Creative Enzymes®

Thermostable Bacterial PPK2 Class III Polyphosphate Kinase, 31.7 kDa

Cat. No. CEGZ-6412

Lot. No. (See product label)

Introduction

Description	A recombinant bacterial class III PPK2 polyphosphate kinase with thermal stability up to 50°C and activity toward both nucleotide mono- and diphosphates.
Applications	For research and in vitro NMP/NDP phosphorylation, ATP regeneration, and polyphosphate-driven nucleotide conversion at temperatures up to 50°C.
Synonyms	PPK; PPK2 class III; polyphosphoric acid kinase; ATP:polyphosphate phosphotransferase

Product Information

Species	Bacterial
Source	Recombinant E. coli
Form	Liquid
EC Number	EC 2.7.4.1
CAS No.	9026-44-2
Molecular Weight	31.7 kDa
Thermal stability	Thermostable up to 50°C
Specificity	PPK2 class III; polyphosphate-driven phosphorylation of nucleoside monophosphates and diphosphates. Hyperphosphorylation beyond three phosphate groups may occur.
Substrates	Nucleoside monophosphates; nucleoside diphosphates; polyphosphate
Reaction	ADP + (phosphate)n = ATP + (phosphate)n-1
Notes	Can be used for ATP regeneration. 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 GMP 6 mM polyphosphate 0.04 g/L enzyme 50°C, overnight
Usage	Research and in vitro use only.

Storage and Shipping Information

Storage	-20°C