

Product datasheet

Anti-TMC1 antibody [EPR19527] ab199949

Recombinant **RabMAb**

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Overview

Product name	Anti-TMC1 antibody [EPR19527]
Description	Rabbit monoclonal [EPR19527] to TMC1
Host species	Rabbit
Tested applications	Suitable for: WB, IHC-Fr, ICC/IF, IP
Species reactivity	Reacts with: Mouse, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: HEK-293T whole cell lysate transfected with DDDDK tagged mouse TMC1 . IHC-Fr: P20 mouse cochlea tissue. ICC/IF: Mouse TMC1-GFP transfected HEK-293T cells. IP: HEK-293T whole cell lysate transfected with pcDNA3.1-TMC1.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	<p>pH: 7.2</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA</p>
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR19527

Isotype IgG

Applications

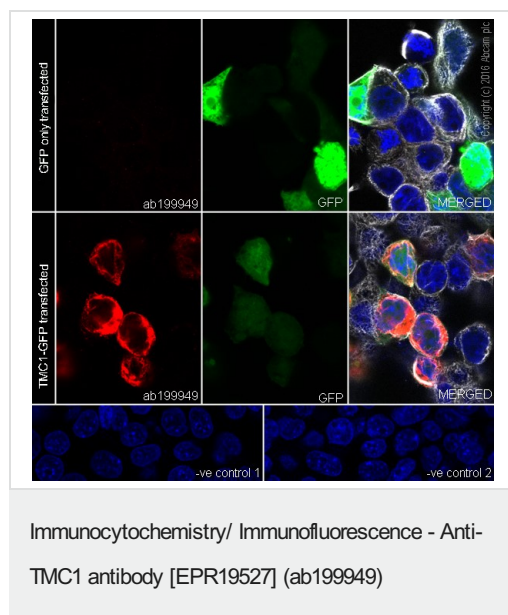
The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab199949 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/2000. Detects a band of approximately 87 kDa (predicted molecular weight: 88 kDa).
IHC-Fr		1/50.
ICC/IF		1/500.
IP		1/30.

Target

Function	Probable ion channel required for the normal function of cochlear hair cells.
Tissue specificity	Detected in fetal cochlea, and at low levels in placenta and testis.
Involvement in disease	Deafness, autosomal dominant, 36 Deafness, autosomal recessive, 7
Sequence similarities	Belongs to the TMC family.
Cellular localization	Membrane.

Images



Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HEK-293T (Human epithelial cell line from embryonic kidney transformed with large T antigen) cells, transfected with mouse TMC1-GFP or GFP only, labeling TMC1 with ab199949 at 1/500 dilution, followed by Alexa Fluor[®] 594 Goat anti-Rabbit (**ab150080**) secondary antibody at 1/1000 dilution (red).

The results show cytoplasmic staining on mouse TMC1-GFP transfected HEK-293T cells.

The nuclear counter stain is DAPI (blue).

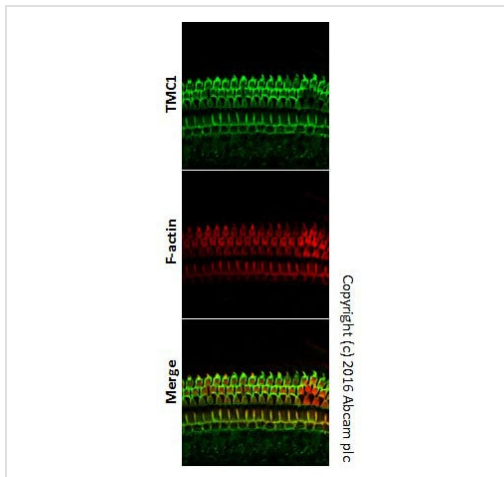
Tubulin is detected with **ab7291** (anti-Tubulin mouse mAb) at 1/1000 dilution and **ab150115** (Alexa Fluor[®] 647 Goat anti-Mouse secondary (white)) at 1/1000 dilution.

The negative controls are as follows:

-ve control 1: ab199949 at 1/500 dilution followed by **ab150115** (Alexa Fluor® 647 Goat anti-Mouse secondary (white)) at 1/1000 dilution.

-ve control 2: **ab7291** (anti-Tubulin mouse mAb) at 1/1000 dilution followed by **ab150080** (Alexa Fluor® 594 Goat anti-Rabbit secondary) at 1/1000 dilution.

Mouse TMC1 plasmid was kindly provided by our collaborator Dr. Yun Shi, Nanjing University MARC.



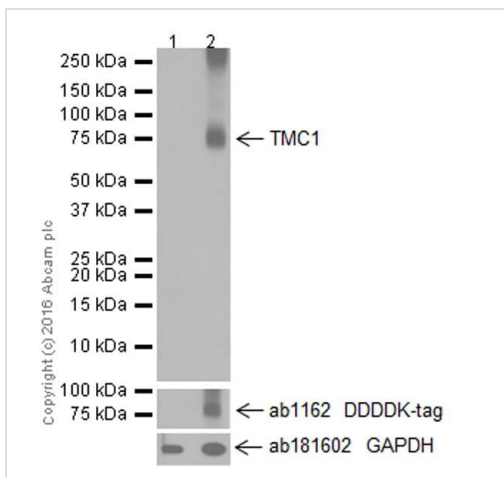
Immunohistochemistry (Frozen sections) - Anti-TMC1 antibody [EPR19527] (ab199949)

Immunohistochemical analysis of 4% paraformaldehyde-fixed frozen P20 mouse cochlea tissue labeling TMC1 with ab199949 at 1/50 dilution, followed by Goat Anti-Rabbit IgG (H+L) Dylight 488 secondary antibody at 1/500 dilution (green).

The results show specific staining on cochlear hair cells.

This data was kindly provided by our collaborator Dr. Yun Shi Nanjing University MARC.

This is wholemount IF with no permeabilisation or antigen retrieval.



Western blot - Anti-TMC1 antibody [EPR19527] (ab199949)

All lanes : Anti-TMC1 antibody [EPR19527] (ab199949) at 1/2000 dilution

Lane 1 : HEK-293T (Human epithelial cell line from embryonic kidney) whole cell lysate transfected with empty DDDDK tag expression vector

Lane 2 : HEK-293T whole cell lysate transfected with DDDDK tagged mouse TMC1

Lysates/proteins at 2 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution

Predicted band size: 88 kDa

Observed band size: 87 kDa

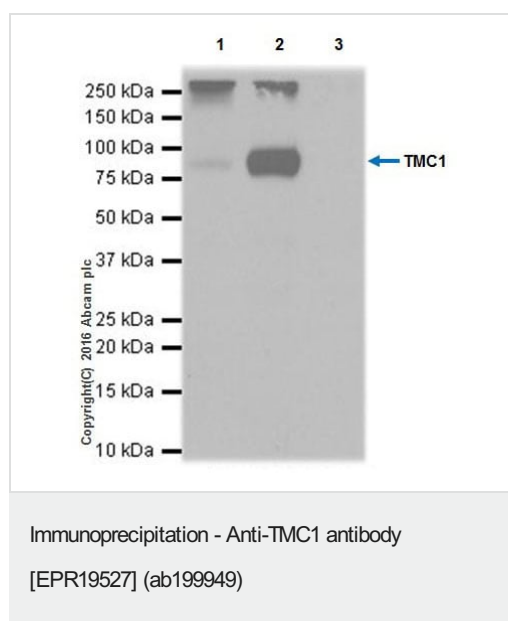
Exposure time: 1 second

Blocking/Dilution buffer: 5% NFDM/TBST.

Anti-DDDDK tag antibody used is **ab1162**.

Mouse TMC1 plasmid was kindly provided by our collaborator Dr. Yun Shi, Nanjing University MARC.

WB detection of endogenous TMC1 is not shown due to unavailability of appropriate testing material.



TMC1 was immunoprecipitated from 0.35 mg of HEK-293T (Human epithelial cell line from embryonic kidney transformed with large T antigen) whole cell lysate, transfected with pcDNA3.1-TMC1, with ab199949 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab199949 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (**ab131366**), was used for detection at 1/10000 dilution.

Lane 1: HEK-293T whole cell lysate transfected with pcDNA3.1-TMC1, 10 µg (Input).

Lane 2: ab199949 IP in HEK-293T whole cell lysate transfected with pcDNA3.1-TMC1.





Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of ab199949 in HEK-293T whole cell lysate transfected with pcDNA3.1-TMC1.

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 1 second.

Mouse TMC1 plasmid was kindly provided by our collaborator Dr. Yun Shi, Nanjing University MARC.

Why choose a recombinant antibody?

 <p>Research with confidence Consistent and reproducible results</p>	 <p>Long-term and scalable supply Recombinant technology</p>
 <p>Success from the first experiment Confirmed specificity</p>	 <p>Ethical standards compliant Animal-free production</p>

Anti-TMC1 antibody [EPR19527] (ab199949)

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