

# Recombinant human DCK protein

Catalog Number: ATGP0738

## PRODUCT INFORMATION

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### Expression system

E.coli

### Domain

1-260aa

### UniProt No.

P27707

### NCBI Accession No.

NP\_000779.1

### Alternative Names

Deoxycytidine kinase, MGC117410, MGC138632, Deoxycytidine kinase

## PRODUCT SPECIFICATION

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### Molecular Weight

34.6 kDa (296aa) confirmed by MALDI-TOF

### Concentration

0.5mg/ml (determined by Bradford assay)

### Formulation

Liquid in. 20mM Tris-HCl buffer (pH 7.5) containing 1mM DTT, 0.1mM PMSF, 2mM EDTA, 10% glycerol

### 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

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### Description

DCK is a key enzyme in the salvage of deoxyribonucleosides and in the activation of clinically relevant nucleoside analogues. This protein is responsible for the 5-phosphorylation of purine and pyrimidine deoxynucleosides to the corresponding monophosphates using ATP or uTP as phosphate donors. Deficiency of this enzyme activity is associated with resistance to antiviral and anticancer chemotherapeutic agents, whereas increased enzyme activity is associated with increased activation of these compounds to cytotoxic nucleoside triphosphate derivatives. Recombinant human DCK protein, fused to His-tag at N-terminus, was expressed in E.

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coli and purified by using conventional chromatography.

## Amino acid Sequence

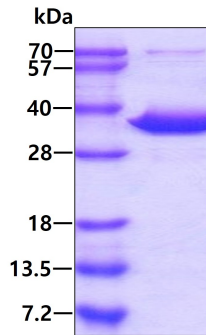
<MRGSHHHHHH GMASMTGGQQ MGRDLYDDDD KDRWGS>MATP PKRSCPSFSA SSEGTRIKKI SIEGNIAAGK  
STFVNILKQL CEDWEVVPEP VARWCNVQST QDEFEELTMS QKNGGNVLQM MYEKPERWSF TFQTYACLSR IRAQLASLNG  
KLKDAEKPLV FFERSVYSR YIFASNLYES ECMNETEWTI YQDWHDMN QFGQSLELDG IYQLQATPET CLHRIYLRGR  
NEEQGIPLEY LEKLHYKHES WLLHRTLKTN FDYLQEVPI TLDVNEDFKD KYESLVEKVK EFLSTL

## General References

Radu CG., et al. (2010) Proc Natl Acad Sci U S A. 107(12):5551-6  
Ribeiro R., et al. (2007) J Pharmacol Exp Ther. 323(3):935-45

## DATA

### SDS-PAGE



3 $\mu$ g by SDS-PAGE under reducing condition and visualized by coomassie blue stain.