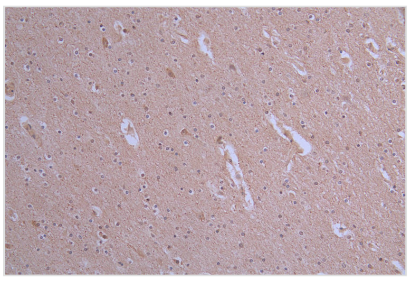
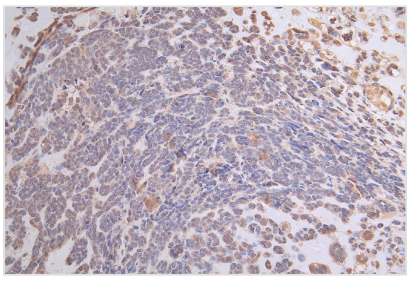
ATP7B Recombinant Monoclonal Antibody

Product Code	CSB-RA175460A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P35670
Immunogen	A synthesized peptide derived from Human ATP7B
Species Reactivity	Human
Tested Applications	ELISA, IHC, IF, FC; Recommended dilution: IHC:1:50-1:200, IF:1:50-1:200, FC:1:50-1:200
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Product Type	Recombinant Antibody
Immunogen Species	Homo sapiens (Human)
Research Area	Metabolism;Signal transduction
Gene Names	ATP7B
Clone No.	36D12

Image

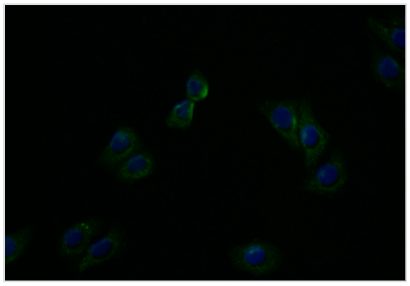


IHC image of CSB-RA175460A0HU diluted at 1:50 and staining in paraffin-embedded human brain tissue performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a Goat anti-rabbit polymer IgG labeled by HRP and visualized using 0.19% DAB.

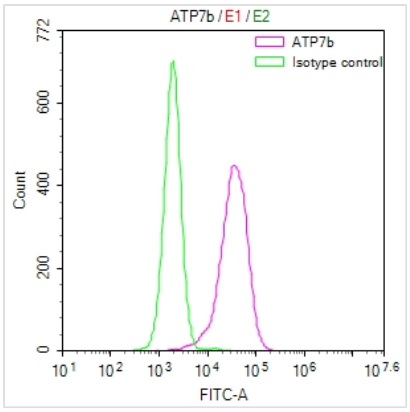


IHC image of CSB-RA175460A0HU diluted at 1:50 and staining in paraffin-embedded human ovarian cancer performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a Goat anti-rabbit polymer IgG labeled by HRP and

visualized using 0.19% DAB.



Immunofluorescence staining of HepG2 with CSB-RA175460A0HU at 1:20, counter-stained with DAPI. The cells were fixed in 4% formaldehyde and blocked in 10% normal Goat Serum. The cells were then incubated with the antibody overnight at 4°C. The secondary antibody was Alexa Fluor 494-congugated AffiniPure Goat Anti-Rabbit IgG(H+L).



Overlay Peak curve showing HepG2 cells stained with CSB-RA175460A0HU (red line) at 1:50. The cells were fixed in 4% formaldehyde and permeated by 0.2% TritonX-100. Then 10% normal goat serum to block non-specific protein-protein interactions followed by the antibody (1µg/1*10^6cells) for 45min at 4?. The secondary antibody used was FITC-conjugated Goat Anti-rabbit IgG(H+L) at 1:200 dilution for 35min at 4?.Control antibody (green line) was rabbit IgG (1µg/1*10^6cells) used under the same conditions. Acquisition of >10,000 events was performed.

Description

The ATP7B recombinant monoclonal antibody is generated through in vitro processes using synthetic genes. This methodology involves the retrieval of ATP7B antibody genes from B cells sourced from immunoreactive rabbits, followed by their amplification and cloning into appropriate phage vectors. These vectors are then introduced into mammalian cell lines, enabling the production of functional antibodies in substantial quantities. Subsequently, the ATP7B recombinant monoclonal antibody is purified from the culture supernatant of the transfected cell lines through affinity chromatography. It is well-suited for a wide range of applications, including ELISA, IHC, IF, and FC, facilitating the detection of human ATP7B protein.

ATP7B is a transmembrane copper-transporting protein that is crucial for copper homeostasis. The main role of the ATP7B protein is to transport and regulate copper within the body, primarily in the liver. Mutations in the ATP7B gene can lead to Wilson's disease.