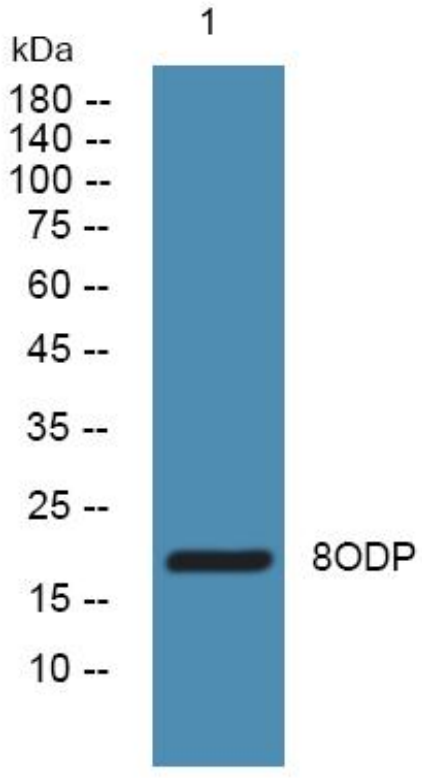
8ODP Monoclonal Antibody

Catalog No	YP-mAb-05259
Isotype	IgG
Reactivity	Human;Rat;Mouse;
Applications	WB
Gene Name	NUDT1 MTH1
Protein Name	7,8-dihydro-8-oxoguanine triphosphatase (EC 3.6.1.55) (2-hydroxy-dATP diphosphatase) (EC 3.6.1.56) (8-oxo-dGTPase) (Nucleoside diphosphate-linked moiety X motif 1) (Nudix motif 1)
Immunogen	Synthesized peptide derived from human protein . at AA range: 1-80
Specificity	8ODP Monoclonal Antibody detects endogenous levels of protein.
Formulation	Liquid in PBS containing 50% glycerol, and 0.02% sodium azide.
Source	Monoclonal, Mouse,IgG
Purification	The antibody was affinity-purified from mouse antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB 1:500-1:2000
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	
Observed Band	21kD
Cell Pathway	[Isoform p18]: Cytoplasm, cytosol . Mitochondrion matrix . Nucleus . 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). .; [Isoform p26]: Mitochondrion matrix .
Tissue Specificity	Widely expressed with highest expression in thymus, testis, embryo and proliferating blood lymphocytes.
Function	catalytic activity:8-oxo-dGTP + H(2)O = 8-oxo-dGMP + diphosphate.,developmental stage:In peripheral blood lymphocytes, expressed at much higher levels in proliferating cells than in resting cells.,function:Antimutagenic. Responsible for preventing misincorporation of 8-oxo-dGTP into DNA thus preventing A:T to C:G transversions.,polymorphism:A polymorphism between Met-1 and Met-19 removes a stop codon before the initiation codon for isoform p22 and gives rise to the production of isoform p26. The allele frequency of isoform p26 is about 20%.,PTM:The N-terminus is blocked.,similarity:Belongs to the Nudix hydrolase family.,tissue specificity:Widely expressed with highest expression in thymus, testis, embryo and proliferating blood lymphocytes.,

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 is
matters needing attention	Avoid repeated freezing and thawing!
Usage suggestions	This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

Products Images



Western Blot analysis of various cells using 8ODP Monoclonal Antibody