



# Na<sup>+</sup>/K<sup>+</sup>-ATPase α2 Polyclonal Antibody

<b>Catalog No</b>	BYab-16477
<b>Isotype</b>	IgG
<b>Reactivity</b>	Human;Mouse;Rat;Monkey
<b>Applications</b>	WB;ELISA;IHC
<b>Gene Name</b>	ATP1A2
<b>Protein Name</b>	Sodium/potassium-transporting ATPase subunit alpha-2
<b>Immunogen</b>	The antiserum was produced against synthesized peptide derived from human ATP1A2. AA range:971-1020
<b>Specificity</b>	Na <sup>+</sup> /K <sup>+</sup> -ATPase α2 Polyclonal Antibody detects endogenous levels of Na <sup>+</sup> /K <sup>+</sup> -ATPase α2 protein.
<b>Formulation</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
<b>Source</b>	Polyclonal, Rabbit,IgG
<b>Purification</b>	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
<b>Dilution</b>	WB 1:500-2000;IHC-p 1:50-300; ELISA 2000-20000
<b>Concentration</b>	1 mg/ml
<b>Purity</b>	≥90%
<b>Storage Stability</b>	-20°C/1 year
<b>Synonyms</b>	ATP1A2; KIAA0778; Sodium/potassium-transporting ATPase subunit alpha-2; Na(+)/K(+) ATPase alpha-2 subunit; Sodium pump subunit alpha-2
<b>Observed Band</b>	112kD
<b>Cell Pathway</b>	Membrane ; Multi-pass membrane protein . Cell membrane ; Multi-pass membrane protein .
<b>Tissue Specificity</b>	Brain,Leukocyte,Ovary,Placenta,Uterus,
<b>Function</b>	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

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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<sup>+</sup>/K<sup>+</sup> -ATPases. Na<sup>+</sup>/K<sup>+</sup> -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<sup>+</sup>/K<sup>+</sup> -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

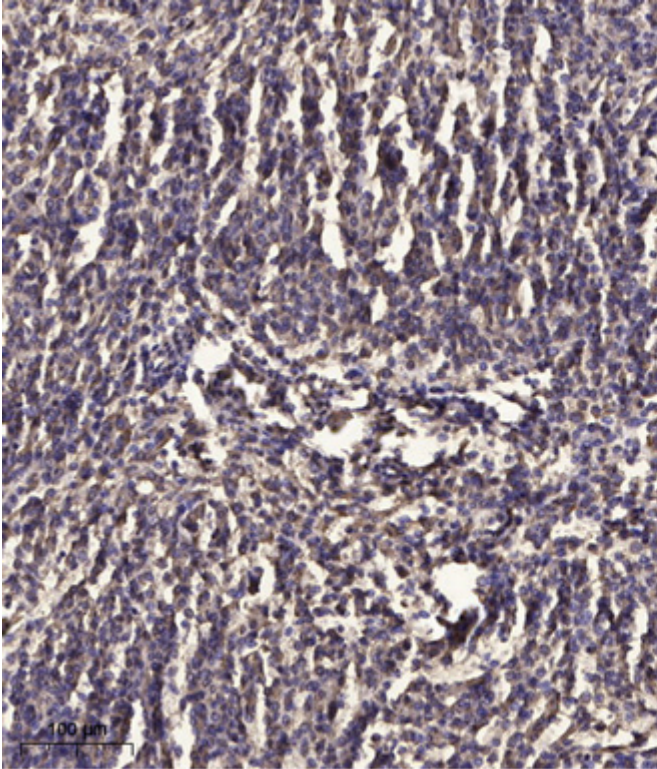
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

## 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.

# ATP1A2 .



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).