

**Copper Transporting ATPase 2 Antibody**  
**Copper Transporting ATPase 2 Antibody, Clone S62-29**  
**Catalog # ASM10233**

## Specification

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### Copper Transporting ATPase 2 Antibody - Product Information

Application	WB
Primary Accession	<a href="#">B7ZLR4</a>
Other Accession	<a href="#">NP_000044.2</a>
Host	Mouse
Isotype	IgG1
Reactivity	Human, Mouse, Rat
Clonality	Monoclonal

#### Description

Mouse Anti-Human Copper Transporting ATPase 2 Monoclonal IgG1

#### Target/Specificity

Detects ~160kDa in rat brain membrane preparations.

#### Other Names

ATP7B Antibody, ATPase Cu++ transporting beta polypeptide Antibody, ATPase Cu(2+) transporting beta polypeptide Antibody, Copper pump 2 Antibody, Copper transporting ATPase 2 Antibody, PWD Antibody, Toxic milk Antibody, tx Antibody, WC1 Antibody, WD Antibody, Wilson disease associated protein Antibody, WND Antibody, WND/140 kDa Antibody

#### Immunogen

Synthetic peptide amino acids 3-21 (cytoplasmic N-terminus) of human Copper-transporting ATPase2

#### Purification

Protein G Purified

Storage -20°C

#### Storage Buffer

PBS pH7.4, 50% glycerol, 0.09% sodium azide

Shipping Temperature Blue Ice or 4°C

#### Certificate of Analysis

1 µg/ml of SMC-399 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.

#### Cellular Localization

Cytoplasm | Mitochondrion | Golgi Apparatus | Trans-Golgi Network Membrane

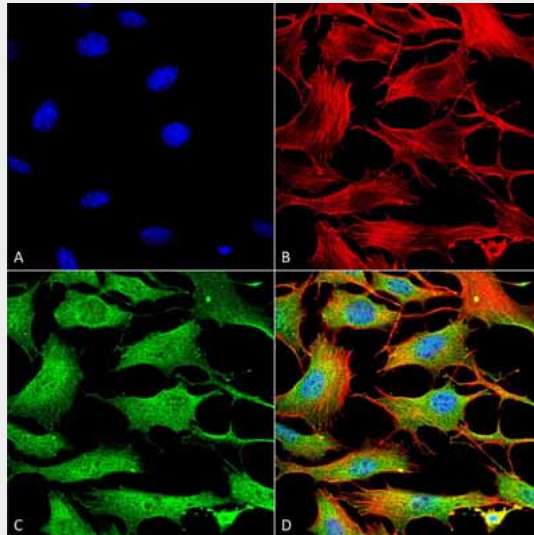
### Copper Transporting ATPase 2 Antibody - Protocols

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

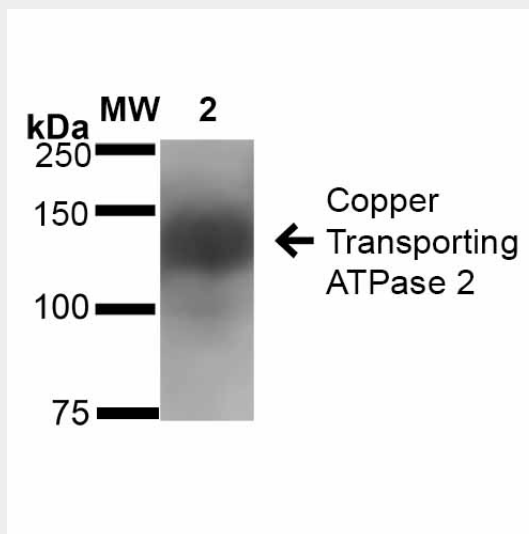
- [Western Blot](#)

- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### Copper Transporting ATPase 2 Antibody - Images



Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-Copper Transporting ATPase 2 Monoclonal Antibody, Clone S62-29 (ASM10233). 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 (ASM10233) 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.



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 (ASM10233). 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 (ASM10233) 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.

### **Copper Transporting ATPase 2 Antibody - 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.

### **Copper Transporting ATPase 2 Antibody - References**

1. Tanzi R.E., et al. (1993) Nature Genetics. 5: 344-350.
2. [Ghr.nlm.gov/gene/ATP7B](http://ghr.nlm.gov/gene/ATP7B)