Anti-TFAM (Transcription Factor A, mitochondrial) Antibody

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Catalog #: 2001-TFAM **Size:** 100 µl

Host	Applications	Species Tested	Species Reactivity*	Molecular Reference
Rabbit	WB 1:2000	M, H, R		~24 kDa

Product Description: Rabbit polyclonal antibody.

Biological Significance: Mitochondrial Transcription Factor A (TFAM) is a key activator of mitochondrial (mt) DNA transcription as well as a participant in mitochondrial genome replication. mtDNA is highly susceptible to oxidative stress leading to mitochondrial dysfunction. Overexpression of TFAM has been implicated in the amelioration of age dependent impairment of brain functions through the prevention of oxidative stress and mitochondrial dysfunction in microglia (Hayashi et al., 2008). More recently, TFAM overexpression has been shown to potentially reduce oxidative stress in motor neurons and delay onset of amyotrophic lateral sclerosis (ALS) in ALS model mice (Morimoto et al., 2012).

Antigen: Native recombinant mouse TFAM protein with c-terminal 6-his tag.

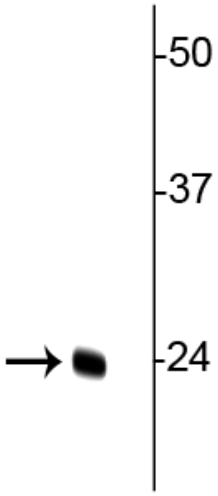
Antibody Specificity: Specific for endogenous levels of the ~24 kDa TFAM protein.

Purification Method: Neat serum.

Quality Control Tests: Western blots performed on each lot.

Packaging: 100 µl neat serum.

Storage and Stability: Shipped on blue ice. Store at –20°C in undiluted aliquots; stable for at least 1 year. Avoid freeze/thaw cycles.



Western blot of rat kidney lysate showing specific immunolabeling of the ~24 kDa TFAM protein

Application Key: **WB** = Western Blot **IF** = Immunofluorescence **IHC** = Immunohistochemistry **IP** = Immunoprecipitation
Species Reactivity Key: **All**-All Species **A**-Avian **Amp**-Amphibian **Ar**-*Arabidopsis* **B**-Bovine **C**-Canine **Ch**-Chicken **D**-*Drosophilia* **GP**-Guinea Pig **H**-Human **Ha**-Hamster **M**-Mouse **NHP**- Non-human primate **P**-Pig **R**-Rat **S**-Sheep **X**-*Xenopus* **Z**-Zebrafish
*Species assumed based on 100% homology with sequence used as antigen **For Research Use Only**

General References:

Hayashi Y, Yoshida M, Yamato M, Ide T, Wu Z, Ochi-Shindou M, Kanki T, Kang D, Sunagawa K, Tsutsui H, Nakanishi H (2008) Reverse of age-dependent memory impairment and mitochondrial DNA damage in microglia by an overexpression of human mitochondrial transcription factor a in mice. J Neurosci. 28(34):8624-34

Morimoto N, Miyazaki K, Kurata T, Ikeda Y, Matsuura T, Kang D, Ide T, Abe K (2012) Effect of mitochondrial transcription factor a overexpression on motor neurons in amyotrophic lateral sclerosis model mice. J Neurosci Res. 90(6):1200-8. Epub 2012 Feb 22

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