

KD-Validated Anti-Nudix hydrolase 1 Rabbit Monoclonal Antibody
Rabbit monoclonal antibody
Catalog # AGI1388**Specification****KD-Validated Anti-Nudix hydrolase 1 Rabbit Monoclonal Antibody - Product Information**

Application	WB, FC, ICC
Primary Accession	P36639
Reactivity	Human
Clonality	Monoclonal
Isotype	Rabbit IgG
Calculated MW	Predicted, 18 kDa , observed, 18 kDa KDa
Gene Name	NUDT1
Aliases	NUDT1; Nudix Hydrolase 1; 7,8-Dihydro-8-Oxoguanine Triphosphatase; Nudix Motif 1; 8-Oxo-DGTPase; MTH1; Nudix (Nucleoside Diphosphate Linked Moiety X)-Type Motif 1; Nucleoside Diphosphate-Linked Moiety X-Type Motif 1; Methylated Purine Nucleoside Triphosphate Hydrolase; Oxidized Purine Nucleoside Triphosphate Hydrolase; 8-Oxo-7,8-Dihydrodeoxyguanosine Triphosphatase; Nucleoside Diphosphate-Linked Moiety X Motif 1; 8-Oxo-7,8-Dihydroguanosine Triphosphatase; 2-Hydroxy-DATP Diphosphatase; MutT Human Homolog 1; EC 3.6.1.56; EC 3.6.1.-
Immunogen	A synthesized peptide derived from human MTH1

KD-Validated Anti-Nudix hydrolase 1 Rabbit Monoclonal Antibody - 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}	

KD-Validated Anti-Nudix hydrolase 1 Rabbit Monoclonal Antibody - 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

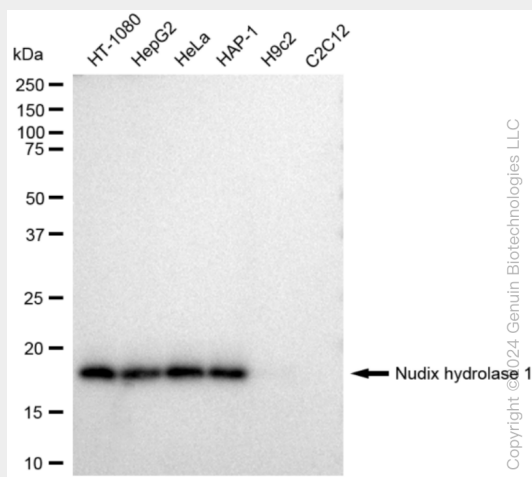
KD-Validated Anti-Nudix hydrolase 1 Rabbit Monoclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

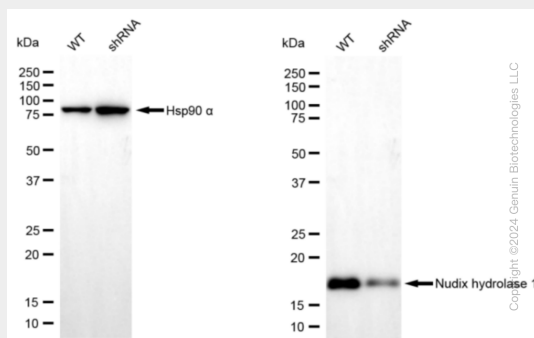
- [Western Blot](#)

- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

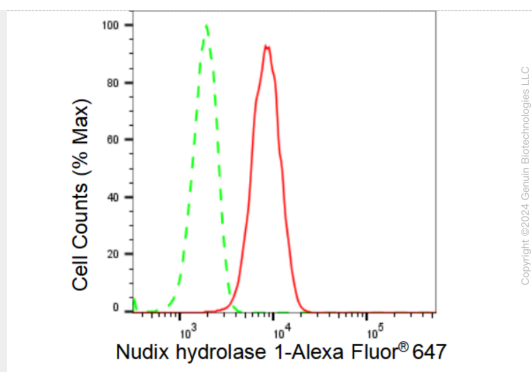
KD-Validated Anti-Nudix hydrolase 1 Rabbit Monoclonal Antibody - Images



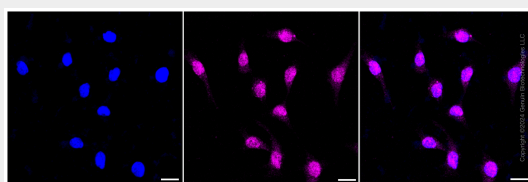
Western blotting analysis using anti-Nudix hydrolase 1 antibody (Cat#AGI1388). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-Nudix hydrolase 1 antibody (Cat#AGI1388, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Western blotting analysis using anti-Nudix hydrolase 1 antibody (Cat#AGI1388). Nudix hydrolase 1 expression in wild type (WT) and Nudix hydrolase 1 shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-Nudix hydrolase 1 antibody (Cat#AGI1388, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of Nudix hydrolase 1 expression in HeLa cells using Nudix hydrolase 1 antibody (Cat#AGI1388, 1:2,000). Green, isotype control; red, Nudix hydrolase 1.



Immunocytochemical staining of HeLa cells with Nudix hydrolase 1 antibody (Cat#AGI1388, 1:1,000). Nuclei were stained blue with DAPI; Nudix hydrolase 1 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20 µm.