abcam

Product datasheet

Anti-Sodium Potassium ATPase antibody [EP1845Y] - Plasma Membrane Loading Control ab76020

リコンビナント RabMAb

★★★★★ 18 Abreviews 235 References 画像数 14

製品の概要

製品名	Anti-Sodium Potassium ATPase antibody [EP1845Y] - Plasma Membrane Loading Control
製品の詳細	Rabbit monoclonal [EP1845Y] to Sodium Potassium ATPase - Plasma Membrane Loading Control
由来種	Rabbit
特異性	This antibody recognizes an intracellular epitope of Sodium/potassium-transporting ATPase alpha-1 subunit.
アプリケーション	**適用あり:** ICC/IF, Flow Cyt (Intra), WB, IHC-P
種交差性	**交差種:** Mouse, Rat, Human, Chinese hamster **交差が予測される動物種:** Tilapia
免疫原	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
ポジティブ・コントロール	WB: HeLa, RAW 264.7, CHO, C6, MCF-7, HEK-293 and A431 whole cell lysates; Mouse brain lysate. IHC-P: Human cervical carcinoma and stomach carcinoma tissues; Mouse liver and lung tissues; Rat kidney tissue. ICC/IF: T84 cells, MCF-7 cells Flow Cyt (intra): HeLa cells.
特記事項	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
バッファー	pH: 7.20 Preservative: 0.01% Sodium azide

	Constituents: 59% PBS, 40% Glycerol, 0.05% BSA
精製度	Protein A purified
ポリ/モノ	モノクローナル
クローン名	EP1845Y
アイソタイプ	IgG

アプリケーション

The Abpromise guarantee Abpromise保証は、次のテスト済みアプリケーションにおけるab76020の使用に適用されます

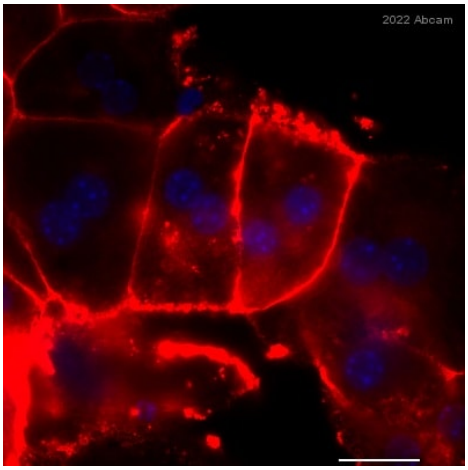
アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
ICC/IF	★★★★★ (4)	1/500.
Flow Cyt (Intra)		1/20 - 1/100. Follow an intracellular staining protocol. **ab172730** - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
WB	★★★★☆ (5)	1/100000. Predicted molecular weight: 113 kDa. **For unpurified, use 1/20000.**
IHC-P	★★★★★ (9)	1/50 - 1/100. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. See **IHC antigen retrieval protocols**.

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.

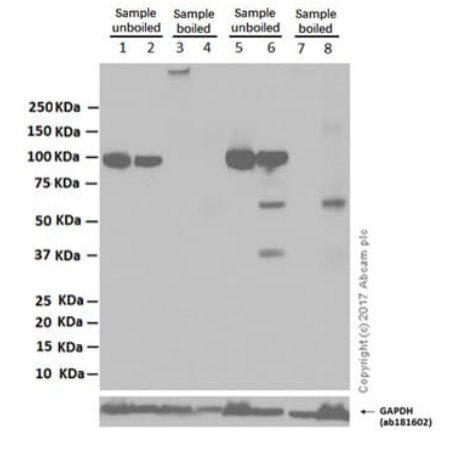
画像



Immunocytochemistry - Anti-Sodium Potassium ATPase antibody [EP1845Y] - Plasma Membrane Loading Control (ab76020)

This image is courtesy of an Abreview submitted by Armen Petrosyan

Immunocytochemistry analysis of formaldehyde-fixed rat hepatocytes permeabilized with 0.2% Triton X-100 in PBS, staining with ab76020 at 1/50 dilution. Secondary antibody was Alexa Fluor™ 594 Donkey anti-Rb at 1/200 dilution. Cells were incubated with the primary antibody with 1% donkey serum in PBST for 2 hours at 22°C. Blocking was done with 1% donkey serum in PBST for 1 hour at 22°C.



Western blot - Anti-Sodium Potassium ATPase antibody [EP1845Y] - Plasma Membrane Loading Control (ab76020)

All lanes : Anti-Sodium Potassium ATPase antibody [EP1845Y] - Plasma Membrane Loading Control (ab76020) at 1/100000 dilution

Lane 1 : HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate prepared from RIPA lysis method
Lane 2 : HeLa whole cell lysate prepared from 1% SDS HOT lysis method
Lane 3 : HeLa whole cell lysate prepared from RIPA lysis method
Lane 4 : HeLa whole cell lysate prepared from 1%SDS HOT lysis method
Lane 5 : Raw264.7 (Mouse abelson murine leukemia virus-induced tumor) whole cell lysate prepared from RIPA lysis method
Lanes 6 & 8 : Raw264.7 whole cell lysate prepared from 1%SDS HOT lysis method
Lane 7 : Raw264.7 whole cell lysate prepared from RIPA lysis method

Lysates/proteins at 15 µg per lane.

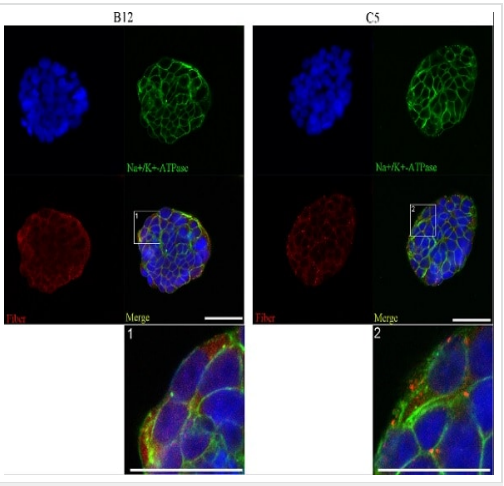
Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000 dilution

Predicted band size: 113 kDa
Observed band size: 100 kDa

Exposure time: 10 seconds

Blocking/Diluting buffer and concentration 5% NFDM/TBST

We suggest not to boil the sample after lysis.

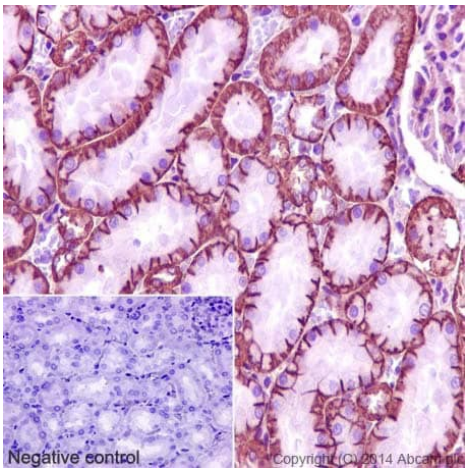


Immunocytochemistry/ Immunofluorescence - Anti-Sodium Potassium ATPase antibody [EP1845Y] - Plasma Membrane Loading Control (ab76020)

T84 cells (human) cultured on 8-well chamber slides, were washed once with ice-cold PBS, then fixed with 4% paraformaldehyde for 30 min at 4°C. After fixation, cells were permeabilized with 0.5% Triton X-100 for 5 min at room temperature and washed with PBS three times. Following blocking with 2% FCS in PBS for 1 hour at room temperature, primary antibody staining was performed at 4°C overnight at 1/200 dilution. Cells were then incubated with protein fractions B12 and C5 at 5x dilutions in fresh media for 1 hour at 37°C. Cells were then fixed, permeabilized and co-stained with fiber and sodium potassium ATPase. The nuclei were stained with DAPI using Vectachield mounting medium. Cells were visualized using Zeiss confocal microscopy LSM700.

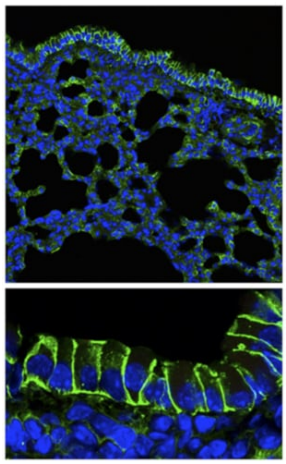
Fiber molecules were found to be predominantly intracellularly following B12 treatment.

For full image see PubMed: 25723153.



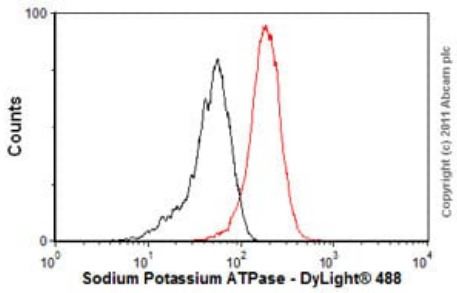
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Sodium Potassium ATPase antibody [EP1845Y] - Plasma Membrane Loading Control (ab76020)

Immunohistochemical staining of paraffin embedded rat kidney with purified ab76020 at a working dilution of 1 in 100. The secondary antibody used is a HRP conjugated goat anti-rabbit IgG (H+L), **ab97051**, at a dilution of 1/500. The sample is counter-stained with hematoxylin. Antigen retrieval was perfomed using Tris-EDTA buffer, pH 9.0. PBS was used instead of the primary antibody as the negative control, and is shown in the inset.



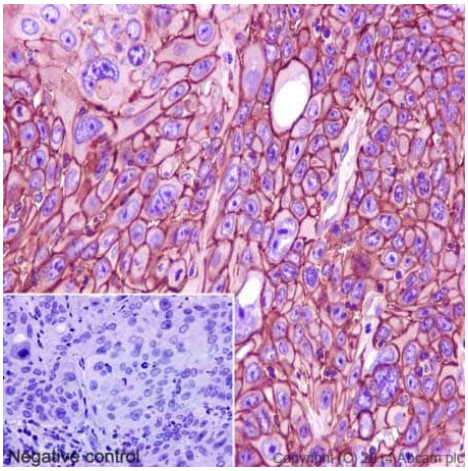
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Sodium Potassium ATPase antibody [EP1845Y] - Plasma Membrane Loading Control (ab76020)

ab76020 staining Sodium Potassium ATPase in lung epithelia (top) and bronchiolar epithelia (bottom) from Mouse lung tissue sections by Immunohistochemistry ((IHC) - paraffin-embedded sections). Sections were deparaffined at 60°C and rehydrated by successive incubations in 100% xylol, 100% ethanol and 96% ethanol. Samples were then permeabilized with 0.25% Triton X-100 in PBS for 15 minutes and blocked with 10% bovine serum albumin (BSA) and 0.25% Triton X-100 in PBS for 30 minutes. Samples were incubated with primary antibody (1/100 in 0.25% Triton X-100 and 10% BSA in PBS) for 1 hour 30 minutes at room temperature. An Alexa Fluor®488-conjugated Goat anti-mouse antibody was used as the secondary antibody.



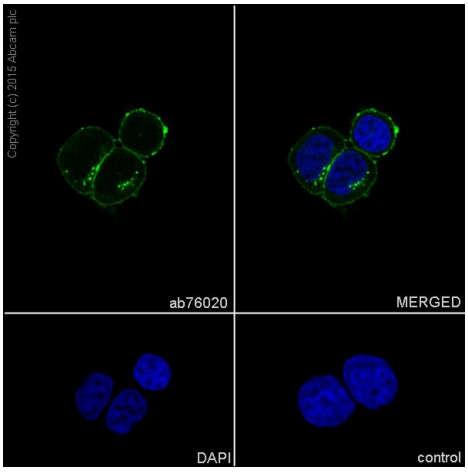
Flow Cytometry (Intracellular) - Anti-Sodium Potassium ATPase antibody [EP1845Y] - Plasma Membrane Loading Control (ab76020)

Overlay histogram showing HeLa cells stained with unpurified ab76020 (red line). The cells were fixed with 80% 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 (ab76020, 1µg/1x10^6 cells) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-rabbit IgG (H+L) (**ab96899**) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) (1µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed.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-Sodium Potassium ATPase antibody [EP1845Y] - Plasma Membrane Loading Control (ab76020)

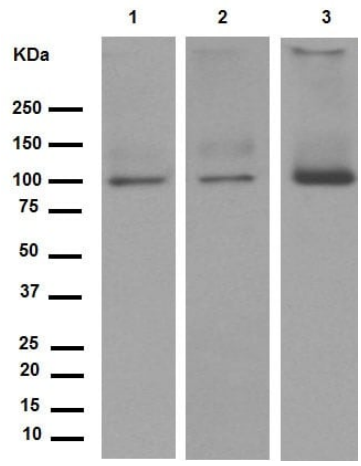
Immunohistochemical staining of paraffin embedded human cervical carcinoma with purified ab76020 at a working dilution of 1 in 100. The secondary antibody used is a HRP conjugated goat anti-rabbit IgG (H+L), **ab97051**, at a dilution of 1/500. The sample is counter-stained with hematoxylin. Antigen retrieval was perfomed using Tris-EDTA buffer, pH 9.0. PBS was used instead of the primary antibody as the negative control, and is shown in the inset.



Immunocytochemistry/ Immunofluorescence - Anti-Sodium Potassium ATPase antibody [EP1845Y] - Plasma Membrane Loading Control (ab76020)

Immunocytochemistry/Immunofluorescence analysis of MCF-7 (human breast carcinoma) cells labelling Sodium Potassium ATPase with purified ab76020 at 1/500. Cells were fixed with 100% methanol. **ab150077**, Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/1000) was used as the secondary antibody. Nuclei were counterstained with DAPI (blue).

Secondary Only Control: PBS was used instead of the primary antibody as the negative control.



Western blot - Anti-Sodium Potassium ATPase antibody [EP1845Y] - Plasma Membrane Loading Control (ab76020)

All lanes : Anti-Sodium Potassium ATPase antibody [EP1845Y] - Plasma Membrane Loading Control (ab76020) at 1/100000 dilution

Lane 1 : CHO (Chinese hamster ovary cell line) cell lysate
Lane 2 : C6 (Rat glial tumor cell line) cell lysate
Lane 3 : Mouse brain

Lysates/proteins at 20 µg per lane.

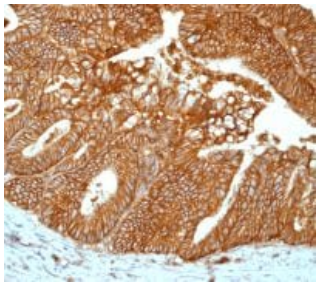
Secondary
All lanes : HRP goat anti-rabbit (H+L) at 1/1000 dilution

Predicted band size: 113 kDa
Observed band size: 100 kDa

Blocking buffer: 5% NFDM/TBST

Dilution buffer: 5% NFDM/TBST

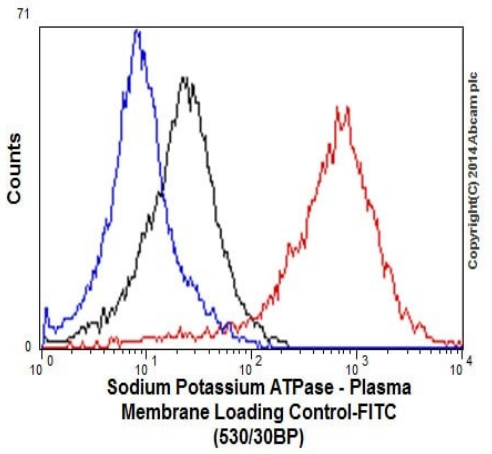
We suggest not to boil the sample after lysis.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Sodium Potassium ATPase antibody [EP1845Y] - Plasma Membrane Loading Control (ab76020)

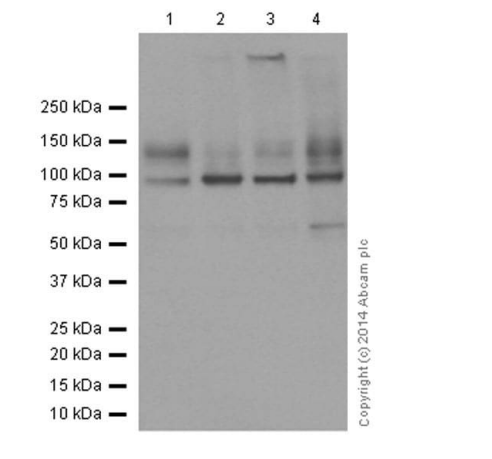
Immunohistochemical staining of Sodium Potassium ATPase in paraffin embedded human stomach carcinoma tissue with unpurified ab76020, at a 1/100 dilution.

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-Sodium Potassium ATPase antibody [EP1845Y] - Plasma Membrane Loading Control (ab76020)

Overlay histogram showingHeLa cells fixed in80% methanoland stained with purified ab76020 at a dilution of 1 in 100 (red line). The secondary antibody used was FITC goat anti-rabbit at a dilution of 1 in 150. Rabbit monoclonal IgG was used as an isotype control (black line) and the blue line shows cells incubated without primary or secondary antibody.



Western blot - Anti-Sodium Potassium ATPase antibody [EP1845Y] - Plasma Membrane Loading Control (ab76020)

All lanes : Anti-Sodium Potassium ATPase antibody [EP1845Y] - Plasma Membrane Loading Control (ab76020) at 1/100000 dilution

Lane 1 : HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates
Lane 2 : MCF-7 (Human breast adenocarcinoma epithelial cell) whole cell lysates
Lane 3 : HEK-293 (Human embryonic kidney epithelial cell) whole cell lysates
Lane 4 : A431 (Human epidermoid carcinoma epithelial cell) whole cell lysates

Lysates/proteins at 20 µg per lane.

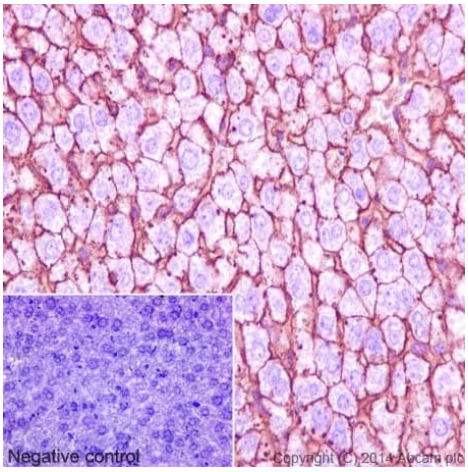
Secondary
All lanes : Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/20000 dilution

Predicted band size: 113 kDa
Observed band size: 100 kDa

Exposure time: 2 minutes

Blocking and diluting buffer: 5% NFDM/TBST.

We suggest not to boil the sample after lysis.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Sodium Potassium ATPase antibody [EP1845Y] - Plasma Membrane Loading Control (ab76020)

Immunohistochemical staining of paraffin embedded mouse liver with purified ab76020 at a working dilution of 1 in 100. The secondary antibody used is a HRP conjugated goat anti-rabbit IgG (H+L), **ab97051**, at a dilution of 1/500. The sample is counter-stained with hematoxylin. Antigen retrieval was perfomed using Tris-EDTA buffer, pH 9.0. PBS was used instead of the primary antibody as the negative control, and is shown in the inset.

Anti-Sodium Potassium ATPase antibody [EP1845Y] - Plasma Membrane Loading Control (ab76020)

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