

Recombinant Human NUDT1 Protein, Myc/DDK-tagged, C13 and N15-labeled

Cat. No. NUDT1-5774H Lot. No. (See product label)

SPECIFICATION

Product Overview	NUDT1 MS Standard C13 and N15-labeled recombinant protein (NP_945188) with a C-terminal MYC/DDK tag, was expressed in HEK293 cells.
Species	Human
Source	HEK293
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 rare single-nucleotide polymorphism that results in the production of an additional, longer isoform (p26) has been described.
Molecular Mass	17.8 kDa
AA Sequence	MGASRLYTLVLVLQPQRVLLGMKKRFGAGRWNGFGGKVQEGETIEDGARRELQE

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ESGLTVDALHKVGGQIVFEFVGEPELMDVHVFCCTDSIQGTPVESDEMPCWFQLDQI
 PFKDMWPDDSYWFPLLLQKKKFHGYFKFQGQDTILDYTLREVDTVTRTRPLEQKLIS
 EEDLAANDILDYKDDDDKV

Purity > 80% as determined by SDS-PAGE and Coomassie blue staining

Stability Stable for 3 months from receipt of products under proper storage and handling conditions.

Storage Store at -80 centigrade. Avoid repeated freeze-thaw cycles.

Concentration 50 µg/mL as determined by BCA

Storage Buffer 100 mM glycine, 25 mM Tris-HCl, pH 7.3.

GENE INFORMATION

Gene Name [NUDT1 nudix hydrolase 1 \[Homo sapiens \(human\) \]](#)

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; mutT human homolog 1; nucleoside diphosphate linked moiety X type motif 1; nudix motif 1; 8-oxo-dGTPase; 2-hydroxy-dATP diphosphatase; 8-oxo-7,8-dihydroguanosine triphosphatase; 8-oxo-7,8-dihydrodeoxyguanosine triphosphatase; nucleoside diphosphate-linked moiety X motif 1; nucleoside diphosphate-linked moiety X-type motif 1;

Gene ID [4521](#)

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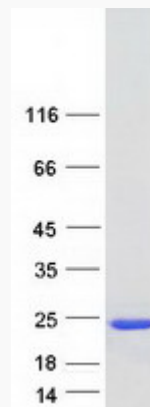
mRNA Refseq [NM_198950](#)

Protein Refseq [NP_945188](#)

MIM [600312](#)

UniProt ID [P36639](#)

SDS-PAGE



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