

MTH1 Rabbit mAb

Catalog # AP75748

Product Information

Application	WB, IP, ICC
Primary Accession	<u>P36639</u>
Reactivity	Human
Host	Rabbit
Clonality	Monoclonal Antibody
Calculated MW	17952

Additional Information

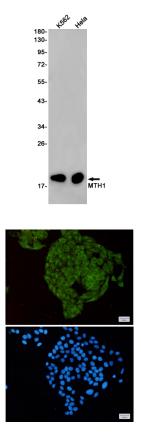
Gene ID	4521
Other Names	NUDT1
Dilution	WB~~1/500-1/1000 IP~~N/A ICC~~N/A
Format	50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and 0.05% BSA.
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

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: <u>10608900</u> , PubMed: <u>12857738</u> , PubMed: <u>22556419</u> , PubMed: <u>24695224</u> , PubMed: <u>24695225</u> , PubMed: <u>26238318</u> , PubMed: <u>28679043</u> , PubMed: <u>7713500</u> , PubMed: <u>8226881</u>). Catalyzes the hydrolysis of 2-oxo-dATP (2-hydroxy-dATP) into 2-oxo-dAMP (PubMed: <u>10373420</u>). Also has a significant hydrolase activity toward 2- oxo-ATP, 8-oxo-dGTP and 8-oxo-dATP (PubMed: <u>10373420</u> , PubMed: <u>11139615</u>). 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: <u>10373420</u> , PubMed: <u>10608900</u> , PubMed: <u>11756418</u> , PubMed: <u>12857738</u> , PubMed: <u>16607562</u> , PubMed: <u>24695224</u> , PubMed: <u>24695225</u> , PubMed: <u>26999531</u> , PubMed: <u>28035004</u> , PubMed: <u>8226881</u>). Also catalyzes the hydrolysis of methylated purine nucleoside triphosphate preventing their integration into DNA (PubMed: <u>30304478</u> , PubMed: <u>32144205</u>). Through this antimutagenic activity protects cells from oxidative stress (PubMed: <u>10608900</u> ,

	PubMed: <u>12857738</u> , PubMed: <u>24695224</u> , PubMed: <u>24695225</u> , PubMed: <u>30304478</u> , PubMed: <u>32144205</u> , PubMed: <u>7713500</u> , PubMed: <u>8226881</u>).
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



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