

# Na<sup>+</sup>/K<sup>+</sup>-ATPase Rabbit mAb

Catalog No.: A11683 **Recombinant** **20 Publications**

## Basic Information

### Observed MW

100 kDa

### Calculated MW

113 kDa

### Category

Primary antibody

### Applications

WB,IF/ICC,IF-P,IHC-P,ELISA

### Cross-Reactivity

Human, Mouse, Rat

### CloneNo number

ARC0674

## Background

The protein encoded by this gene belongs to the family of P-type cation transport ATPases, and to the subfamily of Na<sup>+</sup>/K<sup>+</sup>-ATPases. Na<sup>+</sup>/K<sup>+</sup>-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<sup>+</sup>/K<sup>+</sup>-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.

## Recommended Dilutions

<b>WB</b>	1:50000 - 1:200000
<b>IF/ICC</b>	1:100 - 1:1000
<b>IF-P</b>	1:100 - 1:1000
<b>IHC-P</b>	1:3000 - 1:12000
<b>ELISA</b>	Recommended starting concentration is 1 µg/mL. Please optimize the concentration based on your specific assay requirements.

## Contact

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## Immunogen Information

### Gene ID

476

### Swiss Prot

P05023

### Immunogen

Synthetic peptide. This information is considered to be commercially sensitive.

### Synonyms

CMT2DD; HOMGSMR2; Na<sup>+</sup>/K<sup>+</sup>-ATPase

## Product Information

### Source

Rabbit

### Isotype

IgG

### Purification

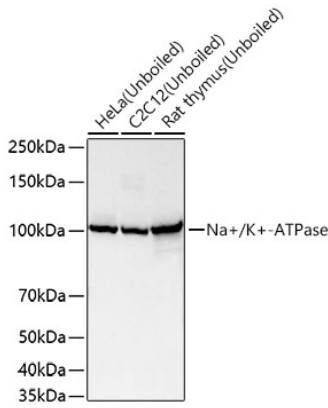
Affinity purification

### Storage

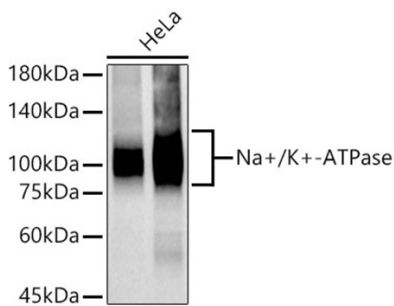
Store at -20°C. Avoid freeze / thaw cycles.

Buffer: PBS with 0.09% sodium azide,0.05% BSA,50% glycerol,pH7.3.

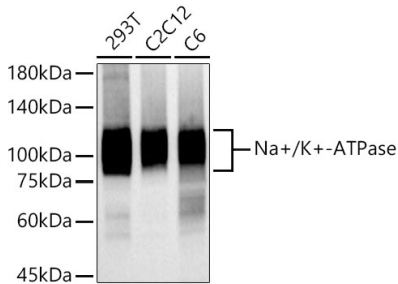
## Validation Data



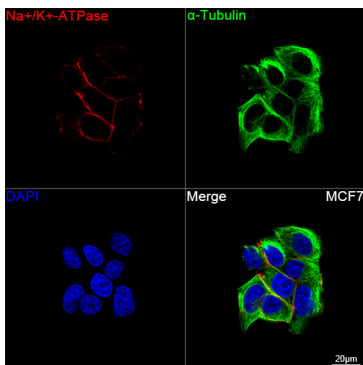
Western blot analysis of various lysates using Na<sup>+</sup>/K<sup>+</sup>-ATPase Rabbit mAb (A11683) at 1:100000 dilution incubated overnight at 4°C.  
 Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.  
 Lysates/proteins: 25 µg per lane.  
 Blocking buffer: 3% nonfat dry milk in TBST.  
 Detection: ECL Basic Kit (RM00020).  
 Exposure time: 30 s.



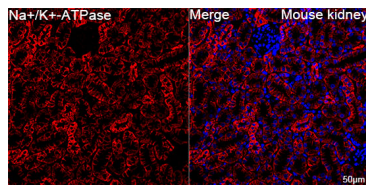
Western blot analysis of lysates from HeLa cells, using Na<sup>+</sup>/K<sup>+</sup>-ATPase Rabbit mAb (A11683) at 1:50000 dilution. Membrane protein extract isolated from HeLa cells.  
 Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.  
 Lysates/proteins: 25µg per lane.  
 Blocking buffer: 3% nonfat dry milk in TBST.  
 Detection: ECL Basic Kit (RM00020).  
 Exposure time: 30s.



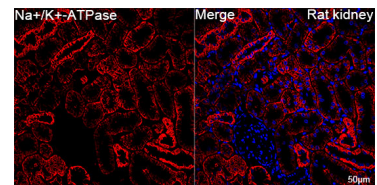
Western blot analysis of various lysates using Na<sup>+</sup>/K<sup>+</sup>-ATPase Rabbit mAb (A11683) at 1:50000 dilution incubated overnight at 4°C.  
 Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.  
 Lysates/proteins: 25µg per lane.  
 Blocking buffer: 3% nonfat dry milk in TBST.  
 Detection: ECL Basic Kit (RM00020).  
 Exposure time: 30s.



Confocal imaging of MCF7 cells using Na<sup>+</sup>/K<sup>+</sup>-ATPase Rabbit mAb (A11683, dilution 1:200) followed by a further



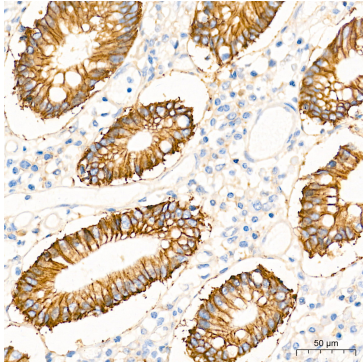
Confocal imaging of paraffin-embedded Mouse kidney tissue using Na<sup>+</sup>/K<sup>+</sup>-ATPase Rabbit mAb (A11683, dilution 1:200)



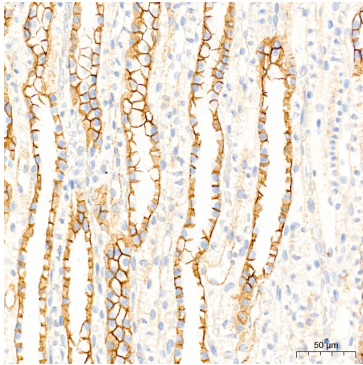
Confocal imaging of paraffin-embedded Rat kidney tissue using Na<sup>+</sup>/K<sup>+</sup>-ATPase Rabbit mAb (A11683, dilution 1:200) followed by a

## Validation Data

incubation with Cy3 Goat Anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). The cells were counterstained with  $\alpha$ -Tubulin Mouse mAb (AC012, dilution 1:400) followed by incubation with ABflo® 488-conjugated Goat Anti-Mouse IgG (H+L) Ab (AS076, dilution 1:500) (Green). DAPI was used for nuclear staining (Blue). Objective: 100x.

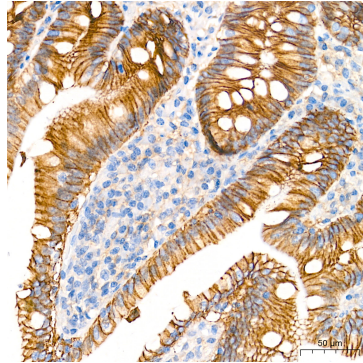


Immunohistochemistry analysis of paraffin-embedded Human colon tissue using Na<sup>+</sup>/K<sup>+</sup>-ATPase Rabbit mAb (A11683) at a dilution of 1:8000 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.

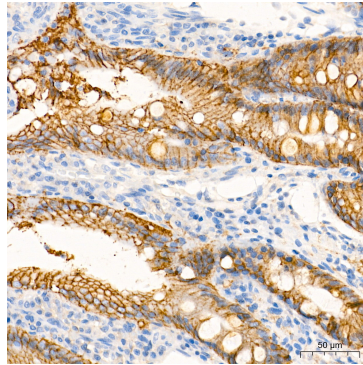


Immunohistochemistry analysis of paraffin-embedded Mouse kidney tissue using Na<sup>+</sup>/K<sup>+</sup>-ATPase Rabbit mAb (A11683) at a dilution of 1:8000 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.

followed by a further incubation with Cy3 Goat Anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). DAPI was used for nuclear staining (Blue). High pressure antigen retrieval performed with 0.01M Citrate Buffer (pH 6.0) prior to IF staining. Objective: 40x.

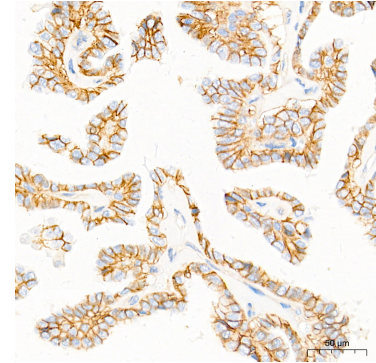


Immunohistochemistry analysis of paraffin-embedded Human small intestine tissue using Na<sup>+</sup>/K<sup>+</sup>-ATPase Rabbit mAb (A11683) at a dilution of 1:8000 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.

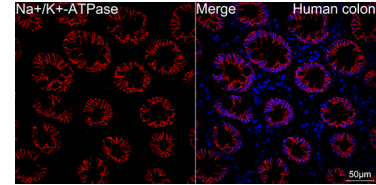


Immunohistochemistry analysis of paraffin-embedded Rat colon tissue using Na<sup>+</sup>/K<sup>+</sup>-ATPase Rabbit mAb (A11683) at a dilution of 1:8000 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.

further incubation with Cy3 Goat Anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). DAPI was used for nuclear staining (Blue). High pressure antigen retrieval performed with 0.01M Citrate Buffer (pH 6.0) prior to IF staining. Objective: 40x.



Immunohistochemistry analysis of paraffin-embedded Human thyroid cancer tissue using Na<sup>+</sup>/K<sup>+</sup>-ATPase Rabbit mAb (A11683) at a dilution of 1:8000 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.



Confocal imaging of paraffin-embedded Human colon tissue using Na<sup>+</sup>/K<sup>+</sup>-ATPase Rabbit mAb (A11683, dilution 1:200) followed by a further incubation with Cy3 Goat Anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). DAPI was used for nuclear staining (Blue). High pressure antigen retrieval performed with 0.01M Citrate Buffer (pH 6.0) prior to IF staining. Objective: 40x.