

MTH1 Rabbit mAb

Catalog # AP75748

Product Information

Application	WB, IP, ICC
Primary Accession	P36639
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: 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](#)).

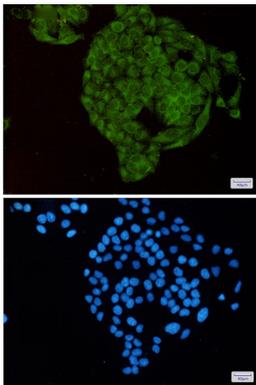
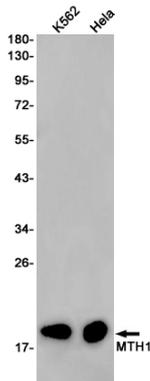
Cellular Location

[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



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