



Sodium Potassium ATPase (PTR2543) Mouse mAb

Catalog No	BYab-17182
Isotype	IgG
Reactivity	Human, Mouse,Rat
Applications	IHC,ELISA
Gene Name	ATP1A1
Protein Name	Sodium/potassium-transporting ATPase subunit alpha-1 (Na ⁺)/K ⁺ ATPase alpha-1 subunit) (EC 3.6.3.9) (Sodium pump subunit alpha-1)
Immunogen	Synthesized peptide derived from human Sodium Potassium ATPase
Specificity	This antibody detects endogenous levels of Sodium Potassium ATPase at Human, Mouse,Rat
Formulation	PBS, pH7.4, 50% glycerol, 0.03%Proclin 300
Source	Mouse,monoclonal:IgG3,kappa
Purification	Protein G
Dilution	IHC 1:50-200 ELISA 1:5000-20000
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	Sodium/potassium-transporting ATPase subunit alpha-1 (Na ⁺)/K ⁺ ATPase alpha-1 subunit) (EC 3.6.3.9) (Sodium pump subunit alpha-1)
Observed Band	110kDa
Cell Pathway	Basolateral cell membrane ; Multi-pass membrane protein . Cell membrane, sarcolemma ; Multi-pass membrane protein . Cell projection, axon . Melanosome . Identified by mass spectrometry in melanosome fractions from stage I to stage IV.
Tissue Specificity	.
Function	catalytic activity:ATP + H ₂ O + Na ⁺ (In) + K ⁺ (Out) = ADP + phosphate + Na ⁺ (Out) + K ⁺ (In).,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.,PTM:Phosphorylation on Tyr-10 modulates pumping activity.,similarity:Belongs to the cation transport ATPase (P-type) family.,similarity:Belongs to the cation transport ATPase (P-type) family. Type IIC subfamily.,subcellular location:Identified by mass spectrometry in melanosome

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	fractions from stage I to stage IV.,subunit:Composed of three subunits: alpha (catalytic), beta and gamma. Binds the HLA class II histocompatibility antigen, DR1.,
Background	ATPase Na ⁺ /K ⁺ transporting subunit alpha 1(ATP1A1) Homo sapiens 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],
matters needing attention	Avoid repeated freezing and thawing!
Usage suggestions	This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

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