

Anti-NUDT1 / MTH1 Antibody

Rabbit Anti Human Polyclonal Antibody

Catalog # ALS17760

Product Information

Application	WB, IHC-P, E
Primary Accession	P36639
Predicted	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	17952
Concentration (mg/ml)	1 mg/ml

Additional Information

Gene ID	4521
Alias Symbol	NUDT1
Other Names	NUDT1, 8-oxo-dGTPase, 2-hydroxy-dATP diphosphatase, MutT human homolog 1, Nudix motif 1, MTH1
Target/Specificity	MTH1 antibody detects endogenous levels of MTH1 protein. Not tested with other proteins.
Reconstitution & Storage	Purified
Precautions	Anti-NUDT1 / MTH1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

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

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.