## **PRODUCT INFORMATION**

**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**

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

### 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.



coli and purified by using conventional chromatography.

#### **Amino acid Sequence**

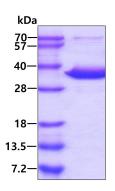
<MRGSHHHHHH GMASMTGGQQ MGRDLYDDDD KDRWGS>MATP PKRSCPSFSA SSEGTRIKKI SIEGNIAAGK STFVNILKQL CEDWEVVPEP VARWCNVQST QDEFEELTMS QKNGGNVLQM MYEKPERWSF TFQTYACLSR IRAQLASLNG KLKDAEKPVL FFERSVYSDR YIFASNLYES ECMNETEWTI YQDWHDWMNN QFGQSLELDG IIYLQATPET CLHRIYLRGR NEEQGIPLEY LEKLHYKHES WLLHRTLKTN FDYLQEVPIL TLDVNEDFKD 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**



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