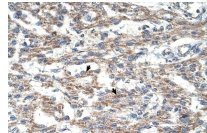




# DUT Antibody

Cat. No.: 30-136



DUT Antibody



Antibody used in WB on Human Jurkat cells at 2.5 ug/ml.

## Ψ Specifications

<b>HOST SPECIES:</b>	Rabbit
<b>SPECIES REACTIVITY:</b>	Dog, Human, Mouse, Rat
<b>IMMUNOGEN:</b>	Antibody produced in rabbits immunized with a synthetic peptide corresponding a region of human DUT.
<b>TESTED APPLICATIONS:</b>	ELISA, IHC, WB
<b>APPLICATIONS:</b>	DUT antibody can be used for detection of DUT by ELISA at 1:12500. DUT antibody can be used for detection of DUT by western blot at 2.5 µg/mL, and HRP conjugated secondary antibody should be diluted 1:50,000 - 100,000.
<b>POSITIVE CONTROL:</b>	1) Cat. No. 1205 - Jurkat Cell Lysate
<b>PREDICTED MOLECULAR WEIGHT:</b>	19 kDa, 15 kDa, 18 kDa

<b>PURIFICATION:</b>	Antibody is purified by protein A chromatography method.
<b>CLONALITY:</b>	Polyclonal
<b>CONJUGATE:</b>	Unconjugated
<b>PHYSICAL STATE:</b>	Liquid
<b>BUFFER:</b>	Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.
<b>CONCENTRATION:</b>	batch dependent
<b>STORAGE CONDITIONS:</b>	For short periods of storage (days) store at 4 °C. For longer periods of storage, store DUT antibody at -20 °C. As with any antibody avoid repeat freeze-thaw cycles.

## Ψ Additional Info

<b>OFFICIAL SYMBOL:</b>	DUT
<b>ALTERNATE NAMES:</b>	DUT, FLJ20622, dUTPase
<b>ACCESSION NO.:</b>	NP_001020419
<b>PROTEIN GI NO.:</b>	70906441
<b>GENE ID:</b>	1854
<b>USER NOTE:</b>	Optimal dilutions for each application to be determined by the researcher.

## Ψ Background and References

<b>BACKGROUND:</b>	<p>DUT is an essential enzyme of nucleotide metabolism. This 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. 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.</p>
<b>REFERENCES:</b>	1) Studebaker, A.W., (2005) Biochem. Biophys. Res. Commun. 327 (1), 306-310.

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