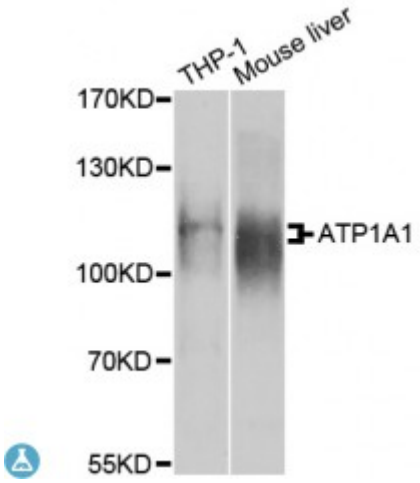
Anti-ATP1A1 Antibody



Description	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 1 subunit. Multiple transcript variants encoding different isoforms have been found for this gene.

Model	STJ114280
Host	Rabbit
Reactivity	Human, Mouse
Applications	WB
Immunogen	Recombinant fusion protein containing a sequence corresponding to amino acids 551-850 of human ATP1A1 (NP_000692.2).
Gene ID	476
Gene Symbol	ATP1A1
Dilution range	WB 1:500 - 1:2000
Purification	Affinity purification
Note	For Research Use Only (RUO).

Protein Name	Sodium/potassium-transporting ATPase subunit alpha-1 Na(+ /K(+ ATPase alpha-1 subunit
Molecular Weight	112.896 kDa
Clonality	Polyclonal
Conjugation	Unconjugated
Isotype	IgG
Formulation	PBS with 0.02% sodium azide, 50% glycerol, pH7.3.
Storage Instruction	Store at -20C. Avoid freeze / thaw cycles.
Database Links	HGNC:799OMIM:182310Reactome:R-HSA-5578775
Alternative Names	Sodium/potassium-transporting ATPase subunit alpha-1 Na(+ /K(+ ATPase alpha-1 subunit
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 ions, providing the energy for active transport of various nutrients
Cellular Localization	Cell membrane, sarcolemma
Post-translational Modifications	Phosphorylation on Tyr-10 modulates pumping activity, Phosphorylation of Ser-943 by PKA modulates the response of ATP1A1 to PKC, Dephosphorylation by protein phosphatase 2A (PP2A) following increases in intracellular sodium, leading to increase catalytic activity ,