

ATP7B Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP6504B

Specification

ATP7B Antibody (C-term) - Product Information

Application Primary Accession Reactivity Host Clonality Isotype Antigen Region WB, FC, IF, IHC-P,E <u>P35670</u> Human, Mouse Rabbit Polyclonal Rabbit IgG 1361-1391

ATP7B Antibody (C-term) - Additional Information

Gene ID 540

Other Names Copper-transporting ATPase 2, Copper pump 2, Wilson disease-associated protein, WND/140 kDa, ATP7B, PWD, WC1, WND

Target/Specificity

This ATP7B antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1361-1391 amino acids from the C-terminal region of human ATP7B.

Dilution WB~~1:2000 FC~~1:10~50 IF~~1:10~50 IHC-P~~1:10~50 E~~Use at an assay dependent concentration.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

ATP7B Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

ATP7B Antibody (C-term) - Protein Information

Name ATP7B



Synonyms PWD, WC1, WND

Function Copper ion transmembrane transporter involved in the export of copper out of the cells. It is involved in copper homeostasis in the liver, where it ensures the efflux of copper from hepatocytes into the bile in response to copper overload.

Cellular Location

Golgi apparatus, trans-Golgi network membrane; Multi-pass membrane protein. Late endosome Note=Predominantly found in the trans-Golgi network (TGN). Localized in the trans-Golgi network under low copper conditions, redistributes to cytoplasmic vesicles when cells are exposed to elevated copper levels, and then recycles back to the trans-Golgi network when copper is removed (PubMed:10942420). [Isoform 2]: Cytoplasm

Tissue Location

Most abundant in liver and kidney and also found in brain. Isoform 2 is expressed in brain but not in liver. The cleaved form WND/140 kDa is found in liver cell lines and other tissues

ATP7B Antibody (C-term) - Protocols

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

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

ATP7B Antibody (C-term) - Images



Anti-ATP7B Antibody (C-term) at 1:2000 dilution + Mouse liver lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 157 kDa Blocking/Dilution buffer: 5% NFDM/TBST.





Anti-ATP7B Antibody (C-term) at 1:2000 dilution + Rat liver lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 157 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



All lanes :ATP7B Antibody (C-term) at 1:2000 dilution Lane 1: Caco2 whole cell lysate Lane 2: Mouse kidney lysate Lane 3: Rat liver lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 157 kDa Blocking/Dilution buffer: 5% NFDM/TBST.





Confocal immunofluorescent analysis of ATP7B Antibody (C-term)(Cat#AP6504b) with HepG2 cell followed by Alexa Fluor[]?488-conjugated goat anti-rabbit IgG (green). DAPI was used to stain the cell nuclear (blue).



Anti-ATP7B Antibody (C-term) at 1:2000 dilution + Caco2 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 157 kDa Blocking/Dilution buffer: 5% NFDM/TBST.





ATP7B Antibody (C-term) (Cat.# AP6504b) IHC analysis in formalin fixed and paraffin embedded mouse brain tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the ATP7B Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.



ATP7B Antibody (C-term) (Cat. #AP6504b) flow cytometric analysis of HepG2 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

ATP7B Antibody (C-term) - Background

ATP7B is a member of the P-type cation transport ATPase family and a protein with several membrane-spanning domains, an ATPase consensus sequence, a hinge domain, a phosphorylation site, and at least 2 putative copper-binding sites. This protein functions as a monomer, exporting copper out of the cells, such as the efflux of hepatic copper into the bile.

ATP7B Antibody (C-term) - References

Martinez-Balibrea, E., Int. J. Cancer 124 (12), 2905-2910 (2009)