Creative Enzymes®

Eukaryotic TMP Kinase, Recombinant

Cat. No. CEGZ-6404

Lot. No. (See product label)

Introduction

Description	A recombinant mesophilic eukaryotic thymidylate kinase with activity toward TMP, dGMP, and several additional nucleotide monophosphates.
Applications	For research and in vitro phosphorylation of dTMP and related purine or pyrimidine monophosphates at mesophilic temperatures.
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	Eukaryotic
Source	Recombinant E. coli
Form	Liquid
EC Number	EC 2.7.4.9
CAS No.	9014-43-1
Molecular Weight	26.0 kDa
Specificity	TMP and dGMP; lower activity toward dUMP, dIMP, GMP, and modified pyrimidine and purine derivatives. ATP and dATP can act as donors.
Substrates	ATP or dATP; dTMP; dGMP; dUMP; dIMP; GMP
Reaction	ATP + dTMP = ADP + dTDP
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 $MgCl_2$ 5 mM dTMP 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