10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Sodium Potassium ATPase alpha-1 (Phospho-Tyr260) Antibody

Catalog # AP68144

Product Information

Application	WB, E, IHC-P
Primary Accession	P05023
Reactivity	Human, Rat, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	112896

Additional Information

Gene ID	476
Other Names	Sodium/potassium-transporting ATPase subunit alpha-1 (Na(+)/K(+) ATPase alpha-1 subunit) (EC 3.6.3.9) (Sodium pump subunit alpha-1)
Dilution	WB~~WB 1:500-2000, ELISA 1:10000-20000 E~~N/A IHC-P~~N/A
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
Storage Conditions	-20℃

Protein Information

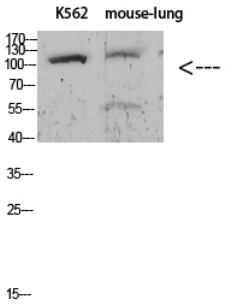
Name	ATP1A1
Function	Catalytic subunit of the Na(+)/K(+)-ATPase pump that hydrolyzes ATP to exchange ions across the plasma membrane, exporting 3 Na(+) and importing 2 K(+) per cycle against electrochemical gradients (PubMed:29499166, PubMed:30388404, PubMed:35803952). It undergoes ATP- driven conformational changes that allow alternating binding and release of Na(+) and K(+) ions across the membrane (PubMed:35803952). This process maintains essential Na(+) and K(+) gradients for membrane potential and cellular function. Could also be part of an osmosensory signaling pathway that senses body-fluid sodium levels and controls salt intake behavior as well as voluntary water intake to regulate sodium homeostasis (By similarity).
Cellular Location	Cell membrane {ECO:0000250|UniProtKB:Q8VDN2}; Multi-pass membrane protein. Basolateral cell membrane {ECO:0000250|UniProtKB:P06685}; Multi-pass membrane protein. Cell membrane, sarcolemma; Multi-pass membrane protein. Cell projection, axon {ECO:0000250|UniProtKB:P06685}. Melanosome. Note=Identified by mass spectrometry in melanosome fractions

from stage I to stage IV

Background

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.

Images



Western blot analysis of KB Hela lysate, antibody was diluted at 1000. Secondary antibody was diluted at 1:20000

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