ATP1A1 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	ATP1A1, Polyclonal Antibody
Full Product Name	ATP1A1 Rabbit pAb
Product Gene Name	anti-ATP1A1 antibody
Product Synonym Names	CMT2DD
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human, Rat
Form/Format	PBS with 0.02% Sodium Azide, 50% Glycerol, pH 7.3.
Purity/Purification	Affinity Purified
Preparation and Storage	Store at -20 degree C. Avoid freeze/thaw cycles.
Molecular Weight	113kDa
OMIM	182310
3D Structure	ModBase 3D Structure for P05023
Immunogen	A synthetic peptide corresponding to a sequence within amino acids 1-100 of human ATP1A1 (NP_000692.2).
Cellular Localization	Cell Membrane, Membrane
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-ATP1A1 antibody	Western Blot (WB), Immunohistochemistry (IHC), Immunofluorescence (IF)
Application Notes for anti-ATP1A1 antibody	WB: 1:500-1:2000 IHC: 1:50-1:200 IF: 1:50-1:200
Related Product Information for anti-ATP1A1 antibody	This is the catalytic component of the active enzyme, which catalyzes the hydrolysis of ATP coupled with the exchange of sodium and potassium ions across the plasma membrane. This action creates the electrochemical gradient of sodium and potassium ions, providing the energy for active transport of various nutrients.
Other Notes	Small volumes of anti-ATP1A1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for ATP1A1 purchase	MBS8547102 is an antibody targeting ATP1A1. Also known as ATP1A1 Rabbit pAb. Reactive in Human, Rat. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for ATP1A1. It may not necessarily be applicable to this product.

NCBI GI #	21361181
NCBI GeneID	476

NCBI Accession #	NP_000692.2
UniProt Primary Accession #	P05023
UniProt Related Accession #	P05023
GenBank Nucleotide #	NP_000692.2
NCBI Official Full Name	sodium/potassium-transporting ATPase subunit alpha-1 isoform a
NCBI Official Synonym Full Names	ATPase Na+/K+ transporting subunit alpha 1
NCBI Official Symbol	ATP1A1
NCBI Official Synonym Symbols	CMT2DD; HOMGSMR2
UniProt Protein Name	Sodium/potassium-transporting ATPase subunit alpha-1
UniProt Synonym Protein Names	Sodium pump subunit alpha-1
Protein Family	Sodium/potassium-transporting ATPase
UniProt Gene Name	ATP1A1
UniProt Synonym Gene Names	Na(+)/K(+) ATPase alpha-1 subunit
UniProt Entry Name	AT1A1_HUMAN
NCBI Protein Information	sodium/potassium-transporting ATPase subunit alpha-1
NCBI Summary for ATP1A1	The protein encoded by this gene belongs to the family of P-type cation transport ATPases, and to the subfamily of Na+/K+ -ATPases. Na+/K+ -ATPase is an integral membrane protein responsible for establishing and maintaining the electrochemical gradients of Na and K ions across the plasma membrane. These gradients are essential for osmoregulation, for sodium-coupled transport of a variety of organic and inorganic molecules, and for electrical excitability of nerve and muscle. This enzyme is composed of two subunits, a large catalytic subunit (alpha) and a smaller glycoprotein subunit (beta). The catalytic subunit of Na+/K+ -ATPase is encoded by multiple genes. This gene encodes an alpha 1 subunit. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, May 2009]
UniProt Comments for ATP1A1	ATP1A1: the catalytic component of the active enzyme, which catalyzes the hydrolysis of ATP coupled with the exchange of Na and K ions across the plasma membrane. This action creates the electrochemical gradient of Na and K, providing the energy for active transport of various nutrients. Two splice-variant isoforms have been described. Protein type: Membrane protein, integral; Transporter, ion channel; EC 3.6.3.9; Membrane protein, multi-pass; Hydrolase; Transporter Chromosomal Location of Human Ortholog: 1p21 Cellular Component: Golgi apparatus; protein complex; basolateral plasma membrane; endoplasmic reticulum; T-tubule; integral to membrane; caveola; membrane; apical plasma membrane; plasma membrane; melanosome; sodium:potassium-exchanging ATPase complex; sarcolemma; endosome; vesicle Molecular Function: potassium ion binding; protein domain specific binding; protein binding; sodium ion binding; chaperone binding; phosphoric monoester hydrolase activity; sodium:potassium-exchanging ATPase activity; phosphoinositide 3-kinase binding; ankyrin binding; ADP binding; protein kinase binding; ATP binding Biological Process: response to drug; cellular sodium ion homeostasis; negative regulation of heart contraction; membrane hyperpolarization; positive regulation of striated muscle contraction; regulation of sodium ion transport; cellular potassium ion homeostasis; negative regulation of glucocorticoid biosynthetic process; dephosphorylation; potassium ion import; regulation of blood pressure; positive regulation of heart contraction; transmembrane transport; regulation of the force of heart contraction; cardiac muscle contraction
Research Articles on ATP1A1	**1.** Whole-exome sequencing and conventional Sanger sequencing identified heterozygous de novo mutations in the catalytic Na(+), K(+)-ATPase alpha1 subunit (ATP1A1).

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