



Product Information Sheet

Polyclonal Anti-dUTP pryphosphatase, dUTPase

Catalogue No. PA1030

Lot No. 05K01

Ig type: rabbit IgG

Size: 100µg/vial

Specificity

Human, mouse, rat. No cross reactivity with other proteins.

Recommended application Western blot Immunohistochemistry(P)



Immunogen

A synthetic peptide corresponding to a sequence mapping at the middle region of human dUTPase, identical to the related rat and mouse sequence.

Purity

Immunogen affinity purified.

Application

Western blot

At 0.5-1 μ g/ml with the appropriate system to detect dUTPase in cells and tissues.

Immunohistochemistry(P)

At 1-2µg/ml to detect dUTPase in formalin fixed and paraffin embedded tissues. Boiling the sections is required.

Other applications have not been tested.

Optimal dilutions should be determined by end user.

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na $_2$ HPO $_4$, 0.05mg Thimerosal, 0.05mg NaN $_3$.

Reconstitution

To reorder contact us at: 0.2ml of distilled water will yield a concentration of 500µg/ml.

Antagene, Inc. Storage

Toll Free: 1(866)964-2589At -20°C for one year. After reconstitution, at 4°C for one month. It canemail: Info@antageneinc.comalso be aliquotted and stored frozen at -20°C for longer time.

BACKGROUND

Deoxyuridine triphosphate nucleotidohydrolase (dUTPase) is responsible for maintaining low intracellular levels of dUTP, thus preventing the incorporation of dUTP into DNA. dUTPase activity/expression can be down-regulated using siRNA specifically targeted to dUTPase mRNA and dUTPase plays a role in DNA nucleotide metabolism. This protein, present predominantly in the cytoplasm, contains 252 amino acids with a Mr of 26,704. It exhibits 35% identity with the E. coli dUTPase and 53% identity with the Saccharomyces cerevisiae enzyme. The nuclear and mitochondrial forms of dUTPase are encoded by the same gene with isoform-specific transcripts arising through the use of alternative 5-prime exons. Human dUTPase exhibits 92% identity with rat. Moreover, this enzyme has profound effects on the efficacy of agents that target thymidylate biosynthesis.

REFERENCE

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3. Chu R, Lin Y, Rao MS, Reddy JK.Cloning and identification of rat deoxyuridine triphosphatase as an inhibitor of peroxisome proliferator-activated receptor alpha. J Biol Chem. 1996 Nov 1; 271(44):27670-6.

4. Ladner RD, Caradonna SJ.The human dUTPase gene encodes both nuclear and mitochondrial isoforms.Differential expression of the isoforms and characterization of a cDNA encoding the mitochondrial species. J Biol Chem. 1997 Jul 25; 272(30):19072-80.

5. Ladner RD.The role of dUTPase and uracil-DNA repair in cancer chemotherapy. Curr Protein Pept Sci. 2001 Dec; 2(4):361-70.