

# Product Datasheet

## mtTFA Antibody - BSA Free

### NBP2-19437

Unit Size: 0.1 ml

Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.

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**NBP2-19437**

mtTFA Antibody - BSA Free

**Product Information**

<b>Unit Size</b>	0.1 ml
<b>Concentration</b>	Concentrations vary lot to lot. See vial label for concentration. If unlisted please contact technical services.
<b>Storage</b>	Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.
<b>Clonality</b>	Polyclonal
<b>Preservative</b>	0.025% Proclin 300
<b>Isotype</b>	IgG
<b>Purity</b>	Antigen Affinity-purified
<b>Buffer</b>	PBS (pH 7), 20% Glycerol
<b>Target Molecular Weight</b>	29 kDa

**Product Description**

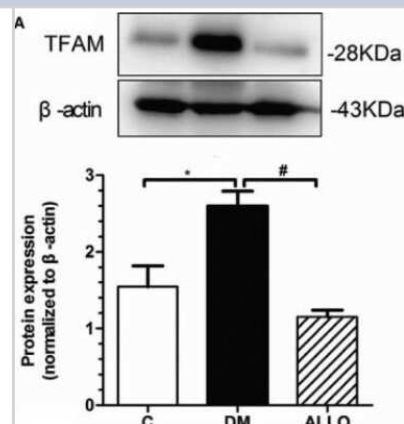
<b>Host</b>	Rabbit
<b>Gene ID</b>	7019
<b>Gene Symbol</b>	TFAM
<b>Species</b>	Human, Mouse, Rat
<b>Reactivity Notes</b>	Mouse reactivity reported in scientific literature (PMID: 24603333). Use in Rabbit reported in scientific literature (PMID:29720500).
<b>Immunogen</b>	Recombinant protein encompassing a sequence within the center region of human mtTFA. The exact sequence is proprietary.

**Product Application Details**

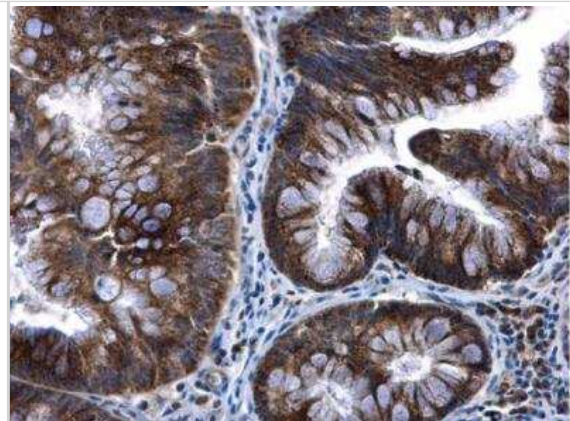
<b>Applications</b>	Western Blot, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin, Immunoprecipitation
<b>Recommended Dilutions</b>	Western Blot 1:500-1:3000, Immunohistochemistry 1:100-1:1000, Immunocytochemistry/ Immunofluorescence 1:100-1:1000, Immunoprecipitation 1:100-1:500, Immunohistochemistry-Paraffin 1:100-1:1000

**Images**

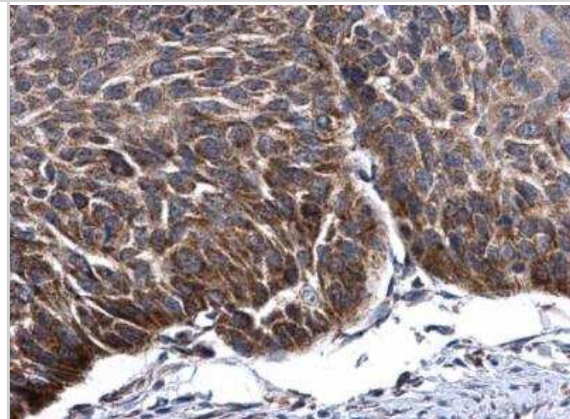
Western Blot: mtTFA Antibody [NBP2-19437] - Mitochondrial-related protein expression in LA tissue. Representative Western blot analysis of the protein expression in TFAM. Data is mean $\pm$ -SD, relative protein level was normalized to beta-actin. \*Compared with the control group P<0.05. #Compared with the DM group P<0.05. DM indicates diabetes mellitus; NS, not significant; TFAM, mitochondrial transcription factor A. Image collected and cropped by CiteAb from the following publication ([www.ahajournals.org/doi/10.1161/JAHA.118.008807](http://www.ahajournals.org/doi/10.1161/JAHA.118.008807)) licensed under a CC-BY license.



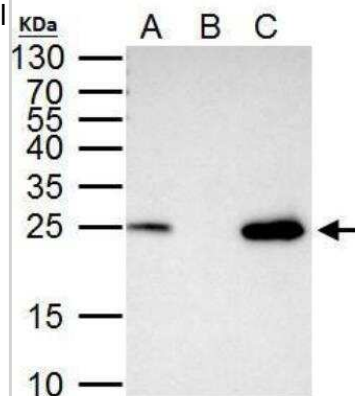
Immunohistochemistry-Paraffin: mtTFA Antibody [NBP2-19437] - Human colon cancer. mtTFA antibody diluted at 1:500. Antigen Retrieval: Citrate buffer, pH 6.0, 15 min



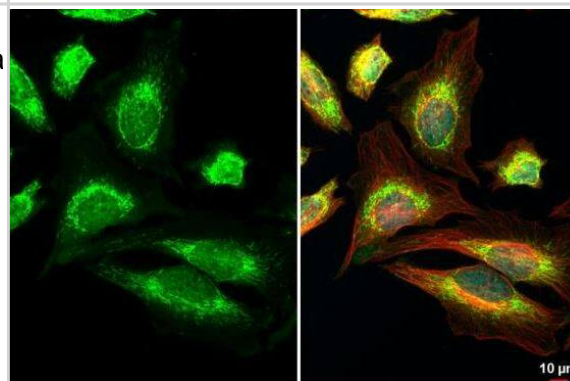
Immunohistochemistry-Paraffin: mtTFA Antibody [NBP2-19437] - Human esophagus cancer. mtTFA antibody diluted at 1:500. Antigen Retrieval: Citrate buffer, pH 6.0, 15 min



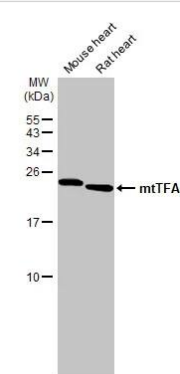
Immunoprecipitation: mtTFA Antibody [NBP2-19437] - A. 293T whole cell lysate/extract B. 40 ug 293T whole cell lysate/extract. C.. Control with 2 ug of preimmune rabbit IgG.



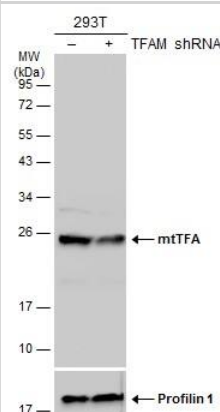
HeLa cells were fixed in 4% paraformaldehyde at RT for 15 min. Green: mtTFA stained by mtTFA antibody diluted at 1:500. Red: alpha Tubulin, a cytoskeleton marker, stained by alpha Tubulin antibody [114] diluted at 1:1000. Blue: Fluoroshield with DAPI.



Western Blot: mtTFA Antibody [NBP2-19437] - Various tissue extracts (50 ug) were separated by 15% SDS-PAGE, and the membrane was blotted with mtTFA antibody (NBP2-19437) diluted at 1:10000. The HRP-conjugated anti-rabbit IgG antibody was used to detect the primary antibody.



Western Blot: mtTFA Antibody [NBP2-19437] - Non-transfected (–) and transfected (+) 293T whole cell extracts (30 ug) were separated by 12% SDS-PAGE, and the membrane was blotted with mtTFA antibody diluted at 1:3000. The HRP-conjugated anti-rabbit IgG antibody was used to detect the primary antibody.



## Publications

Li X, Flynn ER, do Carmo JM et al. Direct Cardiac Actions of Sodium-Glucose Cotransporter 2 Inhibition Improve Mitochondrial Function and Attenuate Oxidative Stress in Pressure Overload-Induced Heart Failure Frontiers in Cardiovascular Medicine 2022-05-12 [PMID: 35647080] (Block/Neutralize)

Song Y, Yuan M, Zhang Z et al. Metformin protects diabetes-induced atrial mitochondrial from oxidative stress and improves mitochondrial biogenesis via the AMPK signaling pathway Research Square 2023-06-26 (WB, Rat)

Vijayan M, Reddy PH Reduced VDAC1, Maintained Mitochondrial Dynamics and Enhanced Mitochondrial Biogenesis in a Transgenic Tau Mouse Model of Alzheimer's Disease International journal of molecular sciences 2022-08-02 [PMID: 35955694] (IF/IHC, Mouse)

### Details:

WB dilution used 1:1000, IHC dilution used 1:102

Huang Q, Wu D, Zhao J et al. TFAM loss induces nuclear actin assembly upon mDia2 malonylation to promote liver cancer metastasis The EMBO journal [PMID: 35451091]

Zhang Z, Zhang X, Meng L et al. Pioglitazone Inhibits Diabetes-Induced Atrial Mitochondrial Oxidative Stress and Improves Mitochondrial Biogenesis, Dynamics, and Function Through the PPAR-gamma/PGC-1 alpha Signaling Pathway Frontiers in Pharmacology 2021-06-14 [PMID: 34194324] (WB)

Yang Y, Zhao J et al. Xanthine Oxidase Inhibitor Allopurinol Prevents Oxidative Stress-Mediated Atrial Remodeling in Alloxan-Induced Diabetes Mellitus Rabbits. J Am Heart Assoc 2018-02-05 [PMID: 29720500] (WB, Rabbit, Mouse)

Yamanishi, K;Doe, N;Mukai, K;Ikubo, K;Hashimoto, T;Uwa, N;Sumida, M;El-Darawish, Y;Gamachi, N;Li, W;Kuwahara-Otani, S;Maeda, S;Watanabe, Y;Hayakawa, T;Yamanishi, H;Matsuyama, T;Yagi, H;Okamura, H;Matsunaga, H; Interleukin-18-deficient mice develop hippocampal abnormalities related to possible depressive-like behaviors Neuroscience 2019-04-11 [PMID: 30981863] (WB, Mouse)

Manczak M, Kandimalla R, Yin X, Hemachandra Reddy P. Mitochondrial division inhibitor 1 reduces dynamin-related protein 1 and mitochondrial fission activity. Hum. Mol. Genet. 2018-09-19 [PMID: 30239719] (WB, Mouse)



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### **Products Related to NBP2-19437**

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HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control
NBP1-50977-0.01mg	Recombinant Human mtTFA His Protein

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### **Limitations**

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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