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Anti-ATP1A3 Rabbit Monoclonal Antibody

Catalog # ABO15722

Product Information

Application	WB
Primary Accession	P13637
Host	Rabbit
Isotype	IgG
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Format	Liquid
Description	Anti-ATP1A3 Rabbit Monoclonal Antibody . Tested in WB application. This antibody reacts with Human, Mouse, Rat.

Additional Information

Gene ID	478
Other Names	Sodium/potassium-transporting ATPase subunit alpha-3, Na(+)/K(+) ATPase alpha-3 subunit, 7.2.2.13, Na(+)/K(+) ATPase alpha(III) subunit, Sodium pump subunit alpha-3, ATP1A3
Calculated MW	111749
Application Details	WB 1:500-1:2000
Source	Eukaryota
Contents	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
Clone Names	Clone: 22A98
Immunogen	A synthesized peptide derived from human ATP1A3
Purification	Affinity-chromatography
Storage	Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

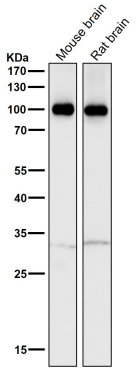
Protein Information

Name	ATP1A3
Function	Neuron-specific alpha catalytic component of the Na(+)/K(+)- transporting ATPase, which catalyzes the hydrolysis of ATP coupled with the exchange of Na(+) and K(+) ions across the plasma membrane (PubMed:36075933). Transports 3 Na(+) ions out of the cell and 2 K(+) ions into the cell for each

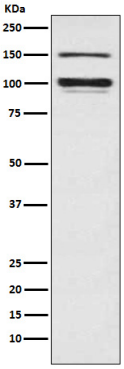
ATP hydrolyze against their electrochemical gradients to maintain ion concentration gradients across the membranes (By similarity). In the brain, ATP1A3 is critical for neuronal cell signaling and for maintenance of electrochemical stability, enabling cell excitation and action potential propagation (PubMed:33880529, PubMed:36075933).

Cellular Location Cell membrane; Multi-pass membrane protein

Images



All lanes use the Antibody at 1:3K dilution for 1 hour at room temperature.



Western blot analysis of ATP1A3 expression in Rat brain lysate.

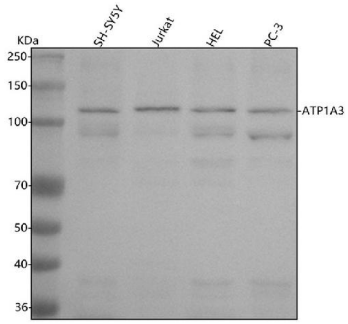


Figure 1. Western blot analysis of ATP1A3 using anti-ATP1A3 antibody (M02278).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: human SH-SY5Y whole cell lysates,
Lane 2: human Jurkat whole cell lysates,
Lane 3: human HEL whole cell lysates,
Lane 4: human PC-3 whole cell lysates.
After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-ATP1A3 antigen affinity purified monoclonal antibody (Catalog # M02278) at 1:500 overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:500 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for

ATP1A3 at approximately 112 kDa. The expected band size for ATP1A3 is at 112 kDa.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.