

Tfam antibody - C-terminal region

Rabbit Polyclonal Antibody Catalog # Al11089

Specification

Tfam antibody - C-terminal region - Product Information

Application Primary Accession Other Accession Reactivity Predicted Host Clonality Calculated MW IHC, WB <u>P40630</u> <u>NM_009360</u>, <u>NP_033386</u> Mouse, Rat, Rabbit, Bovine Mouse, Rat, Rabbit, Bovine Rabbit Polyclonal 27kDa KDa

Tfam antibody - C-terminal region - Additional Information

Gene ID 21780

Alias Symbol Al661103, 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 - C-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

Tfam antibody - C-terminal 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

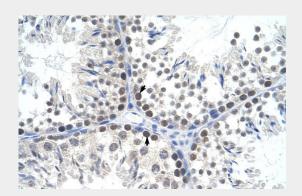
The mitochondrial isoform is widely expressed while the nuclear isoform is testis-specific

Tfam antibody - C-terminal region - Protocols

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

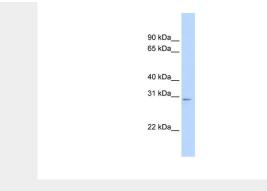
- Western Blot
- <u>Blocking Peptides</u>
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

Tfam antibody - C-terminal region - Images



Mouse testicle





WB Suggested Anti-Tfam Antibody Titration: 0.2-1 $\mu\text{g/ml}$ Positive Control: SP2/0 cell lysate

Tfam antibody - C-terminal region - References

Noack,H., (2006) Biochim. Biophys. Acta 1760 (2), 141-150 Reconstitution and Storage:For short term use, store at 2-8C up to 1 week. For long term storage, store at -20C in small aliquots to prevent freeze-thaw cycles.