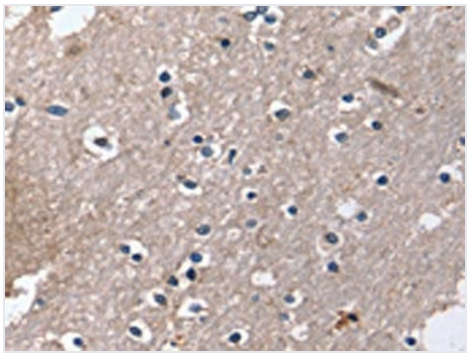
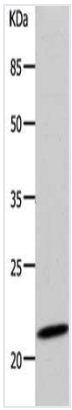
DUT Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	DUT, Polyclonal Antibody
Full Product Name	DUT Antibody
Product Gene Name	anti-DUT antibody
Product Synonym Names	DeoxyUridine triphosphatase
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human, Rat
Form/Format	Liquid; In Phosphate Buffered Saline, pH 7.4, 0.05% NaN3, and 40% Glycerol
Purity/Purification	Antigen Affinity Purification
Preparation and Storage	Upon receipt, store at -20 degree C or -80 degree C. Avoid repeated freeze.
Molecular Weight	252
OMIM	601266
3D Structure	ModBase 3D Structure for P33316
Immunogen	Synthetic peptide of human DUT
Immunogen Species	Human
Conjugate	Non-conjugated
Product Categories/Family for anti-DUT antibody	Epigenetics and Nuclear Signaling
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-DUT antibody	ELISA (EIA), Western Blot (WB), Immunohistochemistry (IHC)
Application Notes for anti-DUT antibody	ELISA: 1:1000-1:2000 WB: 1:200-1:1000 IHC: 1:10-1:50
Related Product Information for anti-DUT antibody	MBS7127075 is an antibody targeting DUT. Also known as DUT Antibody. Reactive in Human, Rat. Host: Rabbit.
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.



Immunohistochemistry (IHC)-Paraffin of anti-DUT antibody
The image on the left is immunohistochemistry of paraffin-embedded Human brain tissue using MBS7127075(DUT Antibody) at dilution 1/30, on the right is treated with synthetic peptide. (Original magnification: ×200)



SDS-Page of anti-DUT antibody
Gel: 10%SDS-PAGE, Lysate: 40 ug, Lane: 293T cells, Primary antibody: MBS7127075(DUT Antibody) at dilution 1/500, Secondary antibody: Goat anti rabbit IgG at 1/8000 dilution, Exposure time: 5 minutes

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 Secondary Accession #	O14785; Q16708; Q16860; Q6FHN1; Q6NSA3; Q96Q81; A8K650; B4DPR5
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; dUTP pyrophosphatase; dUTP nucleotidohydrolase
NCBI Summary for DUT	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]

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.** Comparison of the cellular distribution of wild-type dUTPase with those of hyperphosphorylation- and hypophosphorylation-mimicking mutants suggests that phosphorylation at Ser11 leads to the exclusion of dUTPase from the nucleus.
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