

Recombinant Human UMP/CMP Kinase CMPK1

Cat. No. CEGZ-6408

Lot. No. (See product label)

Introduction

Description A recombinant human CMPK1 enzyme that functions as a bifunctional UMP/CMP kinase in pyrimidine nucleotide metabolism.

Applications For research and in vitro phosphorylation of CMP, UMP, and dCMP in studies of pyrimidine nucleotide biosynthesis and salvage.

Synonyms hCMPK1; U/CMPK; UCK; cytidylate kinase; cytidine monophosphate kinase; CMP kinase; CTP:TMP phosphotransferase; deoxycytidylate kinase; deoxycytidine monophosphate kinase; dCMP kinase; uridylate kinase; uridine monophosphate kinase; pyrimidine nucleoside monophosphate kinase; ATP:UMP-CMP phosphotransferase

Product Information

Species Homo sapiens

Source Recombinant E. coli

Form Liquid

EC Number EC 2.7.4.14

CAS No. 37278-21-0

Molecular Weight 23.6 kDa

Specificity CMP and UMP with similar efficiency; dCMP is also accepted.

Substrates ATP; CMP; UMP; dCMP

Reaction $\text{ATP} + (\text{d})\text{CMP} = \text{ADP} + (\text{d})\text{CDP}$ $\text{ATP} + \text{UMP} = \text{ADP} + \text{UDP}$

Notes Mesophilic enzyme. Recombinant protein produced in E. coli and purified by His6-tag affinity chromatography. Optimal reaction time and enzyme concentration may vary depending on the substrate.

Protocol 70 mM Tris-HCl, pH 7.6 (at 37°C) 10 mM MgCl₂ 5 mM CMP 6 mM ATP 0.04 g/L enzyme 37°C, overnight

Usage Research and in vitro use only.

Storage and Shipping Information

Storage -20°C