

Product datasheet

Anti-TGN46 antibody [EPR12676] ab174280

KO **VALIDATED**

Recombinant

RabMAb[®]

[1 References](#) [8 Images](#)

Overview

Product name	Anti-TGN46 antibody [EPR12676]
Description	Rabbit monoclonal [EPR12676] to TGN46
Host species	Rabbit
Tested applications	Suitable for: WB, IP, IHC-P, ICC/IF Unsuitable for: Flow Cyt
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: A549, HepG2 and HeLa lysates (HeLa shows to be a low expressor). IHC-P: Human brain and kidney tissues. IP: Immunoprecipitation pellet from fetal liver lysate. ICC/IF: Hep G2 and A549 cells.
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> <p>Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.</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: 7.20</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: 9% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA, 50% Tissue culture supernatant</p>

Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR12676
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab174280 in the following tested applications.

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

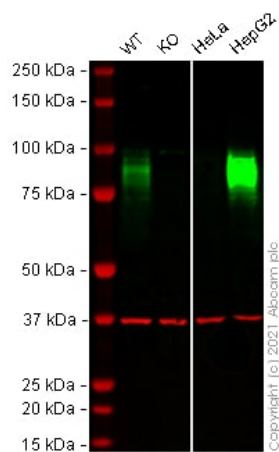
Application	Abreviews	Notes
WB		1/1000 - 1/5000. Predicted molecular weight: 51 kDa.
IP		1/10 - 1/100.
IHC-P		1/50 - 1/100. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
ICC/IF		Use a concentration of 1 µg/ml.

Application notes Is unsuitable for Flow Cyt.

Target

Function	May be involved in regulating membrane traffic to and from trans-Golgi network.
Tissue specificity	Isoform TGN46 is widely expressed. Isoform TGN51 is more abundant in fetal lung and kidney. Isoform TGN48 is barely expressed in embryonic kidney and promyelocytic cells.
Cellular localization	Cell membrane. Golgi apparatus > trans-Golgi network membrane. Primarily in trans-Golgi network. Cycles between the trans-Golgi network and the cell surface returning via endosomes.

Images



Western blot - Anti-TGN46 antibody [EPR12676]
(ab174280)

All lanes : Anti-TGN46 antibody [EPR12676] (ab174280) at 1/1000 dilution

Lane 1 : Wild-type A549 (Human lung carcinoma cell line) whole cell lysate

Lane 2 : TGOLN2 knockout A549 (Human lung carcinoma cell line) whole cell lysate

Lane 3 : HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate

Lane 4 : Hep G2 (Human liver hepatocellular carcinoma cell line) whole cell lysate

Lysates/proteins at 20 µg per lane.

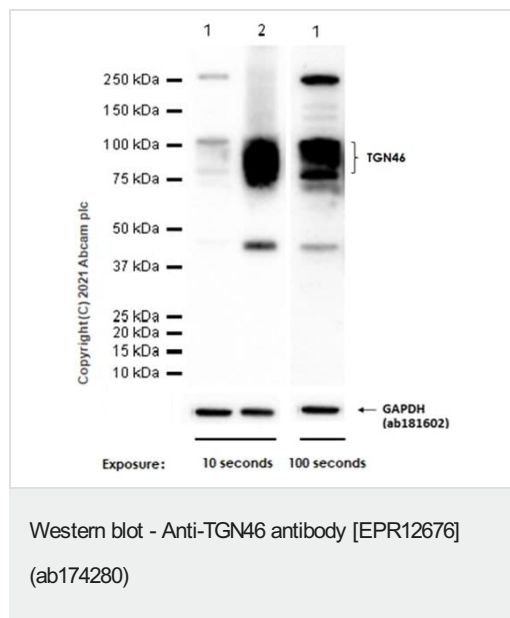
Performed under reducing conditions.

Predicted band size: 51 kDa

Observed band size: 80 kDa

Lanes 1 - 4: Merged signal (red and green). Green - ab174280 observed at 80 kDa. Red - loading control **ab8245** (Mouse anti-GAPDH antibody [6C5]) observed at 37 kDa.

ab174280 was shown to react with TGN46 in wild-type A549 cells in Western blot with loss of signal observed in TGOLN2 knockout cell line **ab269510** (knockout cell lysate **ab269672**). Wild-type A549 and TGOLN2 knockout cell lysates were subjected to SDS-PAGE. Membranes were blocked in fluorescent western blot (TBS-based) blocking solution before incubation with ab174280 and **ab8245** (Mouse anti-GAPDH antibody [6C5]) overnight at 4 °C at a 1 in 1000 dilution and a 1 in 20000 dilution respectively. Blots were incubated with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed (**ab216776**) secondary antibodies at 1 in 20000 dilution for 1 h at room temperature before imaging.



All lanes : Anti-TGN46 antibody [EPR12676] (ab174280) at 1/1000 dilution

Lane 1 : HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate

Lane 2 : HepG2 (Human hepatocellular carcinoma epithelial cell) whole cell lysate

Lysates/proteins at 20 µg per lane.

Secondary

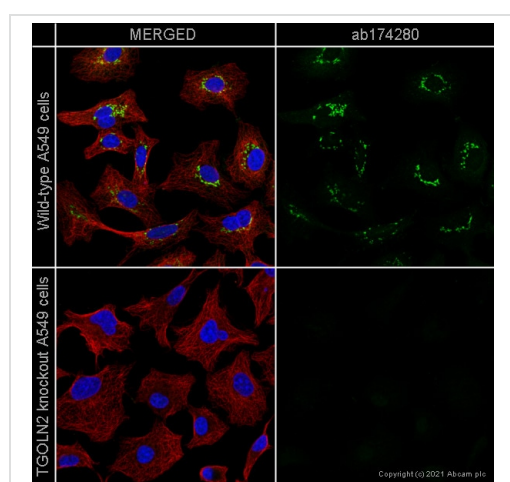
All lanes : Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/2000 dilution

Predicted band size: 51 kDa

Observed band size: 75-100 kDa

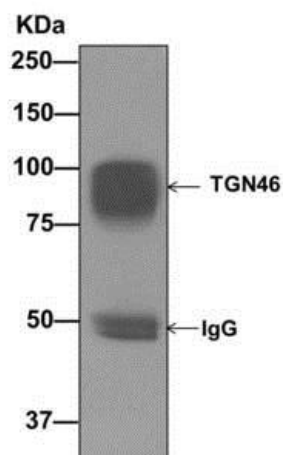
Blocking buffer: 5% NFDM/TBST.

Exposure: 10 seconds, 100 seconds.



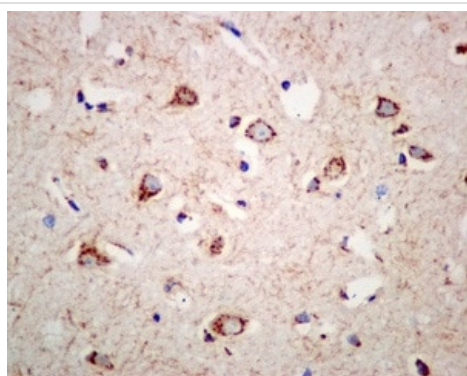
ab174280 staining TGN46 in wild-type A549 cells (top panel) and TGN46 knockout A549 cells (bottom panel) ([ab269510](#)). The cells were fixed with 100% methanol (5 min) then permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated with ab174280 at 1 µg/ml concentration and [ab7291](#) (Mouse monoclonal to alpha Tubulin) at 1/1000 dilution overnight at 4°C followed by a further incubation at room temperature for 1h with a goat secondary antibody to rabbit IgG (Alexa Fluor® 488) ([ab150081](#)) at 2 µg/ml (shown in green) and a goat secondary antibody to mouse IgG (Alexa Fluor® 594) ([ab150120](#)) at 2 µg/ml (shown in red). Nuclear DNA was labelled in blue with DAPI.

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



Immunoprecipitation - Anti-TGN46 antibody
[EPR12676] (ab174280)

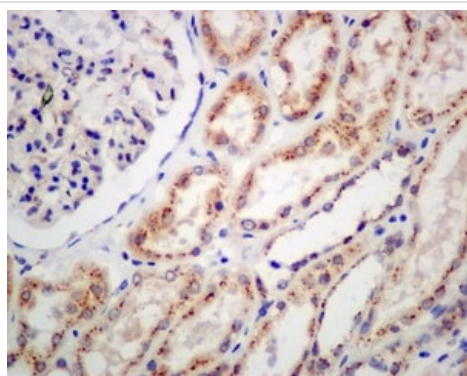
Immunoprecipitation. ab174280 at 1/1000 labeling TGN46 immunoprecipitated from Human fetal liver lysate using ab174280 at 1/10.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TGN46 antibody
[EPR12676] (ab174280)

Immunohistochemical analysis of paraffin embedded Human brain tissue labeling TGN46 with ab174280 at 1/50.

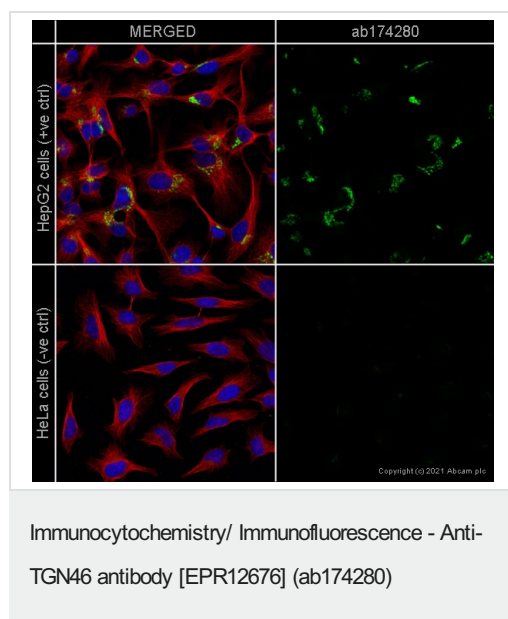
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TGN46 antibody
[EPR12676] (ab174280)

Immunohistochemical analysis of paraffin embedded Human kidney tissue labeling TGN46 with ab174280 at 1/50.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



ab174280 staining TGN46 in HepG2 cells (top panel - positive control) and HeLa cells (bottom panel - negative control, low TGN46 expression). The cells were fixed with 100% methanol (5 min) then permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated with ab174280 at 1 µg/ml concentration and **ab7291** (Mouse monoclonal to alpha Tubulin) at 1/1000 dilution overnight at 4°C followed by a further incubation at room temperature for 1h with a goat secondary antibody to rabbit IgG (Alexa Fluor® 488) (**ab150081**) at 2 µg/ml (shown in green) and a goat secondary antibody to mouse IgG (Alexa Fluor® 594) (**ab150120**) at 2 µg/ml (shown in red). Nuclear DNA was labelled in blue with DAPI. Image was taken with a confocal microscope (Leica-Microsystems TCS SP8).

Why choose a recombinant antibody?

Research with confidence
Consistent and reproducible results

Long-term and scalable supply
Recombinant technology

Success from the first experiment
Confirmed specificity

Ethical standards compliant
Animal-free production

Anti-TGN46 antibody [EPR12676] (ab174280)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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