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Product datasheet for AM60002PU-N

ATP7A (42-61, Cytopl. Dom.) Mouse Monoclonal Antibody [Clone ID: S60-4]

Product data:

Product Type:	Primary Antibodies
Clone Name:	S60-4
Applications:	IHC, IP, WB
Recommended Dilution:	**Immunohistochemistry**: free floating sections, fixed in formaldehyde. **Immunoprecipitation.** **Western Blot:** 1 µg/ml of this antibody was sufficient for detection of ATP7A / Copper-transporting ATPase1 in 20 µg of rat brain lysate by colorimetric immunoblot analysis using goat anti mouse IgG-HRP as the secondary antibody
Reactivity:	Human, Mouse, Rat
Host:	Mouse
Isotype:	IgG2b
Clonality:	Monoclonal
Immunogen:	Fusion protein amino acids 42-61 (cytoplasmic, C-terminus) of human ATP7A / Copper-transporting ATPase 1
Specificity:	This antibody detects ATP7A (aa42-61); ~180kDa.
Formulation:	PBS pH 7.2, 50% Glycerol State: Purified State: Liquid purified IgG fraction Preservative: 0.09% Sodium azide
Concentration:	lot specific
Purification:	Protein G chromatography
Conjugation:	Unconjugated
Storage:	Upon receipt, store undiluted (in aliquots) at -20°C. Avoid repeated freezing and thawing.
Stability:	Shelf life: One year from despatch.
Gene Name:	ATPase copper transporting alpha
Database Link:	Entrez Gene 538 Human Q04656

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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-translocating 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.

Synonyms: Copper pump 1, MC1, MNK