

## DUT Polyclonal Antibody

**catalog number: E-AB-67503**

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

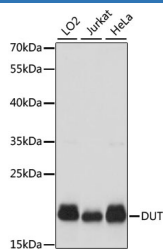
### Description

<b>Reactivity</b>	Human;Mouse;Rat
<b>Immunogen</b>	Recombinant fusion protein of human DUT (NP_001020419.1).
<b>Host</b>	Rabbit
<b>Isotype</b>	IgG
<b>Purification</b>	Affinity purification
<b>Buffer</b>	Phosphate buffered solution, pH 7.4, containing 0.05% stabilizer and 50% glycerol.

### Applications

Applications	Recommended Dilution
<b>WB</b>	1:500-1:1000
<b>IHC</b>	1:50-1:200
<b>IF</b>	1:100-1:200

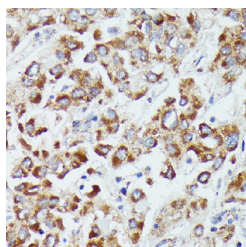
### Data



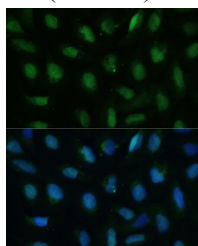
Western blot analysis of extracts of various cell lines using DUT Polyclonal Antibody at dilution of 1:1000.

**Observed-MV:24 kDa**

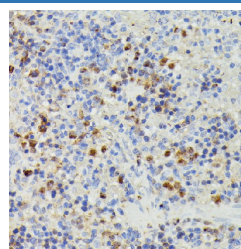
**Calculated-MV:17 kDa/26 kDa**



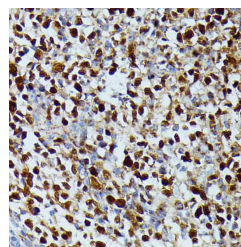
Immunohistochemistry of paraffin-embedded Human liver cancer using DUT Polyclonal Antibody at dilution of 1:100 (40x lens).



Immunofluorescence analysis of U-2 OS cells using DUT Polyclonal Antibody at dilution of 1:100 (40x lens). Blue: DAPI for nuclear staining.



Immunohistochemistry of paraffin-embedded Rat spleen using DUT Polyclonal Antibody at dilution of 1:100 (40x lens).



Immunohistochemistry of paraffin-embedded Human appendix using DUT Polyclonal Antibody at dilution of 1:100 (40x lens).

### For Research Use Only

## Preparation & Storage

**Storage**

Store at -20°C Valid for 12 months. Avoid freeze / thaw cycles.

**Shipping**

The product is shipped with ice pack, upon receipt, store it immediately at the temperature recommended.

## Background

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.

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