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Rabbit Anti-ATP1A1 antibody

SL9570R

Product Name:	ATP1A1
Chinese Name:	Na+/K+-ATPase α1 钠钾ATP酶α1抗体
Alias:	alpha 1 Sodium Potassium ATPase; 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.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Dog,Pig,Rabbit,
Applications:	ELISA=1:500-1000IHC-F=1:400-800ICC=1:100-500IF=1:100-500（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	112kDa
Cellular localization:	The cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human ATP1A1:901-1023/1023<Extracellular>
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of

	antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	The ubiquitously expressed sodium/potassium-ATPase (Na+/K+-ATPase) exists as a oligomeric plasma membrane complex that couples the hydrolysis of one molecule of ATP to the importation of three Na+ ions and two K+ ions against their respective electrochemical gradients. As a member of the P-type family of ion motives, Na+/K+-ATPase plays a critical role in maintaining cellular volume, resting membrane potential and Na+-coupled solute transport.The Alpha subunit contains the binding sites for ATP and the cations; the glycosylated Beta subunit ensures correct folding and membrane insertion of the Alpha subunits. The small subunit co-localizes with the Alpha subunit in nephron segments, where it increases the affinity of Na+/K+-ATPase for ATP. The Betasubunit, but not the subunit, is essential for normal activity of Na+/K+-ATPase. **Function:** 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. **Subunit:** Interacts with SIK1. Composed of three subunits: alpha (catalytic), beta and gamma. Binds the HLA class II histocompatibility antigen, DR1. **Subcellular Location:** Cell membrane. Melanosome. Identified by mass spectrometry in melanosome fractions from stage I to stage IV. **Post-translational modifications:** Phosphorylation on Tyr-10 modulates pumping activity. Dephosphorylation by protein phosphatase 2A (PP2A) following increases in intracellular sodium, leading to increase catalytic activity. **Similarity:** Belongs to the cation transport ATPase (P-type) (TC 3.A.3) family. Type IIC subfamily. **SWISS:** P05023 **Gene ID:** 476 **Database links:** Entrez Gene: 476 Human

	Entrez Gene: 11928 Mouse Entrez Gene: 24211 Rat Omim: 182310 Human SwissProt: P05023 Human SwissProt: Q8VDN2 Mouse SwissProt: P06685 Rat Unigene: 371889 Human Unigene: 280103 Mouse Unigene: 217534 Rat Unigene: 2992 Rat **Important Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.