Best Tools for immunology Research

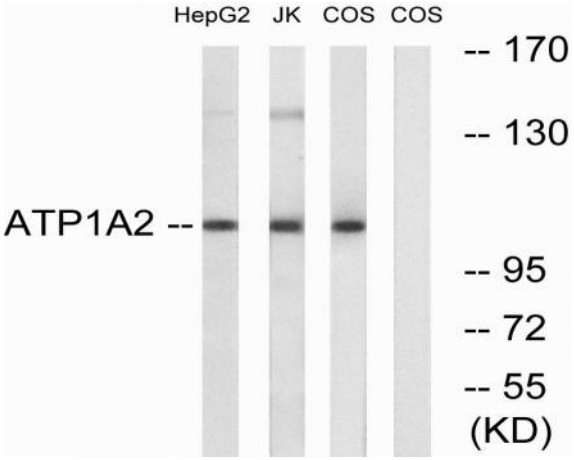
Na+/K+-ATPase α2 Polyclonal Antibody

Catalog No :	YT2974
Reactivity :	Human;Mouse;Rat;Monkey
Applications :	WB;ELISA;IHC
Target :	Na+/K+-ATPase α2
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 :	ATP1A2
Protein Name :	Sodium/potassium-transporting ATPase subunit alpha-2
Human Gene Id :	477
Human Swiss Prot No :	P50993
Mouse Gene Id :	98660
Mouse Swiss Prot No :	Q6PIE5
Rat Gene Id :	24212
Rat Swiss Prot No :	P06686
Immunogen :	The antiserum was produced against synthesized peptide derived from human ATP1A2. AA range:971-1020
Specificity :	Na+/K+-ATPase α2 Polyclonal Antibody detects endogenous levels of Na+/K+-ATPase α2 protein.

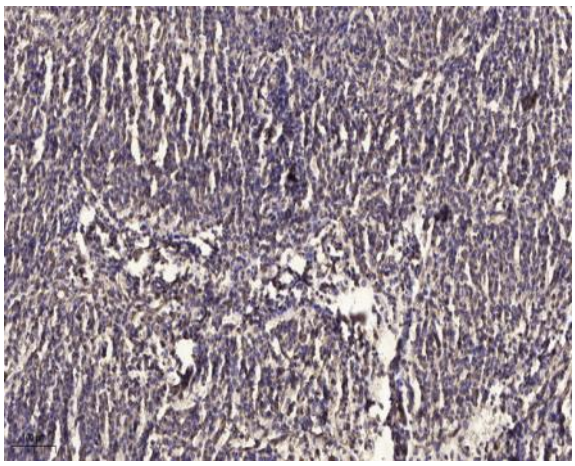
Formulation :	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source :	Polyclonal, Rabbit,IgG
Dilution :	WB 1:500-2000;IHC 1:50-300; ELISA 2000-20000
Purification :	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Concentration :	1 mg/ml
Storage Stability :	-15°C to -25°C/1 year(Do not lower than -25°C)
Observed Band :	112kD
Cell Pathway :	Cardiac muscle contraction;Aldosterone-regulated sodium reabsorption;
Background :	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 2 subunit. Mutations in this gene result in familial basilar or hemiplegic migraines, and in a rare syndrome known as alternating hemiplegia of childhood. [provided by RefSeq, Oct 2008],
Function :	catalytic activity:ATP + H(2)O + Na(+)(In) + K(+)(Out) = ADP + phosphate + Na(+)(Out) + K(+)(In).,disease:Defects in ATP1A2 are a cause of alternating hemiplegia of childhood (AHC) [MIM:104290]. AHC is typically distinguished from familial hemiplegic migraine by infantile onset of the symptoms and high prevalence of associated neurological deficits that become increasingly obvious with age.,disease:Defects in ATP1A2 are the cause of familial hemiplegic migraine 2 (FHM2) [MIM:602481]. Familial hemiplegic migraine is a rare, severe, autosomal dominant subtype of migraine characterized by aura and some hemiparesis.,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, providing the energy f
Subcellular Location :	Membrane ; Multi-pass membrane protein . Cell membrane ; Multi-pass membrane protein .

Expression : Brain,Leukocyte,Ovary,Placenta,Uterus,

Products Images



Western blot analysis of lysates from COS7 cells, HepG2 cells, and Jurkat cells, using ATP1A2 Antibody. The lane on the right is blocked with the synthesized peptide.



Immunohistochemical analysis of paraffin-embedded human meningioma. 1, Antibody was diluted at 1:200(4° overnight). 2, Tris-EDTA,pH9.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 45min).