

ARG58578 anti-DUT / Dutpase antibody

Package: 50 µg
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes DUT / Dutpase
Tested Reactivity	Hu, Rat
Tested Application	IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	DUT / Dutpase
Species	Human
Immunogen	Synthetic peptide corresponding to aa. 212-229 of Human DUT. (KKGDRIAQLICERIFYPE)
Conjugation	Un-conjugated
Alternate Names	EC 3.6.1.23; dUTPase; Deoxyuridine 5'-triphosphate nucleotidohydrolase, mitochondrial; dUTP pyrophosphatase

Application Instructions

Application table	Application	Dilution
	IHC-P	0.5 - 1 µg/ml
	WB	0.1 - 0.5 µg/ml
Application Note	IHC-P: Antigen Retrieval: Heat mediation was performed in Citrate buffer (pH 6.0) for 20 min. * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	

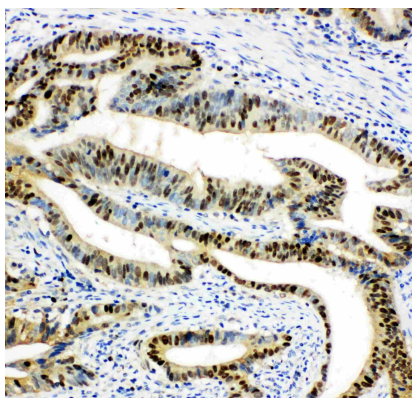
Properties

Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	0.9% NaCl, 0.2% Na ₂ HPO ₄ , 0.05% Thimerosal, 0.05% Sodium azide and 5% BSA.
Preservative	0.05% Thimerosal and 0.05% Sodium azide
Stabilizer	5% BSA
Concentration	0.5 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

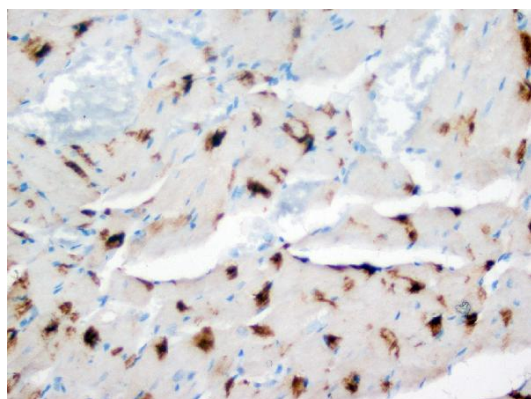
Gene Symbol	DUT
Gene Full Name	deoxyuridine triphosphatase
Background	This gene encodes an essential enzyme of nucleotide metabolism. The encoded protein forms a ubiquitous, homotetrameric enzyme that hydrolyzes dUTP to dUMP and pyrophosphate. This reaction serves two cellular purposes: providing a precursor (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. [provided by RefSeq, Jul 2008]
Function	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. [UniProt]
Calculated Mw	27 kDa
PTM	Nuclear isoform 2 is phosphorylated in vivo on Ser-11, a reaction that can be catalyzed in vitro by CDC2. Phosphorylation in mature T-cells occurs in a cell cycle-dependent manner. Isoform 3 is not phosphorylated. [UniProt]
Cellular Localization	Isoform 2: Nucleus. [UniProt]

Images



ARG58578 anti-DUT / Dutpase antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Human Intestinal Cancer Tissue stained with ARG58578 anti-DUT / Dutpase antibody.



ARG58578 anti-DUT / Dutpase antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Rat heart tissue. Antigen Retrieval: Heat mediation was performed in Citrate buffer (pH 6.0) for 20 min. The tissue section was blocked with 10% goat serum. The tissue section was then stained with ARG58578 anti-DUT / Dutpase antibody at 1 µg/ml dilution, overnight at 4°C.



ARG58578 anti-DUT / Dutpase antibody WB image

Western blot: 40 µg of HeLa whole cell lysate and SMMC whole cell lysate stained with ARG58578 anti-DUT / Dutpase antibody at 0.5 µg/ml dilution.