Datasheet for ABIN2485179

anti-ATP7B antibody (AA 3-21) (PE)

3 Images

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Overview

Quantity:	100 µg
Target:	ATP7B
Binding Specificity:	AA 3-21
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This ATP7B antibody is conjugated to PE
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunofluorescence (IF), Immunoprecipitation (IP), Immunocytochemistry (ICC)

Product Details

Immunogen:	Synthetic peptide amino acids 3-21 (cytoplasmic N-terminus) of human Copper-transporting ATPase2
Clone:	S62-29
Isotype:	IgG1
Specificity:	Detects ~160 kDa in rat brain membrane preparations.
Cross-Reactivity:	Human, Mouse, Rat
Purification:	Protein G Purified

Target Details

Target:	ATP7B
Alternative Name:	ATP7B (ATP7B Products)
Background:	The copper efflux transporters ATP7A and ATP7B sequester intracellular copper into the vesicular secretory pathway for export from the cell. ATP7b is an important protein for copper transport and elimination of excess copper from the body. ATP7b transports metals in and out of cells using ATP. There are 3 known isoforms of the ATP7b gene, A is found in the liver, kidney, and brain, the shorter form B is found in brain tissue, and the third isoform, known as WND/140 KDA is found in mitochondria. Mutations in the ATP7b gene can cause Wilson's disease, an inherited disorder causing copper poisoning in the brain and liver, characterized by neurological symptoms and hepatic damage.
Gene ID:	540
NCBI Accession:	NP_000044
UniProt:	B7ZLR4
Pathways:	Transition Metal Ion Homeostasis, Ribonucleoside Biosynthetic Process

Application Details

Application Notes:	• WB (1:1000) • ICC/IF (1:100) • optimal dilutions for assays should be determined by the user.
Comment:	1 µg/ml of ABIN2485179 was sufficient for detection of Copper-transporting ATPase2 in 20 µg of rat brain lysate by colorimetric immunoblot analysis using Goat IgG:HRP as the secondary antibody.
Restrictions:	For Research Use only

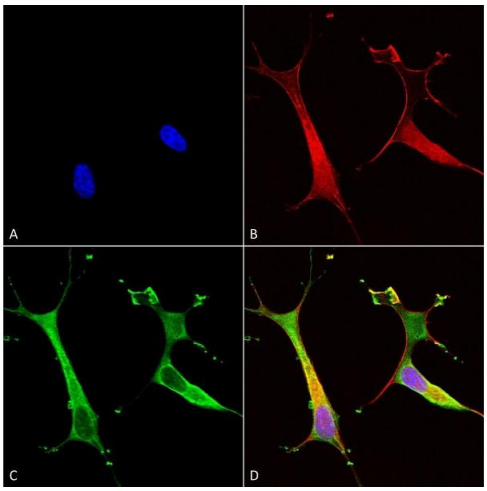
Handling

Format:	Liquid
Concentration:	1 mg/mL
Buffer:	PBS pH 7.4, 50 % glycerol, 0.09 % sodium azide, Storage buffer may change when conjugated
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Handling

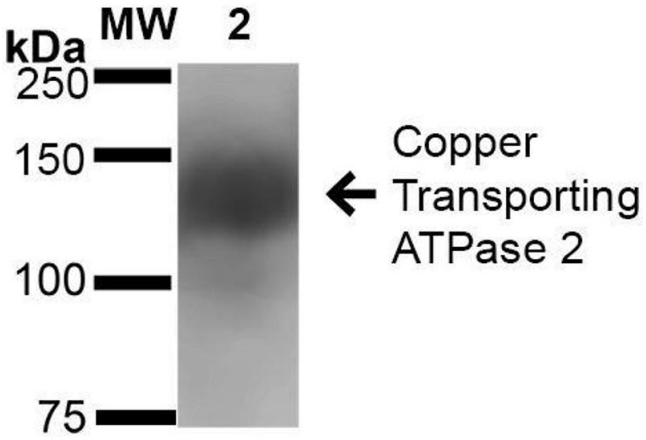
Storage:	4 °C
Storage Comment:	Conjugated antibodies should be stored at 4°C

Validation report #103875 for Immunofluorescence (IF)



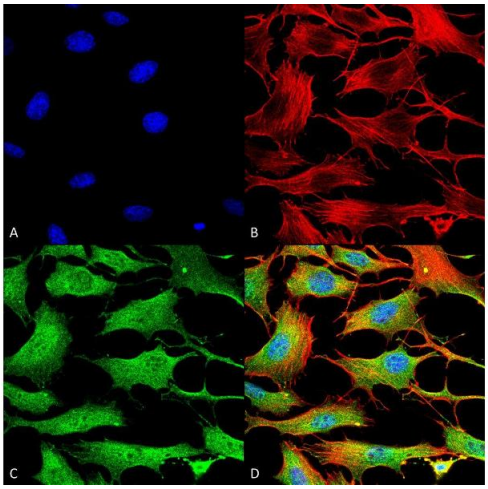
Immunocytochemistry

Image 1. Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-Copper Transporting ATPase 2 Monoclonal Antibody, Clone S62-29 (ABIN2485179). Tissue: Neuroblastoma cells (SH-SY5Y). Species: Human. Fixation: 4 % PFA for 15 min. Primary Antibody: Mouse Anti-Copper Transporting ATPase 2 Monoclonal Antibody (ABIN2485179) at 1:100 for overnight at 4 °C with slow rocking. Secondary Antibody: AlexaFluor 488 at 1:1000 for 1 hour at RT. Counterstain: Phalloidin-iFluor 647 (red) F-Actin stain, Hoechst (blue) nuclear stain at 1:800, 1.6 mM for 20 min at RT. (A) Hoechst (blue) nuclear stain. (B) Phalloidin-iFluor 647 (red) F-Actin stain. (C) Copper Transporting ATPase 2 Antibody (D) Composite.



Western Blotting

Image 2. Western Blot analysis of Rat Brain Membrane showing detection of ~160 kDa Copper Transporting ATPase 2 protein using Mouse Anti-Copper Transporting ATPase 2 Monoclonal Antibody, Clone S62-29 . Lane 1: Molecular Weight Ladder (MW). Lane 2: Rat Brain Membrane cell lysate. Load: 20 µg. Block: 2% BSA and 2% Skim Milk in 1X TBST. Primary Antibody: Mouse Anti-Copper Transporting ATPase 2 Monoclonal Antibody at 1:1000 for 16 hours at 4°C. Secondary Antibody: Goat Anti-Mouse IgG: HRP at 1:100 for 60 min at RT. Color Development: ECL solution for 6 min in RT. Predicted/Observed Size: ~160 kDa.



Immunofluorescence (fixed cells)

Image 3. Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-Copper Transporting ATPase 2 Monoclonal Antibody, Clone S62-29 . Tissue: NIH 3T3 (Mouse Fibroblast cell line). Species: Mouse. Fixation: 4% Formaldehyde for 15 min at RT. Primary Antibody: Mouse Anti-Copper Transporting ATPase 2 Monoclonal Antibody at 1:100 for 60 min at RT. Secondary Antibody: Goat Anti-Mouse ATTO 488 at 1:200 for 60 min at RT. Counterstain: Phalloidin Texas Red F-Actin stain; DAPI (blue) nuclear stain at 1:1000, 1:5000 for 60 min at RT, 5 min at RT. Localization: Cytoplasm . Magnification: 60X. (A) DAPI (blue) nuclear stain (B) Phalloidin Texas Red F-Actin stain (C) Copper Transporting ATPase 2 Antibody (D) Composite.