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MtTFA / TFAM Antibody (aa131-180)

Rabbit Polyclonal Antibody
Catalog # ALS14204

Specification

MtTFA / TFAM Antibody (aa131-180) - Product Information

Application	**IF, IHC**
Primary Accession	Q00059
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**29kDa KDa**

MtTFA / TFAM Antibody (aa131-180) - Additional Information

Gene ID 7019

Other Names
Transcription factor A, mitochondrial, mtTFA, Mitochondrial transcription factor 1, MtTF1, Transcription factor 6, TCF-6, Transcription factor 6-like 2, TFAM, TCF6, TCF6L2

Target/Specificity
TFAM Antibody detects endogenous levels of total TFAM protein.

Reconstitution & Storage
Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles.

Precautions
MtTFA / TFAM Antibody (aa131-180) is for research use only and not for use in diagnostic or therapeutic procedures.

MtTFA / TFAM Antibody (aa131-180) - Protein Information

Name TFAM (HGNC:11741)

Synonyms TCF6, TCF6L2

Function
Binds to the mitochondrial light strand promoter and functions in mitochondrial transcription regulation (PubMed:29445193, PubMed:32183942). Component of the mitochondrial transcription initiation complex, composed at least of TFB2M, TFAM and POLRMT that is required for basal transcription of mitochondrial DNA (PubMed:29149603). In this complex, TFAM recruits POLRMT to a specific promoter whereas TFB2M induces structural changes in POLRMT to enable promoter opening and trapping of the DNA non-template strand (PubMed:20410300). Required for accurate and efficient promoter recognition by the

mitochondrial RNA polymerase (PubMed:22037172). Promotes transcription initiation from the HSP1 and the light strand promoter by binding immediately upstream of transcriptional start sites (PubMed:22037172). Is able to unwind DNA (PubMed:22037172). Bends the mitochondrial light strand promoter DNA into a U-turn shape via its HMG boxes (PubMed:1737790). Required for maintenance of normal levels of mitochondrial DNA (PubMed:22841477, PubMed:19304746). May play a role in organizing and compacting mitochondrial DNA (PubMed:22037171).

Cellular Location
Mitochondrion. Mitochondrion matrix, mitochondrion nucleoid

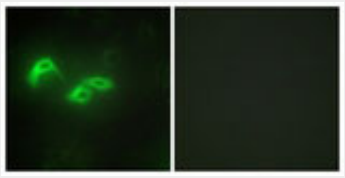
Volume
50 µl

MtTFA / TFAM Antibody (aa131-180) - Protocols

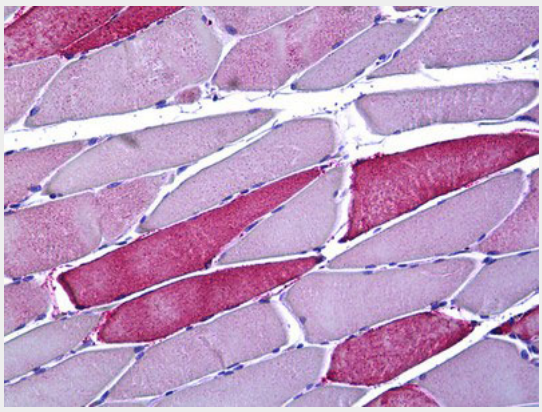
Provided below are standard protocols that you may find useful for product applications.

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

MtTFA / TFAM Antibody (aa131-180) - Images



Immunofluorescence of HepG2 cells, using TFAM Antibody.



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Anti-TFAM antibody IHC of human skeletal muscle.

MtTFA / TFAM Antibody (aa131-180) - Background

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 DNA. Bends the mitochondrial light strand promoter DNA into a U-turn shape via its HMG boxes. Required for maintenance of normal levels of mitochondrial DNA. May play a role in organizing and compacting mitochondrial DNA.

MtTFA / TFAM Antibody (aa131-180) - References

Parisi M.A.,et al.Science 252:965-969(1991).
Li K.N.,et al.Submitted (NOV-2007) to the EMBL/GenBank/DDBJ databases.
Kalnine N.,et al.Submitted (OCT-2004) to the EMBL/GenBank/DDBJ databases.
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Goshima N.,et al.Nat. Methods 5:1011-1017(2008).