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ATP7B Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6504B

Product Information

Application	WB, IHC-P, IF, FC, E
Primary Accession	P35670
Reactivity	Human, Rat, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	157263
Antigen Region	1361-1391

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 IHC-P~~1:100~500 IF~~1:10~50 FC~~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 prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
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.

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

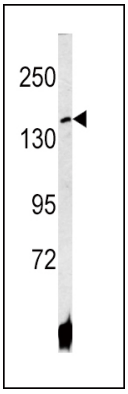
Background

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.

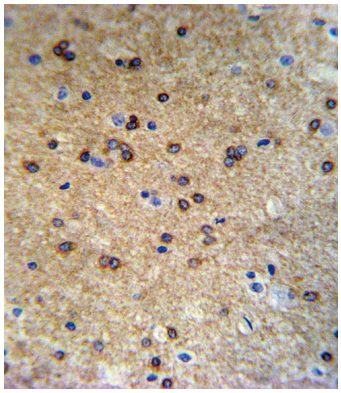
References

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

Images

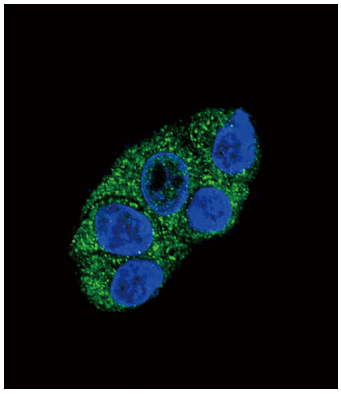


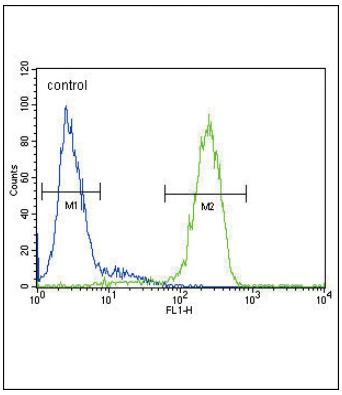
Western blot analysis of ATP7B antibody (C-term) (Cat.# AP6504b) in HepG2 cell line lysates (35ug/lane). ATP7B (arrow) was detected using the purified Pab.



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.

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





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.