

Recombinant Full Length Human DUT Protein, GST-tagged

Cat. No. DUT-4123HF **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Human DUT full-length ORF (NP_001020419.1, 1 a.a. - 252 a.a.) recombinant protein with GST-tag at N-terminal.
Species	Human
Source	In Vitro Cell Free System
ProteinLength	252 amino acids
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. [provided by RefSeq, Jul 2008]
Molecular Mass	53 kDa
AA Sequence	MTPLCPRPALCYHFLTSLLRSAMQNARGARQRAEAAVLSGPGPPLGRAAQHGIPRP LSSAGRLSQGCRGASTVGAAGWKGELPKAGGSPAPGPETPAISPSKRARPAEVGG

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MQLRFARLSEHATAPTRGSARAAGYDLYSAYDYTIPPMKAVVKTDIQIALPSGCGY
RVAPRSGLAAKHFIDVGAGVIDEDYRGNVGVVLFNFGKEKFEVKKGDRIAQLICERIF
YPEIEEVQALDDTERGSGGFGSTGKN

Applications

Enzyme-linked Immunoabsorbent Assay
Western Blot (Recombinant protein)
Antibody Production
Protein Array

Notes

Best use within three months from the date of receipt of this protein.

Storage

Store at -80 centigrade. Aliquot to avoid repeated freezing and thawing.

Storage Buffer

50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.

GENE INFORMATION

Gene Name

DUT deoxyuridine triphosphatase [Homo sapiens]

Official Symbol

DUT

Synonyms

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

Gene ID

1854

mRNA Refseq

NM_001025248

Protein Refseq

NP_001020419

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MIM	601266
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UniProt ID	P33316
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