# abcam

### Product datasheet

# Anti-TOMM20 antibody [EPR15581-39] - Mouse IgG1 (Chimeric) - BSA and Azide free ab283339

Recombinant

#### 9 Images

#### Overview

Product name Anti-TOMM20 antibody [EPR15581-39] - Mouse IgG1 (Chimeric) - BSA and Azide free

**Description** Mouse monoclonal [EPR15581-39] to TOMM20 - Chimeric – BSA and Azide free

Host species Mouse

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

**Species reactivity** Reacts with: Mouse, Rat, Human

**Immunogen** Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.

**Positive control** WB: HeLa, NIH/3T3, C6 whole cell lysates. IHC-P: Human liver, Mouse kidney, Rat kidney tissues.

IHC-Fr: Mouse and Rat small intestine. ICC/IF: HeLa cells. Flow Cyt: HeLa cells.

General notes Mitochondrial Marker

ab283339 is the carrier-free version of ab283317.

This mouse monoclonal chimeric antibody has been engineered from a RabMAb parent antibody (<u>ab186734</u>). By necessity, some rabbit sequence is retained as part of the variable domain. When multiplexing with other rabbit-derived antibodies, using cross absorbed Fc-reactive secondary antibodies are recommended.

Our <u>carrier-free</u> 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 <u>conjugation kits</u> 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<sup>®</sup> Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar<sup>®</sup> 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

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- Long-term security of supply
- Animal-free production

For more information see here.

#### **Properties**

Form Liquid

**Storage instructions** Shipped at 4°C. Store at +4°C. Do Not Freeze.

Storage buffer pH: 7.20

Constituent: 100% PBS

Carrier free Yes

Purity Protein A purified

**Clonality** Monoclonal

Clone number EPR15581-39

**Isotype** IgG1

#### **Applications**

The Abpromise guarantee Our <u>Abpromise guarantee</u> covers the use of ab283339 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		Use at an assay dependent concentration. Predicted molecular weight: 16 kDa.
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
IHC-Fr		Use at an assay dependent concentration.  Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20)
ICC/IF		Use at an assay dependent concentration.
Flow Cyt (Intra)		Use at an assay dependent concentration.

#### **Target**

**Function** Central component of the receptor complex responsible for the recognition and translocation of

cytosolically synthesized mitochondrial preproteins. Together with TOM22 functions as the transit

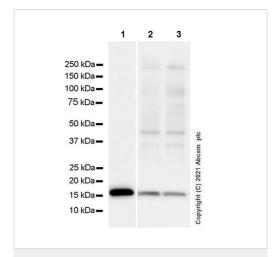
peptide receptor at the surface of the mitochondrion outer membrane and facilitates the

movement of preproteins into the TOM40 translocation pore.

**Sequence similarities** Belongs to the Tom20 family.

**Cellular localization** Mitochondrion outer membrane.

#### **Images**



Western blot - Anti-TOMM20 antibody [EPR15581-39] - Mouse IgG1 (Chimeric) - BSA and Azide free (ab283339)

**All lanes :** Anti-TOMM20 antibody [EPR15581-39] - Mouse lgG1 (Chimeric) (**ab283317**) at 1/1000 dilution

**Lane 1 :** HeLa (human cervix adenocarcinoma epithelial cell), whole cell lysate

Lane 2: NIH/3T3 (mouse embryonic fibroblast), whole cell lysate

Lane 3: C6 (rat glial tumor glial cell), whole cell lysate

Lysates/proteins at 20 µg per lane.

#### Secondary

**All lanes :** Peroxidase-Conjugated Goat anti-Mouse IgG (H+L) at 1/5000 dilution

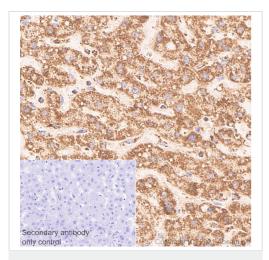
**Predicted band size:** 16 kDa **Observed band size:** 16 kDa

This data was developed using <u>ab283317</u> the same antibody clone in a different buffer formulation.

Blocking and diluting buffer: 5% NFDM/TBST

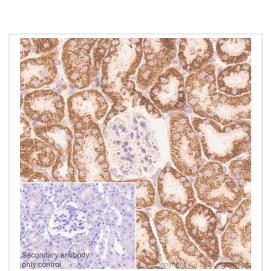
Exposure time: Lane 1: 70 seconds; Lane 2-3: 59 seconds

Lane 2-3 of this blot was developed using a higher sensitivity ECL substrate.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-TOMM20 antibody

[EPR15581-39] - Mouse IgG1 (Chimeric) - BSA and Azide free (ab283339)



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-TOMM20 antibody
[EPR15581-39] - Mouse IgG1 (Chimeric) - BSA and Azide free (ab283339)

This data was developed using <u>ab283317</u> the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of paraffin-embedded human liver tissue labeling TOMM20 with <u>ab283317</u> at 1/500 dilution (2.16 ug/ml) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Positive staining on human liver. The section was incubated with <u>ab283317</u> for 30 mins at room temperature and followed by mouse specific lgG antibody (<u>ab125913</u>) for 8 mins. Counterstained with Hematoxylin.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.

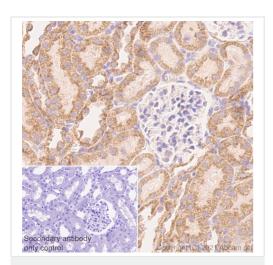
This data was developed using <u>ab283317</u> the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of paraffin-embedded mouse kidney tissue labeling TOMM20 with <u>ab283317</u> at 1/500 dilution (2.16 ug/ml) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Positive staining on mouse kidney. The section was incubated with <u>ab283317</u> for 30 mins at room temperature and followed by mouse specific lgG antibody (<u>ab125913</u>) for 8 mins.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-TOMM20 antibody
[EPR15581-39] - Mouse IgG1 (Chimeric) - BSA and Azide free (ab283339)

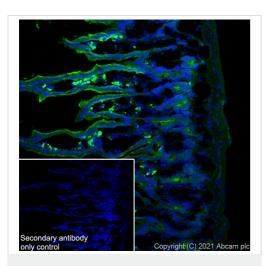
This data was developed using <u>ab283317</u> the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of paraffin-embedded rat kidney tissue labeling TOMM20 with <u>ab283317</u> at 1/500 dilution (2.16 ug/ml) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Positive staining on rat kidney. The section was incubated with <u>ab283317</u> for 30 mins at room temperature and followed by mouse specific IgG antibody (<u>ab125913</u>) for 8 mins.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.



Immunohistochemistry (Frozen sections) - Anti-TOMM20 antibody [EPR15581-39] - Mouse IgG1 (Chimeric) - BSA and Azide free (ab283339)

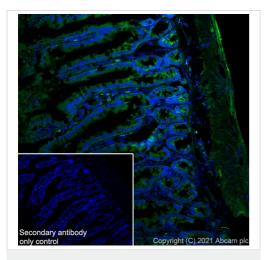
This data was developed using <u>ab283317</u> the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of 4% PFA fixed, 0.2% Triton X-100 permeabilised mouse small intestine labeling TOMM20 with <a href="mailto:ab283317">ab283317</a> at 1/500 dilution (2.16 ug/ml) followed by <a href="mailto:ab150113">ab150113</a> Goat Anti-Mouse IgG H&L (Alexa Fluor<sup>®</sup> 488) at 1/1000 dilution. Positive staining on mouse small intestine. Nuclear counterstain: DAPI.

The immunostaining was performed on a Leica Biosystems  $\mathsf{BOND}^{\circledR}\mathsf{RX}$  instrument.

Secondary antibody only control:  $\underline{ab150113}$  Goat Anti-Mouse IgG H&L (Alexa Fluor  $^{\circledR}$  488)

Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20)



Immunohistochemistry (Frozen sections) - Anti-TOMM20 antibody [EPR15581-39] - Mouse IgG1 (Chimeric) - BSA and Azide free (ab283339)

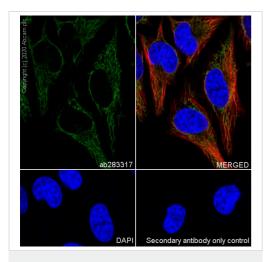
This data was developed using <u>ab283317</u> the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of 4% PFA fixed, 0.2% Triton X-100 permeabilised rat small intestine labeling TOMM20 with **ab283317** at 1/500 dilution (2.16 ug/ml) followed by **ab150113** Goat Anti-Mouse IgG H&L (Alexa Fluor<sup>®</sup> 488) at 1/1000 dilution. Positive staining on rat small intestine. Nuclear counterstain: DAPI.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument.

Secondary antibody only control:  $\underline{ab150113}$  Goat Anti-Mouse IgG H&L (Alexa Fluor<sup>®</sup> 488).

Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20)

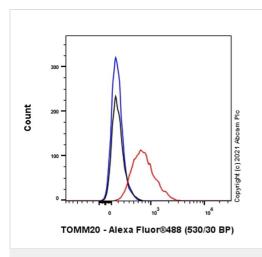


Immunocytochemistry/ Immunofluorescence - Anti-TOMM20 antibody [EPR15581-39] - Mouse IgG1 (Chimeric) - BSA and Azide free (ab283339)

This data was developed using <u>ab283317</u> the same antibody clone in a different buffer formulation.

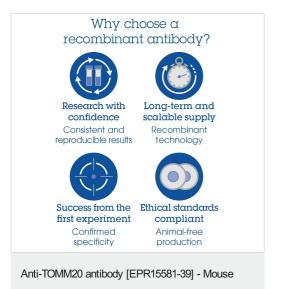
Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized HeLa (human cervix adenocarcinoma epithelial cell) cells labelling TOM/20 with ab283317 at 1/500 dilution (2.16 µg/ml), followed by ab150113 Goat Anti-Mouse IgG H&L (Alexa Fluor<sup>®</sup> 488) at 1/1000 dilution (Green). Confocal image showing cytoplasmic staining in HeLa cells. ab179513 Anti-beta Tubulin rabbit monoclonal antibody at 1/200 dilution was used to counterstain tubulin, followed by ab150080 Goat Anti-Rabbit IgG H&L (Alexa Fluor<sup>®</sup> 594) at 1/500 dilution (Red). The Nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is <u>ab150113</u> Goat Anti-Mouse IgG H&L (Alexa Fluor<sup>®</sup> 488) preadsorbed at 1/1000 dilution.



Flow Cytometry (Intracellular) - Anti-TOMM20 antibody [EPR15581-39] - Mouse IgG1 (Chimeric) -BSA and Azide free (ab283339) This data was developed using <u>ab283317</u> the same antibody clone in a different buffer formulation.

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized HeLa (Human cervix adenocarcinoma epithelial cell) cells labelling TOMM20 with <u>ab283317</u> at 1/1000 dilution (0.1 $\mu$ g) (Red) compared with a Mouse monoclonal lg (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat anti mouse lgG (Alexa Fluor 488, <u>ab150113</u>) at 1/2000 dilution was used as the secondary antibody.



IgG1 (Chimeric) - BSA and Azide free (ab283339)

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