

Rabbit ATP1A1 Polyclonal Antibody | anti-ATP1A1 antibody

Phospho-ATP1A1 (Tyr260) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA31454	Rabbit	Human, Mouse, Rat Predicted Reactivity: Pig (100%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (90%), Dog (100%), Xenopus (90%)	Western Blot, Immunohistochemistry, Immunofluorescence, Immunocytochemistry, ELISA

PRODUCT SYNONYMS

ATP1A1; Polyclonal Antibody; Phospho-ATP1A1 (Tyr260) Antibody; A1A1; AT1A1; AT1A1_HUMAN; Atpa-1; ATPase Na+/K+ transporting alpha 1 polypeptide; ATPase Na+/K+ transporting subunit alpha 1; BC010319; EC 3.6.3.9; MGC3285; MGC38419; MGC51750; Na K ATPase alpha A catalytic polypeptide; Na K ATPase catalytic subunit alpha A protein; Na (+)/K (+) ATPase 1; Na (+)/K (+) ATPase alpha-1 subunit; Na+; K+ ATPase alpha subunit; Na+/K+ ATPase alpha 1 subunit; Na+/K+ ATPase 1; Na; K ATPase alpha 1 subunit; Nkaa1b; Sodium potassium ATPase alpha 1 polypeptide; Sodium pump 1; Sodium pump subunit alpha-1; sodium-potassium ATPase catalytic subunit alpha-1; Sodium/potassium-transporting ATPase subunit alpha-1; anti-ATP1A1 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat Predicted Reactivity: Pig (100%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (90%), Dog (100%), Xenopus (90%)
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Phospho-ATP1A1 (Tyr260) Antibody detects endogenous levels of ATP1A1 only when phosphorylated at Tyr260.
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-ATP1A1 antibody	WB (Western Blot), IHC (Immunohistochemistry), IF (Immunofluorescence), ICC (Immunocytochemistry), ELISA (Peptide ELISA)
Application Notes	WB: 1:1000-3000 IF/ICC: 1:100-1:500 IHC: 1:50-1:200 Peptide ELISA: 1:20,000-1:40,000
Immunogen	A synthesized peptide derived from human ATP1A1 around the phosphorylation site of Tyr260.
Conjugation	Unconjugated
Fragment	Fab fragment
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 FXD1 (By similarity). Interacts with regulatory subunit FXD3. Interacts with SIK1 (By similarity). Binds the HLA class II histocompatibility antigen DR1. Interacts with SLC35G1 and STIM1.
Similarity	Belongs to the cation transport ATPase (P-type) (TC 3.A.3) family. Type IIC subfamily.

Subcellular Location	Cell membrane>Sarcolemma>Multi-pass membrane protein. Melanosome. Note: Identified by mass spectrometry in melanosome fractions from stage I to stage IV.
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



Application Data

At 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) antibody(Red), diluted at 1/600, was used as secondary antibody.



IHC (Immunohistochemistry)

At 1/100 staining Human pancreatic cancer by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)

At 1/100 staining Human ovarian cancer by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)

At 1/100 staining Human ovarian cancer by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)

Staining Mouse colorectal tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



WB (Western Blot)

Western blot analysis of ATP1A1 (Phospho-Tyr260) using HepG2 whole cell lysates.-/+ means absence or presence of N peptide(1/4~non-phospho peptide) and P peptide(phospho peptide).

ADDITIONAL INFORMATION

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.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	21361181
NCBI GeneID	476
NCBI Accession #	NP_000692.2
NCBI GenBank Nucleotide #	NM_000701.7
UniProt Accession #	P05023; Q16689; Q6LDM4; Q9UCN1; Q9UJ20; Q9UJ21; B2RBR6; B7Z3U6
Molecular Weight	112,896 Da
NCBI Official Full Name	sodium/potassium-transporting ATPase subunit alpha-1 isoform a
NCBI Official Synonym Full Names	ATPase, Na ⁺ /K ⁺ transporting, alpha 1 polypeptide
NCBI Official Symbol	ATP1A1

NCBI Protein Information	sodium/potassium-transporting ATPase subunit alpha-1; sodium pump 1; Na+/K+ ATPase 1; Na,K-ATPase alpha-1 subunit; sodium pump subunit alpha-1; Na+, K+ ATPase alpha subunit; Na(+)/K(+) ATPase alpha-1 subunit; Na, K-ATPase, alpha-A catalytic polypeptide; s
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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Online datasheet: <https://stage.aaabiotech.com/polyclonal/atp1a1-antibody-western-blot-immunohistochemistry-immunofluorescence-immunocytochemistry-peptide-elisa-elisa/31454>