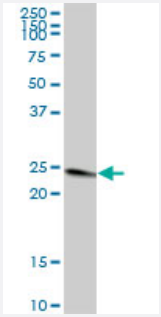
MaxPab®

TFAM purified MaxPab mouse polyclonal antibody (B01P)

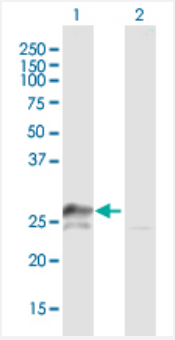
Catalog # H00007019-B01P Size 50 ug

Applications



Western Blot (Tissue lysate)

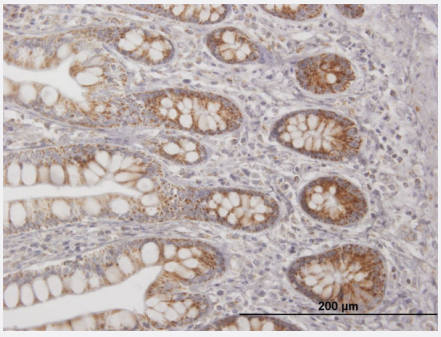
TFAM MaxPab polyclonal antibody. Western Blot analysis of TFAM expression in human kidney.



Western Blot (Transfected lysate)

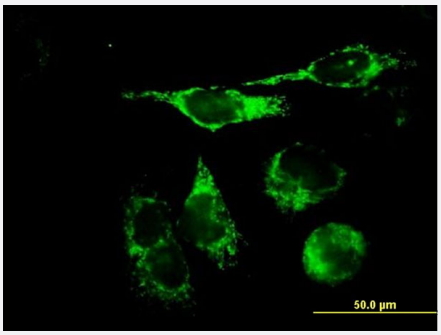
Western Blot analysis of TFAM expression in transfected 293T cell line (H00007019-T02) by TFAM MaxPab polyclonal antibody.

Lane 1: TFAM transfected lysate(27.06 KDa).
Lane 2: Non-transfected lysate.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

Immunoperoxidase of purified MaxPab antibody to TFAM on formalin-fixed paraffin-embedded human small Intestine. [antibody concentration 3 ug/ml]



Immunofluorescence

Immunofluorescence of purified MaxPab antibody to TFAM on HeLa cell. [antibody concentration 10 ug/ml]

Specification

Product Description	Mouse polyclonal antibody raised against a full-length human TFAM protein.
Immunogen	TFAM (NP_003192.1, 1 a.a. ~ 246 a.a) full-length human protein.
Sequence	MAFLRSMWGVLSALGRSGAELCTGCGSRLRSPFSFVYLPRWFSSVLASCPKKPVSSYLRFSKE QLPIFKAQNPDAKTTELIRRIAQRWRELPDSKKKIYQDAYRAEWQVYKEEISRFKEQLTPSQIMSLE KEIMDKHLKRKAMTKKKELTLLGKPKRPRSAYNVYVAERFQEAKGDSPQEKLKTVKENWKNLSD SEKELYIQHAKEDETRYHNEMKSWEEQMIEVGRKDLLRRTIKKQRKYGAEEC
Host	Mouse
Reactivity	Human
Interspecies Antigen Sequence	Mouse (63)
Quality Control Testing	Antibody reactive against mammalian transfected lysate.
Storage Buffer	In 1x PBS, pH 7.4
Storage Instruction	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

Applications

- Western Blot (Tissue lysate)

  TFAM MaxPab polyclonal antibody. Western Blot analysis of TFAM expression in human kidney.

  Protocol Download

- Western Blot (Transfected lysate)

  Western Blot analysis of TFAM expression in transfected 293T cell line (H00007019-T02) by TFAM MaxPab polyclonal antibody.

  Lane 1: TFAM transfected lysate(27.06 KDa).
  Lane 2: Non-transfected lysate.

  Protocol Download

- Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

  Immunoperoxidase of purified MaxPab antibody to TFAM on formalin-fixed paraffin-embedded human small Intestine. [antibody concentration 3 ug/ml]

  Protocol Download

- Immunofluorescence

  Immunofluorescence of purified MaxPab antibody to TFAM on HeLa cell. [antibody concentration 10 ug/ml]

Gene Info — TFAM

Entrez GeneID	7019
GeneBank Accession#	NM_003201.1
Protein Accession#	NP_003192.1
Gene Name	TFAM
Gene Alias	MtTF1, TCF6, TCF6L1, TCF6L2, TCF6L3, mtTFA
Gene Description	transcription factor A, mitochondrial
Omim ID	600438
Gene Ontology	Hyperlink
Gene Summary	This gene encodes a mitochondrial transcription factor that is a key activator of mitochondrial transcription as well as a participant in mitochondrial genome replication. Studies in mice have demonstrated that this gene product is required to regulate the mitochondrial genome copy number and is essential for embryonic development. A mouse model for Kearns-Sayre syndrome was produced when expression of this gene was eliminated by targeted disruption in heart and muscle cells. [provided by RefSeq
Other Designations	OTTHUMP00000019633|Transcription factor 6-like 2 (mitochondrial transcription factor)|mitochondrial transcription factor A

Publication Reference

- The mitochondrial ATP-dependent potassium channel (mitoKATP) controls skeletal muscle structure and function.

  Giulia Di Marco, Gaia Gherardi, Agnese De Mario, Ilaria Piazza, Martina Baraldo, Andrea Mattarei, Bert Blaauw, Rosario Rizzuto, Diego De Stefani, Cristina Mammucari.

  Cell Death & Disease 2024 Jan; 15(1):58.

  Application: WB, Mice, Mitok−/− mice muscles

- Multiple assay systems to analyze the dynamics of mitochondrial nucleoids in living mammalian cells.

  Takaya Ishihara, Hirotaka Kanon, Reiko Ban-Ishihara, Naotada Ishihara.

  Biochimica et Biophysica acta. General Subjects 2021 Feb; 1865(7):129874.

  Application: WB-Tr, Human, HeLa cells

- Impaired Mitochondrial Morphology and Functionality in Lonp1wt/- Mice.

  Anna De Gaetano, Lara Gibellini, Elena Bianchini, Rebecca Borella, Sara De Biasi, Milena Nasi, Federica Boraldi, Andrea Cossarizza, Marcello Pinti.

  Journal of Clinical Medicine 2020 Jun; 9(6):E1783.

  Application: WB-Ce, WB-Ti, Mouse, Embryos, MEFs

- Hippocampal tau oligomerization early in tau pathology coincides with a transient alteration of mitochondrial homeostasis and DNA repair in a mouse model of tauopathy.

  Zheng J, Akbari M, Schirmer C, Reynaert ML, Loyens A, Lefebvre B, Buée L, Croteau DL, Galas MC, Bohr VA.

  Acta Neuropathologica Communications 2020 Mar; 8(1):25.

  Application: WB-Ti, Mouse, Mouse hippocampus extracts

- Diminished OPA1 expression and impaired mitochondrial morphology and homeostasis in Aprataxin-deficient cells.

  Zheng J, Croteau DL, Bohr VA, Akbari M.

  Nucleic Acids Research 2019 May; 47(8):4086.

  Application: WB-Tr, Human, U2OS cells

- AICAR induces mitochondrial apoptosis in human osteosarcoma cells through an AMPK-dependent pathway.

  Morishita M, Kawamoto T, Hara H, Onishi Y, Ueha T, Minoda M, Katayama E, Takemori T, Fukase N, Kurosaka M, Kuroda R, Akisue T.

  International Journal of Oncology 2017 Jan; 50(1):23.

  Application: WB, Human, Osteosarcoma cell lines MG63, KHOS

- Decreased mitochondrial copy numbers in oral squamous cell carcinoma.

  Takeda D, Hasegawa T, Ueha T, Sakakibara A, Kawamoto T, Minamikawa T, Sakai Y, Komori T.

  Head Neck 2016 Apr; 38(8):1170.

  Application: IHC-P, Human, Oral SCC

- Slow mitochondrial repair of 5'-AMP renders mtDNA susceptible to damage in APTX deficient cells.

  Akbari M, Sykora P, Bohr VA.

  Scientific Reports 2015 Aug; 5:12876.

  Application: WB, Human, C3ABR, L938 lymphoblast cell lines

- Silencing of mitochondrial Lon protease deeply impairs mitochondrial proteome and function in colon cancer cells.

  Gibellini L, Pinti M, Boraldi F, Giorgio V, Bernardi P, Bartolomeo R, Nasi M, De Biasi S, Missiroli S, Carnevale G, Losi L, Tesei A, Pinton P, Quaglino D, Cossarizza A.

  FASEB Journal 2014 Dec; 28(12):5122.

  Application: WB-Ce, Human, RKO cells

- Overexpression of DNA ligase III in mitochondria protects cells against oxidative stress and improves mitochondrial DNA base excision repair.

  Akbari M, Keijzers G, Maynard S, Scheibye-Knudsen M, Desler C, Hickson ID, Bohr VA.

  DNA Repair 2014 Apr; 16:44.

  Application: WB-Ce, Human, HeLa, U2OS cells

- Impaired complex IV activity in response to loss of LRPPRC function can be compensated by mitochondrial hyperfusion.

  Rolland SG, Motori E, Memar N, Hench J, Frank S, Winklhofer KF, Conradt B.

  PNAS 2013 Aug; 110(32):E2967.

  Application: WB-Tr, Human, SH-SY5Y cells

- Loss of mitochondrial peptidase Clpp leads to infertility, hearing loss plus growth retardation via accumulation of CLPX, mtDNA, and inflammatory factors.

  Gispert S, Parganlija D, Klinkenberg M, Drose S, Wittig I, Mittelbronn M, Grzmil P, Koob S, Hamann A, Walter M, Buchel F, Adler T, de Angelis MH, Busch DH, Zell A, Reichert AS, Brandt U, Osiewacz HD, Jendrach M, Auburger G.

  Human Molecular Genetics 2013 Dec; 22(24):4871.

  Application: WB-Ti, Mouse, Brains, Hearts, Livers, Testis

- Tissue-specific control of mitochondrial respiration in obesity-related insulin resistance and diabetes.

  Holmström MH, Iglesias-Gutierrez E, Zierath JR, Garcia-Roves PM.

  American Journal of Physiology. Endocrinology and Metabolism 2012 Mar; 302(6):E731.

  Application: WB-Ti, Mouse, Mouse skeletal muscle

- Cockayne syndrome group B protein promotes mitochondrial DNA stability by supporting the DNA repair association with the mitochondrial membrane.

  Aamann MD, Sorensen MM, Hvitby C, Berquist BR, Muftuoglu M, Tian J, de Souza-Pinto NC, Scheibye-Knudsen M, Wilson Iii DM, Stevnsner T, Bohr VA.

  FASEB Journal 2010 Jul; 24(7):2334.

  Application: IF, Human, HeLa, Human fibroblast cells

Disease

- Alzheimer disease
- Birth Weight
- Cardiomegaly
- Cardiovascular Diseases
- Cognition
- Diabetes Complications
- Diabetes Mellitus
- Genetic Predisposition to Disease
- Insulin Resistance
- Metabolic Syndrome X
- Neoplasms
- Obesity
- Osteoporosis
- Parkinson disease
- Psychiatric Status Rating Scales