abcam

Product datasheet

Anti-TROP2 antibody [EPR20043] - Low endotoxin, Azide free ab222935

Recombinant RabMAb

10 Images

Overview

Product name	Anti-TROP2 antibody [EPR20043] - Low endotoxin, Azide free
Description	Rabbit monoclonal [EPR20043] to TROP2 - Low endotoxin, Azide free
Host species	Rabbit
Tested applications	**Suitable for:** Flow Cyt (Intra), WB, IHC-P, ICC/IF
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: HCT 116, PC-3 and MCF7 whole cell lysates; human breast cancer, skin, placenta and prostate cancer lysates, Mouse and rat skin and lung lysate, mouse kidney lysate. IHC-P: Human skin, breast and cervix cancer tissues; mouse and rat skin tissues. ICC/IF: MCF7 and HCT 116 cells. Flow Cyt (intra): MCF7 cells.
General notes	ab222935 is the carrier-free version of **ab214488**. 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**.

Our **Low endotoxin, azide-free formats** have low endotoxin level (≤ 1 EU/ml, determined by the LAL assay) and are free from azide, to achieve consistent experimental results in functional assays.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR20043
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab222935 in the following tested applications.

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

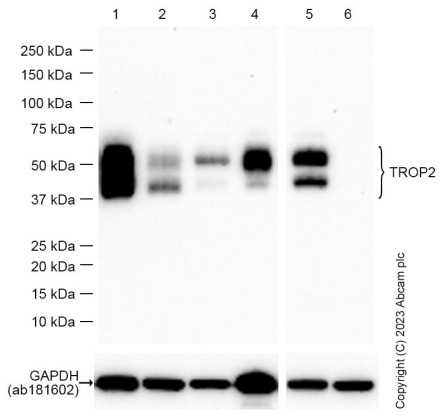
Application	Abreviews	Notes
Flow Cyt (Intra)		Use at an assay dependent concentration. **ab199376** - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
WB		Use at an assay dependent concentration. Detects a band of approximately 37-50 kDa (predicted molecular weight: 36 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. **ab214488** is recommended for mouse and rat in IHC
ICC/IF		Use at an assay dependent concentration.

Target

Function	May function as a growth factor receptor.
Tissue specificity	Placenta, pancreatic carcinoma cell lines.
Involvement in disease	Defects in TACSTD2 are the cause of gelatinous drop-like corneal dystrophy (GDLD) [MIM:204870]; also known as lattice corneal dystrophy type III. GDLD is an autosomal recessive disorder characterized by grayish corneal amyloid deposits that cause severe visual impairment.

Sequence similarities	Belongs to the EPCAM family. Contains 1 thyroglobulin type-1 domain.
Post-translational modifications	The N-terminus is blocked.
Cellular localization	Membrane.

Images



Western blot - Anti-TROP2 antibody [EPR20043] - Low endotoxin, Azide free (ab222935)

All lanes : Anti-TROP2 antibody [EPR20043] (**ab214488**) at 1/2000 dilution

Lane 1 : Mouse skin lysate at 20 µg
Lane 2 : Mouse kidney lysate at 20 µg
Lane 3 : Mouse lung lysate at 20 µg
Lane 4 : Rat skin lysate at 20 µg
Lane 5 : Rat lung lysate at 20 µg
Lane 6 : A549 (Human lung carcinoma epithelial cell) whole cell lysate

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000 dilution

Predicted band size: 36 kDa

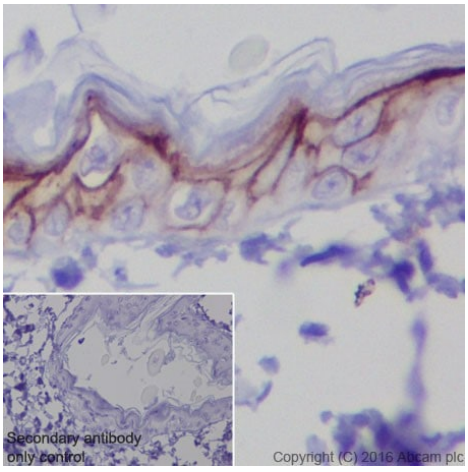
Exposure time: 60 seconds

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab214488**).

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

ab181602 was used as a GAPDH loading control.

Negative sample: A549 (PMID: 22419550).
TROP2 is highly glycosylated and appears as band around 37-50kDa.The molecular weight observed is consistent with what has been described in the literature (PMID: 23070813).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TROP2 antibody [EPR20043] - Low endotoxin, Azide free (ab222935)

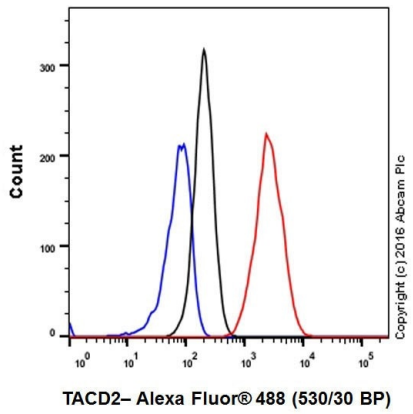
Immunohistochemical analysis of paraffin-embedded rat skin tissue labeling TACD2 with **ab214488** at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) at 1/500 dilution.

Membrane staining on the squamous epithelium of rat skin is observed.

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) at 1/500 dilution.

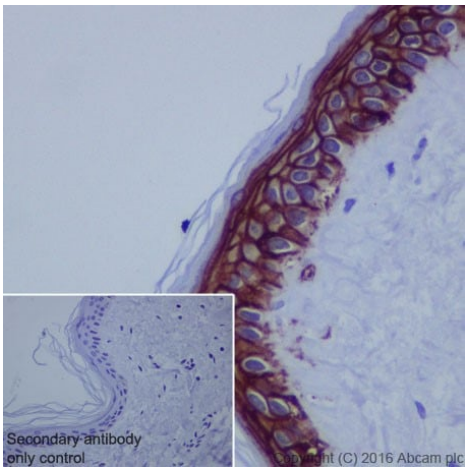
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab214488**).



Flow Cytometry (Intracellular) - Anti-TROP2 antibody [EPR20043] - Low endotoxin, Azide free (ab222935)

Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed MCF7 (Human breast adenocarcinoma cell line) cells labeling TROP2 with **ab214488** at 1/60 dilution (red) compared with aRabbit IgG, monoclonal [EPR25A] - Isotype Control (**ab172730**; black) and an unlabelled control (cells without incubation with primary antibody and secondary antibody; blue). Goat anti rabbit IgG (Alexa Fluor® 488) at 1/2000 dilution was used as the secondary antibody.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab214488**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TROP2 antibody [EPR20043] - Low endotoxin, Azide free (ab222935)

Immunohistochemical analysis of paraffin-embedded human skin tissue labeling TROP2 with **ab214488** at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) at 1/500 dilution.

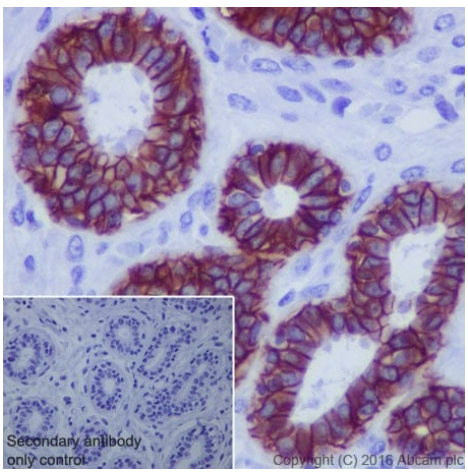
Membrane staining on the squamous epithelium of human skin is observed.

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) at 1/500 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab214488**).

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TROP2 antibody [EPR20043] - Low endotoxin, Azide free (ab222935)

Immunohistochemical analysis of paraffin-embedded human breast tissue labeling TROP2 with **ab214488** at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) at 1/500 dilution.

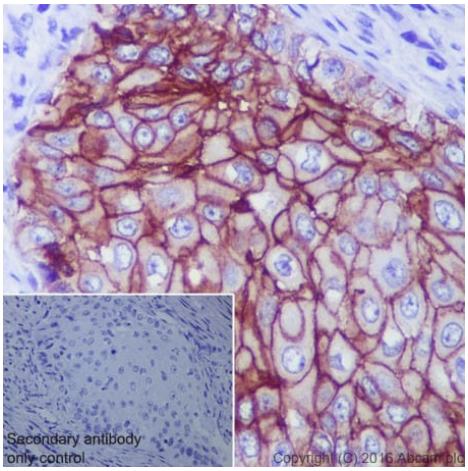
Membrane staining on the duct epithelium of human breast is observed.

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) at 1/500 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab214488**).

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TROP2 antibody [EPR20043] - Low endotoxin, Azide free (ab222935)

Immunohistochemical analysis of paraffin-embedded human cervix cancer tissue labeling TROP2 with **ab214488** at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) at 1/500 dilution.

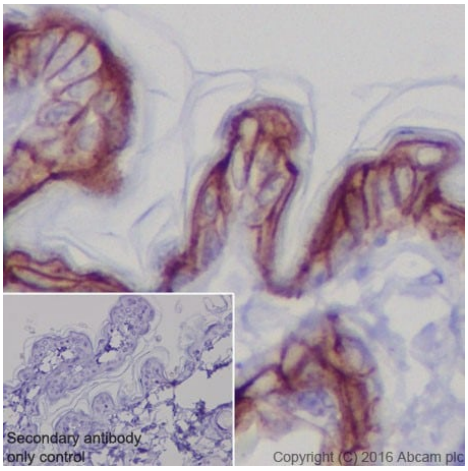
Membrane staining on the tumor cells of human cervix cancer is observed.

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) at 1/500 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab214488**).

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TROP2 antibody [EPR20043] - Low endotoxin, Azide free (ab222935)

Immunohistochemical analysis of paraffin-embedded mouse skin tissue labeling TROP2 with **ab214488** at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) at 1/500 dilution.

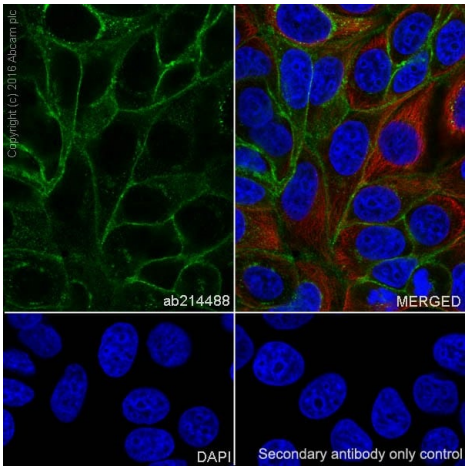
Membrane staining on the squamous epithelium of mouse skin is observed.

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) at 1/500 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab214488**).

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-TROP2 antibody [EPR20043] - Low endotoxin, Azide free (ab222935)

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized MCF7 (Human breast adenocarcinoma cell line) cells labeling TROP2 with **ab214488** at 1/100 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/1000 dilution (green).

Confocal image showing membrane and weakly cytoplasmic staining on MCF7 cell line.

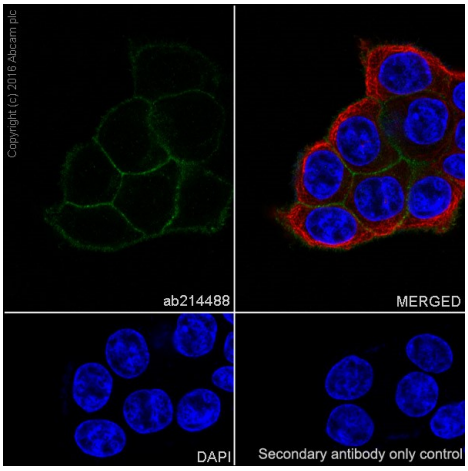
The nuclear counterstain is DAPI (blue).

Tubulin is detected with Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) (**ab195889**) at 1/200 dilution (red).

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (**ab150077**) at 1/1000 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab214488**).

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-TROP2 antibody [EPR20043] - Low endotoxin, Azide free (ab222935)

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HCT 116 (Human colorectal carcinoma cell line) cells labeling TROP2 with **ab214488** at 1/100 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/1000 dilution (green).

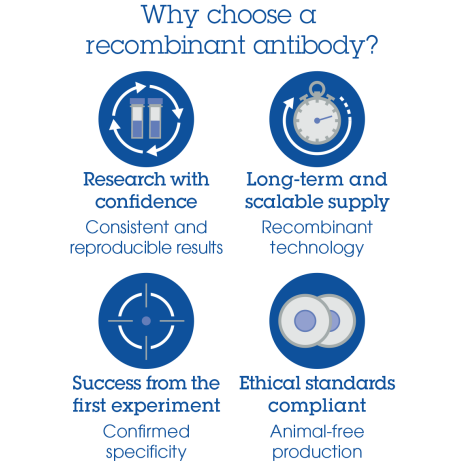
Confocal image showing membrane staining on HCT 116 cell line.

The nuclear counterstain is DAPI (blue).

Tubulin is detected with Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) (**ab195889**) at 1/200 dilution (red).

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG (Alexa Fluor® 488) (**ab150077**) at 1/1000 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab214488**).



Anti-TROP2 antibody [EPR20043] - Low endotoxin, Azide free (ab222935)

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