abcam

Product datasheet

Anti-TMEM16A antibody [SP31] - BSA and Azide free ab198412

Recombinant RabMAb

7 Images

Overview

Product name	Anti-TMEM16A antibody [SP31] - BSA and Azide free
Description	Rabbit monoclonal [SP31] to TMEM16A - BSA and Azide free
Host species	Rabbit
Tested applications	**Suitable for:** ICC/IF, Flow Cyt (Intra), WB, IHC-P
Species reactivity	**Reacts with:** Human **Predicted to work with:** Cynomolgus monkey
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	IHC-P: Human GIST tumor, Human SBG from CF patients, Human surface epithelium tissue Flow Cyt (intra): PC-3 cells. WB: PC-3 whole cell lysate, Capan-1 whole cell lysate. ICC/IF: PC-3 (human prostate adenocarcinoma epithelial cell)
General notes	ab198412 is the carrier-free version of **ab64085**. Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications. Use our **conjugation kits** for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold. This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc. 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**.

This product is FOR RESEARCH USE ONLY. For commercial use, please contact partnerships@abcam.com.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.20 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	SP31
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab198412 in the following tested applications.

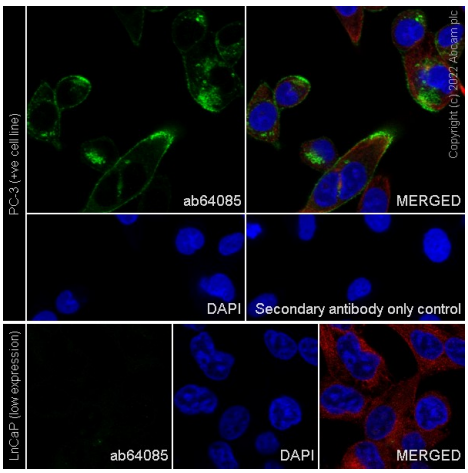
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF		Use at an assay dependent concentration.
Flow Cyt (Intra)		Use at an assay dependent concentration.
WB		1/1000. Detects a band of approximately 130, 260 kDa (predicted molecular weight: 114 kDa). PMID: 22685202.
IHC-P		1/100.

Target

Function	Acts as a calcium-activated chloride channel. Required for normal tracheal development.
Tissue specificity	Broadly expressed with higher levels in liver and skeletal muscle.
Sequence similarities	Belongs to the anoctamin family.
Domain	The region spanning the fifth and sixth transmembrane domains probably forms the pore-forming region.
Cellular localization	Cell membrane. Cytoplasm.

Images



Immunocytochemistry/ Immunofluorescence - Anti-TMEM16A antibody [SP31] - BSA and Azide free (ab198412)

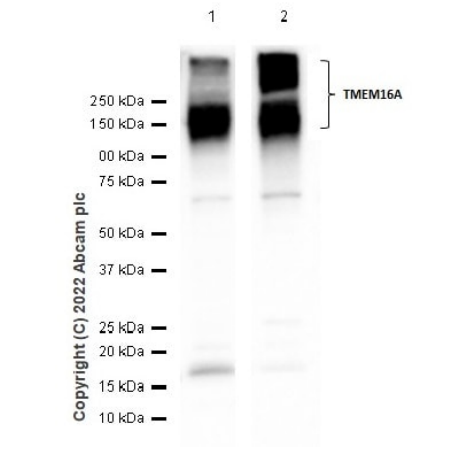
This data was developed using **ab64085**, the same antibody clone in a different buffer formulation.

ab64085 staining TMEM16A in PC-3 (human prostate adenocarcinoma epithelial cell) cells. The cells were fixed with 4% formaldehyde, permeabilized in 100% methanol. The cells were then incubated with **ab64085** at 1/20 dilution, followed by secondary antibody **ab150077** AlexaFluor®488 Goat anti-Rabbit secondary at 1/1000 dilution (Green). **ab195889**, Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) was used for counterstain at 1/200 dilution (Red). Nuclear DNA was labelled in blue with DAPI.

Confocal image showing membranous and cytoplasmic staining in PC-3 cell line.

Low expression control: LnCaP(PMID: 29899325)

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).



Western blot - Anti-TMEM16A antibody [SP31] - BSA and Azide free (ab198412)

All lanes : Anti-TMEM16A antibody [SP31] (**ab64085**) at 1/1000 dilution

Lane 1 : PC-3 (Human prostate adenocarcinoma epithelial cell) whole cell lysate
Lane 2 : Capan-1 (Human pancreas adenocarcinoma epithelial cell) whole cell lysate

Lysates/proteins at 20 µg per lane.

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

Predicted band size: 114 kDa
Observed band size: 130,260 kDa

Blocking and diluting buffer and concentration: 5% NFDM/TBST

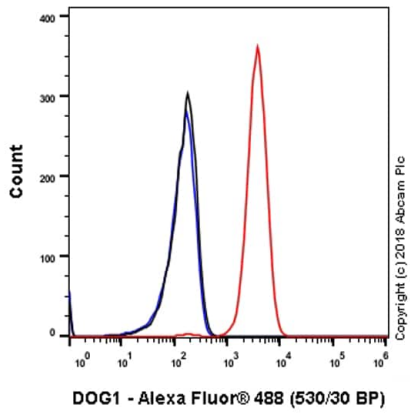
Exposure time:

Lane 1: 20 seconds

Lane 2: 10 seconds

The observed molecular weights are consistent with PMID: 22685202.

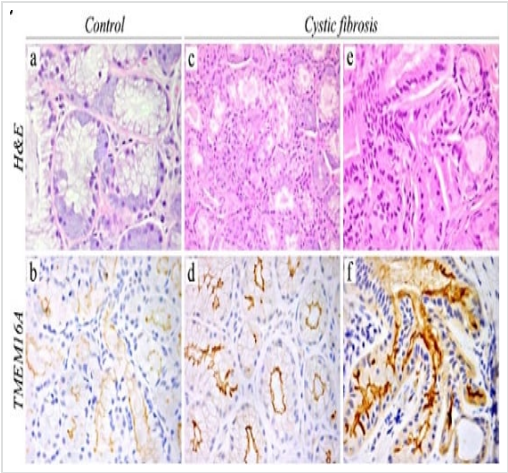
This data was developed using **ab64085**, the same antibody clone in a different buffer formulation.



Flow Cytometry (Intracellular) - Anti-TMEM16A antibody [SP31] - BSA and Azide free (ab198412)

Intracellular Flow Cytometry analysis of PC-3 (Human prostate adenocarcinoma epithelial cell) cells labeling TMEM16A with purified **ab64085** at 1/20 dilution (11.3µg/ml) (red). Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. A Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) secondary antibody was used at 1/2000 dilution. Isotype control - Rabbit monoclonal IgG (**ab172730**) / Black. Unlabeled control - Unlabelled cells / blue.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab64085**).



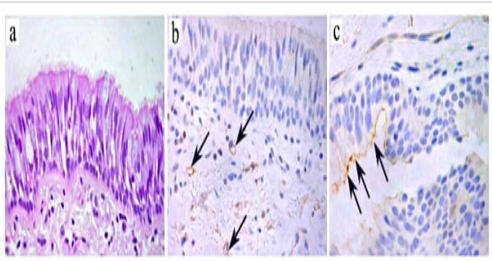
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TMEM16A antibody [SP31] - BSA and Azide free (ab198412)

This image is taken from Upregulation of TMEM16A Protein in Bronchial Epithelial Cells by Bacterial Pyocyanin.

TMEM16A detected in paraffin-embedded sections of human submucosal glands from CF patients and control samples.

TMEM16A expression was modest in non-CF submucosal glands of non-CF samples (b) but markedly increased in tissues from CF patients (d), with a particularly strong signal (f) in histologically altered glands (e). Magnification: X630 in a, X400 in b-f. Images 4Aa and 4Ba,c,e show hematoxylin and eosin staining.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab64085**).

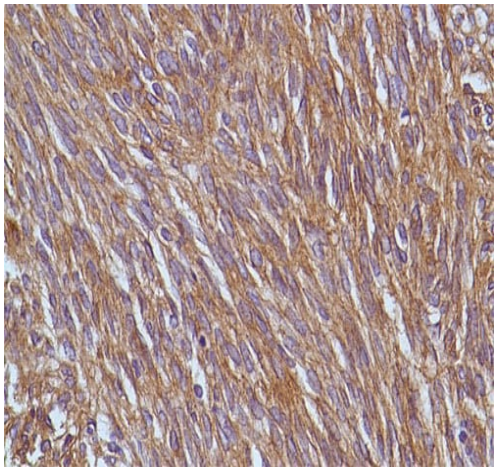


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TMEM16A antibody [SP31] - BSA and Azide free (ab198412)

This image is taken from Upregulation of TMEM16A Protein in Bronchial Epithelial Cells by Bacterial Pyocyanin.

ab64085 showing expression of TMEM16A in human surface epithelium tissue. TMEM16A staining was mostly absent (b), and sometimes scanty (c) in the respiratory epithelium lining bronchi or bronchioles from CF patients (c, arrows). A weak expression was also detectable in microvessels of peri-bronchial connective tissue (b, arrows). Magnification: X400.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab64085**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TMEM16A antibody [SP31] - BSA and Azide free (ab198412)

Immunohistochemical analysis of Human Gastrointestinal Stromal Tumor tissue labelling TMEM16A with **ab64085**.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab64085**).

Anti-TMEM16A antibody [SP31] - BSA and Azide free (ab198412)

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