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## Recombinant human DUTPase/DUT protein

Catalog Number: ATGP0725

## **PRODUCT INFORMATION**

## **Expression system**

E.coli

#### **Domain**

70-252aa

#### **UniProt No.**

P33316

#### **NCBI Accession No.**

NP 001020419

### **Alternative Names**

FLJ20622, duTPase, duTP pyrophosphatase, duTP diphosphatase, Deoxyuridine Triphosphatase, Deoxyuridine 5-triphosphate nucleotidohydrolase mitochondrial

## PRODUCT SPECIFICATION

## **Molecular Weight**

21.6 kDa (204aa) confirmed by MALDI-TOF

#### Concentration

1mg/ml (determined by Bradford assay)

#### **Formulation**

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 10% glycerol, 1mM DTT, 0.1M NaCl.

#### **Purity**

> 90% by SDS-PAGE

#### Tag

His-Tag

## **Application**

SDS-PAGE

### **Storage Condition**

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## **BACKGROUND**

## **Description**

DuT, also known as duTP pyrophosphatase, is a ubiquitous enzyme that functions in nucleotide metabolism. This protein, in the presence of magnesium ions, is responsible for hydrolyzing duTP to duMP and diphosphate. This reaction is important for keeping the intracellular duTP concentration low so that uracil does not become incorporated into DNA. Extensive incorporation of uracil into DNA can ultimately lead to cell death. This suggests that DuT is essential for cell viability, further implying that it is a potential target for anticancer therapy.



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Recombinant human DuT protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.

## **Amino acid Sequence**

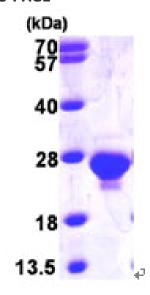
MGSSHHHHHH SSGLVPRGSH MASTVGAAGW KGELPKAGGS PAPGPETPAI SPSKRARPAE VGGMQLRFAR LSEHATAPTR GSARAAGYDL YSAYDYTIPP MEKAVVKTDI QIALPSGCYG RVAPRSGLAA KHFIDVGAGV IDEDYRGNVG VVLFNFGKEK FEVKKGDRIA QLICERIFYP EIEEVQALDD TERGSGGFGS TGKN

## **General References**

McIntosh EM., et al. (1992) Proc Natl Acad Sci u S A. 89(17):8020-4. Persson R., et al. (2001) Curr Protein Pept Sci. 2(4):287-300.

## **DATA**

## **SDS-PAGE**



15% SDS-PAGE (3ug)-

3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.