ARG57149
anti-MTH1 antibody [3B3]

Package: 50 µl
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody [3B3] recognizes MTH1
Tested Reactivity	Hu
Tested Application	FACS, WB
Host	Mouse
Clonality	Monoclonal
Clone	3B3
Isotype	IgG1, kappa
Target Name	MTH1
Species	Human
Immunogen	Recombinant fragment around aa. 1-156 of Human MTH1
Conjugation	Un-conjugated
Alternate Names	8-oxo-dGTPase; MTH1; EC 3.6.1.56; EC 3.6.1.55; 7,8-dihydro-8-oxoguanine triphosphatase; Nudix motif 1; 2-hydroxy-dATP diphosphatase; Nucleoside diphosphate-linked moiety X motif 1

Application Instructions

Application table

Application	Dilution
FACS	Assay-dependent
WB	1:200 - 1:500

Application Note: * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

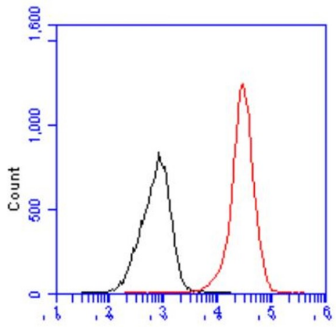
Properties

Form	Liquid
Purification	Purification with Protein A.
Buffer	PBS (pH 7.4), 0.02% Sodium azide and 10% Glycerol.
Preservative	0.02% Sodium azide
Stabilizer	10% Glycerol
Concentration	1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Database links	GeneID: 4521 Human Swiss-port # P36639 Human
Gene Symbol	NUDT1
Gene Full Name	nudix (nucleoside diphosphate linked moiety X)-type motif 1
Background	Misincorporation of oxidized nucleoside triphosphates into DNA/RNA during replication and transcription can cause mutations that may result in carcinogenesis or neurodegeneration. The protein encoded by this gene is an enzyme that hydrolyzes oxidized purine nucleoside triphosphates, such as 8-oxo-dGTP, 8-oxo-dATP, 2-hydroxy-dATP, and 2-hydroxy rATP, to monophosphates, thereby preventing misincorporation. The encoded protein is localized mainly in the cytoplasm, with some in the mitochondria, suggesting that it is involved in the sanitization of nucleotide pools both for nuclear and mitochondrial genomes. Several alternatively spliced transcript variants, some of which encode distinct isoforms, have been identified. Additional variants have been observed, but their full-length natures have not been determined. A single-nucleotide polymorphism that results in the production of an additional, longer isoform (p26) has been described. [provided by RefSeq, Jul 2008]
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. [UniProt]
Calculated Mw	23 kDa
PTM	The N-terminus is blocked.

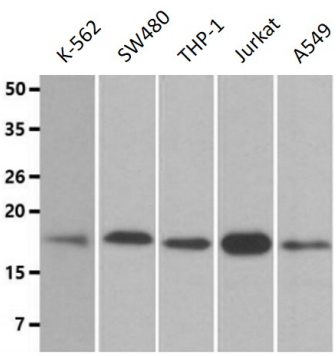
Images



Alexa 488-anti-MTH1 antibody

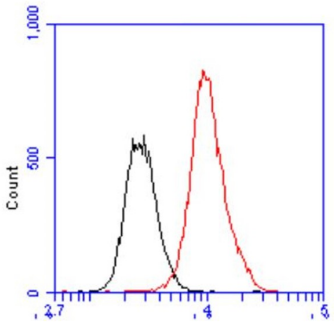
ARG57149 anti-MTH1 antibody [3B3] FACS image

Flow Cytometry: Jurkat cell line stained with ARG57149 anti-MTH1 antibody [3B3] at 2-5 µg for 1x10^6 cells (red line). Secondary antibody: Goat anti-Mouse IgG Alexa fluor 488 conjugate. Isotype control antibody: Mouse IgG (black line).



ARG57149 anti-MTH1 antibody [3B3] WB image

Western blot: 40 µg of 1) K-562, 2) SW480, 3) THP-1, 4) Jurkat, and 5) A549 cell lysates stained with ARG57149 anti-MTH1 antibody [3B3] at 1:500.



Alexa 488-anti-MTH1 antibody

ARG57149 anti-MTH1 antibody [3B3] FACS image

Flow Cytometry: SW480 cell line stained with ARG57149 anti-MTH1 antibody [3B3] at 2-5 µg for 1x10^6 cells (red line). Secondary antibody: Goat anti-Mouse IgG Alexa fluor 488 conjugate. Isotype control antibody: Mouse IgG (black line).