ARG43765
anti-ATP1A1 / Na+ K+ ATPase alpha 1 antibody

Package: 100 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes ATP1A1 / Na+ K+ ATPase alpha 1
Tested Reactivity	Hu, Ms, Rat
Tested Application	FACS, ICC/IF, IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	ATP1A1 / Na+ K+ ATPase alpha 1
Species	Human
Immunogen	Synthetic peptide corresponding to Human ATP1A1 / Na+ K+ ATPase alpha 1.
Conjugation	Un-conjugated
Alternate Names	Sodium pump subunit alpha-1; Sodium/potassium-transporting ATPase subunit alpha-1; EC 3.6.3.9; Na+ K+ ATPase alpha 1; Na K ATPase alpha 1; sodium potassium ATPase alpha 1; ATPase Na+ K+ alpha 1; ATPase Na K alpha 1; ATPase sodium potassium alpha 1

Application Instructions

Application table

Application	Dilution
FACS	1:50 - 1:100
ICC/IF	1:50 - 1:200
IHC-P	1:50 - 1:100
WB	1:500 - 1:1000

Application Note	IHC-P: Antigen Retrieval: Heat mediated was performed using Sodium citrate buffer pH 6.0. * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.
Positive Control	Human thyroid carcinoma; HeLa
Observed Size	~100 kDa

Properties

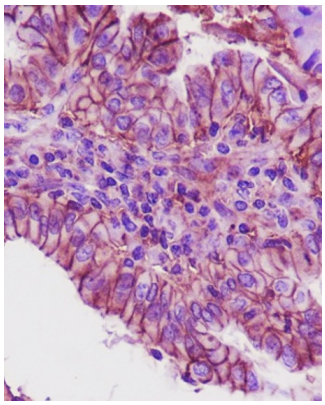
Form	Liquid
Purification	Affinity purified.
Buffer	PBS (pH 7.4), 150 mM NaCl, 0.02% Sodium azide and 50% Glycerol.
Preservative	0.02% Sodium azide
Stabilizer	50% Glycerol

Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

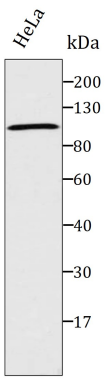
Gene Symbol	ATP1A1
Gene Full Name	ATPase, Na+/K+ transporting, alpha 1 polypeptide
Background	ATP1A protein belongs to the family of P-type cation transport ATPases, and to the subfamily of Na+/K+ -ATPases. Na+/K+ -ATPase is an integral membrane protein responsible for establishing and maintaining the 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. [provided by RefSeq, May 2009]
Function	ATP1A 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. [UniProt]
Highlight	Related products: Na K ATPase antibodies; Anti-Rabbit IgG secondary antibodies; Related news: Gene therapy for retinitis pigmentosa (RP)
Calculated Mw	113 kDa
PTM	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 (By similarity). [UniProt]

Images



ARG43765 anti-ATP1A1 / Na+ K+ ATPase alpha 1 antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Human thyroid carcinoma tissue stained with ARG43765 anti-ATP1A1 / Na+ K+ ATPase alpha 1 antibody. Antigen Retrieval: Boil tissue section in Citrate buffer (pH 6.0).



ARG43765 anti-ATP1A1 / Na+ K+ ATPase alpha 1 antibody WB image

Western blot: HeLa cell lysate stained with ARG43765 anti-ATP1A1 / Na+ K+ ATPase alpha 1 antibody, overnight at 4°C.