# Mouse Copper-Transporting ATPase1 Monoclonal Antibody | anti-ATP7A antibody

Copper Transporting ATPase 1 Antibody: ATTO 390

| CATALOG # | HOST | REACTIVITY | APPLICATIONS |
|---|---|---|---|
| **AAA103010** | **Mouse** | **Human, Mouse, Rat** | **Immunoprecipitation, Western Blot, Immunohistochemistry** |

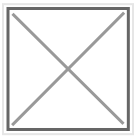
## PRODUCT SYNONYMS

Copper-Transporting ATPase1; Monoclonal Antibody; Copper Transporting ATPase 1 Antibody: ATTO 390; ATP7A; ATP 7A; ATPase Cu transporting; DSMAX; FLJ17790; MC1; MC 1; MK; MNK; OHS; Copper pump 1; Menke; OTTHUMP00000062077; SMAX3; ATPase copper transporting alpha polypeptide; ATPase Cu++ transporting alpha polypeptide (Menkes syndrome); anti-ATP7A antibody

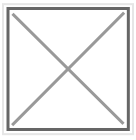
## PRODUCT SPECIFICATIONS

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|---|---|
| **Host** | Mouse |
| **Reactivity** | Human, Mouse, Rat |
| **Clonality** | Monoclonal |
| **Isotype** | IgG2b |
| **Clone Number** | S60-4 |
| **Form/Format** | Protein G Purified |
| **Concentration** | 1mg/mL (varies by lot) |
| **Sequence Length** | 1500 |
| **Applicable Applications for anti-ATP7A antibody** | IP (Immunoprecipitation), WB (Western Blot), IHC (Immunohistochemistry) |
| **Conjugate** | ATTO 390 |
| **Storage Buffer** | PBS pH7.2, 50% glycerol, 0.09% sodium azide |
| **Preparation and Storage** | -20 degree C |

## IMAGES



**WB (Western Blot)**
Western Blot analysis of Human SH-SY5Y showing detection of Copper Transporting ATPase 1 protein using Mouse Anti-Copper Transporting ATPase 1 Monoclonal Antibody, Clone S60-4 . Lane 1: MW Ladder. Lane 2: 10 ug SH-SY5Y. Load: 10 ug. Block: 5% Skim Milk powder in TBST. Primary Antibody: Mouse Anti-Copper Transporting ATPase 1 Monoclonal Antibody at 1:500 for 2 hours at RT with shaking. Secondary Antibody: Goat anti-mouse IgG:HRP at 1:4000 for 1 hour at RT with shaking. Color Development: Chemiluminescent for HRP (Moss) for 5 min in RT.



**ICC (Immunocytochemistry)**
Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-Copper Transporting ATPase 1 Monoclonal Antibody, Clone S60-4 . Tissue: NIH 3T3 (NIH 3T3). Species: Mouse. Fixation: 4% Formaldehyde for 15 min at RT. Primary Antibody: Mouse Anti-Copper Transporting ATPase 1 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: Endoplasmic Reticulum, Cytoplasm, Golgi Apparatus, Trans-Golgi Network Membrane, Cell Membrane. Magnification: 60X. (A) DAPI (blue) nuclear stain. (B) Phalloidin Texas Red F-Actin stain. (C) Copper Transporting ATPase 1 Antibody. (D) Composite.

## ADDITIONAL INFORMATION

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| **Related Product Information for anti-ATP7A antibody** | **Background Info:** Detects ~180kDa in rat brain membrane preparations.<br><br>**Scientific Background:** The copper efflux transporters ATP7A and ATP7B sequester intracellular copper into the vesicular secretory pathway for export from the cell. ATP7A (also known as Copper-transporting ATPase 1) functions as a transmembrane copper-trans locating P-type ATPase and plays a vital role in systemic copper absorption in the gut and copper reabsorption in the kidney. Polarized epithelial cells such as Madin-Darby canine kidney cells are a physiologically relevant model for systemic copper absorption and reabsorption in vivo. Although ATP7A is not detectable in most normal tissues, it is expressed in a considerable fraction of many common tumor types. Increased expression of ATP7A renders cells resistant to cisplatin and carboplatin. Mutations in the ATP7A gene result in Menkes disease, which is fatal in early childhood. Mutations in the ATP7B gene lead to the autosomal recessive disorder, Wilson disease, characterized by neurological symptoms and hepatic damage. |
| **Product Categories/Family for anti-ATP7A antibody** | Transporters |
| **References** | 1. Samimi G., et al. (2003) Clin. Cancer Res. 9: 5853-9. 2. Samimi G., et al. (2004) Mol Pharmacol. 66: 25-32. 3. Greenough M., et al. (2004) Am. J. Physiol. Cell Physiol. 287: C1463-71. 4. Song, I.S., et al. (2004) Mol. Cancer Ther. 3: 1543-1549. 5. van Dongen, E.M., et al. (2004) Biochem. Biophys. Res. Commun. 323: 789-795. 6. Samimi, G., et al. (2004) Mol Pharmacol 66: 25-32. 7. Morgan, C.T., et al. (2004) J. Biol. Chem. 279: 36363-36371. 8. Barnes, N., et al. (2005) J. Biol. Chem. [Epub]. |

## NCBI AND UNIPROT INFORMATION

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|---|---|
| **NCBI GI #** | 115529486 |
| **NCBI GeneID** | 538 |
| **NCBI Accession #** | NP_000043.3 |
| **NCBI GenBank Nucleotide #** | NM_000052.5 |
| **UniProt Accession #** | Q04656; O00227; O00745; Q9BYY8; B1AT72 |
| **Molecular Weight** | 11,522 Da |
| **NCBI Official Full Name** | copper-transporting ATPase 1 |
| **NCBI Official Synonym Full Names** | ATPase, Cu++ transporting, alpha polypeptide |
| **NCBI Official Symbol** | ATP7A |
| **NCBI Official Synonym Symbols** | MK; MNK; DSMAX; SMAX3 |
| **NCBI Protein Information** | copper-transporting ATPase 1; copper pump 1; Cu++-transporting P-type ATPase; Menkes disease-associated protein |
| **UniProt Protein Name** | Copper-transporting ATPase 1 |
| **UniProt Gene Name** | **ATP7A** |
| **UniProt Synonym Gene Names** | MC1; MNK |
| **UniProt Entry Name** | ATP7A_HUMAN |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: https://stage.aaabiotech.com/monoclonal/copper-transporting-atpase1-antibody-clone-s60-4-immunoprecipitation-western-blot-immunohistochemistry-elisa/103010