Creative Enzymes®

Thermostable Bacterial Acetate Kinase, 80°C

Cat. No. CEGZ-6415

Lot. No. (See product label)

Introduction

Description	A recombinant bacterial acetate kinase with thermal stability up to 80°C and broad nucleotide diphosphate acceptance for phosphate-transfer workflows.
Applications	For research and in vitro phosphorylation of natural nucleoside diphosphates to the corresponding triphosphates using acetyl phosphate, including ATP regeneration systems.
Synonyms	AcK; acetokinase; AckA; AK; acetic kinase; ATP:acetate phosphotransferase

Product Information

Species	Bacterial
Source	Recombinant E. coli
Form	Liquid
EC Number	EC 2.7.2.1
CAS No.	9027-42-3
Molecular Weight	46.1 kDa
Thermal stability	Thermostable up to 80°C
Specificity	Natural (d)NDPs as phosphate acceptors; acetyl phosphate as donor.
Substrates	ADP; acetyl phosphate; natural nucleoside diphosphates
Reaction	ADP + acetyl phosphate = ATP + acetate
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 37°C) 10 mM MgCl2 5 mM ADP 6 mM acetyl phosphate 0.04 g/L enzyme 37°C, 2 h
Usage	Research and in vitro use only.

Storage and Shipping Information

Storage	-20°C