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DUT / DUTPase Antibody (clone 1C9)

Mouse Monoclonal Antibody
Catalog # ALS13303

Specification

DUT / DUTPase Antibody (clone 1C9) - Product Information

Application	**WB, IF, IHC**
Primary Accession	P33316
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Calculated MW	**27kDa KDa**

DUT / DUTPase Antibody (clone 1C9) - Additional Information

Gene ID 1854

Other Names
Deoxyuridine 5'-triphosphate nucleotidohydrolase, mitochondrial, dUTPase, 3.6.1.23, dUTP pyrophosphatase, DUT

Reconstitution & Storage
Store at -20°C. Aliquot to avoid freeze/thaw cycles.

Precautions
DUT / DUTPase Antibody (clone 1C9) is for research use only and not for use in diagnostic or therapeutic procedures.

DUT / DUTPase Antibody (clone 1C9) - Protein Information

Name DUT

Function
Catalyzes the cleavage of 2'-deoxyuridine 5'-triphosphate (dUTP) into 2'-deoxyuridine 5'-monophosphate (dUMP) and inorganic pyrophosphate and through its action efficiently prevents uracil misincorporation into DNA and at the same time provides dUMP, the substrate for de novo thymidylate biosynthesis (PubMed:17880943, PubMed:8631816, PubMed:8805593). Inhibits peroxisome proliferator- activated receptor (PPAR) activity by binding of its N-terminal to PPAR, preventing the latter's dimerization with retinoid X receptor (By similarity). Essential for embryonic development (By similarity).

Cellular Location
[Isoform 2]: Nucleus

Tissue Location
Found in a variety of tissues. Isoform 3 expression is constitutive, while isoform 2 expression

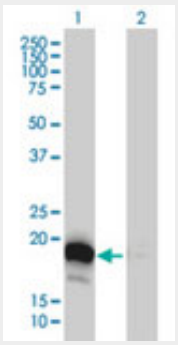
correlates with the onset of DNA replication (at protein level). Isoform 2 degradation coincides with the cessation of nuclear DNA replication (at protein level)

DUT / DUTPase Antibody (clone 1C9) - Protocols

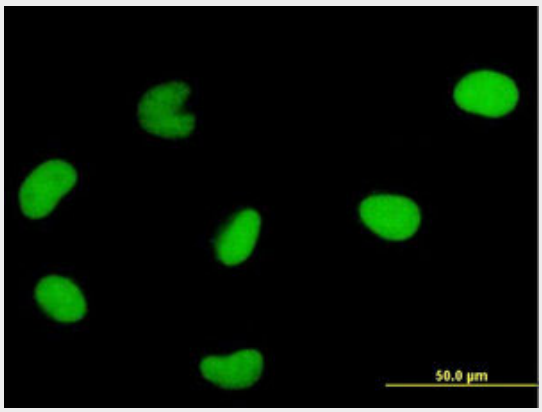
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

DUT / DUTPase Antibody (clone 1C9) - Images

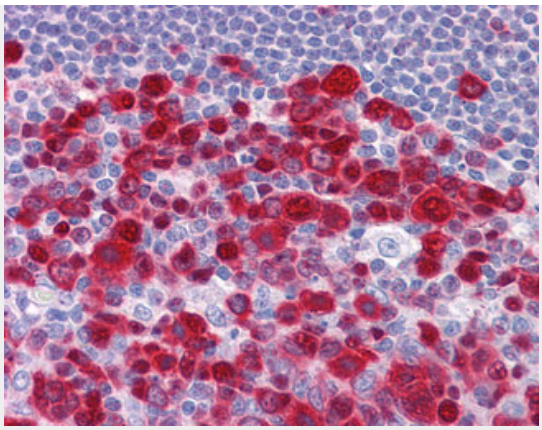


Western blot of DUT expression in transfected 293T cell line by DUT monoclonal antibody clone 1C9.

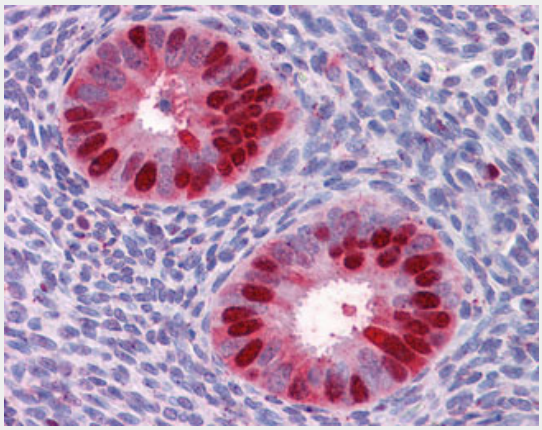


Immunofluorescence of monoclonal antibody to DUT on HeLa cell (antibody concentration 10 ug/ml).

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Anti-DUT antibody IHC of human tonsil.



Anti-DUT antibody IHC of human uterus.

DUT / DUTPase Antibody (clone 1C9) - Background

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.

DUT / DUTPase Antibody (clone 1C9) - References

Ladner R.D.,et al.J. Biol. Chem. 271:7745-7751(1996).
Cohen D.,et al.Genomics 40:213-215(1997).
Pearlman R.E.,et al.Submitted (OCT-1997) to the EMBL/GenBank/DDBJ databases.
Ladner R.D.,et al.J. Biol. Chem. 272:19072-19080(1997).
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