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Anti-MTH1 Rabbit Monoclonal Antibody

Catalog # ABO15647

Product Information

Application	WB, IHC, IF, ICC, IP, FC
Primary Accession	P36639
Host	Rabbit
Isotype	IgG
Reactivity	Human
Clonality	Monoclonal
Format	Liquid
Description	Anti-MTH1 Rabbit Monoclonal Antibody . Tested in WB, IHC, ICC/IF, IP, Flow Cytometry applications. This antibody reacts with Human.

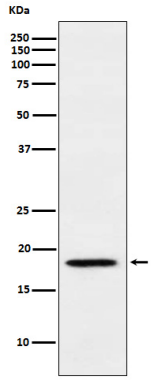
Additional Information

Gene ID	4521
Other Names	Oxidized purine nucleoside triphosphate hydrolase, 3.6.1.56, 2-hydroxy-dATP diphosphatase, 7, 8-dihydro-8-oxoguanine triphosphatase, 8-oxo-dGTPase, Methylated purine nucleoside triphosphate hydrolase, 3.6.1.-, Nucleoside diphosphate-linked moiety X motif 1, Nudix motif 1, NUDT1, MTH1 {ECO:0000303|PubMed:7713500}
Calculated MW	17952
Application Details	WB 1:500-1:2000 IHC 1:50-1:200 ICC/IF 1:50-1:200 IP 1:50 FC 1:100
Source	Eukaryota
Contents	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
Clone Names	Clone: 22N23
Immunogen	A synthesized peptide derived from human MTH1
Purification	Affinity-chromatography
Storage	Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

Protein Information

Name	NUDT1
Synonyms	MTH1 {ECO:0000303|PubMed:7713500}
Function	Oxidized purine nucleoside triphosphate hydrolase which is a prominent sanitizer of the oxidized nucleotide pool (PubMed:10608900, PubMed:12857738, PubMed:22556419, PubMed:24695224, PubMed:24695225, PubMed:26238318, PubMed:28679043, PubMed:7713500, PubMed:8226881). Catalyzes the hydrolysis of 2-oxo-dATP (2-hydroxy-dATP) into 2-oxo-dAMP (PubMed:10373420). Also has a significant hydrolase activity toward 2- oxo-ATP, 8-oxo-dGTP and 8-oxo-dATP (PubMed:10373420, PubMed:11139615). Through the hydrolysis of oxidized purine nucleoside triphosphates, prevents their incorporation into DNA and the subsequent transversions A:T to C:G and G:C to T:A (PubMed:10373420, PubMed:10608900, PubMed:11756418, PubMed:12857738, PubMed:16607562, PubMed:24695224, PubMed:24695225, PubMed:26999531, PubMed:28035004, PubMed:8226881). Also catalyzes the hydrolysis of methylated purine nucleoside triphosphate preventing their integration into DNA (PubMed:30304478, PubMed:32144205). Through this antimutagenic activity protects cells from oxidative stress (PubMed:10608900, PubMed:12857738, PubMed:24695224, PubMed:24695225, PubMed:30304478, PubMed:32144205, PubMed:7713500, PubMed:8226881).
Cellular Location	[Isoform p18]: Cytoplasm, cytosol. Mitochondrion matrix. Nucleus. Note=Mostly present in cytosol (PubMed:7782328). A minor proportion is mitochondrial (PubMed:7782328) A very small amount of the protein is associated with nuclei (PubMed:7782328).
Tissue Location	Widely expressed with highest expression in thymus, testis, embryo and proliferating blood lymphocytes

Images



Western blot analysis of MTH1 expression in Jurkat cell lysate.

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