abcam

Product datasheet

Anti-TREX1 antibody [EPR14985] ab185228

KO VALIDATED Recombinant RabMAb

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Overview

Product name	Anti-TREX1 antibody [EPR14985]
Description	Rabbit monoclonal [EPR14985] to TREX1
Host species	Rabbit
Tested applications	**Suitable for:** ICC/IF, WB, IHC-P
Species reactivity	**Reacts with:** Human
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: A549, Raji, Daudi and HeLa whole cell lysate (**ab150035**). IHC-P: Human colon and adenocarcinoma of colon tissue. ICC: HeLa cells.
General notes	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 short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 40% Glycerol, PBS, 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR14985
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab185228 in the following tested applications.

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

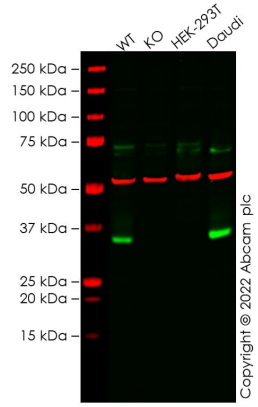
Application	Abreviews	Notes
ICC/IF		1/200 - 1/250.
WB		1/1000 - 1/10000. Detects a band of approximately 33 kDa (predicted molecular weight: 39 kDa).
IHC-P		1/50 - 1/100. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Target

Relevance TREX1 is the major 3'->5' DNA exonuclease in human cells. The protein is a non processive exonuclease that may serve a proofreading function for a human DNA polymerase. It is also a component of the SET complex, and acts to rapidly degrade 3' ends of nicked DNA during granzyme A mediated cell death. Mutations in this gene result in Aicardi Goutieres syndrome, chilblain lupus, and Cree encephalitis. Multiple transcript variants encoding different isoforms have been found for this gene.

Cellular localization Cytoplasmic, Endoplasmic reticulum and Nuclear

Images



Western blot - Anti-TREX1 antibody [EPR14985] (ab185228)

All lanes : Anti-TREX1 antibody [EPR14985] (ab185228) at 1/1000 dilution

Lane 1 : Wild-type A549 cell lysate
Lane 2 : TREX1 knockout A549 cell lysate
Lane 3 : HEK-293T cell lysate
Lane 4 : Daudi cell lysate

Lysates/proteins at 20 µg per lane.

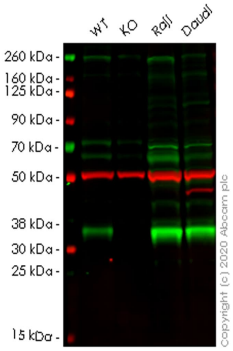
Secondary
All lanes : Goat anti-Rabbit IgG H&L 800CW and Goat anti-Mouse IgG H&L 680RD at 1/20000 dilution

Performed under reducing conditions.

Predicted band size: 39 kDa

Observed band size: 33 kDa

False colour image of Western blot: Anti-TREX1 antibody [EPR14985] staining at 1/1000 dilution, shown in green; Mouse anti-Alpha Tubulin [DM1A] (**ab7291**) loading control staining at 1/20000 dilution, shown in red. In Western blot, ab185228 was shown to bind specifically to TREX1. A band was observed at 33 kDa in wild-type A549 cell lysates with no signal observed at this size in TREX1 knockout cell line **ab266926** (knockout cell lysate **ab257763**). To generate this image, wild-type and TREX1 knockout A549 cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 5 % 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.



Western blot - Anti-TREX1 antibody [EPR14985] (ab185228)

All lanes : Anti-TREX1 antibody [EPR14985] (ab185228) at 1/1000 dilution

Lane 1 : Wild-type A549 cell lysate
Lane 2 : TREX1 knockout A549 cell lysate
Lane 3 : Raji cell lysate
Lane 4 : Daudi cell lysate

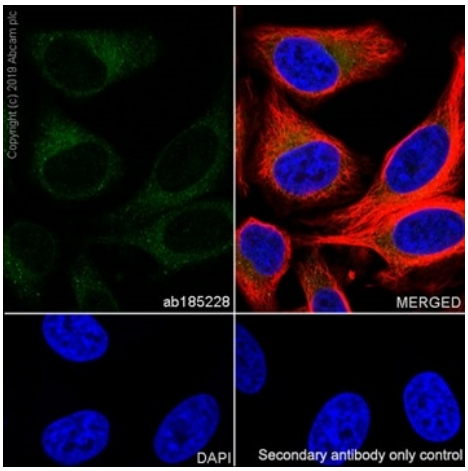
Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (**ab216773**) at 1/10000 dilution

Predicted band size: 39 kDa
Observed band size: 34 kDa

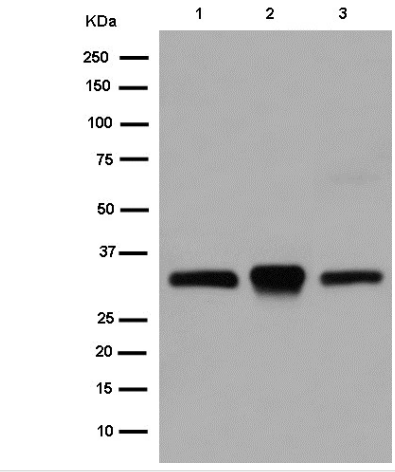
Lanes 1-4: Merged signal (red and green). Green - ab185228 observed at 34 kDa. Red - loading control **ab7291** observed at 50 kDa.

ab185228 Anti-TREX1 antibody [EPR14985] was shown to specifically react with TREX1 in wild-type A549 cells. Loss of signal was observed when knockout cell line **ab266927** (knockout cell lysate **ab257764**) was used. Wild-type and TREX1 knockout samples were subjected to SDS-PAGE. ab185228 and Anti-alpha Tubulin antibody [DM1A] - Loading Control (**ab7291**) were incubated overnight at 4°C at 1 in 1000 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (**ab216776**) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.



Immunocytochemistry/ Immunofluorescence - Anti-TREX1 antibody [EPR14985] (ab185228)

Confocal image showing cytoplasmic and weak nuclear staining in HeLa (human cervix adenocarcinoma epithelial cell) cells. Cells were fixed in 4% paraformaldehyde and permeabilised with 0.1% TritonX-100. The primary anti-TREX1 antibody, ab185228, was used at a 1:200 dilution (10 µg/ml). An AlexaFluor®488 Goat anti-Rabbit secondary (**ab150077**) was used at a 1:1000 dilution (2 µg/ml) (green). An anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) **(ab195889**) was used as a counterstain at a 1:200 dilution (2.5 µg/ml) (red). DAPI (blue) was used as a nuclear counterstain. A secondary antibody only control was also performed.



Western blot - Anti-TREX1 antibody [EPR14985] (ab185228)

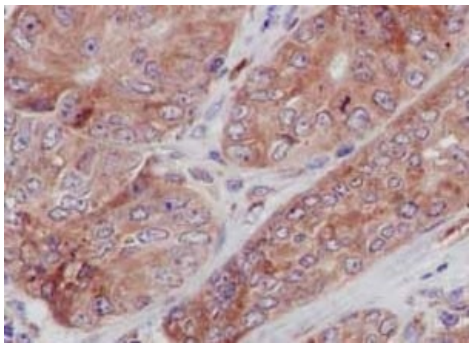
All lanes : Anti-TREX1 antibody [EPR14985] (ab185228) at 1/10000 dilution

Lane 1 : Raji cell lysate
Lane 2 : Daudi cell lysate
Lane 3 : HeLa cell lysate

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

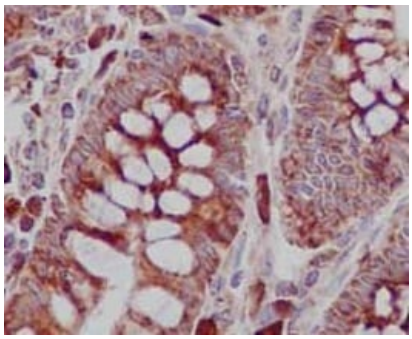
Predicted band size: 39 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TREX1 antibody [EPR14985] (ab185228)

Immunohistochemical analysis of paraffin embedded human colon adenocarcinoma tissue sections labeling TREX1 using ab185228 at a 1/100 dilution. Hematoxylin counterstain.

Perform heat mediated antigen retrieval with EDTA buffer pH 9 before commencing with IHC staining protocol.



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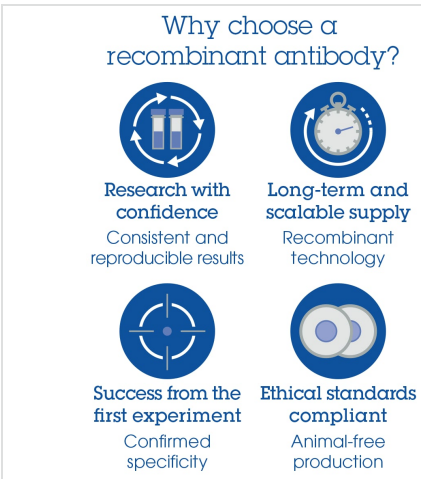

Anti-TREX1 antibody [EPR14985] (ab185228)

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