abcam

Product datasheet

Anti-Calcium Pump pan PMCA ATPase antibody [5F10] ab2825

11 Abreviews 17 References 12 图像

概述

产品名称	Anti-Calcium Pump pan PMCA ATPase抗体[5F10]
描述	小鼠单克隆抗体[5F10] to Calcium Pump pan PMCA ATPase
宿主	Mouse
经测试应用	**适用于:** ICC/IF, WB, ICC, IHC-P, Flow Cyt, Inhibition Assay, ELISA, IHC-Fr, IP
种属反应性	**与反应:** Mouse, Rat, Sheep, Rabbit, Chicken, Hamster, Cow, Cat, Dog, Human, Amphibian, Syrian hamster **预测可用于:** Non human primates
免疫原	Full length native protein (purified) corresponding to Human Calcium Pump pan PMCA ATPase. Purified human erythrocyte calcium ATPase.
表位	This antibody recognizes an epitope between amino acids 724-783 of the human erythrocyte calcium pump.

性能

形式	Liquid
存放说明	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.
存储溶液	Preservative: 0.05% Sodium azide Constituent: PBS
纯度	Ascites
克隆	单克隆
克隆编号	5F10
同种型	IgG2a

应用

Our Abpromise guarantee covers the use of **ab2825** in the following tested applications.

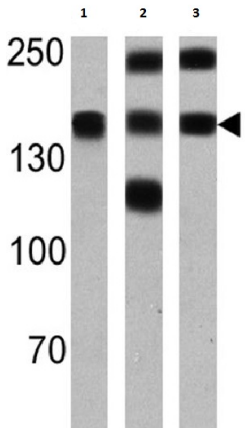
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

应用	Ab评论	说明
ICC/IF	★★★★☆	Use at an assay dependent concentration. PubMed: 17478566
WB	★★★★☆	1/1000. This antibody recognizes an ~140 kDa protein representing PMCA ATPase and bands at 95kDa and 180 kDa which probably represent products of aggregation and/or natural proteolytic products of the pump from rat liver membrane preparations.
ICC	★★★★★	Use at an assay dependent concentration.
IHC-P		1/500. Staining of PMCA ATPase yields a pattern consistent with that seen in the literature and depends on the tissue being studied and the localization of the isoforms present.
Flow Cyt	★★★★☆	1/20 - 1/100. ab170191 - Mouse monoclonal IgG2a, is suitable for use as an isotype control with this antibody.
Inhibition Assay		Use at an assay dependent concentration.
ELISA		Use at an assay dependent concentration.
IHC-Fr		1/500.
IP	★★★★★	Use at an assay dependent concentration.

靶标

功能	This magnesium-dependent enzyme catalyzes the hydrolysis of ATP coupled with the transport of calcium out of the cell.
组织特异性	Isoform B is ubiquitously expressed. Isoform C is found in brain cortex, skeletal muscle and heart muscle. Isoform D has only been found in fetal skeletal muscle. Isoform K has been found in small intestine and liver.
序列相似性	Belongs to the cation transport ATPase (P-type) (TC 3.A.3) family. Type IIB subfamily.
结构域	The calmodulin-binding subdomain B is different in the different splice variants and shows pH dependent calmodulin binding properties in isoforms A, C, D and E.
细胞定位	Cell membrane.

图片



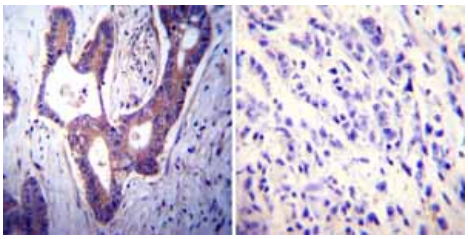
Western blot - Anti-Calcium Pump pan PMCA ATPase antibody [5F10] (ab2825)

All lanes : Anti-Calcium Pump pan PMCA ATPase antibody [5F10] (ab2825)

Lane 1 : U251
Lane 2 : Human brain
Lane 3 : C2C12

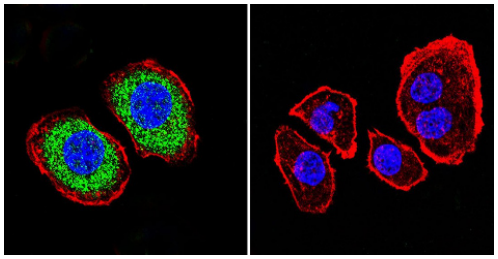
Lysates/proteins at 25 µg per lane.

Secondary
All lanes : HRP-conjugated secondary antibody



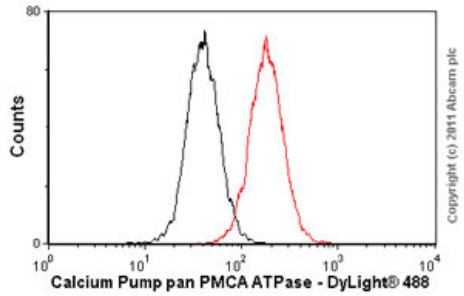
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Calcium Pump pan PMCA ATPase antibody [5F10] (ab2825)

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 PMCA ATPase ab2825 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.



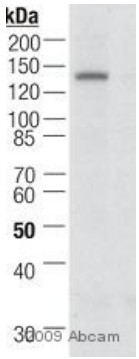
Immunocytochemistry/ Immunofluorescence - Anti-Calcium Pump pan PMCA ATPase antibody [5F10] (ab2825)

Immunocytochemistry/Immunofluorescence analysis of Calcium Pump pan PMCA ATPase shows staining in U251 cells. Calcium Pump pan PMCA ATPase staining (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 probed without (control) or with or ab2825 (1:200) overnight at 4°C, washed with PBS and incubated with a DyLight-488 conjugated goat anti-mouse secondary antibody. Images were taken at 60X magnification.



Flow Cytometry - Anti-Calcium Pump pan PMCA ATPase antibody [5F10] (ab2825)

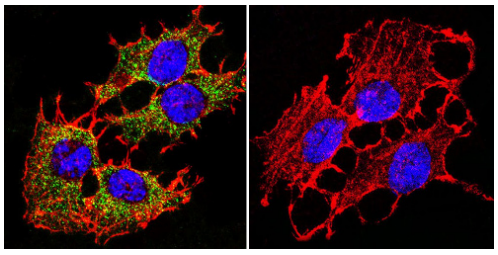
Overlay histogram showing Jurkat cells stained with ab2825 (red line). The cells were fixed with methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab2825, 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 IgG2a [ICIGG2A] (1µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a positive signal in Jurkat cells fixed with 4% paraformaldehyde (10 min)/permeabilized with 0.1% PBS-Tween used with ab2825 (1/20 dilution) under the same conditions.



Immunoprecipitation - Anti-Calcium Pump pan PMCA ATPase antibody [5F10] (ab2825)

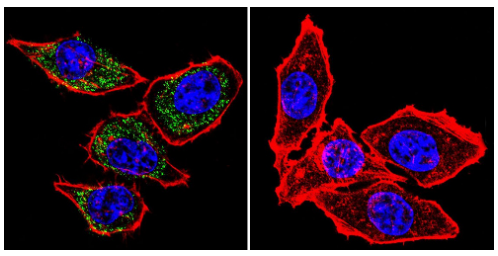
This image is courtesy of an anonymous Abreview

ab2825 Immunoprecipitate Calcium Pump pan PMCA ATPase in human whole cell lysate. 1,000,000 cells were lysed and incubated with primary antibody at 4µg/mg lysate and Protein A matrix for 20 hours at 4°C. For western blotting an undiluted Abcam`s ab1162, Rabbit polyclonal to DDDDK tag was used.



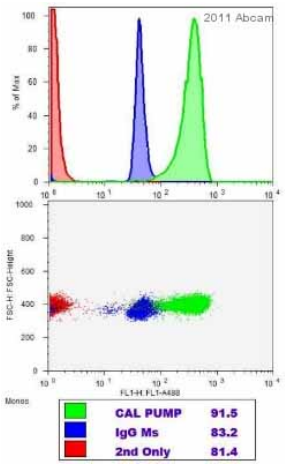
Immunocytochemistry/ Immunofluorescence - Anti-Calcium Pump pan PMCA ATPase antibody [5F10] (ab2825)

Immunocytochemistry/Immunofluorescence analysis of Calcium Pump pan PMCA ATPase shows staining in C6 cells. Calcium Pump pan PMCA ATPase staining (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 probed without (control) or with or ab2825 (1:200) overnight at 4°C, washed with PBS and incubated with a DyLight-488 conjugated goat anti-mouse secondary antibody. Images were taken at 60X magnification.



Immunocytochemistry/ Immunofluorescence - Anti-Calcium Pump pan PMCA ATPase antibody [5F10] (ab2825)

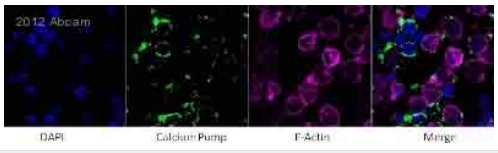
Immunocytochemistry/Immunofluorescence analysis of Calcium Pump pan PMCA ATPase shows staining in HeLa cells. Calcium Pump pan PMCA ATPase staining (green), F-Actin staining with Phalloidin (red) and nuclei with DAPI (blue) is shown. Cells were grown on chamber slides and fixed with formaldehyde prior to staining. Cells were probed without (control) or with or ab2825 (1:100) overnight at 4°C, washed with PBS and incubated with a DyLight-488 conjugated goat anti-mouse secondary antibody. Images were taken at 60X magnification.



Flow Cytometry - Anti-Calcium Pump pan PMCA ATPase antibody [5F10] (ab2825)

Image courtesy of Dr Mahesh Shivananjappa by Abreview.

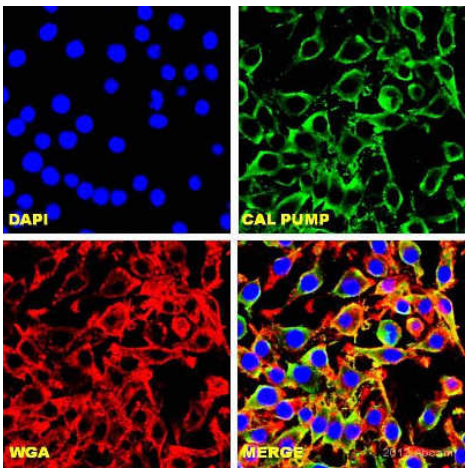
ab2825 at a 1/200 dilution detecting Calcium Pump pan PMCA ATPase in human monocytes by Flow Cytometry. The secondary used was an Alexa-Fluor 488 conjugated goat anti-mouse IgG (H+L) used at a 1/500 dilution.



Immunocytochemistry/ Immunofluorescence - Anti-Calcium Pump pan PMCA ATPase antibody [5F10] (ab2825)

Image courtesy of Dr Mahesh Shivananjappa by Abreview.

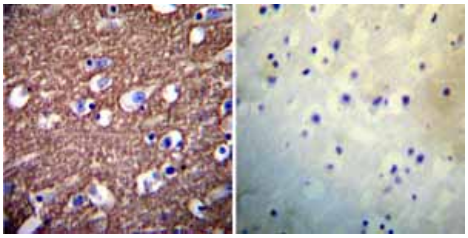
ab2825 staining Calcium Pump pan PMCA ATPase in human monocytes by Immunocytochemistry/ Immunofluorescence. Cells were fixed, permeabilized, blocked with 2% BSA for 30 minutes at 25°C and then incubated with ab2825 at a 1/250 dilution for 1 hour at 25°C. The secondary used was an Alexa-Fluor 488 conjugated goat anti-mouse IgG (H+L) used at a 1/1000 dilution.



Immunocytochemistry/ Immunofluorescence - Anti-Calcium Pump pan PMCA ATPase antibody [5F10] (ab2825)

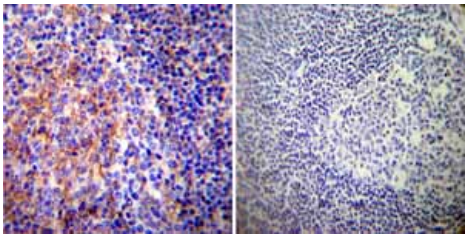
This image is courtesy of an Abreview submitted by Dr Mahesh Shivananjappa

ab2825 staining Calcium Pump pan PMCA ATPase (green) in Mouse RAW 264.7 cells by ICC/IF (Immunocytochemistry/ Immunofluorescence). Cells were fixed with paraformaldehyde, permeabilized in 0.1% Triton X-100 in 2% BSA for 15 minutes and blocked with 2% BSA for 1 hour at 22°C. Samples were incubated with primary antibody (1/200 in PBS + 2% BSA) for 18 hours at 4°C. An Alexa Fluor®488-conjugated Chicken anti-rabbit IgG polyclonal (H&L) (1/750) was used as the secondary antibody. WGA (red) = Wheat Germ Agglutinin



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Calcium Pump pan PMCA ATPase antibody [5F10] (ab2825)

Immunohistochemistry was performed on both normal and cancer biopsies of deparaffinized Human brain 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 PMCA ATPase ab2825 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-Calcium Pump pan PMCA ATPase antibody [5F10] (ab2825)

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 PMCA ATPase ab2825 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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