

## Product datasheet

# Anti-alpha 1 Sodium Potassium ATPase antibody [M8-P1-A3] ab2872

★★★★★ 3 Abreviews 18 References 画像数 7

### 製品の概要

製品名	Anti-alpha 1 Sodium Potassium ATPase antibody [M8-P1-A3]
製品の詳細	Mouse monoclonal [M8-P1-A3] to alpha 1 Sodium Potassium ATPase
由来種	Mouse
アプリケーション	<b>適用あり:</b> IHC-Fr, WB, IHC-P, Inhibition Assay, ICC, ELISA, IP, ICC/IF, Flow Cyt
種交差性	<b>交差種:</b> Mouse, Rat, Sheep, Chicken, Dog, Human, Pig, Drosophila melanogaster, Non human primates
免疫原	Other Immunogen Type corresponding to Sheep alpha 1 Sodium Potassium ATPase. Lamb kidney alpha 1 sodium/potassium ATPase.
エピトープ	This antibody recognizes an epitope between amino acid residues 496-506 of lamb kidney sodium/potassium ATPase.
ポジティブ・コントロール	WB: canine kidney extract

### 製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
バッファー	Preservative: 0.05% Sodium azide Constituents: 0.1% BSA, 99% PBS
精製度	Protein A purified
ポリ/モノ	モノクローナル
クローン名	M8-P1-A3
アイソタイプ	IgG1

### アプリケーション

Our [Abpromise guarantee](#) covers the use of **ab2872** in the following tested applications.

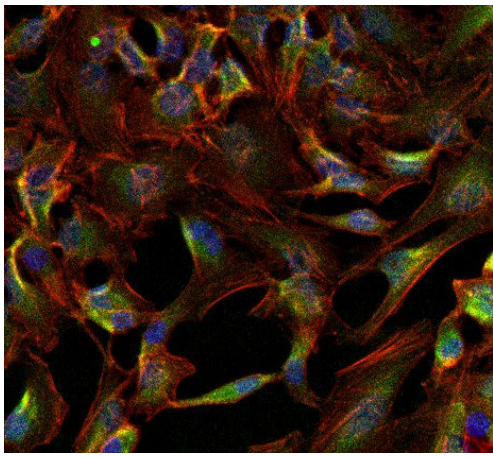
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

アプリケーション	Abreviews	特記事項
IHC-Fr		1/100.
WB	★★★★★	1/250. Detects a band of approximately 100 kDa (predicted molecular weight: 110 kDa).
IHC-P	★★★★★	1/100 - 1/2000.
Inhibition Assay		Use at an assay dependent concentration.
ICC		1/50 - 1/200.
ELISA		1/40.
IP		Use at an assay dependent concentration.
ICC/IF		Use at an assay dependent concentration.
Flow Cyt		1/20 - 1/100. <a href="#">ab170190</a> - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

## ターゲット情報

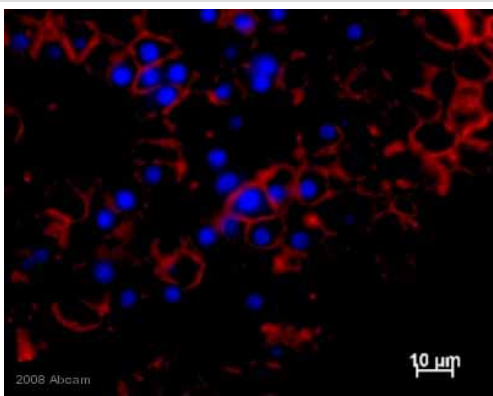
機能	This is the catalytic component of the active enzyme, which catalyzes the hydrolysis of ATP coupled with the exchange of sodium and potassium ions across the plasma membrane. This action creates the electrochemical gradient of sodium and potassium ions, providing the energy for active transport of various nutrients.
配列類似性	Belongs to the cation transport ATPase (P-type) (TC 3.A.3) family. Type IIC subfamily.
翻訳後修飾	Phosphorylation on Tyr-10 modulates pumping activity.
細胞内局在	Cell membrane. Melanosome. Identified by mass spectrometry in melanosome fractions from stage I to stage IV.

## 画像



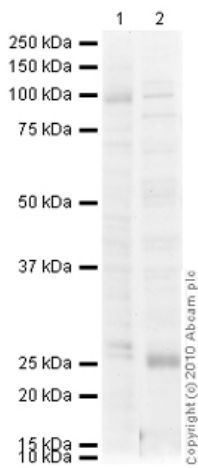
Immunocytochemistry/ Immunofluorescence - Anti-alpha 1 Sodium Potassium ATPase antibody [M8-P1-A3] (ab2872)

Immunocytochemistry/Immunofluorescence analysis of alpha 1 Sodium Potassium ATPase (green) in HeLa cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 15 minutes at room temperature and blocked with 0.3% BSA for 15 minutes at room temperature. Cells were incubated with ab2872 (1:100) for at least 1 hour at room temperature, washed with PBS, and incubated with a DyLight 488-conjugated goat anti-mouse IgG secondary antibody (1:500) for 30 minutes at room temperature. F-actin (red) was stained with DyLight 594 Phalloidin and nuclei (blue) were stained with Hoechst 33342 dye. Images were taken at 20X magnification.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-alpha 1 Sodium Potassium ATPase antibody [M8-P1-A3] (ab2872)  
This image is courtesy of an anonymous Abreview

ab2872 staining pig hepatocyte tissue sections by IHC-P. The section was fixed with Bouins and subjected to heat mediated antigen retrieval (at pH 9) prior to incubating with the primary antibody, diluted 1/2000, for 1 hour at 20°C. A Cy3® conjugated goat anti-mouse IgG antibody was used as the secondary.



Western blot - Anti-alpha 1 Sodium Potassium  
ATPase antibody [M8-P1-A3] (ab2872)

**All lanes** : Anti-alpha 1 Sodium Potassium  
ATPase antibody [M8-P1-A3] (ab2872) at  
1/500 dilution

**Lane 1** : Human brain normal tissue lysate -  
membrane extract ([ab29456](#))

**Lane 2** : Human testis tissue lysate - total  
protein ([ab30257](#))

Lysates/proteins at 10 µg per lane.

### Secondary

**All lanes** : Goat Anti-Mouse IgG H&L (HRP)  
preadsorbed ([ab97040](#)) at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

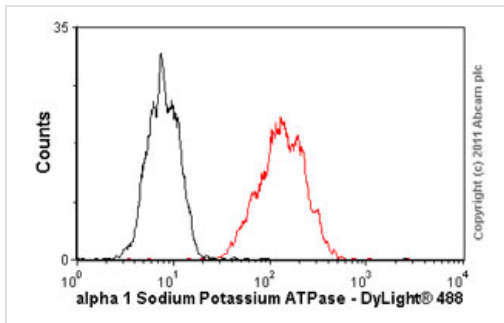
**Predicted band size:** 110 kDa

**Observed band size:** 100 kDa

**Additional bands at:** 25 kDa, 70 kDa. We  
are unsure as to the identity of these extra  
bands.

**Exposure time:** 8 minutes

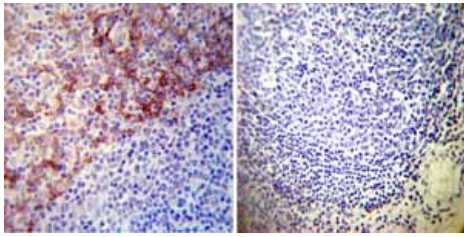
The 100 kDa band observed is comparable to  
the molecular weight seen with other  
commercially available antibodies to alpha 1  
Sodium Potassium ATPase.



Flow Cytometry - Anti-alpha 1 Sodium Potassium ATPase antibody [M8-P1-A3] (ab2872)

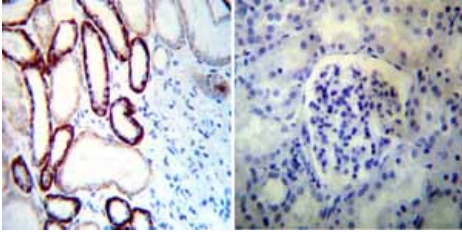
Overlay histogram showing HEK293 cells stained with ab2872 (red line). The cells were fixed with 100% methanol (5 min) and incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab2872, 1/100 dilution) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (ab96879) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG1 [C1GG1] (ab91353, 2µg/1x10<sup>6</sup> cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a positive signal in HEK293 cells fixed with 4% paraformaldehyde used under the same conditions.

Please note that Abcam do not have any data for use of this antibody on non-fixed cells. We welcome any customer feedback.



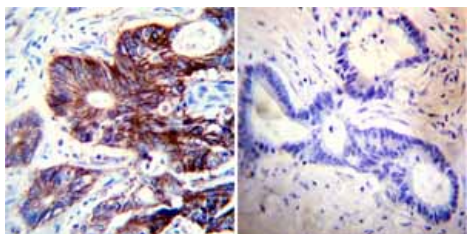
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-alpha 1 Sodium Potassium ATPase antibody [M8-P1-A3] (ab2872)

Immunohistochemistry was performed on both normal and cancer biopsies of deparaffinized Human tonsil tissue tissues. To expose target proteins heat induced antigen retrieval was performed using 10mM sodium citrate (pH6.0) buffer microwaved for 8-15 minutes. Following antigen retrieval tissues were blocked in 3% BSA-PBS for 30 minutes at room temperature. Tissues were then probed at a dilution of 1:50 with a mouse monoclonal antibody recognizing Sodium/Potassium ATPase alpha-1 ab2872 or without primary antibody (negative control) overnight at 4°C in a humidified chamber. Tissues were washed extensively with PBST and endogenous peroxidase activity was quenched with a peroxidase suppressor. Detection was performed using a biotin-conjugated secondary antibody and SA-HRP followed by colorimetric detection using DAB. Tissues were counterstained with hematoxylin and prepped for mounting.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-alpha 1 Sodium Potassium ATPase antibody [M8-P1-A3] (ab2872)

Immunohistochemistry was performed on both normal and cancer biopsies of deparaffinized Human kidney tissue tissues. To expose target proteins heat induced antigen retrieval was performed using 10mM sodium citrate (pH6.0) buffer microwaved for 8-15 minutes. Following antigen retrieval tissues were blocked in 3% BSA-PBS for 30 minutes at room temperature. Tissues were then probed at a dilution of 1:100 with a mouse monoclonal antibody recognizing Sodium/Potassium ATPase alpha-1 ab2872 or without primary antibody (negative control) overnight at 4°C in a humidified chamber. Tissues were washed extensively with PBST and endogenous peroxidase activity was quenched with a peroxidase suppressor. Detection was performed using a biotin-conjugated secondary antibody and SA-HRP followed by colorimetric detection using DAB. Tissues were counterstained with hematoxylin and prepped for mounting.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-alpha 1 Sodium Potassium ATPase antibody [M8-P1-A3] (ab2872)

Immunohistochemistry was performed on both normal and cancer biopsies of deparaffinized Human colon carcinoma tissues. To expose target proteins heat induced antigen retrieval was performed using 10mM sodium citrate (pH6.0) buffer microwaved for 8-15 minutes. Following antigen retrieval tissues were blocked in 3% BSA-PBS for 30 minutes at room temperature. Tissues were then probed at a dilution of 1:200 with a mouse monoclonal antibody recognizing Sodium/Potassium ATPase alpha-1 ab2872 or without primary antibody (negative control) overnight at 4°C in a humidified chamber. Tissues were washed extensively with PBST and endogenous peroxidase activity was quenched with a peroxidase suppressor. Detection was performed using a biotin-conjugated secondary antibody and SA-HRP followed by colorimetric detection using DAB. Tissues were counterstained with hematoxylin and prepped for mounting.

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