# abcam

# Product datasheet

# Anti-TMEM16A antibody [SP31] ab64085



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#### Overview

**Immunogen** 

Product name Anti-TMEM16A antibody [SP31]

**Description** Rabbit monoclonal [SP31] to TMEM16A

Host species Rabbit

Tested applications Suitable for: IHC-P, Flow Cyt (Intra), ICC/IF, WB

Species reactivity Reacts with: Human

Predicted to work with: Cynomolgus monkey

Synthetic peptide within Human TMEM16A aa 400-500. The exact sequence is proprietary.

Database link: **Q5XXA6** 

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** ab64085 was switched from a hybridoma to recombinant production method on 23rd July 2019.

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<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb**<sup>®</sup> **patents**.

This product is FOR RESEARCH USE ONLY. For commercial use, please contact

partnerships@abcam.com.

#### **Properties**

Form Liquid

**Storage instructions** Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.

Storage buffer pH: 7.20

Preservative: 0.1% Sodium azide

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Constituents: 1% BSA, PBS

**Purity** Protein A purified

**Clonality** Monoclonal

Clone number SP31 lsotype lgG

#### **Applications**

The Abpromise guarantee Our <u>Abpromise guarantee</u> covers the use of ab64085 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
IHC-P		1/100.
Flow Cyt (Intra)		Use at an assay dependent concentration.
ICC/IF		Use at an assay dependent concentration.
WB	★★★☆☆ (2)	1/1000. Detects a band of approximately 130, 260 kDa (predicted molecular weight: 114 kDa). PMID: 22685202.

## **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.

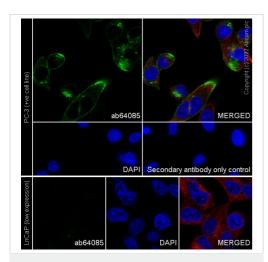
**Sequence similarities** Belongs to the anoctamin family.

**Domain** The region spanning the fifth and sixth transmembrane domains probably forms the pore-forming

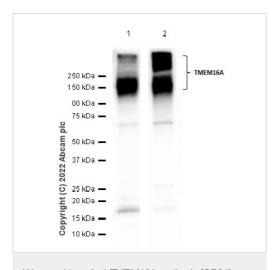
region.

Cellular localization Cell membrane. Cytoplasm.

## **Images**



Immunocytochemistry/ Immunofluorescence - Anti-TMEM16A antibody [SP31] (ab64085)



Western blot - Anti-TMEM16A antibody [SP31] (ab64085)

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 <a href="mailto:ab150077">ab150077</a> AlexaFluor®488 Goat anti-Rabbit secondary at 1/1000 dilution (Green). <a href="mailto:ab195889">ab195889</a>, 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).

**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) (<u>ab97051</u>) at 1/20000 dilution

Predicted band size: 114 kDa

Observed band size: 130,260 kDa

Blocking and diluting buffer and concentration: 5%

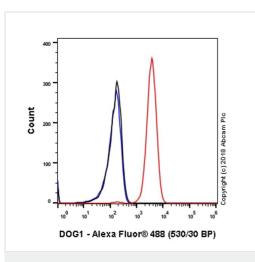
NFDM/TBST

# Exposure time:

Lane 1: 20 seconds

Lane 2: 10 seconds

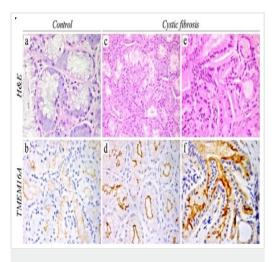
The observed molecular weights are consistent with PMID: 22685202.



Flow Cytometry (Intracellular) - Anti-TMEM16A antibody [SP31] (ab64085)

Intracellular Flow Cytometry analysis of PC-3 (Human prostate adenocarcinoma epithelial cell) cells labeling TMEM16A with purified ab64085. (red). Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. A Goat anti rabbit lgG (Alexa Fluorr<sup>®</sup> 488, **ab150077**) secondary antibody. Isotype control - Rabbit monoclonal lgG (**ab172730**) / Black. Unlabeled control - Unlabelled cells / blue.

This image was generated from the hybridoma version.

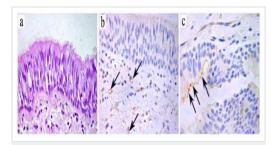


Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-TMEM16A antibody
[SP31] (ab64085)

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 image was generated from the hybridoma version.

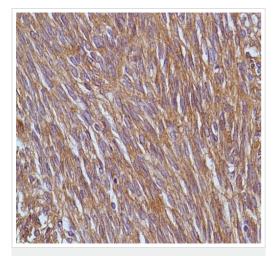


Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-TMEM16A antibody
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This image is taken from Upregulation of TMEM16A Protein in Bronchial Epithelial Cells by Bacterial Pyocyanin.

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.

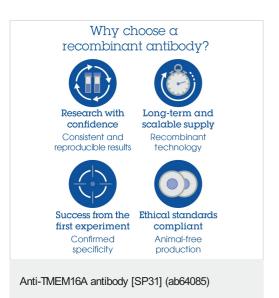
This image was generated from the hybridoma version.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-TMEM16A antibody
[SP31] (ab64085)

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

This image was generated from the hybridoma version.



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