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Tfam antibody - middle region
Rabbit Polyclonal Antibody
Catalog # AI14322

Specification

Tfam antibody - middle region - Product Information

Application	**IHC, WB**
Primary Accession	P40630
Other Accession	NM_009360, NP_033386
Reactivity	**Mouse**
Predicted	**Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**28kDa KDa**

Tfam antibody - middle region - Additional Information

Gene ID 21780

Alias Symbol **AI661103, Hmgts, mtTFA, tsHMG**

Other Names
Transcription factor A, mitochondrial, mtTFA, Testis-specific high mobility group protein, TS-HMG, Tfam, Hmgts

Format
Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.

Reconstitution & Storage
Add 50 ul of distilled water. Final anti-Tfam antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.

Precautions
Tfam antibody - middle region is for research use only and not for use in diagnostic or therapeutic procedures.

Tfam antibody - middle region - Protein Information

Name Tfam {ECO:0000312|MGI:MGI:107810}

Synonyms Hmgts

Function
[Isoform Mitochondrial]: Binds to the mitochondrial light strand promoter and functions in mitochondrial transcription regulation (By similarity). Component of the mitochondrial transcription initiation complex, composed at least of TFB2M, TFAM and POLRMT that is required for basal transcription of mitochondrial DNA (By similarity). 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 (By similarity). Required for accurate and

efficient promoter recognition by the mitochondrial RNA polymerase (By similarity). Promotes transcription initiation from the HSP1 and the light strand promoter by binding immediately upstream of transcriptional start sites (By similarity). Is able to unwind DNA (By similarity). Bends the mitochondrial light strand promoter DNA into a U-turn shape via its HMG boxes (By similarity). Required for maintenance of normal levels of mitochondrial DNA (PubMed:9500544). May play a role in organizing and compacting mitochondrial DNA (PubMed:17581862).

Cellular Location
[Isoform Mitochondrial]: Mitochondrion {ECO:0000250|UniProtKB:Q00059}. Mitochondrion matrix, mitochondrion nucleoid {ECO:0000250|UniProtKB:Q00059}

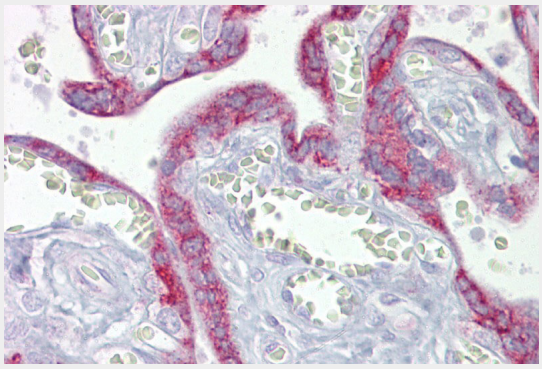
Tissue Location
The mitochondrial isoform is widely expressed while the nuclear isoform is testis-specific

Tfam antibody - middle region - Protocols

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

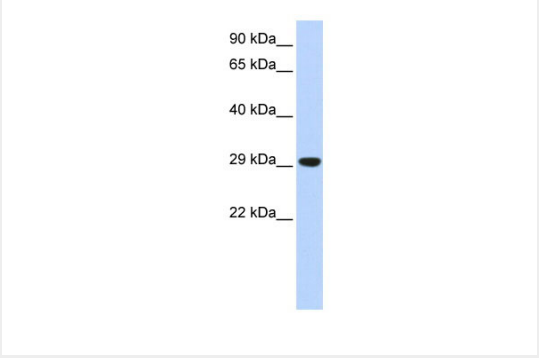
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Tfam antibody - middle region - Images



Immunohistochemistry with Placenta tissue at an antibody concentration of 5µg/ml using anti-Tfam antibody (AI14322)

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WB Suggested Anti-Tfam Antibody Titration: 0.2-1 µg/ml
ELISA Titer: 1:312500
Positive Control: Mouse Muscle

Tfam antibody - middle region - References

Larsson N.G.,et al.Nat. Genet. 13:296-302(1996).
Carninci P.,et al.Science 309:1559-1563(2005).
Cermakian N.,et al.Submitted (AUG-1996) to the EMBL/GenBank/DDBJ databases.
Boissonneault G.,et al.Mol. Cell. Biol. 13:4323-4330(1993).
Larsson N.G.,et al.Nat. Genet. 18:231-236(1998).