abcam

Product datasheet

Anti-MTH1 antibody [EPR15934-50] ab200832

敲除验证 重组 RabMAb

4 References 10 图像

概述

产品名称	Anti-MTH1抗体[EPR15934-50]
描述	兔单克隆抗体[EPR15934-50] to MTH1
宿主	Rabbit
经测试应用	**适用于:** Flow Cyt (Intra), WB, IHC-P, IP, ICC/IF
种属反应性	**与反应:** Human
免疫原	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
阳性对照	WB: HEK-293T, HAP1, HeLa and Jurkat whole cell lysate; Human fetal kidney and fetal thymus lysates. IHC-P: Human thymus and squamous cell carcinoma of lung tissues. ICC/IF: Jurkat and A549 cells. Flow Cyt (intra): Jurkat cells. IP: Jurkat whole cell lysate.
常规说明	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

性能

形式	Liquid
存放说明	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
存储溶液	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
纯度	Protein A purified
克隆	单克隆
克隆编号	EPR15934-50

同种型	IgG

应用

The Abpromise guarantee **Abpromise™承诺保证使用ab200832于以下的经测试应用**

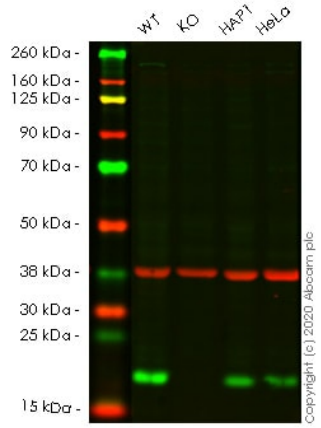
"应用说明"部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
Flow Cyt (Intra)		1/150. **ab172730** - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
WB		1/5000. Detects a band of approximately 18 kDa (predicted molecular weight: 23 kDa).
IHC-P		1/50. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
IP		1/50.
ICC/IF		1/500.

靶标

功能	Antimutagenic. Acts as a sanitizing enzyme for oxidized nucleotide pools, thus suppressing cell dysfunction and death induced by oxidative stress. Hydrolyzes 8-oxo-dGTP, 8-oxo-dATP and 2-OH-dATP, thus preventing misincorporation of oxidized purine nucleoside triphosphates into DNA and subsequently preventing A:T to C:G and G:C to T:A transversions. Able to hydrolyze also the corresponding ribonucleotides, 2-OH-ATP, 8-oxo-GTP and 8-oxo-ATP. Does not play a role in U8 snoRNA decapping activity. Binds U8 snoRNA.
组织特异性	Widely expressed with highest expression in thymus, testis, embryo and proliferating blood lymphocytes.
序列相似性	Belongs to the Nudix hydrolase family. Contains 1 nudix hydrolase domain.
发展阶段	In peripheral blood lymphocytes, expressed at much higher levels in proliferating cells than in resting cells.
翻译后修饰	The N-terminus is blocked.
细胞定位	Cytoplasm. Mitochondrion matrix and Cytoplasm. Mitochondrion matrix. Nucleus. Mostly present in cytoplasm. Variant Met-124 has decreased efficiency in translocation to mitochondria.

图片



Western blot - Anti-MTH1 antibody [EPR15934-50] (ab200832)

All lanes : Anti-MTH1 antibody [EPR15934-50] (ab200832) at 1/5000 dilution

Lane 1 : Wild-type HEK-293T cell lysate
Lane 2 : NUDT1 knockout HEK-293T cell lysate
Lane 3 : HAP1 cell lysate
Lane 4 : HeLa cell lysate

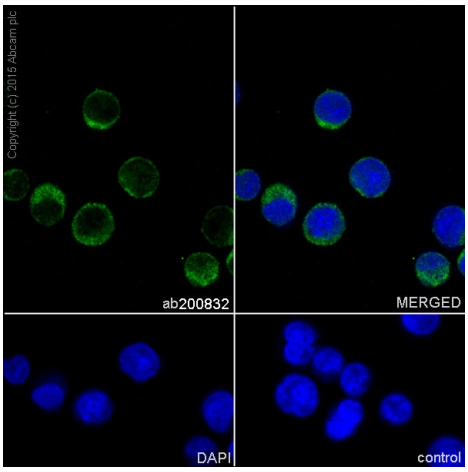
Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 23 kDa
Observed band size: 18 kDa

Lanes 1- 4: Merged signal (red and green). Green - ab200832 observed at 18 kDa. Red - Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) observed at 37 kDa.

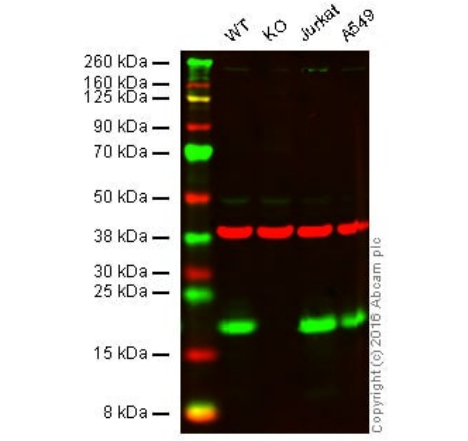
ab200832 was shown to react with MTH1 in wild-type HEK-293T cells in western blot. Loss of signal was observed when knockout cell line **ab266400** (knockout cell lysate **ab257565**) was used. Wild-type HEK-293T and NUDT1 knockout HEK-293T cell lysates were subjected to SDS-PAGE. Membrane was blocked for 1 hour at room temperature in 0.1% TBST with 3% non-fat dried milk. ab200832 and Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) overnight at 4°C at a 1 in 5000 dilution and a 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye®800CW) preadsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye®680RD) preadsorbed (**ab216776**) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.



Immunocytochemistry/ Immunofluorescence - Anti-MTH1 antibody [EPR15934-50] (ab200832)

Immunocytochemistry/Immunofluorescence analysis of Daudi (human Burkitt's lymphoma) labelling MTH-1 with purified ab200832 at 1/500. Cells were fixed with 100% methanol. An Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/1000) was used as the secondary antibody (Ab150077). Nuclei counterstained with DAPI (blue).

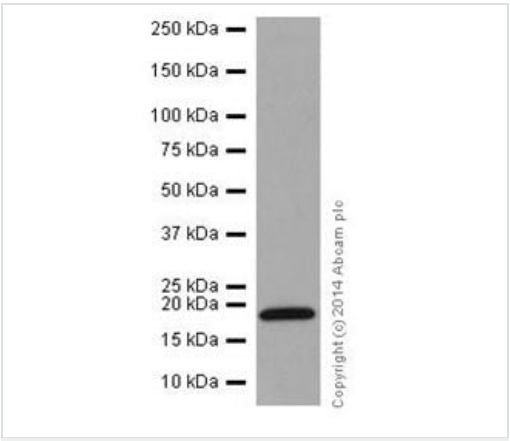
Control: PBS only



Western blot - Anti-MTH1 antibody [EPR15934-50] (ab200832)

Lane 1: Wild-type HAP1 cell lysate (20 µg)
Lane 2: MTH1 knockout HAP1 cell lysate (20 µg)
Lane 3: Jurkat cell lysate (20 µg)
Lane 4: A549 cell lysate (20 µg)
Lanes 1 - 4: Merged signal (red and green). Green - ab200832 observed at 18 kDa. Red - loading control, **ab8245**, observed at 37 kDa.

ab200832 was shown to specifically react with MTH1 when MTH1 knockout samples were used. Wild-type and MTH1 knockout samples were subjected to SDS-PAGE. ab200832 at a dilution of 1/5000 and **ab8245** (loading control to GAPDH) diluted to 1/10,000 were incubated overnight at 4°C. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (**ab216776**) secondary antibodies at 1/10,000 dilution for 1 hour at room temperature before imaging.



Western blot - Anti-MTH1 antibody [EPR15934-50] (ab200832)

Anti-MTH1 antibody [EPR15934-50] (ab200832) at 1/5000 dilution + Jurkat (Human T cell leukemia cells from peripheral blood) whole cell lysate at 20 µg

Secondary

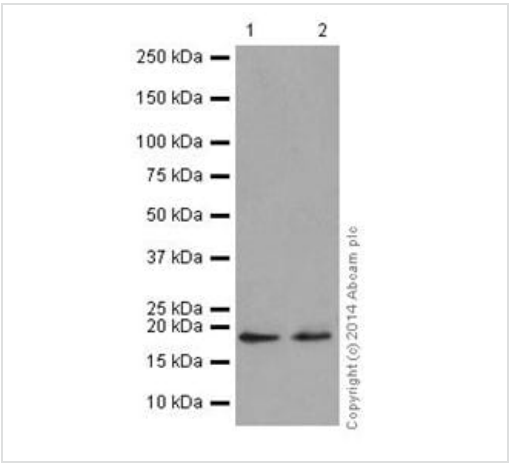
Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/1000 dilution

Predicted band size: 23 kDa
Observed band size: 18 kDa

Exposure time: 15 seconds

Blocking/dilution Buffer: 5% NFDM/TBST.

The expression profile observed is consistent with the following literature PMID: 11296483.



Western blot - Anti-MTH1 antibody [EPR15934-50] (ab200832)

All lanes : Anti-MTH1 antibody [EPR15934-50] (ab200832) at 1/5000 dilution

Lane 1 : Human fetal kidney lysate
Lane 2 : Human fetal thymus lysate

Lysates/proteins at 20 µg per lane.

Secondary

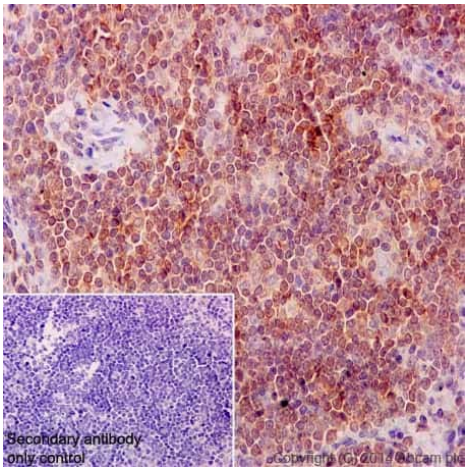
All lanes : Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/1000 dilution

Predicted band size: 23 kDa
Observed band size: 18 kDa

Exposure time: 1 minute

Blocking/dilution Buffer: 5% NFDM/TBST.

The expression profile observed is consistent with the following literature PMID: 11296483.

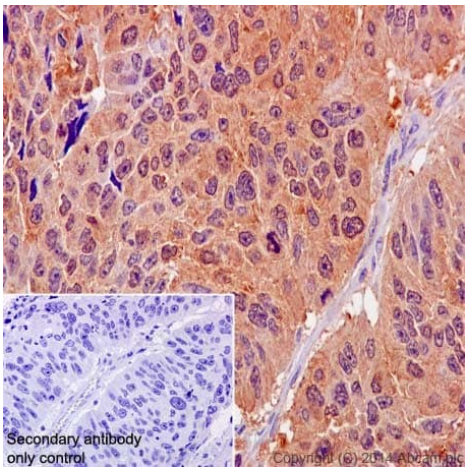


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MTH1 antibody [EPR15934-50] (ab200832)

Immunohistochemical analysis of paraffin-embedded Human thymus tissue labeling MTH1 with ab200832 at 1/100 dilution followed by Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/500 dilution. Cytoplasmic and nuclear staining on Human thymus tissue is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

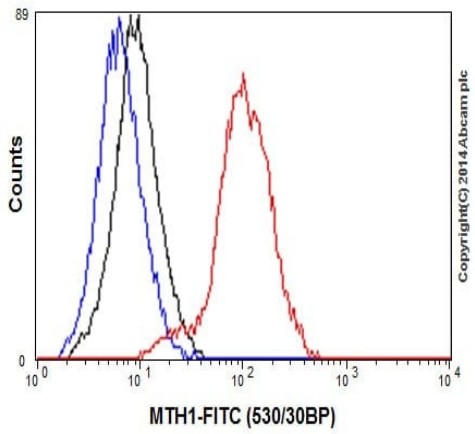


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MTH1 antibody [EPR15934-50] (ab200832)

Immunohistochemical analysis of paraffin-embedded Human squamous cell carcinoma of lung tissue labeling MTH1 with ab200832 at 1/100 dilution followed by Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/500 dilution. Cytoplasmic and nuclear staining on Human squamous cell carcinoma of lung tissue is observed. Counter stained with Hematoxylin.

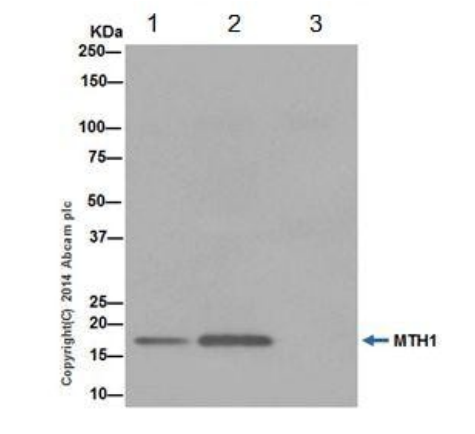
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-MTH1 antibody [EPR15934-50] (ab200832)

Intracellular flow cytometric analysis of 2% paraformaldehyde-fixed Jurkat (Human T cell leukemia cells from peripheral blood)cells labeling MTH1 with ab200832 at 1/150 dilution (red) compared with a rabbit monoclonal IgG isotype control (**ab172730**; black) and an unlabelled control (cells without incubation with primary antibody and secondary antibody; blue). Goat anti rabbit IgG (FITC) at 1/150 dilution was used as the secondary antibody.

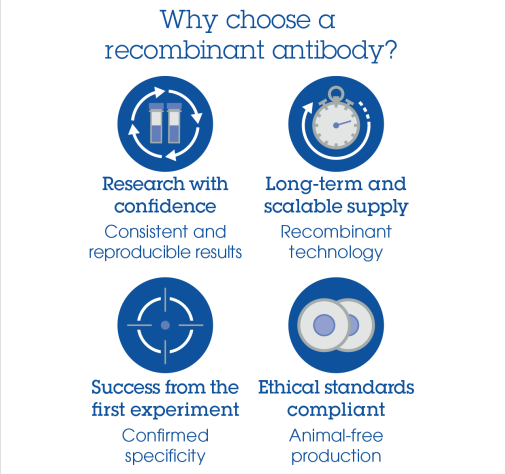


Immunoprecipitation - Anti-MTH1 antibody [EPR15934-50] (ab200832)

MTH1 was immunoprecipitated from 1mg of Jurkat (Human T cell leukemia cells from peripheral blood) whole cell lysate with ab200832 at 1/50 dilution. Western blot was performed from the immunoprecipitate using ab200832 at 1/2000 dilution. Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG, was used as secondary antibody at 1/1500 dilution.

Lane 1: Jurkat whole cell lysate 10ug (Input). Lane 2: ab200832 IP in Jurkat whole cell lysate. Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of ab200832 in Jurkat whole cell lysate. Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 3 seconds.



Anti-MTH1 antibody [EPR15934-50] (ab200832)

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