

## Basic Information

<b>Product Name</b>	Anti-TFAM Antibody (Clone#ADHC-20)	
<b>Gene Name</b>	TFAM	
<b>Source</b>	Rabbit	
<b>Clonality</b>	Monoclonal	
<b>Isotype</b>	IgG	
<b>Species Reactivity</b>	human	
<b>Tested Application</b>	WB, IHC, ICC/IF, IP	
<b>Contents</b>	500 ug/ml; Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide, 0.4-0.5 mg/ml BSA and 50% glycerol.	
<b>Immunogen</b>	A synthesized peptide derived from human mtTFA 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.	
<b>Concentration</b>	500 ug/ml	
<b>Purification</b>	Affinity-chromatography	
<b>Observed MW</b>	24 kDa	
<b>Dilution Ratios</b>	Western blot (WB): 1:500-2000 Immunohistochemistry (IHC): 1:50-200 Immunocytochemistry/Immunofluorescence (ICC/IF): 1:50-200 ImmunoPrecipitation (IP): 1:50	

## Storage

12 months from date of receipt, -20°C as supplied.

## Background Information

TFAM(Transcription factor A, mitochondrial), also known as TCF6 or TCF6L2, is a 162-amino acid protein that activates transcription of each mitochondrial DNA(mtDNA) strand by binding to an element of approximately 30 nucleotides present in both the light-strand and the heavy-strand promoters. By Southern blot analysis of restriction enzyme digests of human/Chinese hamster somatic cell hybrid lines, Milatovich et al.(1992) mapped TFAM sequences, which they called MTTF1, to 3 different chromosomes: chromosomes 10, 7p, and 11q. By PCR-based screening of a somatic cell hybrid panel and by fluorescence in situ hybridization, Scott(2007) stated that the sequences mapped to chromosomes 7p(TCF6L1) and 11q(MTTF1, or TCF6L3) are pseudogenes. Larsson et al.(1997) mapped the mouse mitochondrial transcription factor A gene(Tfam) to the central part of mouse chromosome 10. This region exhibits syntenic homology with human 10q21. Mitochondrial transcription factor A is a key activator of mitochondrial transcription in mammals. It also has a role in mitochondrial DNA replication, since transcription

generates an RNA primer necessary for initiation of mtDNA replication.

## Selected Validation Data

Western blot analysis of mtTFA expression in MCF7 cell lysate.

