

Anti-Ceruloplasmin/CP Antibody Picoband®

Catalog Number: PB9853

About Cp

Ceruloplasmin (or caeruloplasmin) is a ferroxidase enzyme that in humans is encoded by the CP gene. It is mapped to 3q23-q25. The protein encoded by this gene is a metalloprotein that binds most of the copper in plasma and is involved in the peroxidation of Fe (II)transferrin to Fe (III) transferrin. Mutations in this gene cause aceruloplasminemia, which results in iron accumulation and tissue damage, and is associated with diabetes and neurologic abnormalities. Two transcript variants, one protein-coding and the other not protein-coding, have been found for this gene.

Overview

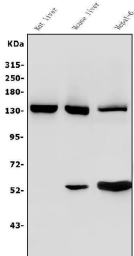
Product Name	Anti-Ceruloplasmin/CP Antibody Picoband®
Reactive Species	Mouse, Rat
Description	Boster Bio Anti-Ceruloplasmin/CP Antibody Picoband® catalog # PB9853. Tested in IHC, WB applications. This antibody reacts with Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees 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	IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains antibody formulated with stabilizing components, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ , and 0.05 mg NaN ₃ . *This antibody is supplied in a stabilized formulation. 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	Q61147

Technical Details

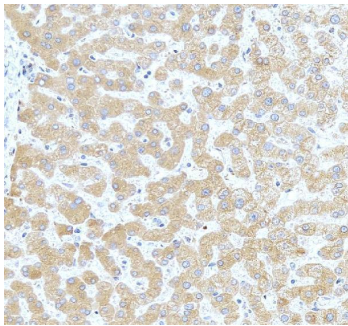
Immunogen	E. coli-derived mouse Ceruloplasmin recombinant protein (Position: R20-M258). Mouse Ceruloplasmin shares 80.8% and 91.2% amino acid (aa) sequence identity with human and rat Ceruloplasmin, respectively.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit 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.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.5ug/ml, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Mouse, Rat

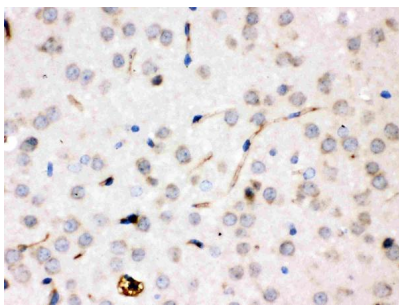
Anti-Ceruloplasmin/CP Antibody Picoband® (PB9853) Images



Western blot analysis of Ceruloplasmin/CP using anti-Ceruloplasmin/CP antibody (PB9853). 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: mouse liver tissue lysates, Lane 3: mouse HEPA1-6 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-Ceruloplasmin/CP antigen affinity purified polyclonal antibody (Catalog # PB9853) 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 Ceruloplasmin/CP at approximately 130 kDa. The expected band size for Ceruloplasmin/CP is at 121 kDa.

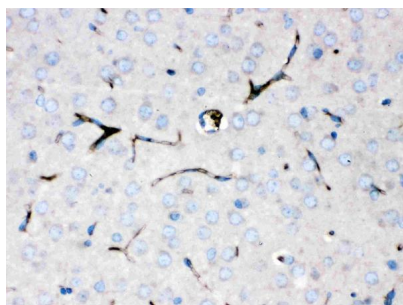


IHC analysis of Ceruloplasmin/CP using anti-Ceruloplasmin/CP antibody (PB9853). Ceruloplasmin/CP was detected in a paraffin-embedded section of human liver tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-Ceruloplasmin/CP Antibody (PB9853) 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.



IHC analysis of Ceruloplasmin/CP using anti-Ceruloplasmin/CP antibody (PB9853). Ceruloplasmin/CP was detected in paraffin-embedded section of rat brain 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-Ceruloplasmin/CP Antibody (PB9853) 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 Ceruloplasmin/CP using anti-Ceruloplasmin/CP antibody (PB9853). Ceruloplasmin/CP was detected in paraffin-embedded section of mouse brain



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-Ceruloplasmin/CP Antibody (PB9853) 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 Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

1 Publications Citing This Product

1. PubMed ID: 34103620, Xiang Y,Zheng Y,Liu S,Liu G,Li Z,Dong W.Comparison of the sensitivity of Western blotting between PVDF and NC membranes.Sci Rep.2021 Jun 8;11(1):12022.doi:10.1038/s41598-021-91521-8.PMID:34103620;PMCID:PMC8187435.

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Anti-Ceruloplasmin/CP Antibody

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