

Thermostable Prokaryotic TMP Kinase, 80°C

Cat. No. CEGZ-6402

Lot. No. (See product label)

Introduction

Description

A recombinant prokaryotic thymidylate kinase with thermal stability up to 80°C and activity toward several purine and pyrimidine monophosphates.

Applications

For research and in vitro phosphorylation of dTMP and related nucleotide monophosphates, including high-temperature synthesis workflows.

Synonyms

TMPK; thymidine monophosphate kinase; thymidylate kinase; deoxythymidine 5'-monophosphate kinase; dTMPK; dTMP kinase; thymidylic acid kinase; thymidylic kinase; ATP:dTMP phosphotransferase

Product Information

Species

Bacterial

Source

Recombinant E. coli

Form

Liquid

EC Number

EC 2.7.4.9

CAS No.

9014-43-1

Molecular Weight

24.2 kDa

Thermal stability

Thermostable up to 80°C

Specificity

dTMP; also dGMP and AMP, with lower activity toward GMP.

Substrates

ATP; dTMP; dGMP; AMP; GMP

Reaction

ATP + dTMP = ADP + dTDP

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 dTMP 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