abcam

Product datasheet

Anti-pan ATPase Alpha antibody [M7-PB-E9] ab2871

8 References　画像数 10

製品の概要

製品名	Anti-pan ATPase Alpha antibody [M7-PB-E9]
製品の詳細	Mouse monoclonal [M7-PB-E9] to pan ATPase Alpha
由来種	Mouse
特異性	Detects pan alpha sodium / potassium ATPase. The antibody binds all alpha subunits in sheep, dog, pig, human and chicken. It does not bind alpha 1 or 2 in rat, but does bind alpha 3.
アプリケーション	**適用あり:** WB, IHC-P, ICC/IF, Flow Cyt, IHC-P, IP
種交差性	**交差種:** Mouse, Rat, Human
免疫原	Full length native protein (purified) corresponding to Sheep pan ATPase Alpha. Puified from Sheep Kidney.
エピトープ	This antibody recognizes an epitope between amino acid residues 646 and 652 of the sheep kidney alpha sodium / potassium ATPase.
ポジティブ・コントロール	In western blot, this antibody gave a positive signal in human, mouse and rat kidney tissue lysates.
特記事項	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

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 Constituent: 0.1% BSA
精製度	Protein A purified
ポリ/モノ	モノクローナル
クローン名	M7-PB-E9

アイソタイプ	IgG1

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ab2871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
WB		1/500. Detects a band of approximately 102 kDa (predicted molecular weight: 114 kDa).
IHC-P		1/100 - 1/200. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
ICC/IF		1/20.
Flow Cyt		1/100. **ab170190** - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.
IHC-P		1/100 - 1/200.
IP		1/100 - 1/200.

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, providing the energy for active transport of various nutrients.
関連疾患	Migraine, familial hemiplegic, 2 Alternating hemiplegia of childhood 1
配列類似性	Belongs to the cation transport ATPase (P-type) (TC 3.A.3) family. Type IIC subfamily.
細胞内局在	Membrane. Cell membrane.

画像

Western blot - Anti-pan ATPase Alpha antibody [M7-PB-E9] (ab2871)

All lanes : Anti-pan ATPase Alpha antibody [M7-PB-E9] (ab2871) at 1/500 dilution

Lane 1 : Human kidney tissue lysate - total protein (**ab30203**)
Lane 2 : Kidney (Mouse) Tissue Lysate
Lane 3 : Kidney (Rat) Tissue Lysate

Lysates/proteins at 20 µg per lane.

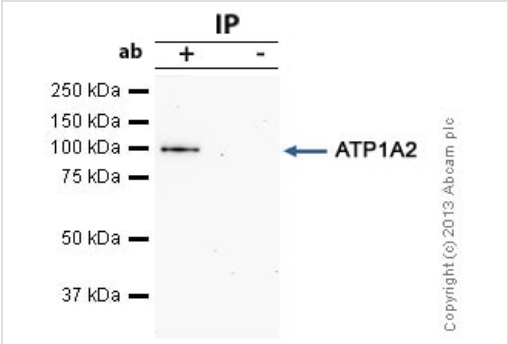
Secondary
All lanes : Goat Anti-Mouse IgG H&L (HRP) preadsorbed (**ab97040**) at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 114 kDa
Observed band size: 102 kDa
Additional bands at: 28 kDa, 60 kDa. We are unsure as to the identity of these extra bands.

Exposure time: 2 minutes



Immunoprecipitation - Anti-pan ATPase Alpha antibody [M7-PB-E9] (ab2871)

ATP1A2 was immunoprecipitated using 0.5mg Mouse Kidney tissue extract, 5µg of Mouse monoclonal to ATP1A2 and 50µl of protein G magnetic beads (+). No antibody was added to the control (-).

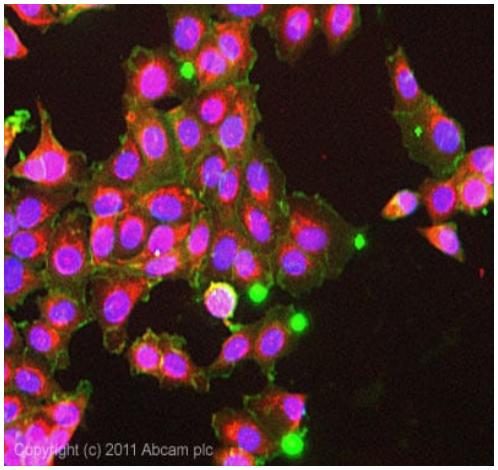
The antibody was incubated under agitation with Protein G beads for 10min, Mouse Kidney tissue extract lysate diluted in RIPA buffer was added to each sample and incubated for a further 10min under agitation.

Proteins were eluted by addition of 40µl SDS loading buffer and incubated for 10min at 70°C; 10µl of each sample was separated on a SDS PAGE gel, transferred to a nitrocellulose membrane,

blocked with 5% BSA and probed with ab2871.

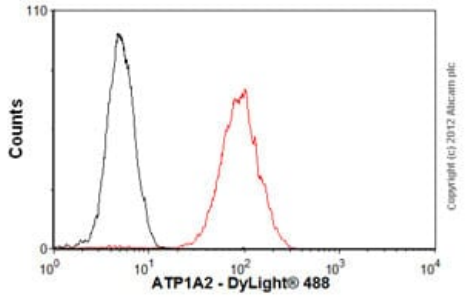
Secondary: Goat polyclonal to mouse IgG light chain specific (HRP) at 1/20,000 dilution.

Band: 102kDa; ATP1A2



Immunocytochemistry/ Immunofluorescence - Anti-pan ATPase Alpha antibody [M7-PB-E9] (ab2871)

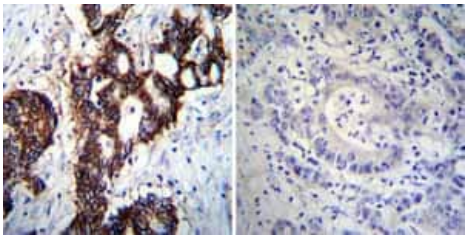
ICC/IF image of ab2871 stained MCF7 cells. The cells were 100% methanol fixed (5 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab2871, 10µg/ml) overnight at +4°C. The secondary antibody (green) was **ab96879**, DyLight® 488 goat anti-mouse IgG (H+L) used at a 1/250 dilution for 1h.Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.



Flow Cytometry - Anti-pan ATPase Alpha antibody [M7-PB-E9] (ab2871)

Overlay histogram showing HEK293 cells stained with ab2871 (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 (**ab28711**, 1/100 dilution) for 30 min at 22ºC. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (**ab96879**) at 1/500 dilution for 30 min at 22ºC. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] (**ab91353**, 2µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed.

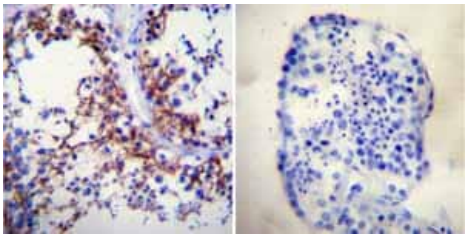
Please note that Abcam do not have any data for use of this antibody on non-fixed cells. We welcome any customer feedback.



Immunohistochemistry paraffin embedded sections - Anti-pan ATPase Alpha antibody [M7-PB-E9] (ab2871)

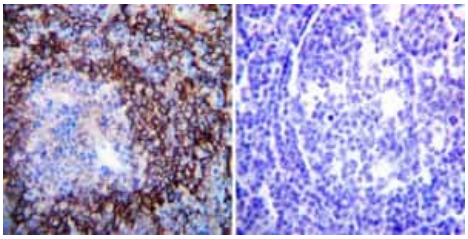
Immunohistochemistry was performed on both normal and cancer biopsies of deparaffinized Human colon carcinoma tissues. To expose target proteins heat induced antigen retrieval was performed using 10mM sodium citrate (pH6.0) buffer microwaved for 8-15 minutes. Following antigen retrieval tissues were blocked in 3% BSA-PBS for 30 minutes at room temperature. Tissues were then probed at a dilution of 1:100 with a mouse monoclonal antibody recognizing Sodium/Potassium ATPase alpha ab2871 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.



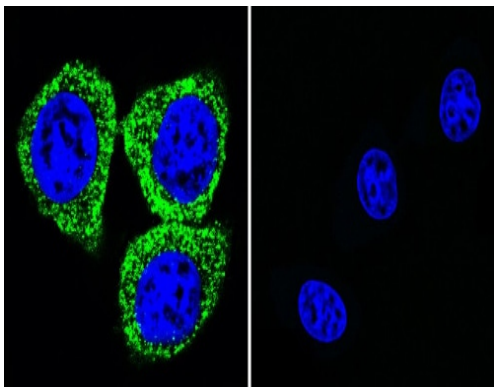
Immunohistochemistry paraffin embedded sections - Anti-pan ATPase Alpha antibody [M7-PB-E9] (ab2871)

Immunohistochemistry was performed on both normal and cancer biopsies of deparaffinized Human testis 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 1:200 with a mouse monoclonal antibody recognizing Sodium/Potassium ATPase alpha ab2871 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.



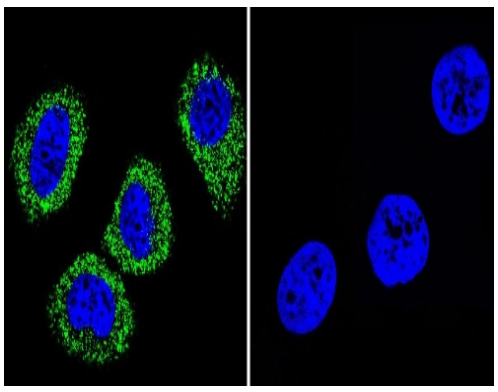
Immunohistochemistry paraffin embedded sections - Anti-pan ATPase Alpha antibody [M7-PB-E9] (ab2871)

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 1:200 with a mouse monoclonal antibody recognizing Sodium/Potassium ATPase alpha ab2871 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.



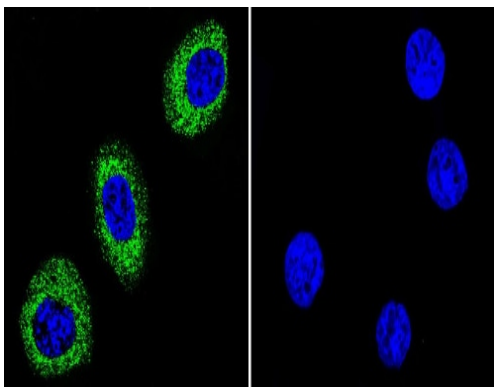
Immunocytochemistry/ Immunofluorescence - Anti-pan ATPase Alpha antibody [M7-PB-E9] (ab2871)

Immunocytochemistry/Immunofluorescence analysis of ATP1A2 shows staining in HeLa cells. ATP1A2 (green), F-Actin staining with Phalloidin (red) and nuclei with DAPI (blue) is shown. Cells were grown on chamber slides and fixed with formaldehyde prior to staining. Cells were incubated without (control) or with ab2871 (1:20) overnight at 4°C, washed with PBS and incubated with a DyLight-488 conjugated secondary antibody. Images were taken at 60X magnification.



Immunocytochemistry/ Immunofluorescence - Anti-pan ATPase Alpha antibody [M7-PB-E9] (ab2871)

Immunocytochemistry/Immunofluorescence analysis of ATP1A2 shows staining in MCF-7 cells. ATP1A2 (green), F-Actin staining with Phalloidin (red) and nuclei with DAPI (blue) is shown. Cells were grown on chamber slides and fixed with formaldehyde prior to staining. Cells were incubated without (control) or with ab2871 (1:20) overnight at 4°C, washed with PBS and incubated with a DyLight-488 conjugated secondary antibody. Images were taken at 60X magnification.



Immunocytochemistry/ Immunofluorescence - Anti-pan ATPase Alpha antibody [M7-PB-E9] (ab2871)

Immunocytochemistry/Immunofluorescence analysis of ATP1A2 shows staining in U251 cells. ATP1A2 (green), F-Actin staining with Phalloidin (red) and nuclei with DAPI (blue) is shown. Cells were grown on chamber slides and fixed with formaldehyde prior to staining. Cells were incubated without (control) or with ab2871 (1:20) overnight at 4°C, washed with PBS and incubated with a DyLight-488 conjugated secondary antibody. Images were taken at 60X magnification.

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