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Sodium Potassium ATPase Antibody

Rabbit mAb
Catalog # AP90212

Product Information

Application	WB, IHC, IF, FC, ICC, IHF
Primary Accession	P05023
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Other Names	A1A1; AT1A1; ATP1A1; Na+/K+ transporting; alpha 1 polypeptide; Na+/K+ ATPase 1; Na, K-ATPase 1; Sodium pump 1;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	112896

Additional Information

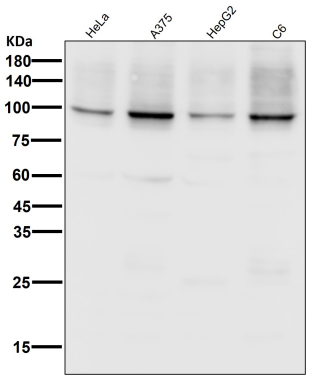
Dilution	WB 1:5000~1:10000 IHC 1:50~1:100 ICC/IF 1:50~1:200 FC 1:50
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human Sodium Potassium ATPase
Description	This is the catalytic component of the active enzyme, which catalyzes the hydrolysis of ATP coupled with the 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.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

Protein Information

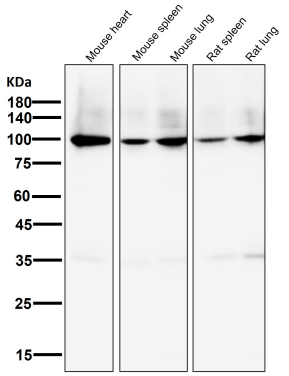
Name	ATP1A1
Function	Catalytic subunit of the Na(+)/K(+)-ATPase pump that hydrolyzes ATP to exchange ions across the plasma membrane, exporting 3 Na(+) and importing 2 K(+) per cycle against electrochemical gradients (PubMed:29499166, PubMed:30388404, PubMed:35803952). It undergoes ATP- driven conformational 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

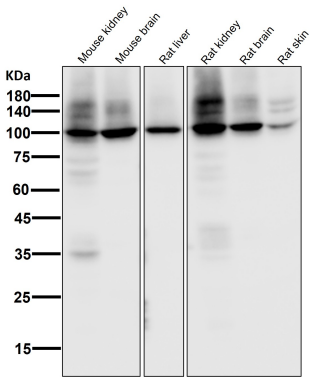
Images



All lanes use Sodium Potassium ATPase Antibody at 1:50000 dilution for 1 hour at room temperature.



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Immunohistochemical analysis of paraffin-embedded human thyroid carcinoma, using Sodium Potassium ATPase Antibody.

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