abcam

ab56783

Anti-TOMM20 antibody [4F3] - BSA and Azide free

Anti-TOMM20 antibody [4F3] - BSA and Azide free (ab56783) is a mouse monoclonal antibody provided in a PBS only buffer for easy conjugation detecting TOMM20 in **Western Blot, Flow Cytometry, IP, IHC-P, ICC/IF**. Suitable for **Human, Mouse, Rat**.

- BSA, sodium azide, and glycerol-free for easy conjugation
- Over 240 publications
- Trusted since 2007

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	pH: 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	Recombinant Full Length Protein corresponding to Human TOMM20. Database link Q15388
Carrier free	Yes
Clone number	4F3
Purification technique	Affinity purification Protein A
Light chain type	kappa
Concentration	0.48 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Human
Dilution info	-
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Flow Cyt

Tested

Species	Human
Dilution info	-
Notes	ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

WB

Tested

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	-
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information TOMM20

Function	Central receptor component of the translocase of the outer membrane of mitochondria (TOM) complex essential for the recognition and translocation of cytosolically synthesized mitochondrial preproteins (PubMed:40080546). Together with TOMM22 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 (PubMed:18331822). The TOM complex associates with the ion channel VDAC2 and PINK1 kinase at depolarized mitochondria, this interaction stabilizes PINK1 at the outer mitochondrial membrane and triggers downstream mitophagy by the recruitment of the E3 ubiquitin ligase PRKN

(PubMed:40080546). Required for the translocation across the mitochondrial outer membrane of cytochrome P450 monooxygenases (By similarity).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

Product Specifications
Anti-TOMM20 antibody [4F3] - BSA and Azide free (ab56783) is a mouse monoclonal antibody provided in a carrier-free, conjugation ready format.
ab56783 is validated in Flow Cyt, ICC/IF, IHC-P, IP and WB in human, mouse and rat samples.
Carrier-free antibodies are compatible with our best-in-class range of Lightning-Link® conjugation kits.
Anti-TOMM20 antibody [4F3] - BSA and Azide free (ab56783) specifically detects TOMM20 (UniProt ID: Q15388; Molecular weight: 16kDa) and is sold in 100 µg selling sizes.

Quality and Validation
Antibody clone 4F3 has been cited over 241 times in peer reviewed journals and is trusted by the scientific community.
Anti-TOMM20 antibody [4F3] - BSA and Azide free (ab56783) has 22 independent reviews from customers.

This product was changed from ascites to tissue culture supernatant on 22 May 2019. Please note that the dilutions may need to be adjusted accordingly. If you have any questions, please do not hesitate to contact our scientific support team.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

We do not recommend this combination. It is not covered by our product promise.

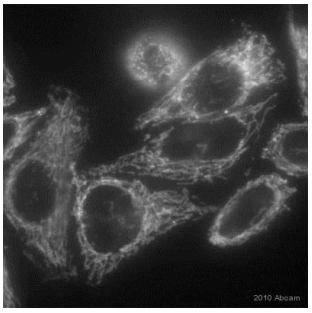
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

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6 product images

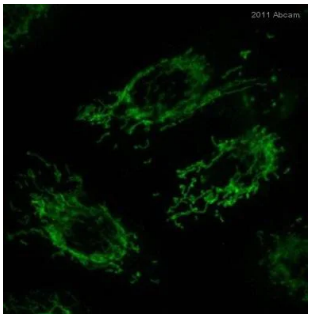


This image is courtesy of an anonymous customer review.

Immunocytochemistry/ Immunofluorescence - Anti-TOMM20 antibody [4F3] - BSA and Azide free (ab56783)

TOMM20 Immunocytochemistry/ Immunofluorescence staining using mouse Anti-TOMM20 antibody

ab56783 staining TOMM20 in HeLa cells by ICC/IF (Immunocytochemistry/immunofluorescence). Cells were fixed with formaldehyde, permeabilized with PBS + 0.1% Triton X-100 and blocked with PBS+ 0.5% BSA + 0.2% fish skin gelatin for 1 hour at 25°C. Samples were incubated with primary antibody (1/2000 in PBS + 1% BSA) for 24 hours at 4°C. An Alexa Fluor® 488-conjugated goat anti-mouse IgG polyclonal was used as the secondary antibody (1/500).
This image was generated using the ascites version of the product.

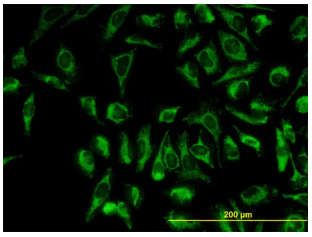


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Immunocytochemistry/ Immunofluorescence - Anti-TOMM20 antibody [4F3] - BSA and Azide free (ab56783)

TOMM20 Immunocytochemistry/ Immunofluorescence staining using mouse Anti-TOMM20 antibody

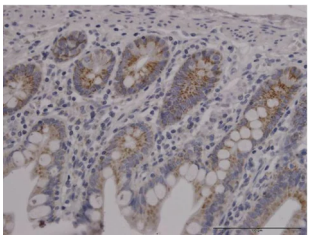
ab56783 staining TOMM20 in human keratinocytes by ICC/IF (Immunocytochemistry/immunofluorescence). Cells were fixed with acetone and blocked with 1% BSA for 1 hour at 24°C. Samples were incubated with primary antibody (1/2000 in PBS + 1% BSA) for 24 hours at 4°C. An Alexa Fluor® 488-conjugated goat anti-mouse IgG polyclonal was used as the secondary antibody (1/5000).
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Immunocytochemistry/ Immunofluorescence - Anti-TOMM20 antibody [4F3] - BSA and Azide free (ab56783)

TOMM20 Immunocytochemistry/ Immunofluorescence staining using mouse Anti-TOMM20 antibody

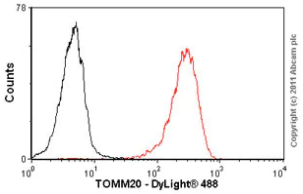
Immunocytochemistry/Immunofluorescence analysis of HeLa cells labelling TOMM20 with ab56783 at 10 µg/ml. Cells are fixed with 4% PFA and permeabilized on ice in PBS 0.1% Triton. Samples were incubated with primary antibody at 4ºC overnight and fluorscein- conjugated secondary antibody at 4ºC for 1 hour.
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Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TOMM20 antibody [4F3] - BSA and Azide free (ab56783)

TOMM20 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-TOMM20 antibody

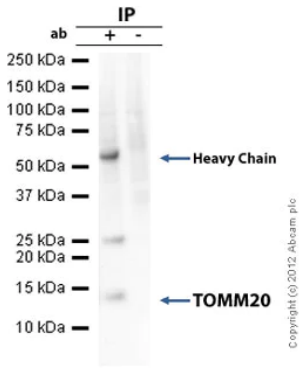
Paraffin embedded human small intestine tissue stained for TOMM20 using ab56783 at 3 µg/ml in immunohistochemical analysis.



Flow Cytometry - Anti-TOMM20 antibody [4F3] - BSA and Azide free (ab56783)

TOMM20 Flow Cytometry staining using mouse Anti-TOMM20 antibody

Overlay histogram showing HeLa cells stained with ab56783 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab56783, 1 µg/1x10^6 cells) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (ab96879) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was a mix of mouse IgG1 [ICIGG1], (ab91353, 2µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a positive signal in HeLa cells fixed with 4%PFA/permeabilized in 0.1% PBS-Tween used under the same conditions.
This image was generated using the ascites version of the product.



Immunoprecipitation - Anti-TOMM20 antibody [4F3] - BSA and Azide free (ab56783)

TOMM20 was immunoprecipitated using 0.5 mg HepG2 whole cell extract, 5 µg of Mouse monoclonal to TOMM20 (ab56783) and 50 µl of protein G magnetic beads (+). No antibody was added to the control (-).
The antibody was incubated under agitation with Protein G beads for 10 min, HepG2 whole cell extract lysate diluted in RIPA buffer was added to each sample and incubated for a further 10 min under agitation.
Proteins were eluted by addition of 40 µl SDS loading buffer and incubated for 10 min at 70°C; 10 µl of each sample was separated on a SDS PAGE gel, transferred to a nitrocellulose membrane, blocked with 5% BSA and probed with ab56783.
Secondary: Protein G-HRP at 1/500 dilution.
Band: 14kDa: TOMM20. Non specific - 25kDa: We are unsure as to the identity of this extra band.

This image was generated using the ascites version of the product.
All lanes:
Immunoprecipitation - Anti-TOMM20 antibody [4F3] - BSA and Azide free (ab56783)

Predicted band size: 16 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.