

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

$\text{ATP} + \text{dTMP} = \text{ADP} + \text{dTDP}$

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 MgCl₂ 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