ARG66327
anti-ATP1A1 / Na+ K+ ATPase alpha 1 antibody [SQab1875]

Package: 100 µl, 50 µl
Store at: -20°C

Summary

Product Description	Recombinant Rabbit Monoclonal antibody [SQab1875] recognizes ATP1A1 / Na+ K+ ATPase alpha 1
Tested Reactivity	Hu, Ms, Rat
Tested Application	FACS, IHC-P, IP, WB
Host	Rabbit
Clonality	Monoclonal
Clone	SQab1875
Isotype	IgG
Target Name	ATP1A1 / Na+ K+ ATPase alpha 1
Species	Human
Immunogen	Synthetic peptide around the N-terminus of 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 - 1:200
IHC-P	1:10000 - 1:20000
IP	1:50
WB	1:2000 - 1:5000

Application Note: IHC-P: Antigen Retrieval: Heat mediated was performed using Tris/EDTA buffer pH 9.0.
* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

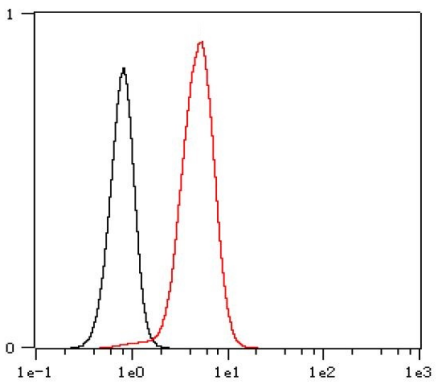
Form	Liquid
Purification	Purification with Protein A.
Buffer	PBS, 0.01% Sodium azide, 40% Glycerol and 0.05% BSA.
Preservative	0.01% Sodium azide
Stabilizer	40% Glycerol and 0.05% BSA
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot 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

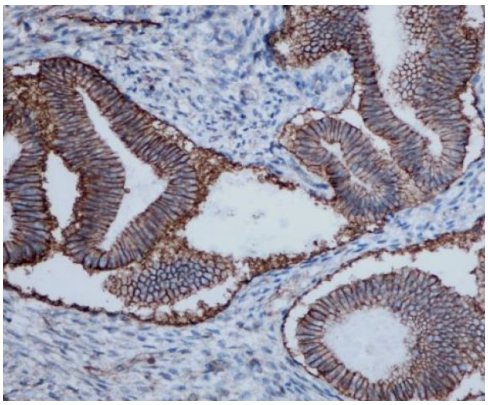
Gene Symbol	ATP1A1
Gene Full Name	ATPase, Na+/K+ transporting, alpha 1 polypeptide
Background	ATP1A protein belongs to the family of P-type cation transport ATPases, and to the subfamily of Na+/K+ -ATPases. Na+/K+ -ATPase is an integral membrane protein responsible for establishing and maintaining the 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



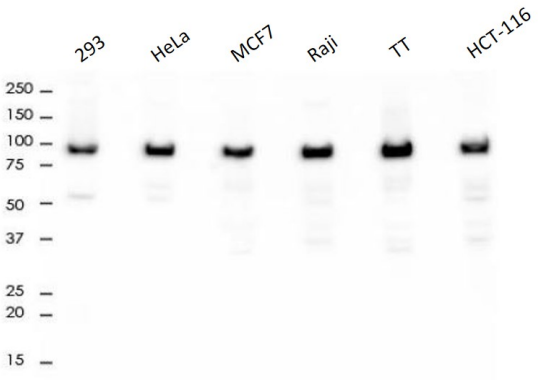
ARG66327 anti-ATP1A1 / Na+ K+ ATPase alpha 1 antibody [SQab1875] FACS image

Flow Cytometry: HeLa cells were fixed with 4% paraformaldehyde (10 min) and then permeabilized with 0.1% TritonX-100 for 15 min. The cells were stained with ARG66327 anti-ATP1A1 / Na+ K+ ATPase alpha 1 antibody [SQab1875] (red) at 1:200 dilution in 1x PBS/1% BSA for 30 min at RT, followed by Alexa Fluor® 488 labelled secondary antibody. Unlabelled sample (black) was used as a control.



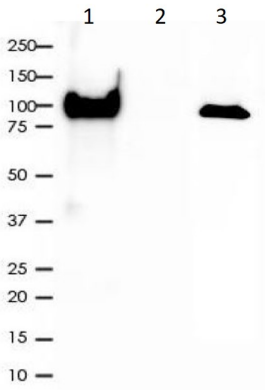
ARG66327 anti-ATP1A1 / Na+ K+ ATPase alpha 1 antibody [SQab1875] IHC-P image

Immunohistochemistry: Formalin-fixed and paraffin-embedded endometrium tissue stained with ARG66327 anti-ATP1A1 / Na+ K+ ATPase alpha 1 antibody [SQab1875] at 1:10,000 dilution. Antigen Retrieval: Heat mediated was performed using Tris/EDTA buffer pH 9.0.



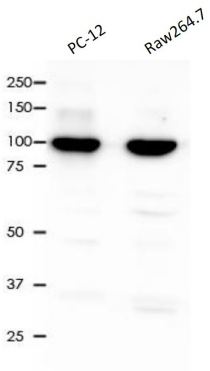
ARG66327 anti-ATP1A1 / Na+ K+ ATPase alpha 1 antibody [SQab1875] WB image

Western blot: 10 µg of 293, HeLa, MCF7, Raji, TT and HCT-116 cell lysates stained with ARG66327 anti-ATP1A1 / Na+ K+ ATPase alpha 1 antibody [SQab1875] at 1:2000 dilution.



ARG66327 anti-ATP1A1 / Na+ K+ ATPase alpha 1 antibody [SQab1875] IP image

Immunoprecipitation: 0.4 mg of TT whole cell lysate immunoprecipitated (1:50) and stained with ARG66327 anti-ATP1A1 / Na+ K+ ATPase alpha 1 antibody [SQab1875]. 1) ARG66327 IP in TT whole cell lysate, 2) PBS instead of ARG66327 in TT whole cell lysate, and 3) TT whole cell lysate, 10 µg (input).



ARG66327 anti-ATP1A1 / Na+ K+ ATPase alpha 1 antibody [SQab1875] WB image

Western blot: 7 µg of PC-12 and Raw264.7 cell lysates stained with ARG66327 anti-ATP1A1 / Na+ K+ ATPase alpha 1 antibody [SQab1875] at 1:2000 dilution.