Rabbit Sodium Potassium ATPase alpha 1 Polyclonal Antibody | anti-ATP1A1 antibody

Phospho-Sodium Potassium ATPase alpha 1 (Tyr260) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA328365	**Rabbit**	**Human, Mouse, Rat**	**ELISA, Immunohistochemistry, Western Blot**

PRODUCT SYNONYMS

Sodium Potassium ATPase alpha 1; Polyclonal Antibody; Phospho-Sodium Potassium ATPase alpha 1 (Tyr260) Antibody; ATPase Na+/K+ transporting alpha; adenosinetriphosphatase; AT1A1_HUMAN; ATP1A1; ATP1A4; ATP1AL2; ATP1B; ATP1B1; ATPase Na+/K+ transporting alpha 1 polypeptide; ATPase Na+/K+ transporting alpha 4 polypeptide; ATPase Na+/K+ transporting beta 1 polypeptide; ATPase; Na+/K+ transporting; alpha polypeptide-like 2; beta 1 polypeptide; Beta 1-subunit of Na(+); K(+)-ATPase; Na(+)/K(+) ATPase alpha-1 subunit; Na(+)/K(+) ATPase alpha-4 subunit; Na+; K+ ATPase alpha subunit; Na+/K+ ATPase 1; Na+/K+ ATPase 4; Na+/K+ ATPase; alpha-D polypeptide; Na; K-ATPase beta-1 polypeptide; K-ATPase; alpha-A catalytic polypeptide; K-ATPase catalytic subunit alpha-A protein; K-ATPase subunit alpha-C; polypeptide-like 2; Sodium pump 1; sodium pump 4; Sodium pump subunit alpha-1; sodium pump subunit alpha-4; sodium pump subunit beta-1; sodium-potassium ATPase catalytic subunit alpha-1; sodium-potassium ATPase catalytic subunit alpha-4; sodium-potassium ATPase subunit beta 1 (non-catalytic); sodium-potassium ATPase; alpha 4 polypeptide; sodium-potassium-ATPase; alpha 1 polypeptide; Sodium/potassium transporting ATPase alpha 1 chain; Sodium/potassium transporting ATPase subunit beta 1; sodium/potassium-dependent ATPase beta-1 subunit; sodium/potassium-transporting ATPase alpha-4 chain; sodium/potassium-transporting ATPase beta-1 chain; Sodium/potassium-transporting ATPase subunit alpha-1; sodium/potassium-transporting ATPase subunit alpha-4; anti-ATP1A1 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	Phospho-ATP1 alpha1/Na+K+ ATPase1 (Tyr260) Antibody detects endogenous levels of ATP1 alpha1/Na+K+ ATPase1 only when phosphorylated at Tyr260.
Purity/Purification	Purified rabbit serum by affinity purification via sequential chromatography on phospho- and non-phospho-peptide affinity columns.
Form/Format	Liquid; Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	1023
Applicable Applications for anti-ATP1A1 antibody	ELISA (Peptide ELISA), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human ATP1 alpha1/Na+K+ ATPase1 around the phosphorylation site of Tyr260.
Subcellular Location	Plasma Membrane
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



WB (Western Blot)
Western blot analysis of extracts of Rat brain tissue sample,using Phospho-ATP1 alpha1/Na+K+ ATPase1 (Tyr260) Antibody.



IHC (Immunohistochemistry)
At 1/100 staining mouse heart tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary

ADDITIONAL INFORMATION

Related Product Information for anti-ATP1A1 antibody	Description: 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. Post Translational Modifications: Phosphorylation on Tyr-10 modulates pumping activity. Phosphorylation of Ser-943 by PKA modulates the response of ATP1A1 to PKC. Dephosphorylation by protein phosphatase 2A (PP2A) following increases in intracellular sodium, leading to increase catalytic activity (By similarity). Subunit Structure: The sodium/potassium-transporting ATPase is composed of a catalytic alpha subunit, an auxiliary non-catalytic beta subunit and an additional regulatory subunit. Interacts with regulatory subunit FXYD1 (By similarity). Interacts with regulatory subunit FXYD3 (PubMed:21454534). Interacts with SIK1 (By similarity). Binds the HLA class II histocompatibility antigen DR1 (PubMed:1380674). Interacts with SLC35G1 and STIM1 (PubMed:22084111). Similarity: Belongs to the cation transport ATPase (P-type) (TC 3.A.3) family. Type IIC subfamily.

NCBI AND UNIPROT INFORMATION

NCBI GI #	21361181
NCBI GeneID	476
NCBI Accession #	NP_000692.2
NCBI GenBank Nucleotide #	NP_000692.2
UniProt Accession #	P05023
Molecular Weight	Observed: 113 kDa Predicted: 113 kDa
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
NCBI Protein Information	sodium/potassium-transporting ATPase subunit alpha-1
UniProt Protein Name	Sodium/potassium-transporting ATPase subunit alpha-1
UniProt Gene Name	**ATP1A1**
UniProt Synonym Gene Names	Na(+)/K(+) ATPase alpha-1 subunit
UniProt Entry Name	AT1A1_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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