10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Atp1a2 Rabbit pAb

Catalog # AP100212

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	P50993
Other Accession	P50993
Reactivity	Rat
Predicted	Pig, Human, Mouse, Rabbit, Chicken, Dog, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	112265
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human Atp1a2
Epitope Specificity	851-950/1020
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the cation transport ATPase (P-type) (TC 3.A.3) family. Type IIC subfamily.
DISEASE	Defects in ATP1A2 are the cause of migraine familial hemiplegic type 2 (FHM2) [MIM:602481]. FHM2 is a rare, severe, autosomal dominant subtype of migraine characterized by aura and some hemiparesis. 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.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	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]

Additional Information

Gene ID	477
Other Names	DEE98; FARIMPD; FHM2; MHP2; Atpa-3; mKIAA0778; RATATPA2;

	AT1A2_HUMAN; ATP1A2; Na(+)/K(+) ATPase alpha-2 subunit; Sodium pump subunit alpha-2; 7.2.2.13; KIAA0778; AT1A2_MOUSE; Na(+)/K(+) ATPase alpha(+) subunit; AT1A2_RAT; ATPase Na+/K+ transporting subunit alpha 2; migraine, hemiplegic 2; ATPase, Na+/K+ transporting, alpha 2 (+) polypeptide; ATPase, Na+/K+ transporting, alpha 2 polypeptide; sodium/potassium-transporting ATPase subunit alpha-2; sodium-potassium ATPase catalytic subunit alpha-2
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	ATP1A2 (HGNC:800)
Synonyms	KIAA0778
Function	Catalytic subunit of the Na(+)/K(+)-ATPase that hydrolyzes ATP to exchange ions across the plasma membrane, exporting 3 Na(+) and importing 2 K(+) per cycle (PubMed:33880529). It undergoes ATP-driven conformational changes that allow alternating binding and release of Na(+) and K(+) ions across the membrane (By similarity). This process maintains essential Na(+) and K(+) gradients for membrane potential and cellular function (PubMed:33880529).
Cellular Location	Membrane; Multi-pass membrane protein. Cell membrane; Multi-pass membrane protein

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