

HRP anti-TFAM Antibody

Catalog# / Size	850503 / 25 µg 850504 / 100 µg
Clone	18G102B2E11
Regulatory Status	RUO
Other Names	Transcription factor A, mitochondrial, mtTFA, MtTF1, TCF6, TCF-6, Transcription Factor 6
Isotype	Mouse IgG2b, κ
Description	TFAM (Transcription Factor A, Mitochondrial) binds to the mitochondrial light strand promoter and functions in mitochondrial transcription regulation, and DNA replication and repair. The protein is required for accurate and efficient promoter recognition by mitochondrial RNA polymerase. Sequence polymorphisms in the TFAM gene are associated with Alzheimer's and Parkinson's diseases. Other diseases associated with TFAM include Mitochondrial DNA Depletion Syndrome, Hepatocerebral Form and Deoxyguanosine Kinase Deficiency.

Product Details

Verified Reactivity	Human
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	Full-length human TFAM protein
Formulation	This antibody is provided in 50% glycerol in aqueous buffered solutions with preservatives.
Preparation	The antibody was purified by affinity chromatography and conjugated with HRP under optimal conditions.
Concentration	0.5 mg/ml
Storage & Handling	Upon receipt, the antibody solution should be stored undiluted at -20°C, and protected from prolonged exposure to light.
Application	WB - Quality tested IHC-P - Verified
Recommended Usage	Each lot of this antibody is quality control tested by Western blotting . For Western blotting, the suggested use of this reagent is 1.0 - 5.0 µg per ml. For immunohistochemistry, a concentration range of 1.0 - 5.0 µg/ml is suggested. It is recommended that the reagent be titrated for optimal performance for each application.
Application Notes	This antibody recognizes endogenous TFAM in human brain tissues in WB and IHC applications but does not recognize mouse TFAM.
Application References	1. Wang YE, <i>et al.</i> 2013. <i>PLoS One</i> 8(8):e74513. (WB) 2. Caielli S, <i>et al.</i> 2016. <i>J Exp Med.</i> 213(5):697-713. (WB)
(PubMed link indicates BioLegend citation)	
RRID	AB_2734628 (BioLegend Cat. No. 850503) AB_2734629 (BioLegend Cat. No. 850504)

Antigen Details

Structure	TFAM is synthesized as a precursor form with a mitochondrial targeting peptide, which is removed by processing after import to the mitochondria. Mature TFAM has an apparent molecular weight of ~25 kD. Alternative splicing results in multiple transcript variants.
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Distribution	Tissue distribution: Central nervous system, skin, kidney, lung, thyroid, lymph nodes, breast, esophagus, and heart. Cellular distribution: Mitochondrion, nucleus, and cytosol.
Function	TFAM functions in mitochondrial transcription regulation, and DNA replication and repair.
Interaction	TFB1M, TFB2M, CLPX
Biology Area	Cell Biology, Mitochondrial Function, Neuroscience, Neuroscience Cell Markers, Transcription Factors
Molecular Family	Mitochondrial Markers
Antigen References	1. Bestwick ML, Shadel GS. 2013. <i>Trends Biochem Sci</i> 38(6):283-91. 2. Ramachandran A, <i>et al.</i> 2017. <i>Nucleic Acids Res</i> 45(2):861-874. 3. Günther C, <i>et al.</i> 2004. <i>Neurosci. Lett.</i> 369: 219–223.
Gene ID	7019

Related Protocols

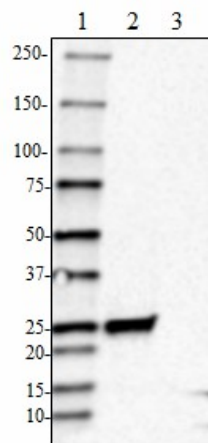
[Western Blotting Protocol](#)

[Immunohistochemistry Protocol for Paraffin-Embedded Sections](#)

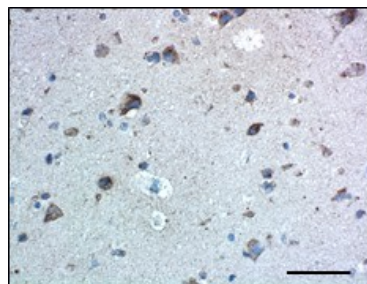
Other Formats

Purified anti-TFAM, HRP anti-TFAM, Biotin anti-TFAM

Product Data



Western blot of HRP anti-TFAM antibody (clone 18G102B2E11). Lane 1: Molecular weight marker; Lane 2: 20 μ g of human brain lysate; Lane 3: 20 μ g of mouse brain lysate. The blot was incubated with 1.0 μ g/mL of the primary antibody overnight at 4 °C. Enhanced chemiluminescence (Cat. No. 426302) was used as the detection system.



IHC staining of HRP anti-TFAM antibody (clone 18G102B2E11) on formalin-fixed paraffin-embedded normal human brain tissue. Following antigen retrieval using Sodium Citrate H.I.E.R (Cat. No. 928602), the tissue was incubated with 1 μ g/mL of the primary antibody overnight at 4 °C. DAB was used for detection followed by hematoxylin and bluing solution counterstaining, according to the protocol provided. The image was captured with a 40X objective. Scale bar: 50 μ m

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