# Na+/K+-ATPase α1 Polyclonal Antibody

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| **Catalog No** | BYab-32083 |
| **Isotype** | IgG |
| **Reactivity** | Human;Mouse;Rat |
| **Applications** | WB;IHC;IF;ELISA |
| **Gene Name** | ATP1A1 |
| **Protein Name** | Sodium/potassium-transporting ATPase subunit alpha-1 |
| **Immunogen** | The antiserum was produced against synthesized peptide derived from human ATPase. AA range:5-54 |
| **Specificity** | Na+/K+-ATPase α1 Polyclonal Antibody detects endogenous levels of Na+/K+-ATPase α1 protein. |
| **Formulation** | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide. |
| **Source** | Polyclonal, Rabbit,IgG |
| **Purification** | The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen. |
| **Dilution** | Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/10000. Not yet tested in other applications. |
| **Concentration** | 1 mg/ml |
| **Purity** | ≥90% |
| **Storage Stability** | -20°C/1 year |
| **Synonyms** | ATP1A1; Sodium/potassium-transporting ATPase subunit alpha-1; Na(+)/K(+) ATPase alpha-1 subunit; Sodium pump subunit alpha-1 |
| **Observed Band** | 112kD |
| **Cell Pathway** | Basolateral cell membrane ; Multi-pass membrane protein . Cell membrane, sarcolemma ; Multi-pass membrane protein . Cell projection, axon . Melanosome . Identified by mass spectrometry in melanosome fractions from stage I to stage IV. . |
| **Tissue Specificity** | Brain,Cerebellum,Cervix,Placenta,Retinal pigment epithelium |
| **Function** | catalytic activity:ATP + H(2)O + Na(+)(In) + K(+)(Out) = ADP + phosphate + Na(+)(Out) + K(+)(In).,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.,PTM:Phosphorylation on Tyr-10 modulates pumping activity.,similarity:Belongs to the cation transport ATPase (P-type) |

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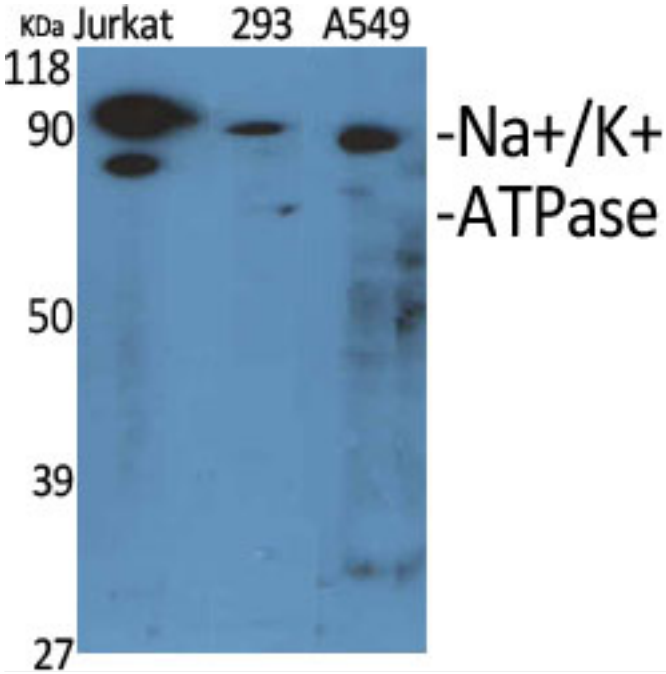
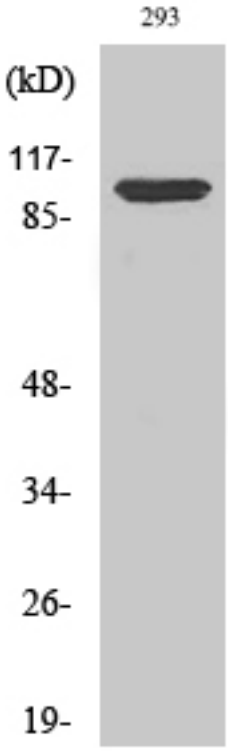
| | family.,similarity:Belongs to the cation transport ATPase (P-type) family. Type IIC subfamily.,subcellular location:Identified by mass spectrometry in melanosome fractions from stage I to stage IV.,subunit:Composed of three subunits: alpha (catalytic), beta and gamma. Binds the HLA class II histocompatibility antigen, DR1., |
| **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 1 subunit. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, May 2009], |
| **matters needing attention** | Avoid repeated freezing and thawing! |
| **Usage suggestions** | This product can be used in immunological reaction related experiments. For more information, please consult technical personnel. |

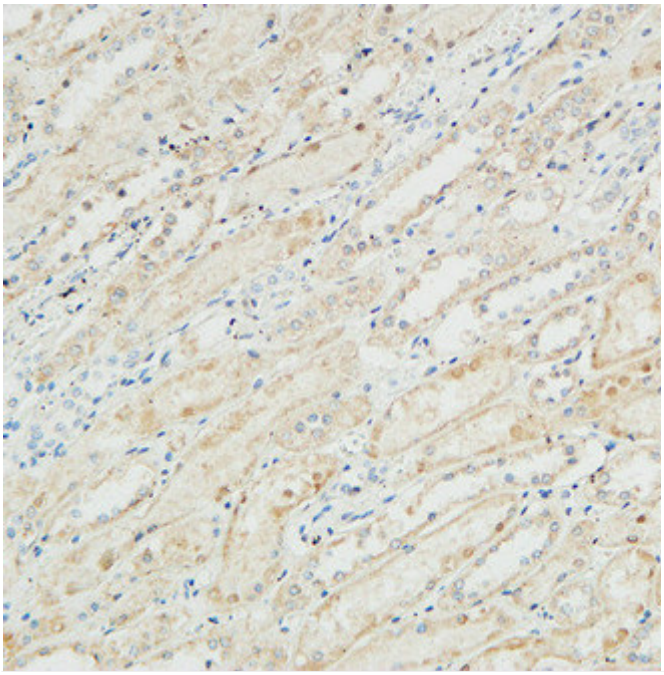
## Products Images



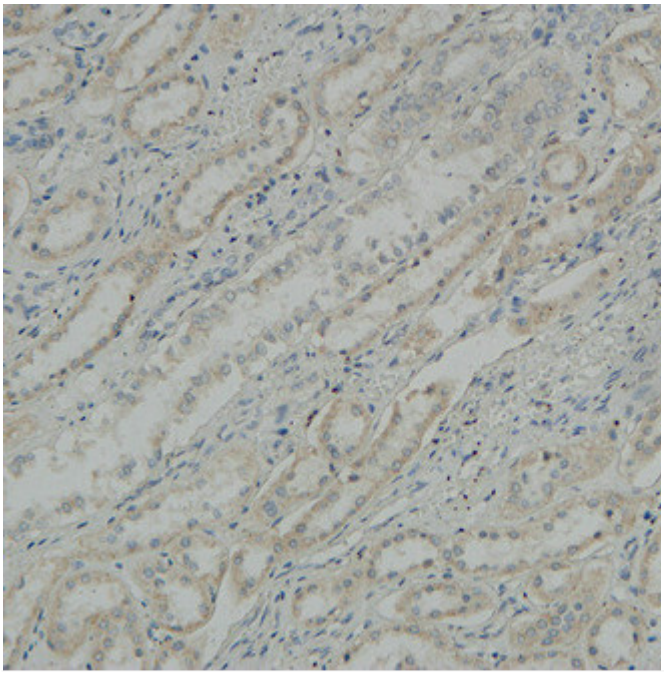

Western Blot analysis of various cells using Na+/K+-ATPase α1 Polyclonal Antibody diluted at 1:1000




Western Blot analysis of 293 cells using Na+/K+-ATPase α1 Polyclonal Antibody diluted at 1:1000



Immunohistochemical analysis of paraffin-embedded Human kidney. 1, Antibody was diluted at 1:100(4° overnight). 2, High-pressure and temperature EDTA, pH8.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 30min).



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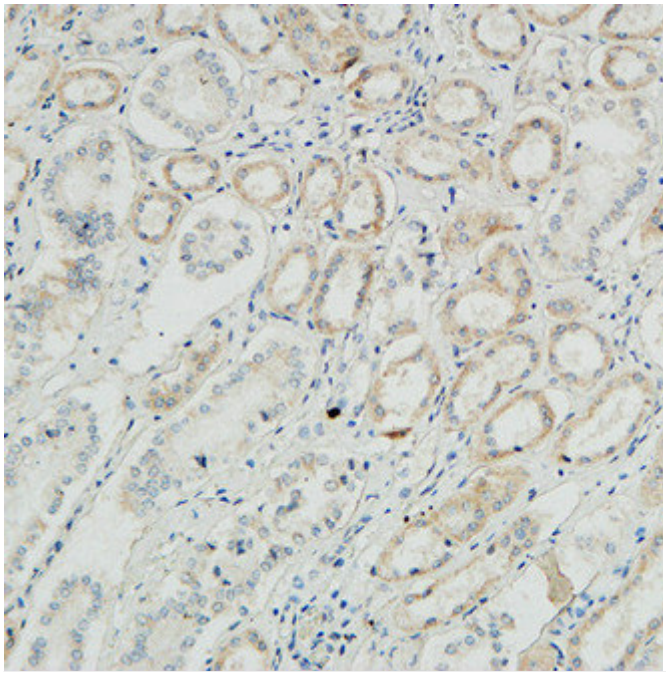

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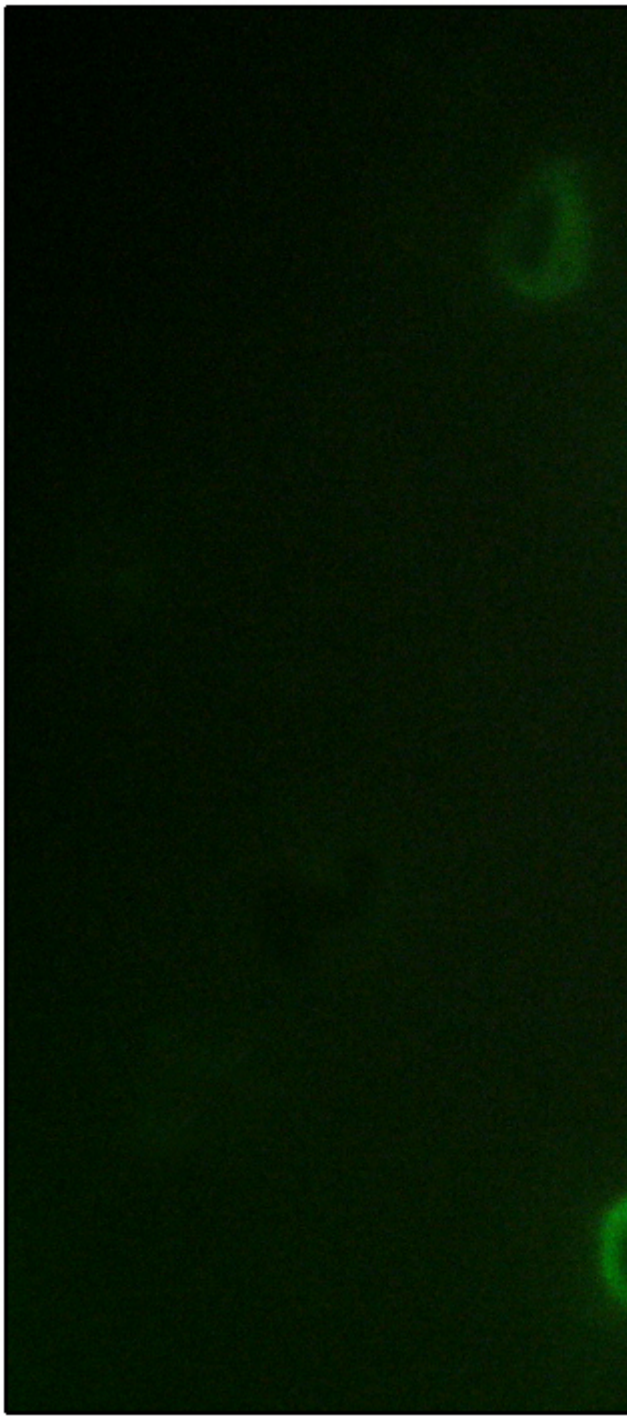

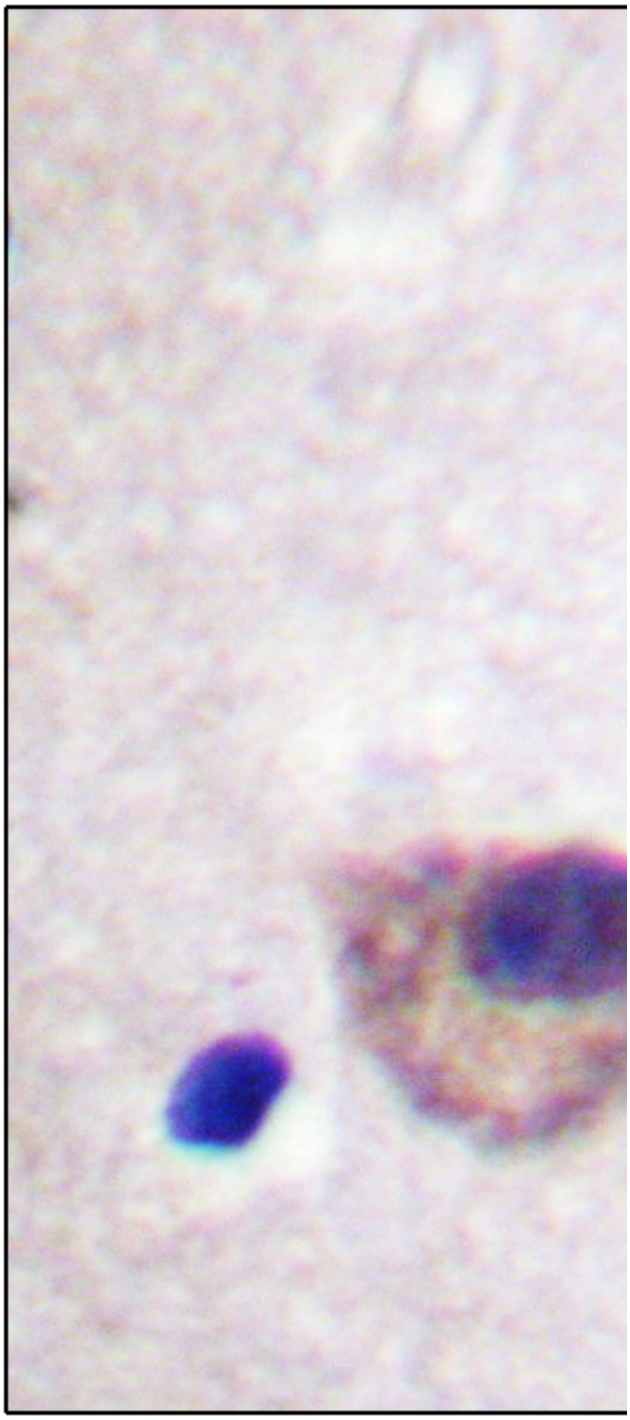

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