

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

Cat. No. DUT-3772H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	DUT MS Standard C13 and N15-labeled recombinant protein (NP_001939) with a C-terminal MYC/DDK tag, was expressed in HEK293 cells.
Species	Human
Source	HEK293
Description	This gene encodes an essential enzyme of nucleotide metabolism. The encoded protein forms a ubiquitous, homotetrameric enzyme that hydrolyzes dUTP to dUMP and pyrophosphate. This reaction serves two cellular purposes: providing a precursor (dUMP) for the synthesis of thymine nucleotides needed for DNA replication, and limiting intracellular pools of dUTP. Elevated levels of dUTP lead to increased incorporation of uracil into DNA, which induces extensive excision repair mediated by uracil glycosylase. This repair process, resulting in the removal and reincorporation of dUTP, is self-defeating and leads to DNA fragmentation and cell death. Alternative splicing of this gene leads to different isoforms that localize to either the mitochondrion or nucleus. A related pseudogene is located on chromosome 19.
Molecular Mass	17.6 kDa
AA Sequence	MPCSEETPAISPSKRARPAEVGGMQLRFARLSEHATAPTRGSARAAGYDLYSAYDY TIPPMEKAVVKTDIQIALPSGCYGRVAPRSGLAAKHFIDVGAGVIDEDYRGNVGVVLF NFGKEKFEVKKGDRIAQLICERIFYPEIEEVQALDDTERGSGGFGSTGKNTRTRPLE

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QKLISEEDLAANDILDYKDDDDKV

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 DUT deoxyuridine triphosphatase [Homo sapiens (human)]

Official Symbol DUT


Synonyms DUT; deoxyuridine triphosphatase; dUTP pyrophosphatase; deoxyuridine 5-triphosphate nucleotidohydrolase, mitochondrial; dUTPase; dUTP nucleotidohydrolase; FLJ20622;

Gene ID 1854

mRNA Refseq NM_001948

Protein Refseq NP_001939

MIM 601266

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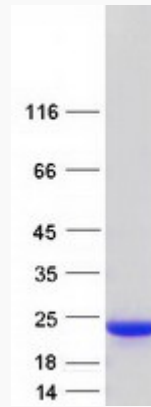
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UniProt ID

P33316

SDS-PAGE



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