10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

MTERFD1 Antibody
Catalog # ASC11635

Specification

MTERFD1 Antibody - Product Information

Application	**WB, ICC, IF**
Primary Accession	Q96E29
Other Accession	NP_057026, 34147676
Reactivity	**Human, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Calculated MW	**Predicted: 46 kDa** **Observed: 42 kDa KDa**
Application Notes	**MTERFD1 Antibody can be used for detection of MTERFD1 by Western blot starting at 1 µg/mL. Antibody can also be used for Immunocytochemistry starting at 5 µg/mL. For immunofluorescence start at 20 µg/mL.**

MTERFD1 Antibody - Additional Information

Gene ID	**51001**

Target/Specificity
MTERFD1; At least three isoforms of MTERFD1 are known to exist. MTERFD1 antibody is predicted to not cross-react with other MTERFD protein family members.

Reconstitution & Storage
MTERFD1 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year.

Precautions
MTERFD1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

MTERFD1 Antibody - Protein Information

Name MTERF3

Synonyms MTERFD1

Function
Binds promoter DNA and regulates initiation of transcription (PubMed:17662942). Required for normal mitochondrial transcription and translation, and for normal assembly of mitochondrial respiratory complexes. Required for normal mitochondrial function (By similarity). Maintains 16S rRNA levels and functions in mitochondrial ribosome assembly by regulating the biogenesis of the

39S ribosomal subunit (By similarity).

Cellular Location
Mitochondrion

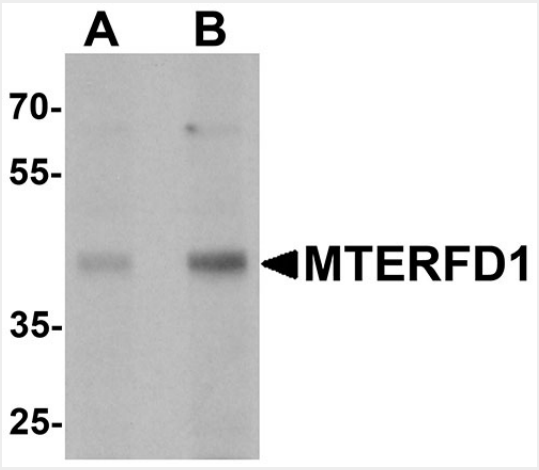
Tissue Location
Highly expressed in heart, liver, kidney and testis. Detected at lower levels in brain, spleen and lung

MTERFD1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

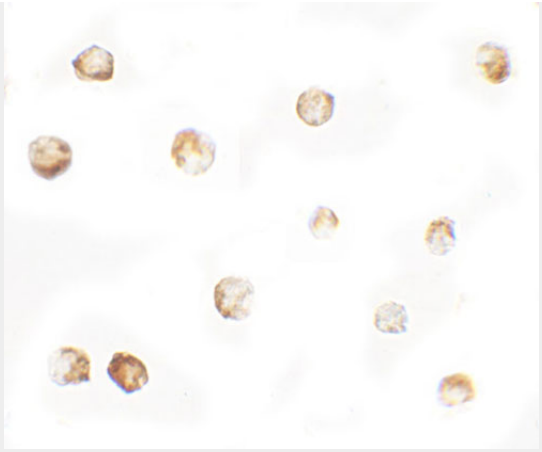
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

MTERFD1 Antibody - Images

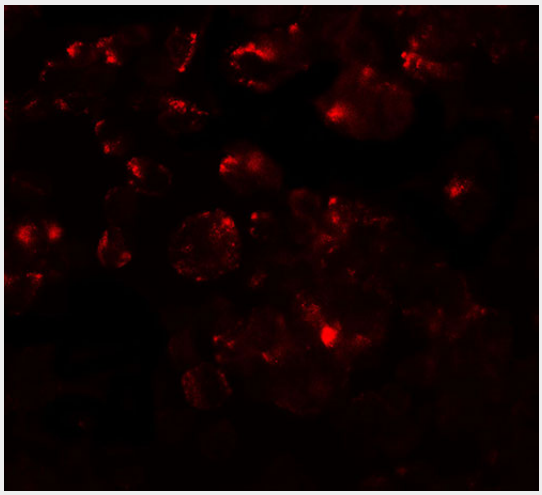


Western blot analysis of MTERFD1 in 3T3 cell lysate with MTERFD1 antibody at (A) 1 and (B) 2 µg/mL.

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Immunocytochemistry of MTERFD1 in 3T3 cells with MTERFD1 antibody at 5 µg/mL.



Immunofluorescence of MTERFD1 in 3T3 cells with MTERFD1 antibody at 20 µg/mL.

MTERFD1 Antibody - Background

MTERFD1 Antibody: Members of the mTERF (mitochondrial transcription termination factor) family, are mitochondrial proteins that are believed to be transcription termination factors. MTERFD1 is composed of three leucine zippers that form a three-stranded coiled-coil that binds to DNA. It binds promoter DNA and acts as a mitochondrial transcription regulator. It has been suggested that only the phosphorylated form of MTERFD1 has transcription termination activity. A closely related mTERF family member, MTERFD3, is believed to be involved in cell cycle regulation and cell growth by modulating mitochondrial transcription.

MTERFD1 Antibody - References

Fernandez-Silva P, et al. The human mitochondrial transcription termination factor (mTERF) is a multizipper protein but binds to DNA as a monomer, with evidence pointing to intramolecular leucine zipper interactions. EMBO J. 1997; 16:1066-79.
Hyvarinen AK, Pohjoismaki JL, Holt IJ, et al. Overexpression of MTERFD1 or MTERFD3 impairs the completion of mitochondrial DNA replication. Mol. Biol. Rep. 2011; 38:1321-8.
Prieto-Martin A, Montoya J, Martinez-Azorin F, et al. Phosphorylation of rat mitochondrial transcription termination factor (mTERF) is required for transcription termination but not for binding to DNA. Nucleic Acids Res. 2004; 32:2059-68.
Park CB, Asin-Cayuela J, Camara Y, et al. MTERF3 is a negative regulator of mammalian mtDNA transcription. Cell 2007; 130:273-85.