abcam

Product datasheet

Anti-mtTFA antibody - Mitochondrial Marker ab47517

5 Abreviews 22 References 4 Images

Overview

Product name	Anti-mtTFA antibody - Mitochondrial Marker
Description	Rabbit polyclonal to mtTFA - Mitochondrial Marker
Host species	Rabbit
Tested applications	**Suitable for:** WB, ICC/IF
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide corresponding to Human mtTFA aa 150 to the C-terminus conjugated to keyhole limpet haemocyanin. (Peptide available as **ab47516**)
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

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 or -80°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituent: PBS Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab47517 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
WB	★★★★★ **(4)**	Use a concentration of 1 µg/ml. Detects a band of approximately 25 kDa (predicted molecular weight: 29 kDa).
ICC/IF		Use a concentration of 1 µg/ml.

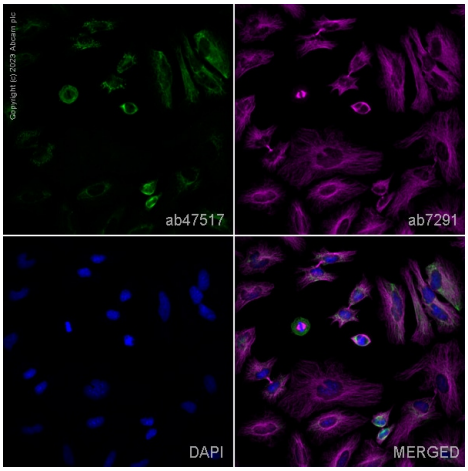
Target

Function 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.

Sequence similarities Contains 2 HMG box DNA-binding domains.

Cellular localization Mitochondrion.

Images

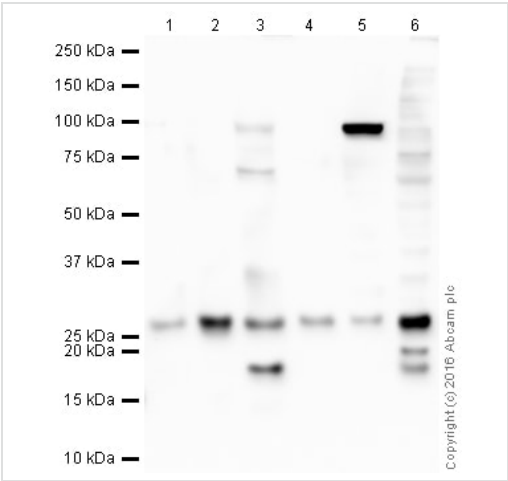


Immunocytochemistry/ Immunofluorescence - Anti-mtTFA antibody - Mitochondrial Marker (ab47517)

ab47517 staining mtTFA in HeLa cells. The cells were fixed with 100% methanol (5 min), permeabilized with 0.1% PBS-Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1%PBS-Tween for 1h. The cells were then incubated overnight at 4°C with ab47517 at 5µg/ml and **ab7291**, Mouse monoclonal [DM1A] to alpha Tubulin - Loading Control. Cells were then incubated with **ab150081**, Goat polyclonal Secondary Antibody to Rabbit IgG - H&L (Alexa Fluor® 488), pre-adsorbed at 1/1000 dilution (shown in green) and **ab150120**, Goat polyclonal Secondary Antibody to Mouse IgG - H&L (Alexa Fluor® 594), pre-adsorbed at 1/1000 dilution (shown in pseudocolour magenta). Nuclear DNA was labelled with DAPI (shown in blue).

Also suitable in cells fixed with 4% paraformaldehyde (10 min).

Image was acquired with a high-content analyser (Operetta CLS, Perkin Elmer) and a maximum intensity projection of confocal sections is shown.



Western blot - Anti-mtTFA antibody - Mitochondrial Marker (ab47517)

All lanes : Anti-mtTFA antibody - Mitochondrial Marker (ab47517) at 1 µg/ml

Lane 1 : Skeletal Muscle (Human) Tissue Lysate - adult normal tissue
Lane 2 : Human heart tissue lysate - total protein (**ab29431**)
Lane 3 : Brown adipose (Mouse) Tissue Lysate
Lane 4 : Brown adipose (Rat) Tissue Lysate
Lane 5 : Heart (Mouse) Tissue Lysate
Lane 6 : Heart (Rat) Tissue Lysate

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) preadsorbed at 1/50000 dilution

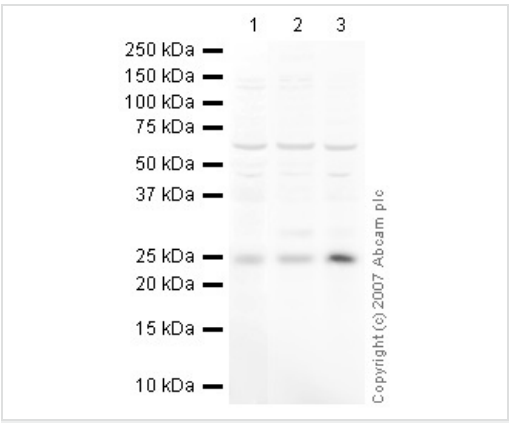
Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 29 kDa
Observed band size: 29 kDa
Additional bands at: 100 kDa, 18 kDa. We are unsure as to the identity of these extra bands.

Exposure time: 8 minutes

This blot was produced using a 4-12% Bis-tris gel under the MES buffer system. The gel was run at 200V for 35 minutes before being transferred onto a Nitrocellulose membrane at 30V for 70 minutes. The membrane was then blocked for an hour using 2% Bovine Serum Albumin before being incubated with ab47517 overnight at 4°C. Antibody binding was detected using an anti-rabbit antibody conjugated to HRP, and visualised using ECL development solution **ab133406**.



Western blot - Anti-mtTFA antibody - Mitochondrial Marker (ab47517)

All lanes : Anti-mtTFA antibody - Mitochondrial Marker (ab47517) at 1 µg/ml

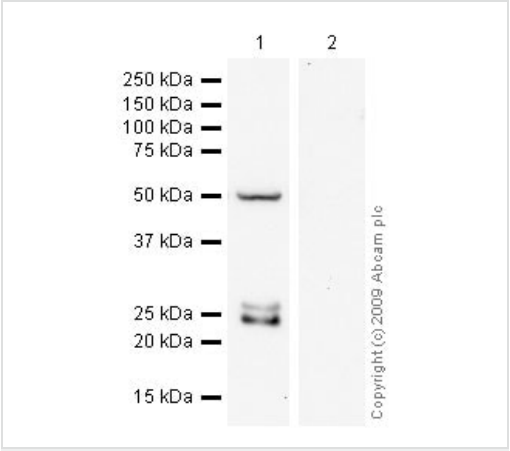
Lane 1 : HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate
Lane 2 : Jurkat (Human T cell lymphoblast-like cell line) Whole Cell Lysate
Lane 3 : A431 (Human epithelial carcinoma cell line) Whole Cell Lysate

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : IRDye 680 Conjugated Goat Anti-Rabbit IgG (H+L) at 1/10000 dilution

Performed under reducing conditions.

Predicted band size: 29 kDa
Observed band size: 25 kDa
Additional bands at: 60 kDa. We are unsure as to the identity of these extra bands.



Western blot - Anti-mtTFA antibody - Mitochondrial Marker (ab47517)

All lanes : Anti-mtTFA antibody - Mitochondrial Marker (ab47517) at 2 µg/ml

Lane 1 : Jurkat (Human T cell lymphoblast-like cell line) Whole Cell Lysate
Lane 2 : Jurkat (Human T cell lymphoblast-like cell line) Whole Cell Lysate with Human mtTFA peptide (**ab47516**) at 2 µg/ml

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

Performed under reducing conditions.

Predicted band size: 29 kDa
Observed band size: 24,26 kDa
Additional bands at: 50 kDa. We are unsure as to the identity of these extra bands.

Exposure time: 10 minutes

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