Creative Enzymes®

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