DUT Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	DUT, Polyclonal Antibody
Full Product Name	DUT Polyclonal Antibody
Product Gene Name	anti-DUT antibody
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	PBS with 0.02% sodium azide, 50% glycerol, pH 7.3.
Purity/Purification	Affinity Purification
Preparation and Storage	Store at -20 degree C. Avoid freeze/thaw cycles.
Molecular Weight	17kDa; 26kDa
OMIM	601266
3D Structure	ModBase 3D Structure for P33316
Immunogen	Recombinant protein of human DUT (NP_001020419.1).
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-DUT antibody	Western Blot (WB)
Application Notes for anti-DUT antibody	WB: 1:500-1:1000
Related Product Information for anti-DUT antibody	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.
Other Notes	Small volumes of anti-DUT antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for DUT purchase	MBS8572556 is an antibody targeting DUT. Also known as DUT Polyclonal Antibody. Reactive in Human. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for DUT. It may not necessarily be applicable to this product.

NCBI GI #	347595814
NCBI GeneID	1854
NCBI Accession #	P33316.4

UniProt Primary Accession #	P33316
UniProt Related Accession #	P33316
NCBI Official Full Name	Deoxyuridine 5'-triphosphate nucleotidohydrolase, mitochondrial
NCBI Official Synonym Full Names	deoxyuridine triphosphatase
NCBI Official Symbol	DUT
NCBI Official Synonym Symbols	dUTPase
UniProt Protein Name	Deoxyuridine 5'-triphosphate nucleotidohydrolase, mitochondrial
UniProt Synonym Protein Names	dUTP pyrophosphatase
Protein Family	Deoxyuridine 5'-triphosphate nucleotidohydrolase
UniProt Gene Name	DUT
UniProt Synonym Gene Names	dUTPase
UniProt Entry Name	DUT_HUMAN
NCBI Protein Information	deoxyuridine 5'-triphosphate nucleotidohydrolase, mitochondrial
UniProt Comments for DUT	dUTPase: This enzyme is involved in nucleotide metabolism: it produces dUMP, the immediate precursor of thymidine nucleotides and it decreases the intracellular concentration of dUTP so that uracil cannot be incorporated into DNA. Belongs to the dUTPase family. 2 isoforms of the human protein are produced by alternative splicing. Protein type: Hydrolase; Motility/polarity/chemotaxis; Mitochondrial; DNA replication; Nuclear receptor co-regulator; Nucleotide Metabolism - pyrimidine; EC 3.6.1.23 Chromosomal Location of Human Ortholog: 15q21.1 Cellular Component: nucleoplasm; mitochondrion; nucleus Molecular Function: protein binding; magnesium ion binding; dUTP diphosphatase activity Biological Process: dUTP catabolic process; pyrimidine base metabolic process; nucleobase, nucleoside and nucleotide metabolic process; pyrimidine nucleoside biosynthetic process; nucleobase, nucleoside, nucleotide and nucleic acid metabolic process; DNA replication; dUMP biosynthetic process
Research Articles on DUT	**1.** A single homozygous missense mutation (chr15.hg19:g.48,626,619A>G) located in the dUTPase (DUT) gene was associated with a syndrome of bone marrow failure and diabetes.
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