

Recombinant Human NUDT1, His-tagged

Cat. No. NUDT1-30252TH Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant full length Human MTH1 with an N terminal His tag; 176 amino acids with tag, MWt 20.1 kDa.
Species	Human
Source	E.coli
ProteinLength	156 amino acids
Description	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.
Conjugation	HIS
Molecular Weight	20.100kDa inclusive of tags

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Form	Liquid
Purity	>95% by SDS-PAGE
Storage buffer	Preservative: None Constituents: 10% Glycerol, 20mM Tris HCl, 2mM DTT, 100mM Sodium chloride, pH 8.0
Storage	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Sequences of amino acids	MGSSHHHHHHSSGLVPRGSHMGASRLYTLVLVLPQQRVLLGMKKRGFGAGRWNG FGGKVQEGETIEDGARRELQEESGLTVDALHKVGQIVFEFVGEPELMDVHVFCTDSI QGTPVESDEMRPCWFQLDQIPFKDMWPDDSYWFPLLLQKKKFHGYFKFQGQDTIL DYTLREVDTV

GENE INFORMATION

Gene Name	NUDT1 nudix (nucleoside diphosphate linked moiety X)-type motif 1 [Homo sapiens]
Official Symbol	NUDT1
Synonyms	NUDT1; nudix (nucleoside diphosphate linked moiety X)-type motif 1; MTH1; 7,8-dihydro-8-oxoguanine triphosphatase; 7; 8 dihydro 8 oxoguanine triphosphatase; 8 oxo 7; 8 dihydrodeoxyguanosine triphosphatase; 8 dihydroguanosine triphosphatase; 8 oxo dGTPase;
Gene ID	4521
mRNA Refseq	NM_002452
Protein Refseq	NP_002443

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MIM	600312
Uniprot ID	P36639
Chromosome Location	7p22
Function	8-oxo-7,8-dihydrodeoxyguanosine triphosphate pyrophosphatase activity; 8-oxo-7,8-dihydroguanosine triphosphate pyrophosphatase activity; GTPase activity; hydrolase activity; metal ion binding;

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