Product Name: Na+/K+-ATPase α2 Rabbit Polyclonal Antibody
Catalog #: APRab14379

Summary

Production Name	Na+/K+-ATPase α2 Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	WB
Reactivity	Human,Mouse,Rat,Monkey

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	ATP1A2
Alternative Names	ATP1A2; KIAA0778; Sodium/potassium-transporting ATPase subunit alpha-2; Na(+)/K(+) ATPase alpha-2 subunit; Sodium pump subunit alpha-2
Gene ID	477.0
SwissProt ID	P50993.The antiserum was produced against synthesized peptide derived from human ATP1A2. AA range:971-1020

Application

Dilution Ratio	WB 1:500-2000; ELISA 2000-20000
Molecular Weight	112kD

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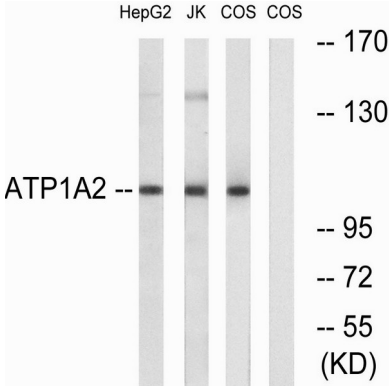
Background

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],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 for active transport of various nutrients.,similarity:Belongs to the cation transport ATPase (P-type) family. Type IIC subfamily.,subunit:Composed of three subunits: alpha (catalytic), beta and gamma.,

Research Area

Cardiac muscle contraction;Aldosterone-regulated sodium reabsorption;

Image Data



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.

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Note

For research use only.