

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 SGLVPRGSH MASTVGAAGW KGELPKAGGS PAPGPETPAI SPSKRARP AE VGGMQLRFAR LSEHATAPTR
GSARAAGYDL YSAYDYTI PP MEKAVVKTDI QIALPSGCY G RVAPRSGLAA KHFIDVGAGV IDEDYRGNVG VVLFNFGKEK
FEVKKGDRIA QLICERIFYP EIEEVQALDD TERGSGGFGS TGKN

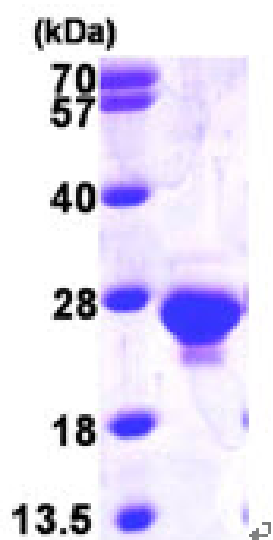
General References

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



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

15% SDS-PAGE (3ug)