Human DUT Knockdown Cell Lysate

Cat. No. DUT-147HKCL **Lot. No.** (See product label)

SPECIFICATION

Product Overview	WB-validated DUT Knockdown HeLa Cell Lysate
Species	Human
Source	HeLa
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.
Form	Cell-Tissue Lysis buffer
Molecular Mass	27 kDa
Notes	Instruction of use: This knockdown cell lysate should be paired with wild-type HeLa cell lysate for use. For Western blotting, we recommend running wild-type and knockdown lysates on the same gel, and loading each well with equal volume and equal amount of total proteins.

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Storage	Store at -20 centigrade for two years.
Concentration	Lot-specific
Shipping	Blue Ice
Components	1 vial of 100 µg WT HeLa cell lysate 1 vial of 100 µg DUT KD HeLa cell lysate
Protein Families	Druggable Genome
Protein Pathways	Metabolic pathways, Pyrimidine metabolism
Lysate QC	RT-qPCR; Western Blotting (WB)

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_001025248
Protein Refseq	NP_001020419
MIM	601266

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UniProt ID	P33316

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