

## Product datasheet

# Anti-mtTFA antibody [EPR12285] - Mitochondrial Marker ab176558

Recombinant RabMAb

★★★★★ [1 Abreviews](#) [19 References](#) [10 Images](#)

### Overview

<b>Product name</b>	Anti-mtTFA antibody [EPR12285] - Mitochondrial Marker
<b>Description</b>	Rabbit monoclonal [EPR12285] to mtTFA - Mitochondrial Marker
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> IHC-P, WB, ICC/IF, IP
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Synthetic peptide within Human mtTFA aa 50-150 (Cysteine residue). The exact sequence is proprietary. Database link: <a href="#">Q00059</a>
<b>Positive control</b>	HeLa, A431, MCF7 and 293T cell lysates; Human kidney and prostate tissues; MCF7 cells.
<b>General notes</b>	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a>.</p> <p>Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.</p>

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	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.
<b>Storage buffer</b>	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 50% Glycerol (glycerin, glycerine), 49% PBS, 0.05% BSA

<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR12285
<b>Isotype</b>	IgG

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab176558 in the following tested applications.

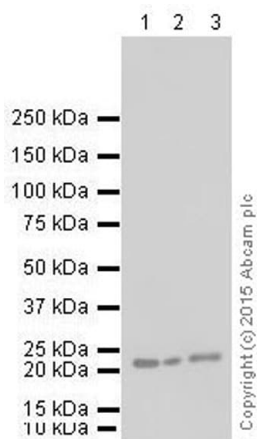
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
<b>IHC-P</b>	★★★★★ (1)	1/300. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. <b>For unpurified, use 1/50 - 1/100.</b>
<b>WB</b>		1/10000 - 1/50000. Predicted molecular weight: 29 kDa.
<b>ICC/IF</b>		1/100 - 1/250.
<b>IP</b>		1/10 - 1/100.

## Target

<b>Function</b>	Binds to the mitochondrial light strand promoter and functions in mitochondrial transcription regulation. Required for accurate and efficient promoter recognition by the mitochondrial RNA polymerase. Promotes transcription initiation from the HSP1 and the light strand promoter by binding immediately upstream of transcriptional start sites. Is able to unwind and bend DNA. Required for maintenance of normal levels of mitochondrial DNA. May play a role in organizing and compacting mitochondrial DNA. target DNA. Interacts with TFB1M and TFB2M.
<b>Sequence similarities</b>	Contains 2 HMG box DNA-binding domains.
<b>Cellular localization</b>	Mitochondrion.

## Images



Western blot - Anti-mtTFA antibody [EPR12285] - Mitochondrial Marker (ab176558)

**All lanes :** Anti-mtTFA antibody [EPR12285] - Mitochondrial Marker (ab176558) at 1/10000 dilution (purified)

**Lane 1 :** HeLa cell lysate

**Lane 2 :** MCF7 cell lysate

**Lane 3 :** HEK293 cell lysate

Lysates/proteins at 10 µg per lane.

#### Secondary

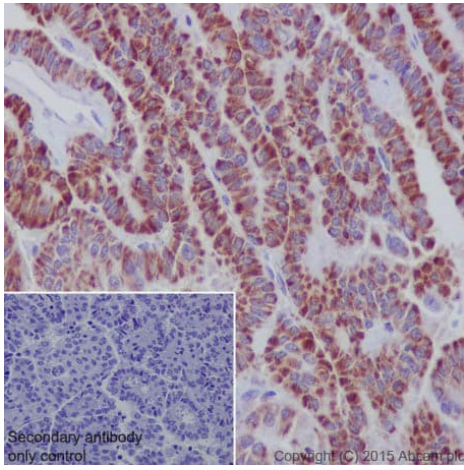
**All lanes :** HRP goat anti-rabbit IgG (H+L) at 1/20000 dilution

**Predicted band size:** 29 kDa

**Observed band size:** 24 kDa

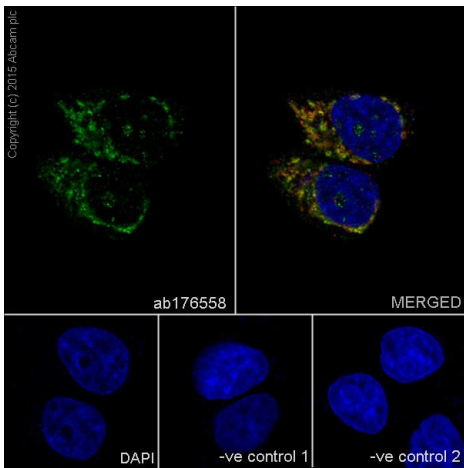
Blocking buffer: 5% NFDM/TBST

Dilution buffer: 5% NFDM/TBST



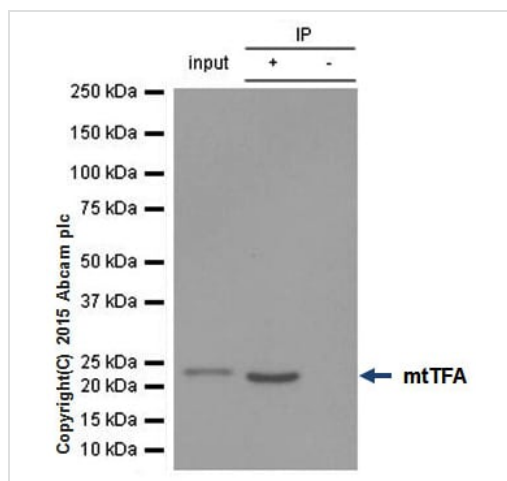
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-mtTFA antibody  
[EPR12285] - Mitochondrial Marker (ab176558)

Immunohistochemical staining of paraffin embedded human thyroid carcinoma with purified ab176558 at a working dilution of 1/300. The secondary antibody used is HRP goat anti-rabbit IgG H&L ([ab97051](#)) at 1/500. The sample is counter-stained with hematoxylin. Antigen retrieval was performed using Tris-EDTA buffer, pH 9.0. PBS was used instead of the primary antibody as the negative control, and is shown in the inset.



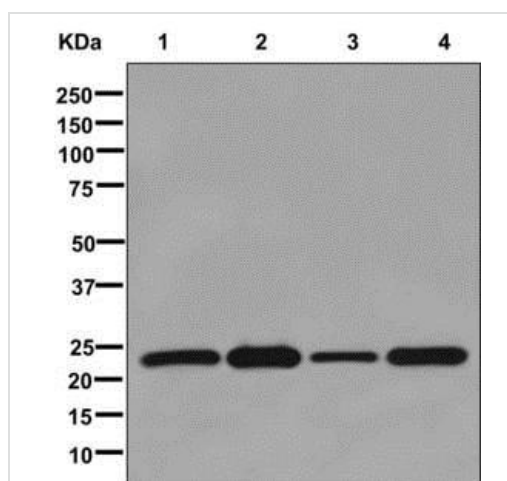
Immunocytochemistry/ Immunofluorescence - Anti-mtTFA antibody [EPR12285] - Mitochondrial Marker (ab176558)

Immunofluorescence staining of MCF7 cells with purified ab176558 at a working dilution of 1/250, counter-stained with DAPI. The secondary antibody was Alexa Fluor<sup>®</sup> 488 goat anti-rabbit ([ab150077](#)), used at a dilution of 1/1000. [ab7291](#), a mouse anti-tubulin antibody (1/1000), was used to stain tubulin along with [ab150120](#) (Alexa Fluor<sup>®</sup> 594 goat anti-mouse, 1/1000), shown in the top right hand panel. The cells were fixed in 4% PFA and permeabilized using 0.1% Triton X 100. The negative controls are shown in bottom middle and right hand panels - for negative control 1, purified ab176558 was used at a dilution of 1/500 followed by an Alexa Fluor<sup>®</sup> 594 goat anti-mouse antibody ([ab150120](#)) at a dilution of 1/500. For negative control 2, [ab7291](#) (mouse anti-tubulin) was used at a dilution of 1/500 followed by an Alexa Fluor<sup>®</sup> 488 goat anti-rabbit antibody ([ab150077](#)) at a dilution of 1/400.



Immunoprecipitation - Anti-mtTFA antibody  
[EPR12285] - Mitochondrial Marker (ab176558)

ab176558 (purified) at 1/40 immunoprecipitating mtTFA in 10 µg HEK293 (Lanes 1 and 2, observed at 24 kDa). Lane 3 - PBS. For western blotting, VeriBlot for IP Detection Reagent (HRP) ([ab131366](#)), was used for detection at 1/10,000 dilution. Blocking buffer and concentration: 5% NFDM/TBST Dilution buffer and concentration: 5% NFDM/TBST



Western blot - Anti-mtTFA antibody [EPR12285] - Mitochondrial Marker (ab176558)

**All lanes :** Anti-mtTFA antibody [EPR12285] - Mitochondrial Marker (ab176558) at 1/10000 dilution (unpurified)

**Lane 1 :** HeLa cell lysate

**Lane 2 :** A431 cell lysate

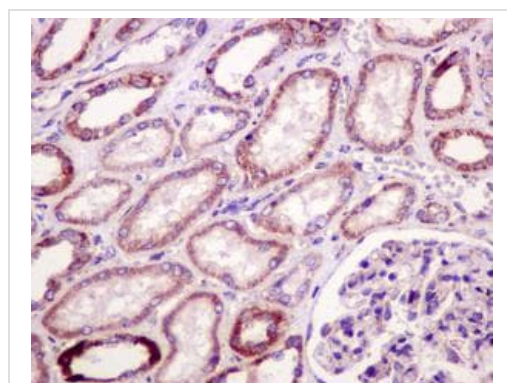
**Lane 3 :** MCF7 cell lysate

**Lane 4 :** 293T cell lysate

Lysates/proteins at 10 µg per lane.

Developed using the ECL technique.

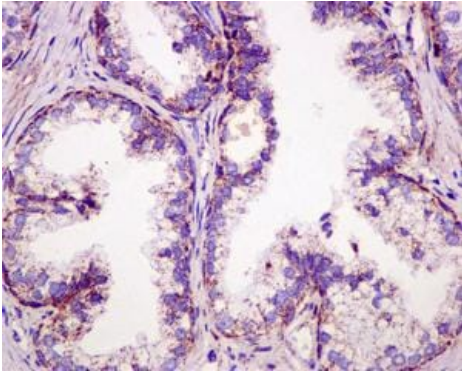
**Predicted band size:** 29 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-mtTFA antibody  
[EPR12285] - Mitochondrial Marker (ab176558)

Immunohistochemical analysis of formalin-fixed, paraffin-embedded Human kidney tissue, labeling mtTFA using unpurified ab176558 at a 1/50 dilution.

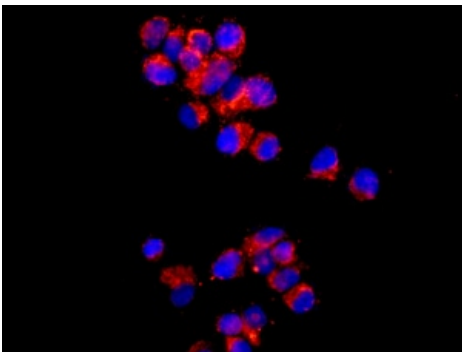
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-mtTFA antibody [EPR12285] - Mitochondrial Marker (ab176558)

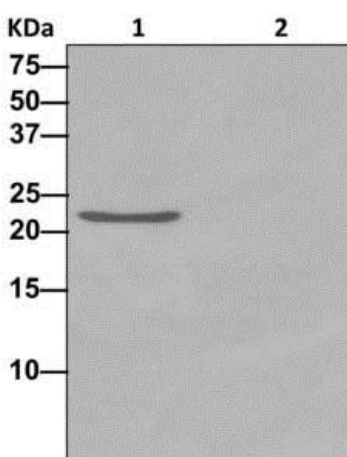
Immunohistochemical analysis of formalin-fixed, paraffin-embedded Human prostate tissue, labeling mtTFA using unpurified ab176558 at a 1/50 dilution.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-mtTFA antibody [EPR12285] - Mitochondrial Marker (ab176558)

Immunofluorescence analysis of MCF7 cells, labeling mtTFA using unpurified ab176558 at a 1/100 dilution.



Immunoprecipitation - Anti-mtTFA antibody [EPR12285] - Mitochondrial Marker (ab176558)

Western blot analysis on Immunoprecipitation pellet from either 1) 293T cell lysate, or 2) 1xPBS (negative control), showing mtTFA, using unpurified ab176558 at 1/10 dilution and HRP-conjugated anti-rabbit IgG preferentially detecting the non-reduced form of rabbit IgG.

### Why choose a recombinant antibody?



**Research with confidence**  
Consistent and reproducible results



**Long-term and scalable supply**  
Recombinant technology



**Success from the first experiment**  
Confirmed specificity



**Ethical standards compliant**  
Animal-free production

Anti-mtTFA antibody [EPR12285] - Mitochondrial Marker (ab176558)

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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