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# NUDT1 Antibody (monoclonal) (M02)

Mouse monoclonal antibody raised against a full length recombinant NUDT1.
Catalog # AT3126a

## Product Information

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|---|---|
| **Application** | WB, E |
| **Primary Accession** | P36639 |
| **Other Accession** | BC014618 |
| **Reactivity** | Human |
| **Host** | mouse |
| **Clonality** | monoclonal |
| **Isotype** | IgG2a Kappa |
| **Clone Names** | 5F11 |
| **Calculated MW** | 17952 |

## Additional Information

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|---|---|
| **Gene ID** | 4521 |
| **Other Names** | 8-dihydro-8-oxoguanine triphosphatase, 2-hydroxy-dATP diphosphatase, 8-oxo-dGTPase, Nucleoside diphosphate-linked moiety X motif 1, Nudix motif 1, NUDT1, MTH1 |
| **Target/Specificity** | NUDT1 (AAH14618, 1 a.a. ~ 179 a.a) full-length recombinant protein with GST tag. MW of the GST tag alone is 26 KDa. |
| **Dilution** | WB~~1:500~1000 E~~N/A |
| **Format** | Clear, colorless solution in phosphate buffered saline, pH 7.2 . |
| **Storage** | Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing. |
| **Precautions** | NUDT1 Antibody (monoclonal) (M02) is for research use only and not for use in diagnostic or therapeutic procedures. |

## Background

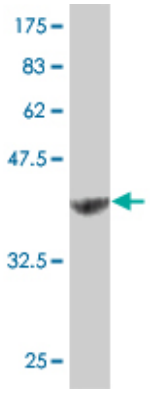
Misincorporation of oxidized nucleoside triphosphates into DNA/RNA during replication and transcription can cause mutations that may result in carcinogenesis or neurodegeneration. The protein encoded by this gene is an enzyme that hydrolyzes oxidized purine nucleoside triphosphates, such as 8-oxo-dGTP, 8-oxo-dATP, 2-hydroxy-dATP, and 2-hydroxy rATP, to monophosphates, thereby preventing misincorporation. The encoded protein is localized mainly in the cytoplasm, with some in the mitochondria, suggesting that it is involved in the sanitization of nucleotide pools both for nuclear and mitochondrial genomes. Several alternatively spliced transcript variants, some of which encode distinct isoforms, have been identified. Additional variants have been observed, but their full-length natures have not been determined. A single-nucleotide polymorphism that results in the production of an additional, longer

isoform (p26) has been described.

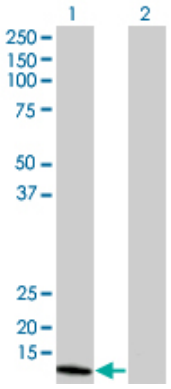
## References

A Large-scale genetic association study of esophageal adenocarcinoma risk. Liu CY, et al. Carcinogenesis, 2010 Jul. PMID 20453000.Suppression of mutagenesis by 8-hydroxy-2'-deoxyguanosine 5'-triphosphate (7,8-dihydro-8-oxo-2'-deoxyguanosine 5'-triphosphate) by human MTH1, MTH2, and NUDT5. Hori M, et al. Free Radic Biol Med, 2010 May 1. PMID 20144704.Genetic polymorphisms in hMTH1, hOGG1 and hMYH and risk of chronic benzene poisoning in a Chinese occupational population. Wu F, et al. Toxicol Appl Pharmacol, 2008 Dec 15. PMID 18848840.OGG1, MYH and MTH1 gene variants identified in gastric cancer patients exhibiting both 8-hydroxy-2'-deoxyguanosine accumulation and low inflammatory cell infiltration in their gastric mucosa. Goto M, et al. J Genet, 2008 Aug. PMID 18776649.hMTH1 depletion promotes oxidative-stress-induced apoptosis through a Noxa- and caspase-3/7-mediated signaling pathway. Youn CK, et al. DNA Repair (Amst), 2008 Nov 1. PMID 18708163.

## Images

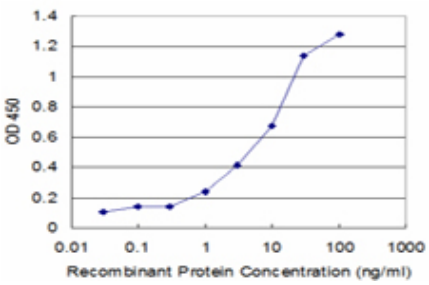



Antibody Reactive Against Recombinant Protein.Western Blot detection against Immunogen (45.43 KDa) .




Western Blot analysis of NUDT1 expression in transfected 293T cell line by NUDT1 monoclonal antibody (M02), clone 5F11.

Lane 1: NUDT1 transfected lysate(18 KDa).
Lane 2: Non-transfected lysate.




Detection limit for recombinant GST tagged NUDT1 is approximately 1ng/ml as a capture antibody.

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