abcam

ab250513

Anti-MTERF antibody [EPR14202] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR14202
Purification technique	Affinity purification Protein A

Reactivity data

IHC-P

Tested

Species	Human, Mouse
Dilution info	-
Notes	-

Predicted

Species	Rat
Dilution info	-
Notes	-

WB

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Expected

Species	Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Rat
Dilution info	-
Notes	-

Target data

See full target information MTERF1

Function	Transcription termination factor. Binds to a 28 bp region within the tRNA(Leu(uur)) gene at a position immediately adjacent to and downstream of the 16S rRNA gene; this region comprises a tridecamer sequence critical for directing accurate termination. Binds DNA along the major grove and promotes DNA bending and partial unwinding. Promotes base flipping. Transcription termination activity appears to be polarized with highest specificity for transcripts initiated on the light strand.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab250513 is the carrier-free version of ab181836.

Patented technology

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

What are the advantages of a recombinant monoclonal antibody?

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 batch production

For more information, read more on recombinant antibodies.

Conjugation ready

Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. 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.

Compatibility

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.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	The MTERF (Mitochondrial Transcription Termination Factor) protein also known by alternative names like MTERF1 or h-mTERF functions mechanically by binding to mitochondrial DNA and regulating the transcription and replication processes. This protein with a mass of around 41 kDa exists predominantly in the mitochondria an organelle important for energy production in cells. MTERF plays an important role in ensuring proper mitochondrial function by terminating the transcription of mitochondrial genes.
Biological function summary	MTERF facilitates the control of gene expression within the mitochondria influencing the synthesis of essential components for the electron transport chain. It participates as part of a complex that interacts with mitochondrial DNA controlling the expression of the heavy and light strand promoters. These functions are necessary for maintaining mitochondrial DNA's integrity and proper cellular respiration.
Pathways	Mitochondrial biogenesis and homeostasis represent significant roles for MTERF particularly within the context of oxidative phosphorylation and apoptosis pathways. In oxidative phosphorylation MTERF ensures efficient energy production by regulating gene transcription. The protein interacts with other mitochondrial elements such as TFAM (Transcription Factor A Mitochondrial) and POLRMT (Mitochondrial RNA Polymerase) coordinating the replication and transcription processes.
Associated diseases and disorders	MTERF has been connected to conditions like Mitochondrial Encephalopathy and Parkinson’s Disease. Disruptions in its function can affect mitochondrial integrity leading to neurological symptoms. MTERF is linked with proteins like COX1 and ATPase6 where its dysregulation can alter their expression contributing to disease pathogenesis. Understanding its role gives insight into developing therapeutic approaches targeting mitochondrial-related disorders.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

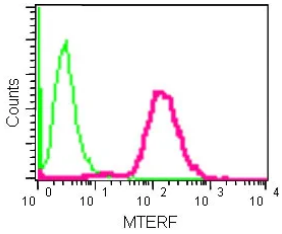
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

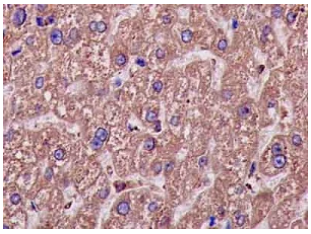
3 product images



Flow Cytometry (Intracellular) - Anti-MTERF antibody [EPR14202] - BSA and Azide free (ab250513)

MTERF Flow Cytometry (Intracellular) staining using rabbit Anti-MTERF antibody

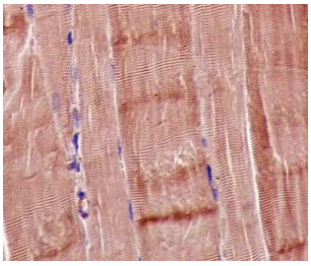
This data was developed using ab181836, the same antibody clone in a different buffer formulation.
Intracellular Flow Cytometry analysis of Jurkat cells labeling MTERF using ab181836 at a 1/50 dilution (pink). Goat anti rabbit IgG (FITC) used as the secondary at a 1/150 dilution. Isotype control Rabbit monoclonal IgG (green). Cells were fixed in 2% paraformaldehyde.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MTERF antibody [EPR14202] - BSA and Azide free (ab250513)

MTERF Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-MTERF antibody

This data was developed using ab181836, the same antibody clone in a different buffer formulation. Immunohistochemical analysis of paraffin embedded Human liver tissue sections labeling MTERF using ab181836 at a 1/250 dilution. A ready to use HRP Polymer for Rabbit IgG was used as the secondary. Hematoxylin counterstain. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MTERF antibody [EPR14202] - BSA and Azide free (ab250513)

MTERF Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-MTERF antibody

This data was developed using ab181836, the same antibody clone in a different buffer formulation.
Immunohistochemical analysis of paraffin embedded mouse muscle tissue sections labeling MTERF using ab181836 at a 1/250 dilution. A ready to use HRP Polymer for Rabbit IgG was used as the secondary. Hematoxylin counterstain.

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

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.