Creative Enzymes®

Thermostable Prokaryotic (d)CMP Kinase, 80°C

Cat. No. CEGZ-6400

Lot. No. (See product label)

Introduction

Description	A recombinant prokaryotic cytidylate kinase that preferentially phosphorylates CMP and dCMP and remains thermostable up to 80°C.
Applications	For research and in vitro ATP-dependent phosphorylation of CMP and dCMP, including elevated-temperature nucleotide synthesis workflows.
Synonyms	CMPK; dCMPK; prokaryotic cytidylate kinase; deoxycytidylate kinase; deoxycytidine monophosphokinase; ATP:(d)CMP phosphotransferase

Product Information

Species	Bacterial
Source	Recombinant E. coli
Form	Liquid
EC Number	EC 2.7.4.25
Molecular Weight	26.0 kDa
Thermal stability	Thermostable up to 80°C
Specificity	CMP and dCMP are preferred; UMP and AMP are phosphorylated at much lower rates.
Substrates	ATP; CMP; dCMP
Reaction	ATP + (d)CMP = ADP + (d)CDP
Notes	Recombinant protein produced in E. coli and purified by heat treatment and 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 50°C) 10 mM MgCl2 5 mM CMP 6 mM ATP 0.04 g/L enzyme 50°C, overnight
Usage	Research and in vitro use only.

Storage and Shipping Information

Storage	-20°C