

ARG58290 anti-ATP1A4 / Na⁺ K⁺ ATPase alpha 4 antibody

Package: 100 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes ATP1A4 / Na ⁺ K ⁺ ATPase alpha 4
Tested Reactivity	Hu
Tested Application	FACS, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	ATP1A4 / Na ⁺ K ⁺ ATPase alpha 4
Species	Human
Immunogen	KLH-conjugated synthetic peptide corresponding to aa. 12-46 of Human ATP1A4.
Conjugation	Un-conjugated
Alternate Names	Sodium pump subunit alpha-4; Sodium/potassium-transporting ATPase subunit alpha-4; ATP1AL2; EC 3.6.3.9; ATP1A1; Na ⁺ K ⁺ ATPase alpha 4; Na K ATPase alpha 4; sodium potassium ATPase alpha 4; ATPase Na ⁺ K ⁺ alpha 4; ATPase Na K alpha 4; ATPase sodium potassium alpha 4

Application Instructions

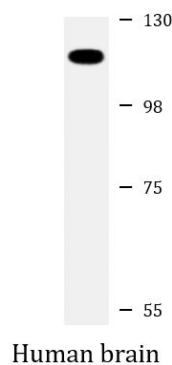
Application table	Application	Dilution
	FACS	1:25
	WB	1:2000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Positive Control	Human brain	

Properties

Form	Liquid
Purification	Purification with Protein A and immunogen peptide.
Buffer	PBS and 0.09% (W/V) Sodium azide.
Preservative	0.09% (W/V) Sodium azide
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 or below. 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.

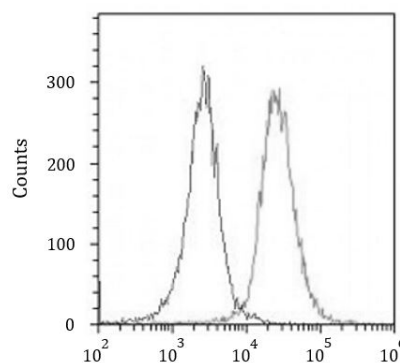
Gene Symbol	ATP1A4
Gene Full Name	ATPase, Na ⁺ /K ⁺ transporting, alpha 4 polypeptide
Background	The protein encoded by this gene belongs to the family of P-type cation transport ATPases, and to the subfamily of Na ⁺ /K ⁺ -ATPases. Na ⁺ /K ⁺ -ATPase is an integral membrane protein responsible for establishing 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 4 subunit. Alternatively spliced transcript variants encoding different isoforms have been identified. [provided by RefSeq, Jul 2008]
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. Plays a role in sperm motility. [UniProt]
Calculated Mw	114 kDa

Images



ARG58290 anti-ATP1A4 / Na⁺ K⁺ ATPase alpha 4 antibody WB image

Western blot: 20 µg of Human brain lysate stained with ARG58290 anti-ATP1A4 / Na⁺ K⁺ ATPase alpha 4 antibody at 1:2000 dilution.



ARG58290 anti-ATP1A4 / Na⁺ K⁺ ATPase alpha 4 antibody FACS image

Flow Cytometry: HeLa cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then incubated in 2% BSA to block non-specific protein-protein interactions and stained with ARG58290 anti-ATP1A4 / Na⁺ K⁺ ATPase alpha 4 antibody (right histogram) at 1:25 dilution for 60 min at 37°C, followed by incubation with DyLight® 488 labelled secondary antibody. Isotype control antibody (left histogram) was Rabbit IgG1 (1 µg/10⁶ cells) used under the same conditions. Acquisition of >10000 events was performed.