CREATIVE BIOMART®
Microbe

Native Bacillus stearothermophilus Phosphotransacetylase

SPECIFICATION

Cat.No.	PTA-23B
Species	Bacillus stearothermophilus
Product Name	Native Bacillus stearothermophilus Phosphotransacetylase
Product Overview	Native Bacillus stearothermophilus Acetate Kinase was purified from Bacillus stearothermophilus.
Description	Acetate kinase plays an important role in glycolysis. Acetate kinase phosphorylates acetate in the presence of ATP and a divalent cation, which ultimately results in the production of acetyl-CoA. Acetate kinase is also involved in the metabolism of propanoate, pyruvate and taurine. Acetate Kinase from Bacillus stearothermophilus is a thermostable tetramer of identical subunits with molecular weight of 40,000 Da each. The enzyme does not have a -SH group and is composed of 36% β-structure, 21 % α-helix and 43 % unordered structure.
Source	Bacillus stearothermophilus
Form	Lyophilized powder containing potassium phosphate.
Bio-activity	Involved in the metabolism of propanoate, pyruvate and taurine. 400-1,200 units/mg solid.
Applications	Acetate kinase is used to phosphorylate acetate to acetyl phosphate. Acetate Kinase from Bacillus stearothermophilus has been used to study allosteric activation. [32P]-acetyl phosphate was generated by incubating potassium acetate in the reaction mixture with acetate kinase from Sigma. This [32P]-acetyl phosphate was used to label BldM, BldM D-54N or BldM D-54A loci during the study of the effect of bldM gene on Streptomyces coelicolor development.
Storage	2-8°C.

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