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Anti-Sodium Potassium ATPase ATP1A1 Rabbit Monoclonal Antibody

Catalog # ABO14296

Product Information

Application	WB, IHC, IF, ICC, FC
Primary Accession	P05023
Host	Rabbit
Isotype	Rabbit IgG
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Format	Liquid
Description	Anti-Sodium Potassium ATPase ATP1A1 Rabbit Monoclonal Antibody . Tested in WB, IHC, ICC/IF, Flow Cytometry applications. This antibody reacts with Human, Mouse, Rat.

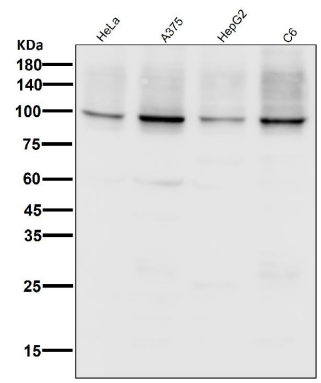
Additional Information

Gene ID	476
Other Names	Sodium/potassium-transporting ATPase subunit alpha-1, Na(+)/K(+) ATPase alpha-1 subunit, 7.2.2.13, Sodium pump subunit alpha-1, ATP1A1
Calculated MW	112896
Application Details	WB 1:5000-1:10000 IHC 1:50-1:100 ICC/IF 1:50-1:200 FC 1:50
Subcellular Localization	Cell membrane; Multi-pass membrane protein. Melanosome. Identified by mass spectrometry in melanosome fractions from stage I to stage IV.
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: AID-1
Immunogen	A synthesized peptide derived from human Sodium Potassium ATPase
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.

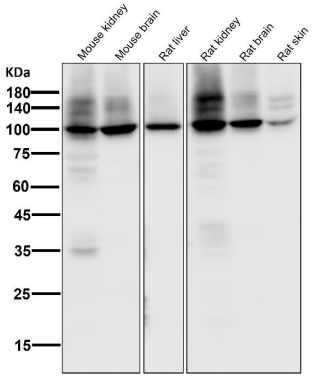
Protein Information

Name	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 the Antibody at 1:5W dilution for 1 hour at room temperature.



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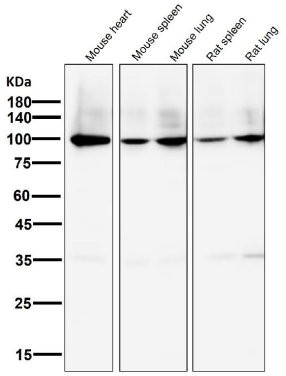
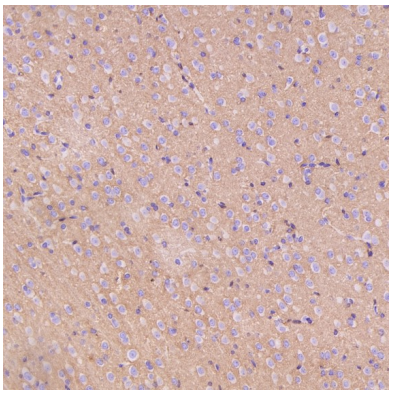
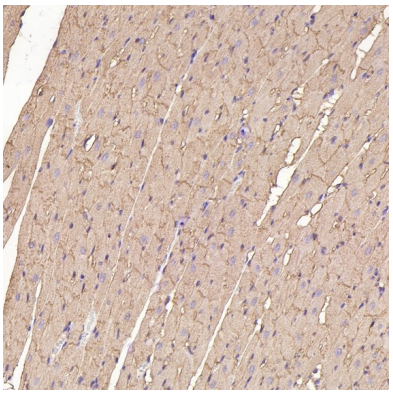
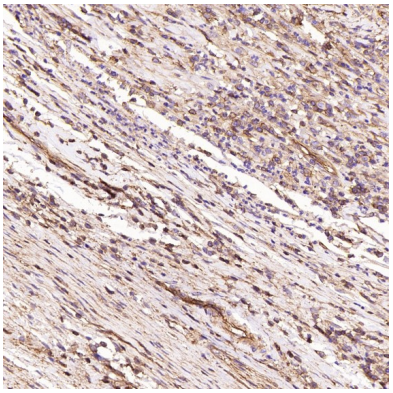




Immunohistochemical analysis of paraffin-embedded Rat cerebral cortex, using the Antibody at 1:100 dilution.

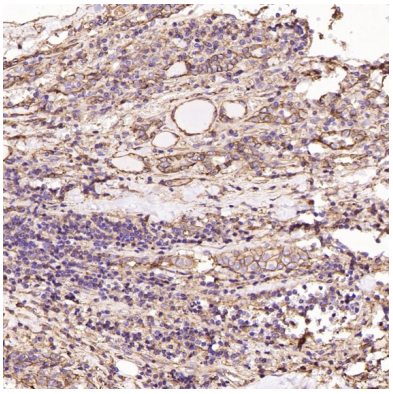


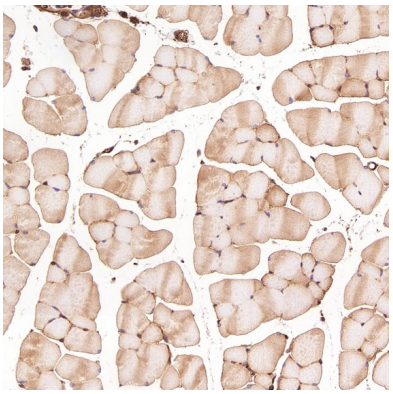
Immunohistochemical analysis of paraffin-embedded Rat heart, using the Antibody at 1:100 dilution.



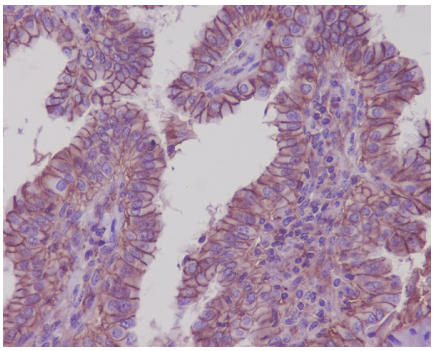
Immunohistochemical analysis of paraffin-embedded Human cervical cancer, using the Antibody at 1:100 dilution.

Immunohistochemical analysis of paraffin-embedded Human thyroid cancer, using the Antibody at 1:100 dilution.

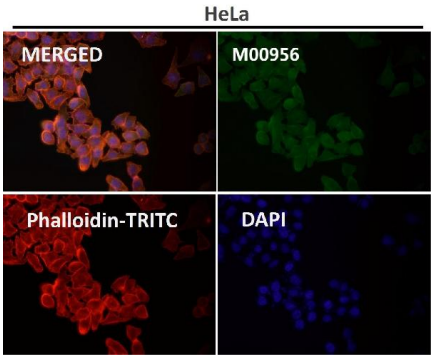




Immunohistochemical analysis of paraffin-embedded Mouse skeletal muscle - gastrocnemius , using the Antibody at 1:100 dilution.



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



Immunofluorescent analysis using the Antibody at 1:50 dilution.