

# Recombinant E.coli udp protein

Catalog Number: ATGP0661

## PRODUCT INFORMATION

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### Expression system

E.coli

### Domain

1-253aa

### UniProt No.

P12758

### NCBI Accession No.

NP\_418275

### Alternative Names

Uridine phosphorylase, UrdPase, Upase

## PRODUCT SPECIFICATION

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### Molecular Weight

29.3 kDa (273aa) 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, 50mM NaCl

### Purity

> 95% by SDS-PAGE

### Biological Activity

Specific activity is > 20,000pmol/min/ug, and is defined as the amount of enzyme that catalyze the reduction 1.0pmole of uridine presence of phosphate per minute at pH 7.5 at 25C.

### Tag

His-Tag

### Application

SDS-PAGE, Enzyme Activity

### 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

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### Description

uridine phosphorylase (uDP) catalyzes the reversible phosphorylytic cleavage of uridine and deoxyuridine to uracil and ribose- or deoxyribose-1-phosphate. The produced molecules are then utilized as carbon and energy sources or in the rescue of pyrimidine bases for nucleotide synthesis. This enzyme belongs to the family of

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glycosyltransferases, specifically the pentosyltransferases. The systematic name of this enzyme class is uridine:phosphate alpha-D-ribosyltransferase. Other names in common use include pyrimidine phosphorylase, urdPase, uPH, and uPase. Recombinant E. coli uDP protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.

### Amino acid Sequence

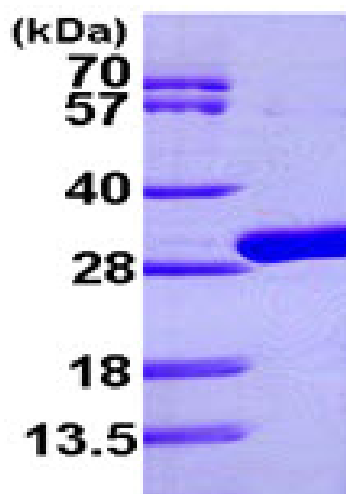
MGSSHHHHHH SGLVPRGSH MSKSDVFHLG LTKNDLQGAT LAIVPGDPDR VEKIAALMDK PVKLASHREF TTWRAELD GK  
PVIVCSTGIG GPSTSI AVEE LAQLGIRTF L RIGTTGAIQP HINVGDLVT TASVRLDGAS LHFAPLEFPA VADFECTTAL  
VEAAKSIGAT THVGV TASSD TFYPGQERYD TYSGRVVRHF KGSMEEWQAM GVMNYEMESA TLLTMCASQG LRAMVAGVI  
VNRTQQEIPN AETMKQTESH AVKIVVEAAR RLL

### General References

Burling F.T., et al. (2003) Acta Crystallogr. 59:73-76  
Walton L., et al (1989) Nucleic Acids Res. 17(16):6741.

## DATA

### SDS-PAGE



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

15% SDS-PAGE (3ug)