abcam

Product datasheet

Anti-TOM70 antibody [EPR26576-162] - BSA and Azide free ab290002

KO VALIDATED Recombinant RabMAb

17 Images

Overview

Product name	Anti-TOM70 antibody [EPR26576-162] - BSA and Azide free
Description	Rabbit monoclonal [EPR26576-162] to TOM70 - BSA and Azide free
Host species	Rabbit
Specificity	This antibody does not react with Mouse and Rat species for IHC
Tested applications	**Suitable for:** ICC/IF, Flow Cyt (Intra), WB, IHC-P, IP
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: NIH/3T3, C6, HepG2, HeLa and U-2 OS whole cell lysates; Mouse brain and liver tissue lysates; Rat brain, liver and breast tissue lysates. IHC-P: Human colon, esophagus, breast cancer and cerebrum tissues. ICC/IF: U-2 OS, NIH/3T3 and C6 cells. Flow Cyt: U-2 OS, NIH/3T3 and C6 cells. IP: C6, NIH/3T3 and HeLa whole cell lysates.
General notes	ab290002 is the carrier-free version of **ab289977**. Our **carrier-free** 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 **conjugation kits** 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® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® 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 - Long-term security of supply - Animal-free production

For more information **see here**.

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C.
Storage buffer	pH: 7.20 Constituent: 100% PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR26576-162
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab290002 in the following tested applications.

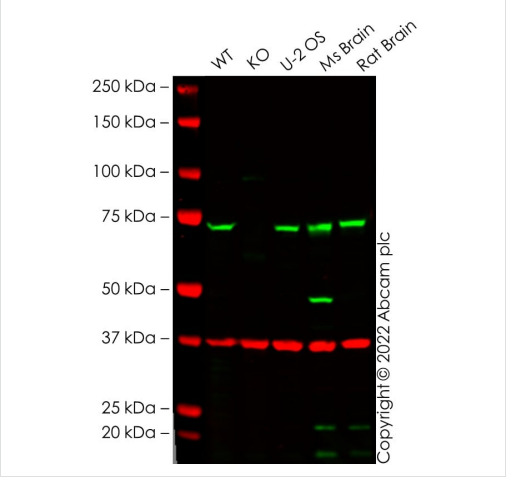
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF		Use at an assay dependent concentration.
Flow Cyt (Intra)		Use at an assay dependent concentration.
WB		Use at an assay dependent concentration. Detects a band of approximately 70 kDa (predicted molecular weight: 67 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. Only suitable for Human.
IP		Use at an assay dependent concentration.

Target

Function	Receptor that accelerates the import of all mitochondrial precursor proteins.
Sequence similarities	Belongs to the Tom70 family. Contains 10 TPR repeats.
Cellular localization	Mitochondrion outer membrane.

Images



Western blot - Anti-TOM70 antibody [EPR26576-162] - BSA and Azide free (ab290002)

All lanes : Anti-TOM70 antibody [EPR26576-162] (**ab289977**) at 1/1000 dilution

Lane 1 : Wild-type HeLa cell lysate
Lane 2 : TOM70 knockout HeLa cell lysate
Lane 3 : U-2 OS cell lysate
Lane 4 : Mouse Brain cell lysate
Lane 5 : Rat Brain cell lysate

Lysates/proteins at 20 µg per lane.

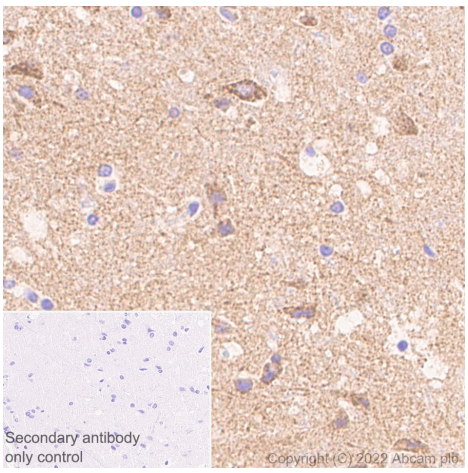
Secondary
All lanes : Goat anti-Rabbit IgG H&L 800CW and Goat anti-Mouse IgG H&L 680RD at 1/20000 dilution

Performed under reducing conditions.

Predicted band size: 67 kDa
Observed band size: 72 kDa

False colour image of Western blot: Anti-TOM70 antibody [EPR26576-162] staining at 1/1000 dilution, shown in green; Mouse anti-GAPDH antibody [6C5] (**ab8245**) loading control staining at 1/20000 dilution, shown in red. In Western blot, **ab289977** was shown to bind specifically to TOM70. A band was observed at 72 kDa in wild-type HeLa cell lysates with no signal observed at this size in TOMM70 knockout cell line **ab265396** (knockout cell lysate **ab258732**). To generate this image, wild-type and TOMM70 knockout HeLa cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 3 % milk in TBS-0.1 % Tween® 20 (TBS-T) before incubation with primary antibodies overnight at 4 °C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit IgG H&L 800CW and Goat anti-Mouse IgG H&L 680RD at 1/20000 dilution.

This data was developed using **ab289977**, the same antibody clone in a different buffer formulation.



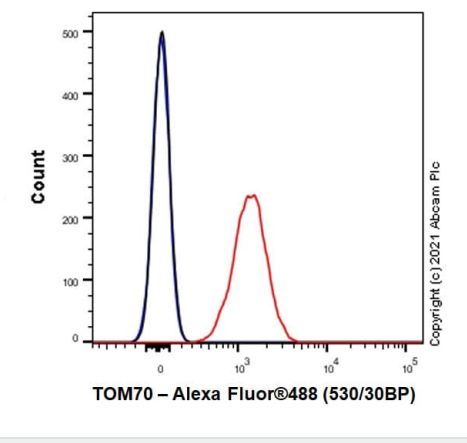
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TOM70 antibody [EPR26576-162] - BSA and Azide free (ab290002)

This data was developed using **ab289977**, the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of paraffin-embedded Human cerebrum tissue labelling TOM70 with **ab289977** at 1/2000 dilution followed by Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). Positive staining on human cerebrum. The section was incubated with **ab289977** for 10 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**).

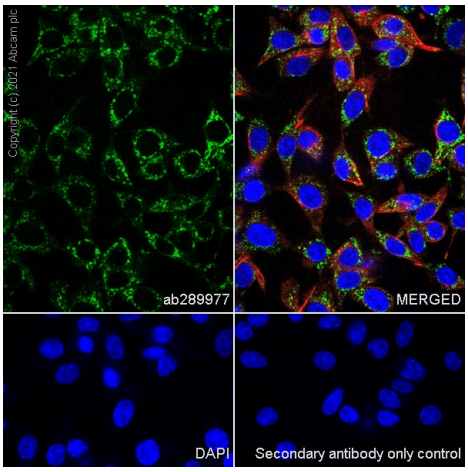
Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 10 mins.



Flow Cytometry (Intracellular) - Anti-TOM70 antibody [EPR26576-162] - BSA and Azide free (ab290002)

This data was developed using **ab289977**, the same antibody clone in a different buffer formulation.

Flow cytometric analysis of 4% paraformaldehyde fixed, 90% methanol permeabilized C6 (rat glial tumor glial cell) cells labelling TOM70 with **ab289977** at 1/500 dilution (0.1µg) (Red) (Red) compared with a Rabbit monoclonal IgG (**ab172730**) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat Anti-Rabbit IgG (Alexa Fluor® 488, **ab150081**) at 1/2000 dilution was used as the secondary antibody.

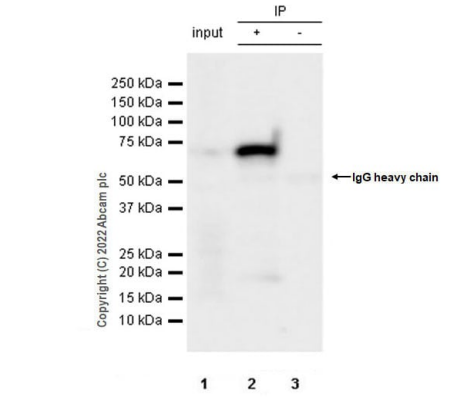


Immunocytochemistry/ Immunofluorescence - Anti-TOM70 antibody [EPR26576-162] - BSA and Azide free (ab290002)

This data was developed using **ab289977**, the same antibody clone in a different buffer formulation.

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized C6 cells labeling TOM70 with **ab289977** at 1/100 dilution, followed by **ab150081** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 dilution (Green). Confocal image showing cytoplasmic staining in C6 cell line. **ab195889** Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 dilution (Red). The Nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is **ab150081** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution.



Immunoprecipitation - Anti-TOM70 antibody [EPR26576-162] - BSA and Azide free (ab290002)

This data was developed using **ab289977**, the same antibody clone in a different buffer formulation.

TOM70 was immunoprecipitated from C6 (rat glial tumor glial cell) whole cell lysate with **ab289977** at 1/30 dilution (2µg in 0.35mg lysates). Western blot was performed on the immunoprecipitate using **ab289977** at 1/1000 dilution. VeriBlot for IP secondary antibody(HRP)(**ab131366**) was used at 1/5000 dilution.

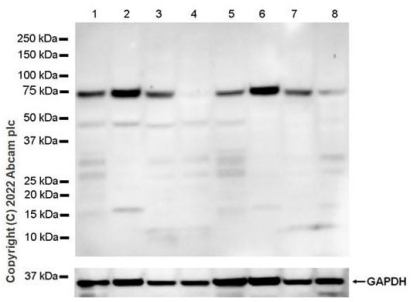
Lane 1: C6 (rat glial tumor glial cell) whole cell lysate 10 µg

Lane 2: **ab289977** IP in C6 whole cell lysate

Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of **ab289977** in C6 whole cell lysate

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

Exposure time: 3.25 seconds



Western blot - Anti-TOM70 antibody [EPR26576-162] - BSA and Azide free (ab290002)

All lanes : Anti-TOM70 antibody [EPR26576-162] (**ab289977**) at 1/1000 dilution

Lane 1 : NIH/3T3 (mouse embryonic fibroblast) whole cell lysate
Lane 2 : Mouse brain tissue lysate
Lane 3 : Mouse liver tissue lysate
Lane 4 : Mouse breast tissue lysate
Lane 5 : C6 (rat glial tumor glial cell) whole cell lysate
Lane 6 : Rat brain tissue lysate
Lane 7 : Rat liver tissue lysate
Lane 8 : Rat breast tissue lysate

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (**ab97051**) at 1/100000 dilution

Predicted band size: 67 kDa
Observed band size: 70 kDa

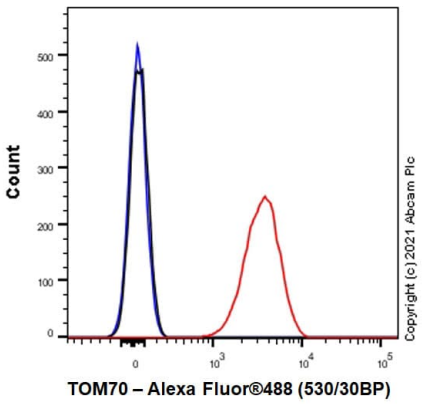
This data was developed using 289977, the same antibody clone in a different buffer formulation.

Blocking and diluting buffer and concentration: 5% NFDM/TBST

The expression profile/molecular weight observed is consistent with that described in the literature (PMID: 32356556)

Low expression: Breast (human protein atlas: https://www.proteinatlas.org/ENSG00000154174-TOMM70)

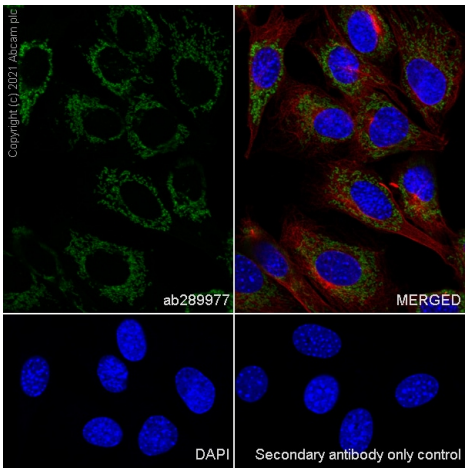
Exposure time: 15 seconds



Flow Cytometry (Intracellular) - Anti-TOM70 antibody [EPR26576-162] - BSA and Azide free (ab290002)

This data was developed using **ab289977**, the same antibody clone in a different buffer formulation.

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol, permeabilized NIH/3T3 (Mouse embryonic fibroblast) cells labelling TOM70 with **ab289977** at 1/500 dilution (0.1µg) (Red) (Red) compared with a Rabbit monoclonal IgG (**ab172730**) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat Anti-Rabbit IgG (Alexa Fluor® 488, **ab150081**) at 1/2000 dilution was used as the secondary antibody.

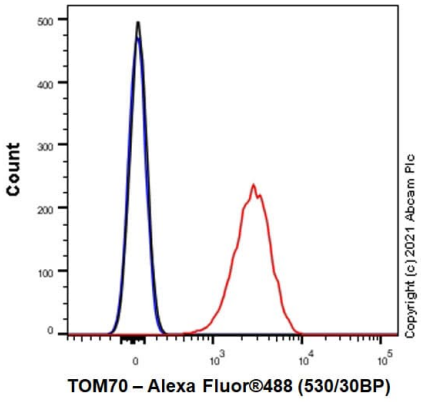


Immunocytochemistry/ Immunofluorescence - Anti-TOM70 antibody [EPR26576-162] - BSA and Azide free (ab290002)

This data was developed using **ab289977**, the same antibody clone in a different buffer formulation.

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized NIH/3T3 cells labeling TOM70 with **ab289977** at 1/100 dilution, followed by **ab150081** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 (2 µg/ml) dilution (Green). Confocal image showing cytoplasmic staining in NIH/3T3 cell line is observed. **ab195889** Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 dilution (Red). The Nuclear counterstain was DAPI (Blue).

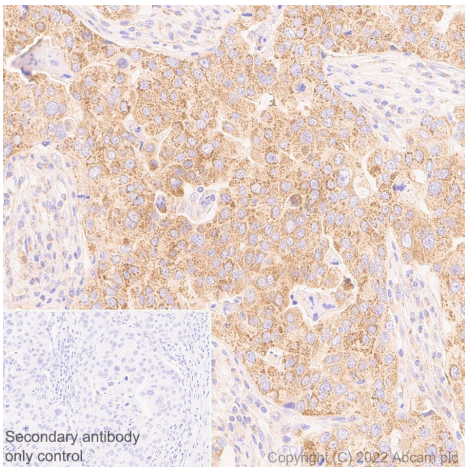
Secondary antibody only control: Secondary antibody is **ab150081** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution.



Flow Cytometry (Intracellular) - Anti-TOM70 antibody [EPR26576-162] - BSA and Azide free (ab290002)

This data was developed using **ab289977**, the same antibody clone in a different buffer formulation.

Intracellular flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol, permeabilized U-2 OS (human bone osteosarcoma epithelial cell) cells labelling TOM70 with **ab289977** at 1/500 dilution (0.1µg) (Red) (Red) compared with a Rabbit monoclonal IgG (**ab172730**) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat Anti-Rabbit IgG (Alexa Fluor® 488, **ab150081**) at 1/2000 dilution was used as the secondary antibody.



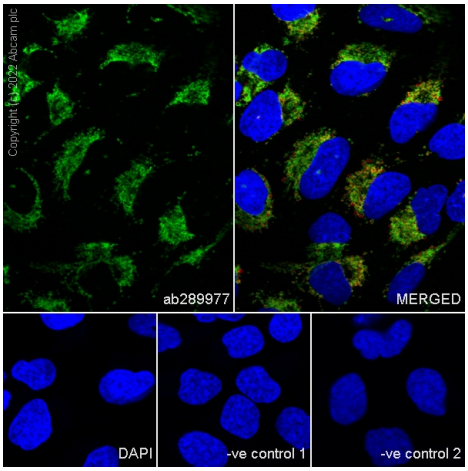
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TOM70 antibody [EPR26576-162] - BSA and Azide free (ab290002)

This data was developed using **ab289977**, the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of paraffin-embedded Human breast cancer tissue labelling TOM70 with **ab289977** at 1/2000 dilution followed by Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). Positive staining on human breast cancer. The section was incubated with **ab289977** for 10 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 10 mins

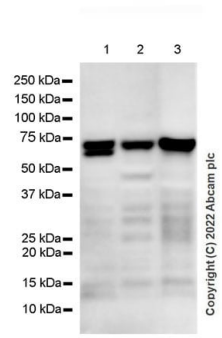


Immunocytochemistry/ Immunofluorescence - Anti-TOM70 antibody [EPR26576-162] - BSA and Azide free (ab290002)

This data was developed using **ab289977**, the same antibody clone in a different buffer formulation.

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized U-2 OS cells labeling TOM70 with **ab289977** at 1/100 dilution, followed by **ab150081** Goat Anti-Rbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 dilution (Green). Confocal image showing mitochondrial staining in U-2 OS cell line. **ab33985** Anti-COX IV mouse monoclonal antibody - Mitochondrial Marker was used at 1/1000 dilution (Red). The Nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is **ab150081** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution.



Western blot - Anti-TOM70 antibody [EPR26576-162] - BSA and Azide free (ab290002)

All lanes : Anti-TOM70 antibody [EPR26576-162] (**ab289977**) at 1/1000 dilution

Lane 1 : HepG2 (human hepatocellular carcinoma epithelial cell) whole cell lysate
Lane 2 : HeLa (human cervix adenocarcinoma epithelial cell) whole cell lysate
Lane 3 : U-2 OS (human bone osteosarcoma 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

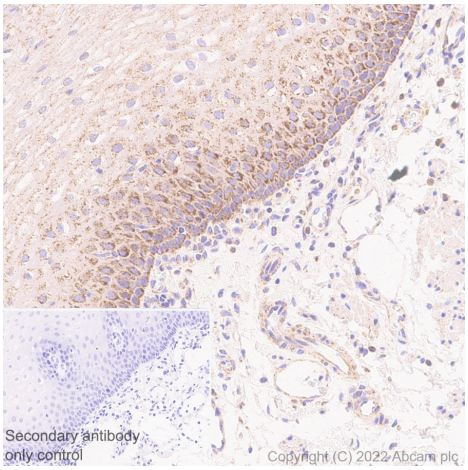
Predicted band size: 67 kDa
Observed band size: 70 kDa

This data was developed using 289977, the same antibody clone in a different buffer formulation.

Blocking and diluting buffer and concentration: 5% NFDM/TBST

The expression profile/molecular weight observed is consistent with that described in the literature (PMID: 31907385, PMID:11956321).

Exposure time: 3.25 seconds



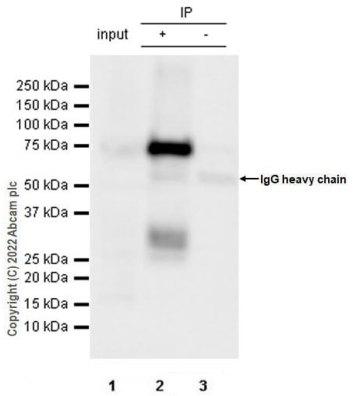
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TOM70 antibody [EPR26576-162] - BSA and Azide free (ab290002)

This data was developed using **ab289977**, the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of paraffin-embedded Human esophagus tissue labelling TOM70 with **ab289977** at 1/2000 dilution followed by Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). Positive staining on human esophagus. The section was incubated with **ab289977** for 10 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 10 mins



Immunoprecipitation - Anti-TOM70 antibody [EPR26576-162] - BSA and Azide free (ab290002)

This data was developed using **ab289977**, the same antibody clone in a different buffer formµlation.

TOM70 was immunoprecipitated from 0.35 mg HeLa (human cervix adenocarcinoma epithelial cell) whole cell lysate 10 µg with ab290002 at 1/30 dilution (2µg in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab290002 at 1/1000 dilution. VeriBlot for IP secondary antibody(HRP) (**ab131366**) was used at 1/5000 dilution.

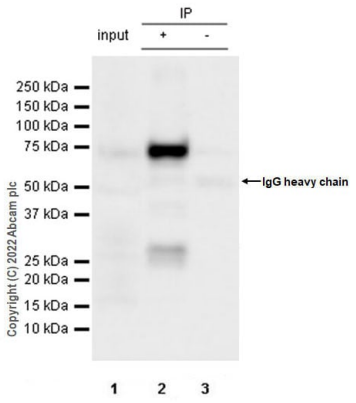
Lane 1: HeLa (human cervix adenocarcinoma epithelial cell) whole cell lysate 10 µg

Lane 2: **ab289977** IP in HeLa whole cell lysate

Lane 3:Rabbit monoclonal IgG (**ab172730**) instead of **ab289977** in HeLa whole cell lysate

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

Exposure time: 3.25 seconds



Immunoprecipitation - Anti-TOM70 antibody [EPR26576-162] - BSA and Azide free (ab290002)

This data was developed using **ab289977**, the same antibody clone in a different buffer formulation.

TOM70 was immunoprecipitated from NIH/3T3 (mouse embryonic fibroblast) whole cell lysate with **ab289977** at 1/30 dilution (2µg in 0.35mg lysates). Western blot was performed on the immunoprecipitate using **ab289977** at 1/1000 dilution. VeriBlot for IP secondary antibody(HRP)(**ab131366**) was used at 1/5000 dilution.

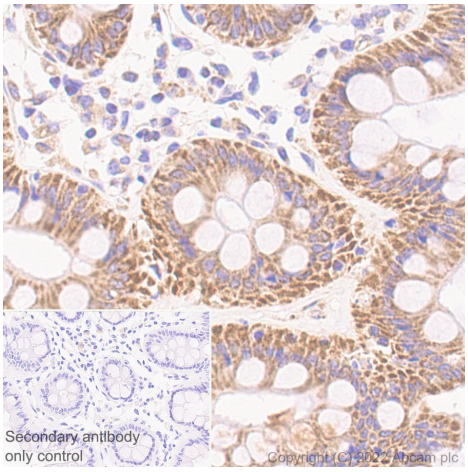
Lane 1: NIH/3T3 (mouse embryonic fibroblast) whole cell lysate 10 µg

Lane 2: **ab289977** IP in NIH/3T3 whole cell lysate

Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of **ab289977** in NIH/3T3 whole cell lysate

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

Exposure time: 3.25 seconds



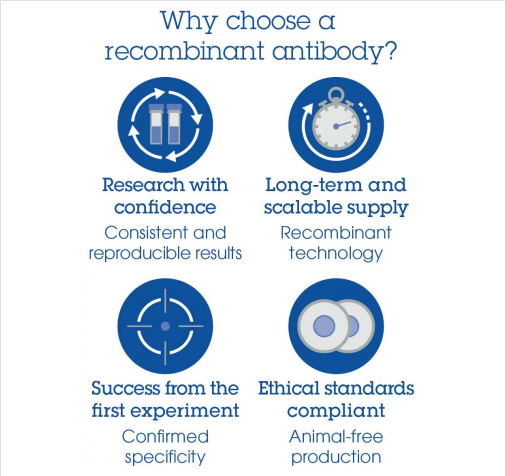
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TOM70 antibody [EPR26576-162] - BSA and Azide free (ab290002)

This data was developed using **ab289977**, the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of paraffin-embedded Human colon tissue labelling TOM70 with **ab289977** at 1/2000 dilution followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). Positive staining on human colon. The section was incubated with **ab289977** for 10 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 10 mins



Anti-TOM70 antibody [EPR26576-162] - BSA and Azide free (ab290002)

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