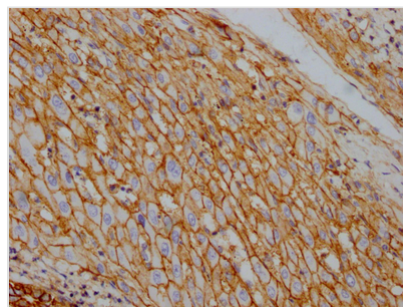




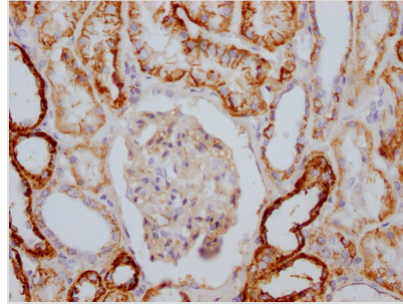
ATP1A1 Antibody

Product Code	CSB-RA796310A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P05023
Immunogen	A synthesized peptide derived from human Sodium Potassium ATPase
Species Reactivity	Human
Tested Applications	ELISA, IHC; Recommended dilution: IHC:1:50-1:200
Relevance	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.
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Product Type	Recombinant Antibody
Immunogen Species	Homo sapiens (Human)
Research Area	Neuroscience; Cancer; Tags & Cell Markers; Metabolism; Signal transduction
Gene Names	ATP1A1
Accession NO.	4C3

Image



IHC image of CSB-RA796310A0HU diluted at 1:100 and staining in paraffin-embedded human liver cancer performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a Goat anti-rabbit IgG polymer labeled by HRP and visualized using 0.05% DAB.



IHC image of CSB-RA796310A0HU diluted at 1:100 and staining in paraffin-embedded human kidney tissue performed on a Leica Bond™ system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a Goat anti-rabbit IgG polymer labeled by HRP and visualized using 0.05% DAB.

Description

The first step in the preparation of recombinant ATP1A1 antibody is to obtain the ATP1A1 antibody gene. The heavy and light chain genes of the antibody were constructed into a plasma vector and then transfected into suspended mammalian cells transiently. After expression verification, cell supernatant was collected in expanded culture and purified recombinant ATP1A1 antibody was obtained using affinity-chromatography. This recombinant ATP1A1 antibody has been validated for the detection of ATP1A1 protein from Human in the ELISA, IHC.

ATP1A1 is the encoding gene for the $\alpha 1$ isoform of Na^+/K^+ -ATPase, which is abundantly expressed in kidneys and the central nervous system. It plays an important role in cation transport and contributes to the establishment and maintenance of the ion electrochemical gradients of Na^+/K^+ across the cell membrane. Abnormal expression of ATP1A1 is ubiquitously found in various types of malignancies, and ATP1A1 expression varies in different tumor types. ATP1A1 is downregulated in prostate carcinoma while upregulated in non-small cell lung cancer cells.