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Anti-CPI17 alpha Picoband Antibody

Catalog # ABO10323

Specification

Anti-CPI17 alpha Picoband Antibody - Product Information

Application	**WB, IHC**
Primary Accession	Q96A00
Host	**Rabbit**
Reactivity	**Human, Mouse, Rat**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Protein phosphatase 1 regulatory subunit 14A(PPP1R14A) detection. Tested with WB, IHC-P in Human;Mouse;Rat.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-CPI17 alpha Picoband Antibody - Additional Information

Gene ID 94274

Other Names
Protein phosphatase 1 regulatory subunit 14A, 17 kDa PKC-potentiated inhibitory protein of PP1, Protein kinase C-potentiated inhibitor protein of 17 kDa, CPI-17, PPP1R14A, CPI17, PPP1INL

Calculated MW
16693 MW KDa

Application Details
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Mouse, Rat, By Heat

Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat

Subcellular Localization
Cytoplasm .

Tissue Specificity
Isoform 1 is detected in aorta and testis. Isoform 2 is detected in aorta. .

Protein Name
Protein phosphatase 1 regulatory subunit 14A

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen
E.coli-derived human CPI17 alpha recombinant protein (Position: L30-Q126). Human CPI17 alpha shares 83.5% and 84.5% amino acid (aa) sequence identity with mouse and rat CPI17 alpha, respectively.

Purification
Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins

Storage	**At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.**

Anti-CPI17 alpha Picoband Antibody - Protein Information

Name PPP1R14A

Synonyms CPI17, PPP1INL

Function
Inhibitor of PPP1CA. Has over 1000-fold higher inhibitory activity when phosphorylated, creating a molecular switch for regulating the phosphorylation status of PPP1CA substrates and smooth muscle contraction.

Cellular Location
Cytoplasm.

Tissue Location
Isoform 1 is detected in aorta and testis. Isoform 2 is detected in aorta.

Anti-CPI17 alpha Picoband Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-CPI17 alpha Picoband Antibody - Images

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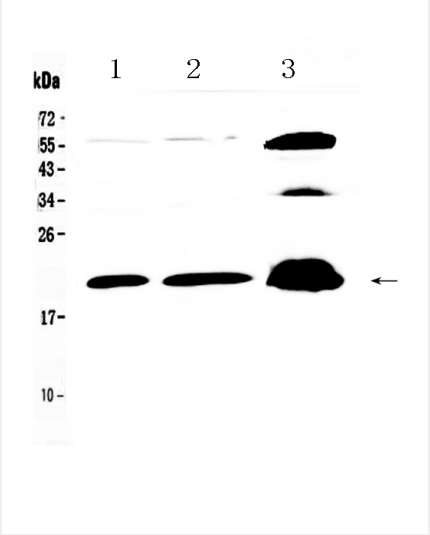

Figure 1. Western blot analysis of CPI17 alpha using anti- CPI17 alpha antibody (ABO10323). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: rat brain tissue lysates, Lane 2: mouse brain tissue lysates, Lane 3: PANC-1 whole Cell lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA 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- CPI17 alpha antigen affinity purified polyclonal antibody (Catalog # ABO10323) at 0.5 Î¼g/mL overnight at 4Â°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 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for CPI17 alpha at approximately 20KD. The expected band size for CPI17 alpha is at 20KD.

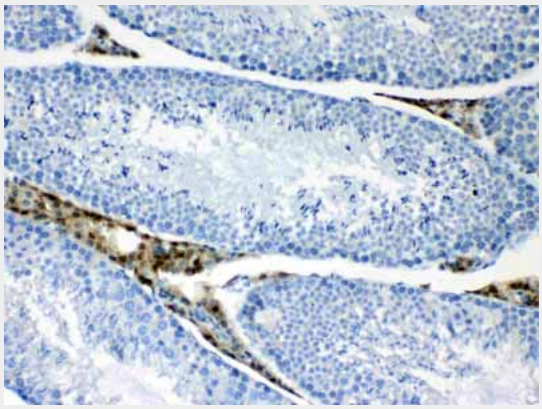

Figure 2. IHC analysis of CPI17 alpha using anti- CPI17 alpha antibody (ABO10323).CPI17 alpha was detected in paraffin-embedded section of mouse testis tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1Î¼g/ml rabbit anti- CPI17 alpha Antibody (ABO10323) overnight at 4Â°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37Â°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) with DAB as the chromogen.

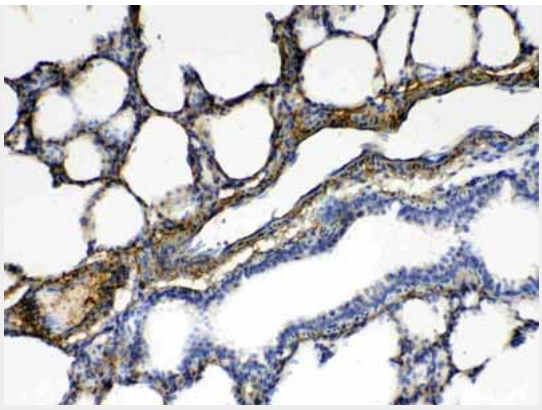

Figure 3. IHC analysis of CPI17 alpha using anti- CPI17 alpha antibody (ABO10323).CPI17 alpha was detected in paraffin-embedded section of rat lung tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1Î¼g/ml rabbit anti- CPI17 alpha Antibody (ABO10323) overnight at 4Â°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37Â°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) with DAB as the chromogen.

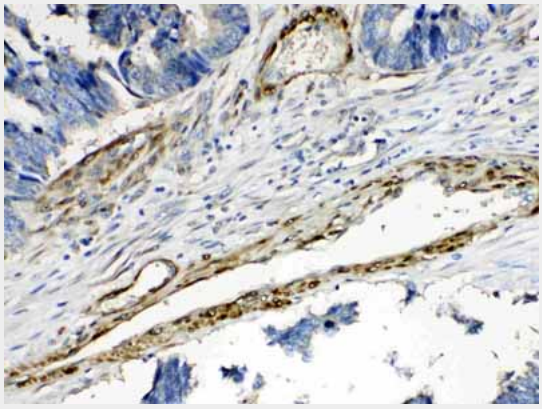

Figure 4. IHC analysis of CPI17 alpha using anti- CPI17 alpha antibody (ABO10323).CPI17 alpha was detected in paraffin-embedded section of human intestinal cancer tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1Î¼g/ml rabbit anti- CPI17 alpha Antibody (ABO10323) overnight at 4Â°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37Â°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) with DAB as the chromogen.

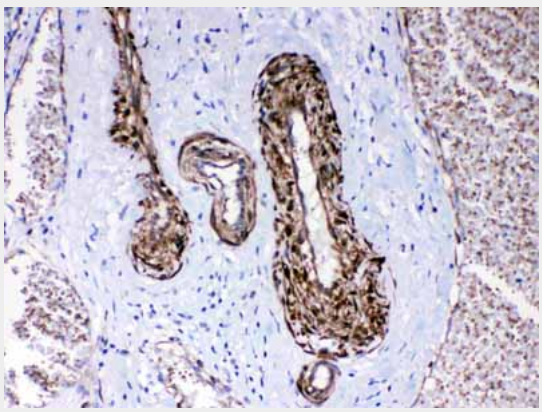

Figure 5. IHC analysis of CPI17 alpha using anti- CPI17 alpha antibody (ABO10323).CPI17 alpha

was detected in paraffin-embedded section of human lung cancer 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 1Î¼g/ml rabbit anti- CPI17 alpha Antibody (ABO10323) overnight at 4Â°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37Â°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) with DAB as the chromogen.

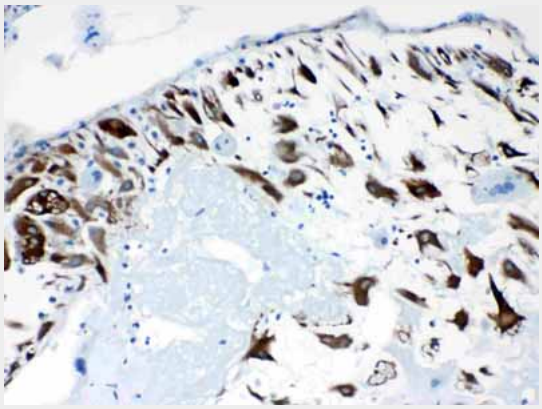

Figure 6. IHC analysis of CPI17 alpha using anti- CPI17 alpha antibody (ABO10323).CPI17 alpha was detected in paraffin-embedded section of human placenta tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1Î¼g/ml rabbit anti- CPI17 alpha Antibody (ABO10323) overnight at 4Â°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37Â°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) with DAB as the chromogen.

Anti-CPI17 alpha Picoband Antibody - Background

Protein phosphatase 1 regulatory subunit 14A, also known as CPI-17, is a protein that in humans is encoded by the PPP1R14A gene. This protein is an inhibitor of smooth muscle myosin phosphatase, and has higher inhibitory activity when phosphorylated. Inhibition of myosin phosphatase leads to increased myosin phosphorylation and enhanced smooth muscle contraction. Alternatively spliced transcript variants encoding different isoforms have been noted for this gene.