

## Product datasheet

# Anti-TMEM173 antibody [SP338] ab227704

Recombinant RabMAb

19 Images

### Overview

<b>Product name</b>	Anti-TMEM173 antibody [SP338]
<b>Description</b>	Rabbit monoclonal [SP338] to TMEM173
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> IHC-P, Flow Cyt, WB, ICC/IF
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Recombinant fragment within Human TMEM173 aa 350 to the C-terminus. The exact sequence is proprietary. Database link: <a href="#">Q86WV6</a>
<b>Positive control</b>	IHC-P: Human lymph node, thymus, tonsil, colon, spleen, colon adenocarcinoma, lung, lung squamous cell carcinoma, lung adenocarcinoma and pancreatic adenocarcinoma tissues. WB: THP-1 cell lysate. Flow Cyt: THP-1 cells. ICC/IF: THP-1 cells.
<b>General notes</b>	<p><b>This product is FOR RESEARCH USE ONLY. For commercial use, please contact <a href="mailto:partnerships@abcam.com">partnerships@abcam.com</a>.</b></p> <p>Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough.</p> <p>Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.</p> <p>We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications &amp; species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise™ guarantee.</p> <p>In preparation for this, we have started to update the applications &amp; species that this product is Abpromise guaranteed for.</p> <p>We are also updating the applications &amp; species that this product has been “predicted to work with,” however this information is not covered by our Abpromise guarantee.</p> <p>Applications &amp; species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee.</p> <p>Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, as well as customer reviews and Q&amp;As.</p>

## Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	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.
<b>Storage buffer</b>	pH: 7.60 Preservative: 0.1% Sodium azide Constituents: PBS, 1% BSA
<b>Purity</b>	Immunogen affinity purified
<b>Purification notes</b>	Purified from TCS by protein A/G.
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	SP338
<b>Isotype</b>	IgG

## Applications

Our [Abpromise guarantee](#) covers the use of **ab227704** 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. Perform heat mediated antigen retrieval with EDTA buffer pH 8.0 before commencing with IHC staining protocol.
Flow Cyt		1/20 - 1/400.
WB		1/400. Predicted molecular weight: 42 kDa.
ICC/IF		1/50.

## Target

<b>Function</b>	Facilitator of innate immune signaling that promotes the production of type I interferon (IFN-alpha and IFN-beta). Innate immune response is triggered in response to non-CpG double-stranded DNA from viruses and bacteria delivered to the cytoplasm. Able to activate both NF-kappa-B and IRF3 transcription pathways to induce expression of type I interferon and exert a potent anti-viral state following expression. May be involved in translocon function, the translocon possibly being able to influence the induction of type I interferons. May be involved in transduction of apoptotic signals via its association with the major histocompatibility complex class II (MHC-II). Mediates death signaling via activation of the extracellular signal-regulated kinase (ERK) pathway.
<b>Tissue specificity</b>	Ubiquitously expressed.
<b>Sequence similarities</b>	Belongs to the TMEM173 family.

## Post-translational modifications

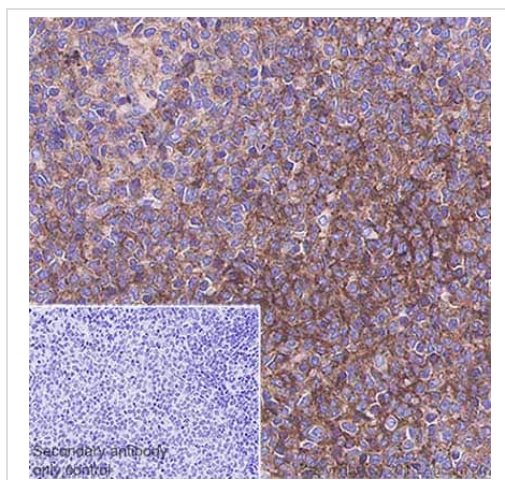
Phosphorylated on tyrosine residues upon MHC-II aggregation (By similarity). Phosphorylated on Ser-358 by TBK1, leading to activation and production of IFN-beta.

Ubiquitinated. 'Lys-63'-linked ubiquitination mediated by TRIM56 at Lys-150 promotes homodimerization and recruitment of the antiviral kinase TBK1 and subsequent production of IFN-beta. 'Lys-48'-linked polyubiquitination at Lys-150 occurring after viral infection is mediated by RNF5 and leads to proteasomal degradation.

## Cellular localization

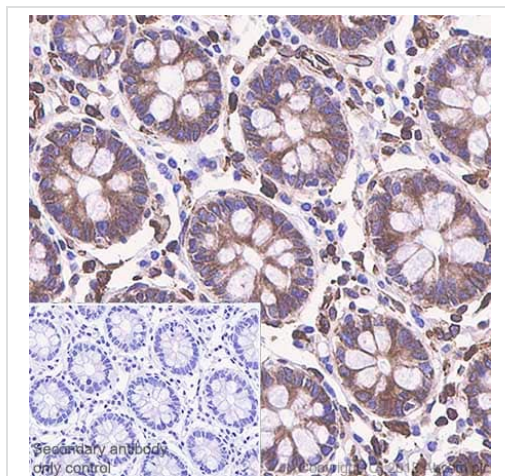
Endoplasmic reticulum membrane. Mitochondrion outer membrane. Cell membrane. Cytoplasm > perinuclear region. In response to double-stranded DNA stimulation, relocalizes to perinuclear region, where the kinase TBK1 is recruited.

## Images



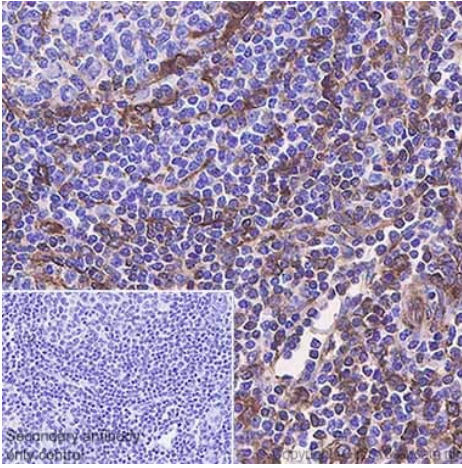
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Rat spleen tissue sections labeling TMEM173 with ab227704 at 1/100 dilution (1.05 µg/ml). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 10mins. Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) was used as the secondary antibody. Hematoxylin was used as a counterstain. Positive staining on the rat spleen, performed on a Leica Biosystems BOND™ RX instrument. The section was incubated with ab227704 for 10 mins at room temperature.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TMEM173 antibody [SP338] (ab227704)



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human colon tissue sections labeling TMEM173 with ab227704 at 1/100 dilution (1.05 µg/ml). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 10mins. Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) was used as the secondary antibody. Hematoxylin was used as a counterstain. Positive staining on the human colon, performed on a Leica Biosystems BOND™ RX instrument. The section was incubated with ab227704 for 10 mins at room temperature.

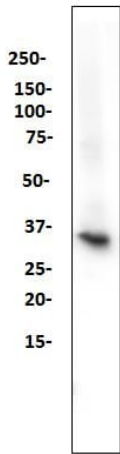
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TMEM173 antibody [SP338] (ab227704)



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TMEM173 antibody [SP338] (ab227704)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human tonsil tissue sections labeling TMEM173 with ab227704 at 1:100 dilution (1.05 µg/ml). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 10mins. Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) was used as the secondary antibody. Hematoxylin was used as a counterstain. Positive staining on the human tonsil, performed on a Leica Biosystems BOND™ RX instrument.

The section was incubated with ab227704 for 10 mins at room temperature.

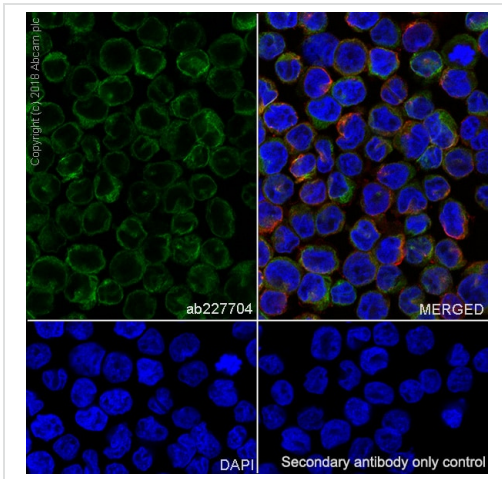


Western blot - Anti-TMEM173 antibody [SP338] (ab227704)

Anti-TMEM173 antibody [SP338] (ab227704) at 1/400 dilution + THP-1 (human monocytic leukemia cell line) cell lysate

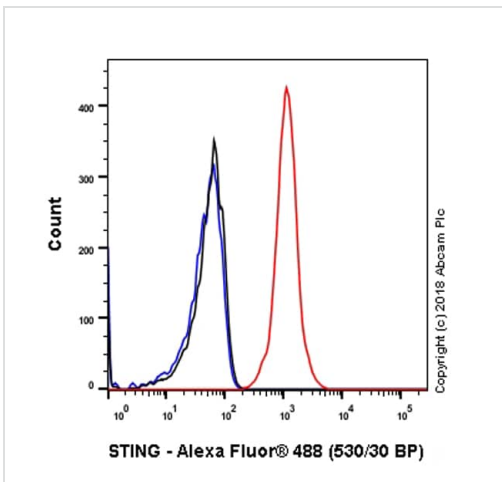
**Predicted band size: 42 kDa**





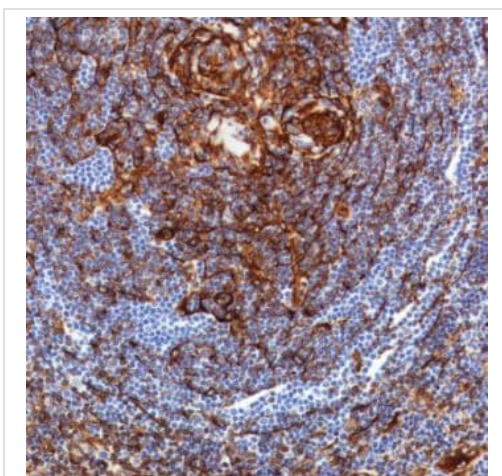
Immunocytochemistry/ Immunofluorescence - Anti-TMEM173 antibody [SP338] (ab227704)

Immunocytochemistry/ Immunofluorescence analysis of THP-1 (human monocytic leukemia monocyte) cells labeling TMEM173 with purified ab227704 at 1/50 (2.1 µg/ml). Cells were fixed in 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. Cells were counterstained with ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1/200 (2.5 µg/ml). Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) was used as the secondary antibody at 1/1000 (2 µg/ml) dilution. DAPI was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



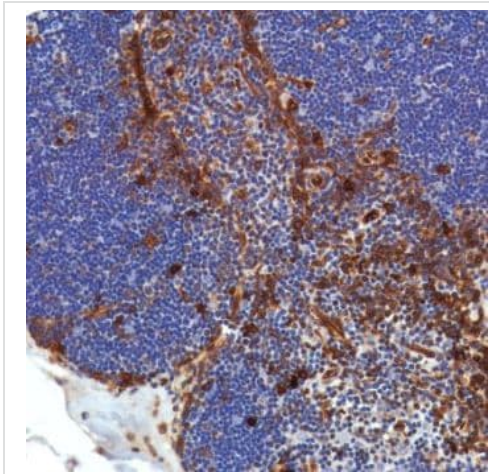
Flow Cytometry - Anti-TMEM173 antibody [SP338] (ab227704)

Flow cytometry analysis of THP-1 (human monocytic leukemia monocyte) labeling TMEM173 with purified ab227704 at 1/20 dilution (5.25 µg/ml) (red). Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. Goat anti rabbit IgG (Alexa Fluor® 488, ab150081) at 1/2000 dilution was used as a secondary antibody. Isotype control -Rabbit monoclonal IgG (ab172730) / Black. Unlabeled control -Unlabelled cells / blue.



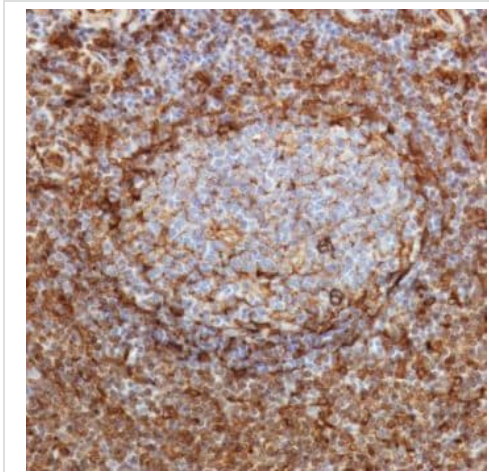
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TMEM173 antibody [SP338] (ab227704)

Formalin-fixed, paraffin-embedded human lymph node tissue stained for TMEM173 using ab227704 at 1/100 dilution in immunohistochemical analysis.



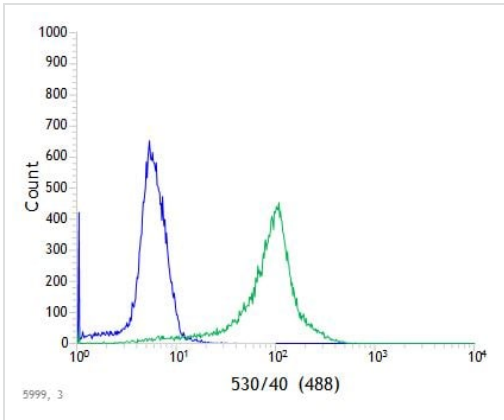
Formalin-fixed, paraffin-embedded human thymus tissue stained for TMEM173 using ab227704 at 1/100 dilution in immunohistochemical analysis.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TMEM173 antibody [SP338] (ab227704)



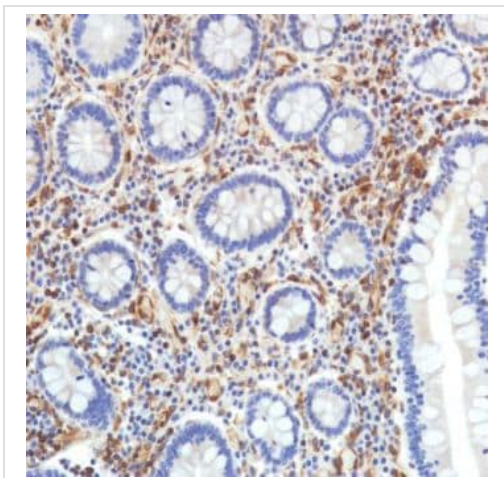
Formalin-fixed, paraffin-embedded human tonsil tissue stained for TMEM173 using ab227704 at 1/100 dilution in immunohistochemical analysis.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TMEM173 antibody [SP338] (ab227704)



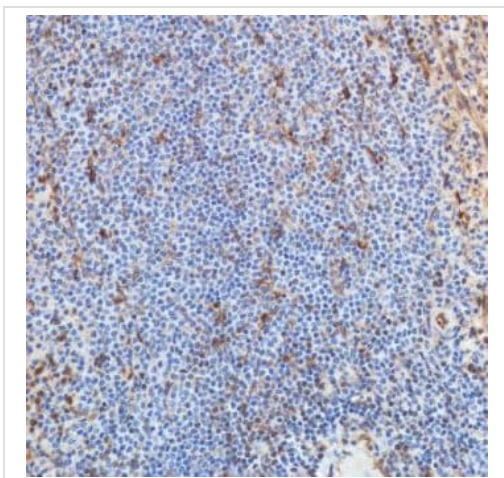
Flow Cytometry - Anti-TMEM173 antibody [SP338] (ab227704)

Flow cytometric analysis of THP-1 (human monocytic leukemia cell line) cell line labeling TMEM173 with ab227704 at 1/400 dilution (green) compared with a rabbit IgG negative control (blue).



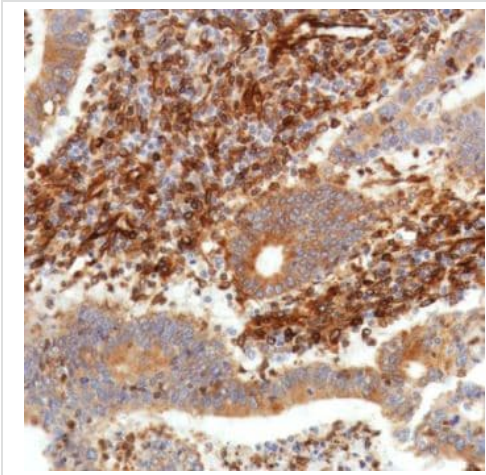
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TMEM173 antibody [SP338] (ab227704)

Formalin-fixed, paraffin-embedded human colon tissue stained for TMEM173 using ab227704 at 1/100 dilution in immunohistochemical analysis.



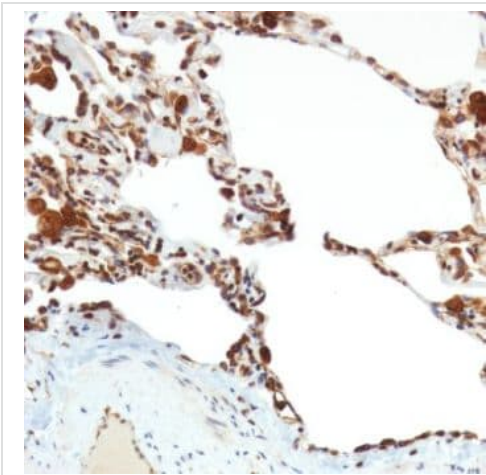
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TMEM173 antibody [SP338] (ab227704)

Formalin-fixed, paraffin-embedded human spleen tissue stained for TMEM173 using ab227704 at 1/100 dilution in immunohistochemical analysis.



Formalin-fixed, paraffin-embedded human colon adenocarcinoma tissue stained for TMEM173 using ab227704 at 1/100 dilution in immunohistochemical analysis.

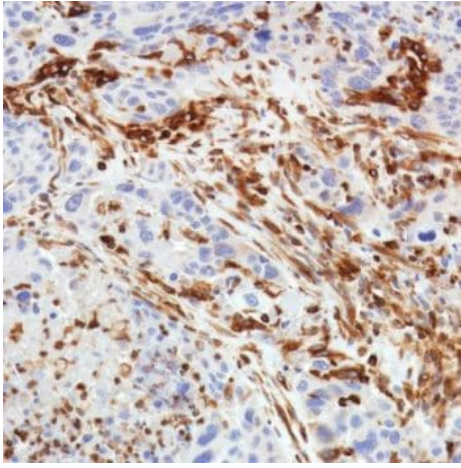
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TMEM173 antibody [SP338] (ab227704)



Formalin-fixed, paraffin-embedded human lung tissue stained for TMEM173 using ab227704 at 1/100 dilution in immunohistochemical analysis.

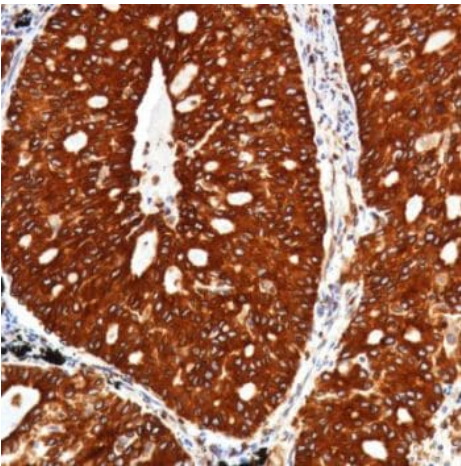
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TMEM173 antibody [SP338] (ab227704)





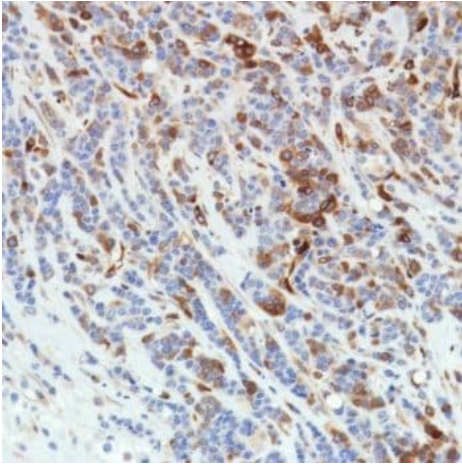
Formalin-fixed, paraffin-embedded human lung squamous cell carcinoma tissue stained for TMEM173 using ab227704 at 1/100 dilution in immunohistochemical analysis.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TMEM173 antibody [SP338] (ab227704)



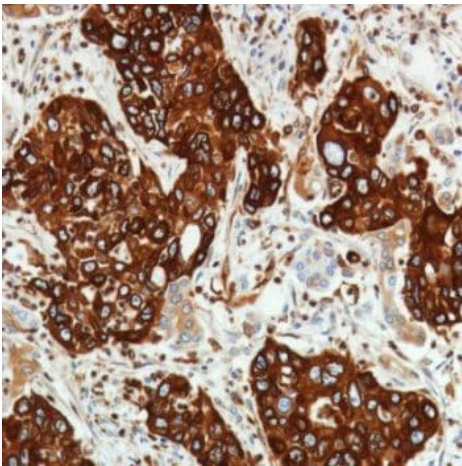
Formalin-fixed, paraffin-embedded human lung adenocarcinoma tissue stained for TMEM173 using ab227704 at 1/100 dilution in immunohistochemical analysis.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TMEM173 antibody [SP338] (ab227704)



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TMEM173 antibody [SP338] (ab227704)

Formalin-fixed, paraffin-embedded human pancreatic adenocarcinoma tissue stained for TMEM173 using ab227704 at 1/100 dilution in immunohistochemical analysis.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TMEM173 antibody [SP338] (ab227704)

Formalin-fixed, paraffin-embedded human pancreatic adenocarcinoma tissue stained for TMEM173 using ab227704 at 1/100 dilution in immunohistochemical analysis.

Why choose a recombinant antibody?

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**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-TMEM173 antibody [SP338] (ab227704)

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

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- Response to your inquiry within 24 hours
  
- We provide support in Chinese, English, French, German, Japanese and Spanish
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