

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 TIPPMKAVVKTDIQIALPSGCYGRVAPRSGLAAKHFIDVGAGVIDEDYRGNVGVVLF 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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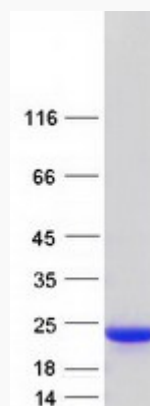
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UniProt ID

P33316

SDS-PAGE

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