



AT1A3 Polyclonal Antibody

Catalog No	YP-Ab-06214
Isotype	IgG
Reactivity	Human;Rat;Mouse
Applications	WB;ELISA
Gene Name	ATP1A3
Immunogen	Synthesized peptide derived from human protein . at AA range: 950-1030
Specificity	AT1A3 Polyclonal Antibody detects endogenous levels of protein.
Formulation	Liquid in PBS containing 50% glycerol, 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 ELISA 1:5000-20000
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	ATP1A3;ATP1A3 (middle);Alpha(III);ATP1A 3;DYT12;AT1A3;Sodium/potassium-transporting ATPase subunit alpha-3 (Na(+)/K(+) ATPase alpha-3 subunit) (EC 3.6.3.9) (Na(+)/K(+) ATPase alpha(III) subunit) (Sodium pump subunit alpha-3)
Observed Band	100-113 kDa
Calculated Molecular Weight	113 kDa
Cell Pathway	Cell membrane ; Multi-pass membrane protein .
Tissue Specificity	Brain,Cerebellum,Heart,Uterus,
Function	catalytic activity:ATP + H(2)O + Na(+)(In) + K(+)(Out) = ADP + phosphate + Na(+)(Out) + K(+)(In).,disease:Defects in ATP1A3 are the cause of dystonia type 12 (DYT12) [MIM:128235]; also known as rapid-onset dystonia parkinsonism (RDP). DYT12 is an autosomal dominant dystonia-parkinsonism disorder. Dystonia is defined by the presence of sustained involuntary muscle contractions, often leading to abnormal postures. DYT12 patients develop dystonia and parkinsonism between 15 and 45 years of age. The disease is characterized by an unusually rapid evolution of signs and symptoms. The sudden onset of symptoms over hours to a few weeks, often associated with physical or emotional stress, suggests a trigger initiating a nervous system insult resulting in permanent neurologic disability.,function:This is the catalytic



component of the active enzyme, which catalyzes the hydrolysis of ATP coupled wi

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 3 subunit. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jan 2012],

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