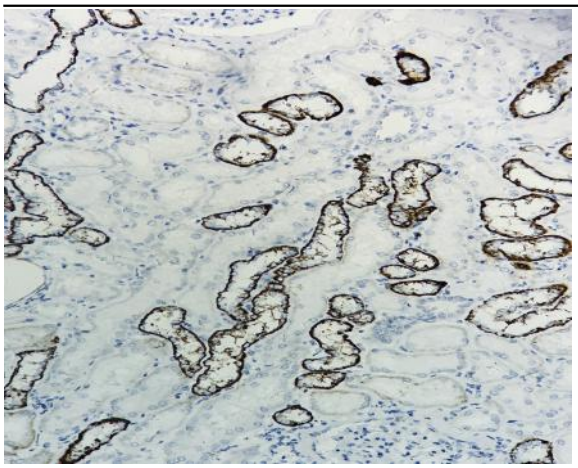
Best Tools for immunology Research

Sodium Potassium ATPase (PTR2543) Mouse mAb

Catalog No :	YM4684
Reactivity :	Human (predicted: Mouse; Rat)
Applications :	IHC;ELISA
Target :	Na+/K+-ATPase
Fields :	>>cGMP-PKG signaling pathway;>>cAMP signaling pathway;>>Cardiac muscle contraction;>>Adrenergic signaling in cardiomyocytes;>>Insulin secretion;>>Thyroid hormone synthesis;>>Thyroid hormone signaling pathway;>>Aldosterone synthesis and secretion;>>Aldosterone-regulated sodium reabsorption;>>Endocrine and other factor-regulated calcium reabsorption;>>Proximal tubule bicarbonate reclamation;>>Salivary secretion;>>Gastric acid secretion;>>Pancreatic secretion;>>Carbohydrate digestion and absorption;>>Protein digestion and absorption;>>Bile secretion;>>Mineral absorption
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)
Human Swiss Prot No :	P05023/P50993/P13637/Q13733
Rat Gene Id :	24211
Rat Swiss Prot No :	P06685
Immunogen :	Synthesized peptide derived from human Sodium Potassium ATPtase AA range: 150-250
Specificity :	This antibody detects endogenous levels of Sodium Potassium ATPtase at Human, Mouse,Rat
Formulation :	PBS, pH7.4, 50% glycerol, 0.03%Proclin 300
Source :	Mouse,monoclonal:IgG3,Kappa

Dilution :	IHC-p 1:50-200,ELISA 1:5000-20000
Purification :	Protein G
Storage Stability :	-15°C to -25°C/1 year(Do not lower than -25°C)
Observed Band :	110kDa
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],
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 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.,
Subcellular Location :	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. .

Products Images



Human kidney tissue was stained with Anti-Sodium Potassium ATPase (PTR2543) Antibody