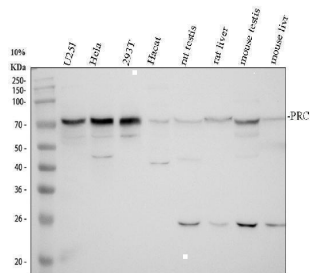
Product Name	Anti-PRC1 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-PRC1 Antibody Picoband® catalog # PB9814. Tested in Flow Cytometry, IP, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees 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	Flow Cytometry, IP, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na ₂ HPO ₄ .
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	O43663

Technical Details

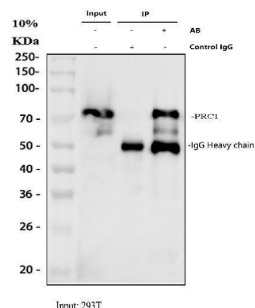
Immunogen	E.coli-derived human PRC1 recombinant protein (Position: M1-E233). Human PRC1 shares 85%
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	amino acid (aa) sequence identity with mouse PRC1.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (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	Western blot, 0.1-0.5ug/ml, Human, Mouse, Rat Immunoprecipitation, 0.5-2 ug/ml, Human Flow Cytometry(Fixed), 1-3 ug/1x10⁶ cells, Human Note: For flow cytometry (FCM), validated for fixed cells only. Not validated for FACS or surface flow cytometry using live cells.

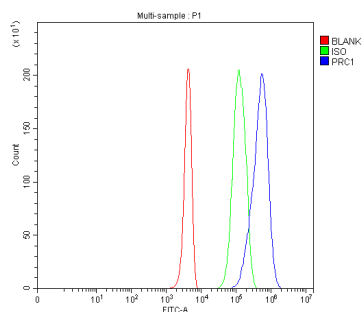
Anti-PRC1 Antibody Picoband® (PB9814) Images



Western blot analysis of PRC1 using anti-PRC1 antibody (PB9814). 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 U251 whole cell lysates, Lane 2: human Hela whole cell lysates, Lane 3: human 293T whole cell lysates, Lane 4: human Hacat whole cell lysates, Lane 5: rat testis tissue lysates, Lane 6: rat liver tissue lysates, Lane 7: mouse testis tissue lysates, Lane 8: mouse liver 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-PRC1 antigen affinity purified polyclonal antibody (PB9814) 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 PRC1 at approximately 72 kDa. The expected band size for PRC1 is at 72 kDa.



Immunoprecipitating (IP) PRC1 in 293T whole cell lysate. Western blot analysis of PRC1 using anti-PRC1 antibody (PB9814); Lane 1: 293T whole cell lysates (30ug); Lane 2: Rabbit control IgG instead of anti-PRC1 antibody in 293T whole cell lysate; Lane 3: anti-PRC1 antibody (2ug) + 293T whole cell lysate (500ug). After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-PRC1 antigen affinity purified polyclonal antibody (PB9814) 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 PRC1 at approximately 72 kDa. The expected band size for PRC1 is at 72 kDa.



Flow Cytometry analysis of 293T cells using anti-PRC1 antibody (PB9814). Overlay histogram showing 293T cells stained with PB9814 (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-PRC1 Antibody (PB9814, 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-PRC1 Antibody

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