



Na⁺/K⁺-ATPase α2 Polyclonal Antibody

Catalog No	YP-Ab-16477
Isotype	IgG
Reactivity	Human;Mouse;Rat;Monkey
Applications	WB;ELISA;IHC
Gene Name	ATP1A2
Protein Name	Sodium/potassium-transporting ATPase subunit alpha-2
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
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB 1:500-2000;IHC-p 1:50-300; ELISA 2000-20000
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	ATP1A2; KIAA0778; Sodium/potassium-transporting ATPase subunit alpha-2; Na(+)/K(+) ATPase alpha-2 subunit; Sodium pump subunit alpha-2
Observed Band	112kD
Cell Pathway	Membrane ; Multi-pass membrane protein . Cell membrane ; Multi-pass membrane protein .
Tissue Specificity	Brain,Leukocyte,Ovary,Placenta,Uterus,
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



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],

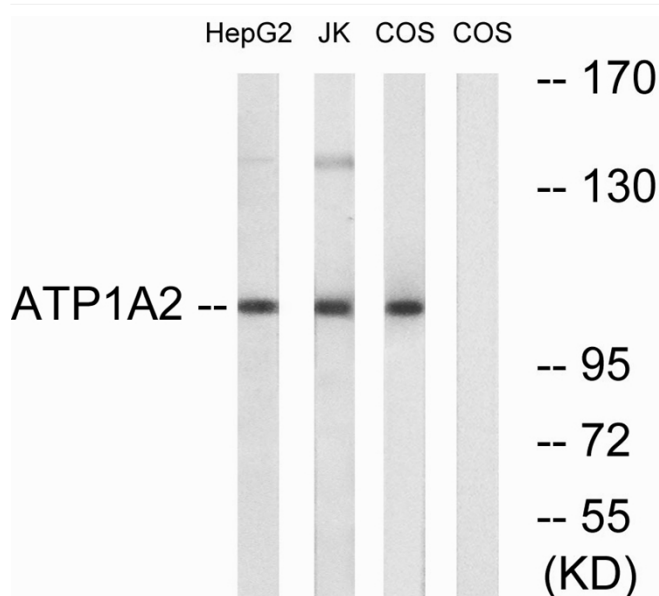
matters needing attention

Avoid repeated freezing and thawing!

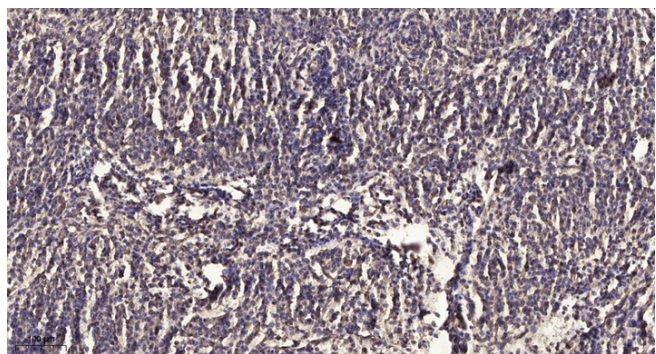
Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

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).