

Product datasheet

Anti-MTH1 antibody ab55527

[2 Images](#)

Overview

Product name	Anti-MTH1 antibody
Description	Mouse monoclonal to MTH1
Host species	Mouse
Tested applications	Suitable for: WB
Species reactivity	Reacts with: Human
Immunogen	Recombinant full length protein, corresponding to amino acids 1-180 of Human MTH1

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Storage buffer	Preservative: None PBS, pH 7.2
Purity	Protein G purified
Clonality	Monoclonal
Isotype	IgG2a
Light chain type	kappa

Applications

Our [Abpromise guarantee](#) covers the use of **ab55527** in the following tested applications.

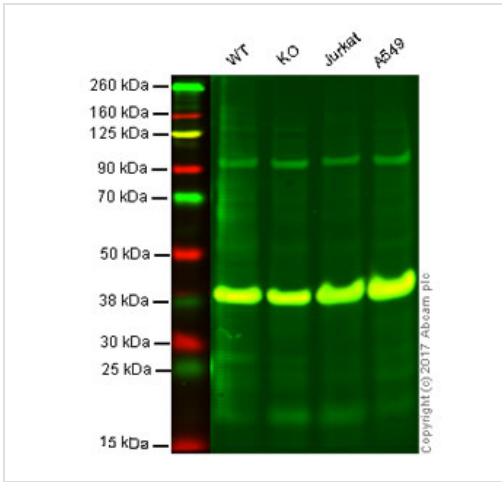
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		Use a concentration of 1 - 5 µg/ml. This antibody has only been tested in WB against the recombinant fragment used as immunogen. We have no data on the detection of endogenous protein.

Target

Function	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.
Tissue specificity	Widely expressed with highest expression in thymus, testis, embryo and proliferating blood lymphocytes.
Sequence similarities	Belongs to the Nudix hydrolase family. Contains 1 nudix hydrolase domain.
Developmental stage	In peripheral blood lymphocytes, expressed at much higher levels in proliferating cells than in resting cells.
Post-translational modifications	The N-terminus is blocked.
Cellular localization	Cytoplasm. Mitochondrion matrix and Cytoplasm. Mitochondrion matrix. Nucleus. Mostly present in cytoplasm. Variant Met-124 has decreased efficiency in translocation to mitochondria.

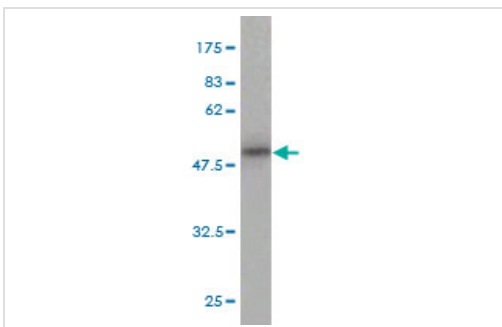
Images



Western blot - Anti-MTH1 antibody (ab55527)

Lane 1: Wild type HAP1 whole cell lysate (20 µg)
Lane 2: NUDT1 knockout HAP1 whole cell lysate (20 µg)
Lane 3: Jurkat whole cell lysate (20 µg)
Lane 4: A549 whole cell lysate (20 µg)
Lanes 1 - 4: Merged signal (red and green). Green - ab55527 observed at 18 kDa. Red - loading control, [ab181602](#), observed at 37 kDa.

ab55527 was shown not to specifically react with NUDT1 when NUDT1 knockout samples were used. Wild-type and NUDT1 knockout samples were subjected to SDS-PAGE. Ab55527 and [ab181602](#) (Rabbit anti GAPDH loading control) were incubated overnight at 4°C at 1 µg/ml and 1/10000 dilution respectively. Blots were developed with Goat anti-Mouse IgG H&L (IRDye® 800CW) preabsorbed [ab216772](#) and Goat anti-Rabbit IgG H&L (IRDye® 680RD) preabsorbed [ab216777](#) secondary antibodies at 1/10000 dilution for 1 hour at room temperature before imaging.



Western blot - MTH1 antibody (ab55527)

Western blot against tagged recombinant protein immunogen using ab55527 MTH1 antibody at 1µg/ml. Predicted band size of immunogen is 46 kDa

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