

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

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