BOSTER BIOLOGICAL TECHNOLOGY
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# Anti-TCP1 delta/CCT4 Antibody Picoband®

**Catalog Number:** PB9927

## About CCT4

T-complex protein 1 subunit delta is a protein that in humans is encoded by the CCT4 gene. This gene is mapped to 2p15. The chaperonin containing TCP1 complex (CCT), also called the TCP1 ring complex, consists of 2 back-to-back rings, each containing 8 unique but homologous subunits, such as CCT4. CCT assists the folding of newly translated polypeptide substrates through multiple rounds of ATP-driven release and rebinding of partially folded intermediate forms. Substrates of CCT include the cytoskeletal proteins actin and tubulin, as well as alpha-transducin.

## Overview

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| Product Name | Anti-TCP1 delta/CCT4 Antibody Picoband® |
| Reactive Species | Human, Mouse, Rat |
| Description | Boster Bio Anti-TCP1 delta/CCT4 Antibody Picoband® catalog # PB9927. Tested in Flow Cytometry, IP, IF, IHC, IHC-F, ICC, 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, IF, IHC, IHC-F, ICC, WB |
| Clonality | Polyclonal |
| Formulation | Each vial contains antibody formulated with stabilizing components, 0.9mg NaCl, 0.2mg Na2HPO4, 0.01mg NaN3.<br>*This antibody is supplied in a stabilized formulation.<br>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 | P50991 |

## Technical Details

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| Immunogen | E. coli-derived human CCT4 recombinant protein (Position: R452-R539). Human CCT4 shares 97.7% amino acid (aa) sequence identity with both mouse and rat CCT4. |
| 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), IHC(F) and ICC. |

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| 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<br>Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, Mouse, Rat<br>Immunohistochemistry (Frozen Section), 0.5-1ug/ml, Mouse, Rat<br>Immunocytochemistry/Immunofluorescence, 2ug/ml, Human, Mouse, Rat<br>Immunoprecipitation, 0.5-2 ug/ml, Human<br>Flow Cytometry (Fixed), 1-3ug/1x$10^6$ cells, Human |

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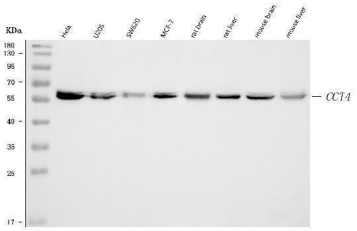
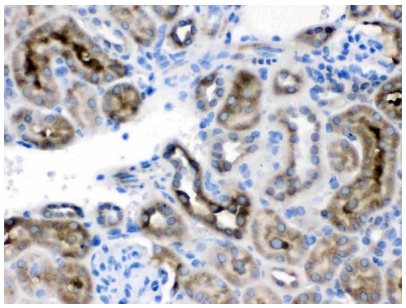
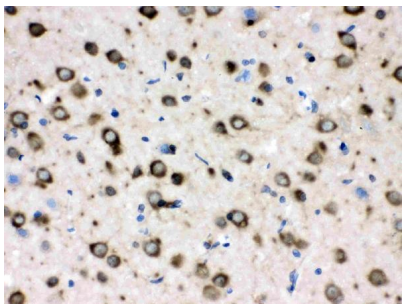
# Anti-TCP1 delta/CCT4 Antibody Picoband® (PB9927) Images




Western blot analysis of CCT4 using anti-CCT4 antibody (PB9927). 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 U20S whole cell lysates, Lane 3: human SW620 whole cell lysates, Lane 4: human MCF-7 whole cell lysates, Lane 5: rat brain tissue lysates, Lane 6: rat liver tissue lysates, Lane 7: mouse brain 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-CCT4 antigen affinity purified polyclonal antibody (Catalog # PB9927) 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 CCT4 at approximately 58 kDa. The expected band size for CCT4 is at 58 kDa.



IHC analysis of CCT4 using anti-CCT4 antibody (PB9927). CCT4 was detected in paraffin-embedded section of mouse kidney tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-CCT4 Antibody (PB9927) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.



IHC analysis of CCT4 using anti-CCT4 antibody (PB9927). CCT4 was detected in paraffin-embedded section of rat kidney tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-CCT4 Antibody (PB9927) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

IHC analysis of CCT4 using anti-CCT4 antibody (PB9927). CCT4 was detected in paraffin-embedded section of human mammary cancer tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval

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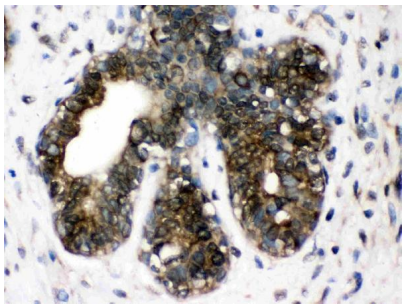
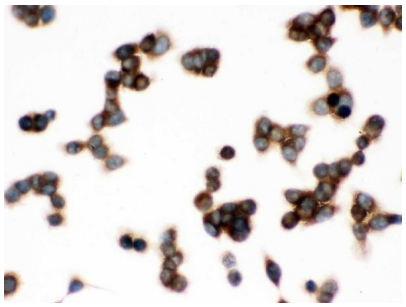
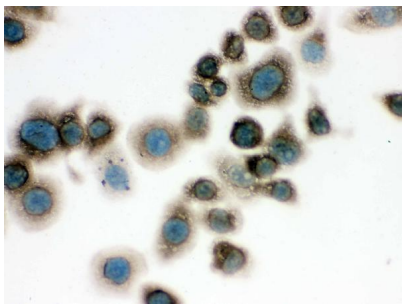


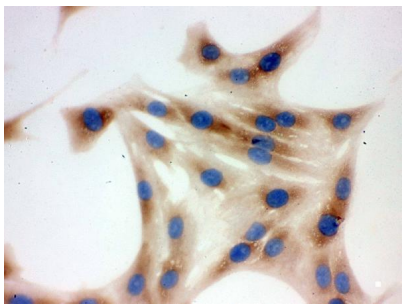
solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-CCT4 Antibody (PB9927) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.



IHC analysis of TCP1 delta using anti-TCP1 delta antibody (PB9927). TCP1 delta was detected in immunocytochemical section of LOVO 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 1ug/ml rabbit anti-TCP1 delta Antibody (PB9927) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.



IHC analysis of TCP1 delta using anti-TCP1 delta antibody (PB9927). TCP1 delta was detected in immunocytochemical section of Neuro-2a 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 1ug/ml rabbit anti-TCP1 delta Antibody (PB9927) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.



IHC analysis of TCP1 delta using anti-TCP1 delta antibody (PB9927). TCP1 delta was detected in immunocytochemical section of NRK 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 1ug/ml rabbit anti-TCP1 delta Antibody (PB9927) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

IHC analysis of TCP1 delta using anti-TCP1 delta antibody (PB9927). TCP1 delta was detected in immunocytochemical section of SHG-44 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 1ug/ml rabbit anti-TCP1 delta Antibody (PB9927) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and

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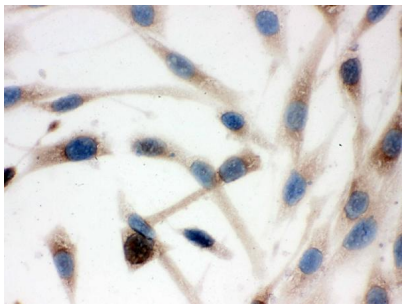
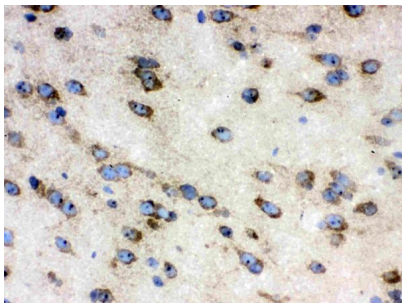
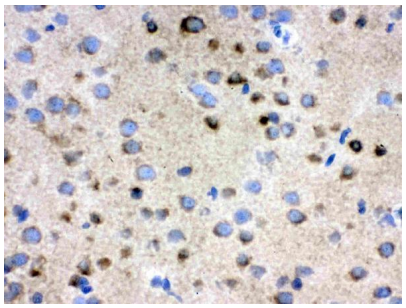


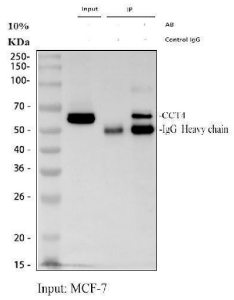
incubated for 30 minutes at 37°C. The section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.



IHC analysis of TCP1 delta using anti-TCP1 delta antibody (PB9927). TCP1 delta was detected in frozen section of mouse brain tissue . The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-TCP1 delta Antibody (PB9927) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.



IHC analysis of TCP1 delta using anti-TCP1 delta antibody (PB9927). TCP1 delta was detected in frozen section of rat brain tissue . The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-TCP1 delta Antibody (PB9927) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.




Immunoprecipitating (IP) CCT4 in MCF-7 whole cell lysate. Western blot analysis of CCT4 using anti-CCT4 antibody (PB9927); Lane 1: MCF-7 whole cell lysates (30ug); Lane 2: Rabbit control IgG instead of anti-CCT4 antibody in MCF-7 whole cell lysate; Lane 3: anti-CCT4 antibody (2ug) + MCF-7 whole cell lysate (500ug). After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-CCT4 antigen affinity purified polyclonal antibody (PB9927) 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 CCT4 at approximately 58 kDa. The expected band size for CCT4 is at 58 kDa.

Flow Cytometry analysis of PC-3 cells using anti-CCT4 antibody (PB9927). Overlay histogram showing PC-3 cells stained with PB9927 (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-CCT4 Antibody (PB9927,1ug/1x106 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit

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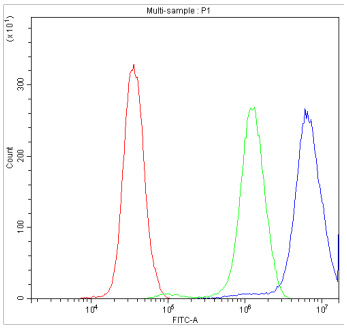
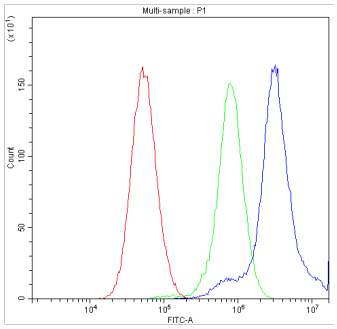
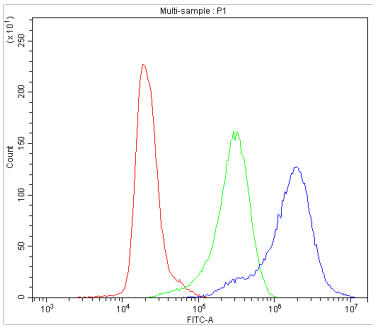


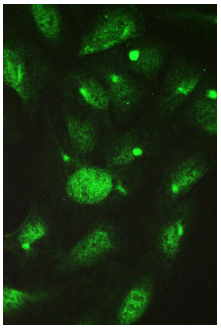

IgG (BA1127, 5-10ug/1x106 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x106) used under the same conditions. Unlabelled sample (Red line) was also used as a control.




Flow Cytometry analysis of U251 cells using anti-CCT4 antibody (PB9927). Overlay histogram showing U251 cells stained with PB9927 (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-CCT4 Antibody (PB9927,1ug/1x106 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x106 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x106) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.




Flow Cytometry analysis of K562 cells using anti-CCT4 antibody (PB9927). Overlay histogram showing K562 cells stained with PB9927 (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-CCT4 Antibody (PB9927,1ug/1x106 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x106 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x106) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



IF analysis of CCT4 using anti-CCT4 antibody (PB9927). CCT4 was detected in immunocytochemical section of U20S 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 2ug/mL rabbit anti-CCT4 Antibody (PB9927) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

IF analysis of CCT4 using anti-CCT4 antibody (PB9927). CCT4 was detected in an immunocytochemical section of SiHa

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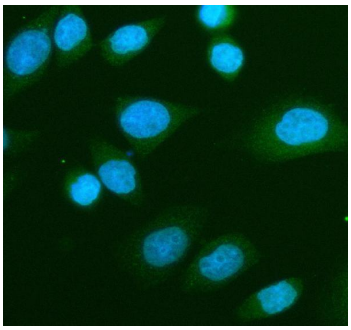

cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 2 ug/mL rabbit anti-CCT4 Antibody (PB9927) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used 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.

## 1 Publications Citing This Product

1. PubMed ID: , Denatured corona proteins mediate the intracellular bioactivities of nanoparticles via the unfolded protein response

Visit bosterbio.com/anti-cct4-picoband-trade-antibody-pb9927-boster.html to see all 1 publications.



Anti-TCP1 delta/CCT4 Antibody

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