

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

Copper Transporting ATPase 1 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA103423	Mouse	Human, Mouse, Rat	Immunoprecipitation, Western Blot, Immunohistochemistry

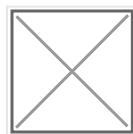
PRODUCT SYNONYMS

Copper-Transporting ATPase1; Monoclonal Antibody; Copper Transporting ATPase 1 Antibody; 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

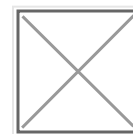
Host	Mouse
Reactivity	Human, Mouse, Rat
Clonality	Monoclonal
Isotype	IgG2b
Clone Number	S60-4
Form/Format	Protein G Purified
Concentration	1mg/mL (varies by lot)
Sequence Length	1500
Applicable Applications for anti-ATP7A antibody	IP (Immunoprecipitation), WB (Western Blot), IHC (Immunohistochemistry)
Certificate of Analysis	1 ug/mL was sufficient for detection of Copper-transporting ATPase1 in 20ug of rat brain lysate by colorimetric immunoblot analysis using Goat IgG:HRP as the secondary antibody.
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

Related Product Information for anti-ATP7A antibody	<p>Background Info: Detects ~180kDa in rat brain membrane preparations.</p> <p>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.</p>
Product Categories/Family for anti-ATP7A antibody	Transporters
References	<p>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].</p>

NCBI AND UNIPROT INFORMATION

NCBI GI #	115529486
NCBI GeneID	538
NCBI Accession #	NP_000043.3
NCBI GenBank Nucleotide #	NM_000052.5
UniProt Accession #	Q04656; O00227; O00745; Q9BY8; 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/103423>