Creative Enzymes®

Nucleoside-Diphosphate Kinase (Crude Enzyme)

Cat. No. NATE-1829

Lot. No. (See product label)

Introduction

Description Nucleoside-diphosphate kinases (NDPKs, also NDP Kinase, (poly)nucleotide kinases and nucleoside diphosphokinases) are enzymesthat catalyze the exchange of terminal phosphate between different nucleoside diphosphates (NDP) and triphosphates (NTP) in a reversible manner to produce nucleotide triphosphates. Many NDP serve as acceptor while NTP are donors of phosphate group. The general reaction via ping-pong mechanism is as follows: XDP + YTP ←→ XTP + YDP (X and Y each represent different nitrogenous base). NDPK activities maintain an equilibrium between the concentrations of different nucleoside triphosphates such as, for example, when guanosine triphosphate (GTP) produced in the citric acid (Krebs) cycle is converted to adenosine triphosphate (ATP). Other activities include cell proliferation, differentiation and development, signal transduction, G protein-coupled receptor, endocytosis, and gene expression. This product with the indicated enzyme activity was briefly purified from engineered E. coli.

Applications medicine

Synonyms nucleoside 5'-diphosphate kinase; nucleoside diphosphate (UDP) kinase; nucleoside diphosphokinase; nucleotide phosphate kinase; UDP kinase; uridine diphosphate kinase

Product Information

Source E. coli

Appearance Clear to translucent yellow solution

EC Number EC 2.7.4.6

CAS No. 9026-51-1

Activity Undetermined

Reaction ATP + nucleoside diphosphate = ADP + nucleoside triphosphate

Notes Since this product needs to be freshly prepared, it will take about 2 weeks after you confirm the order. Each time of the freeze-thawing may cause partial inactivation. Therefore, it should be dispensed as required and stored at -20 ° C or lower. With the preservation of the extension of time, the enzyme activity will decline to a certain extent, so the product should be used as soon as possible. This product may have turbidity or precipitation in the production and preservation process, it can be mixed after melting and will not affect the normal use. This product is limited to scientific research use, shall not be used for clinical diagnosis or treatment, shall not be used for food or medicine, shall not be stored in ordinary residential. For your safety and health, please wear an experimental suit and wear disposable gloves.

Usage and Packaging

Package 100ml

Storage and Shipping Information

Storage at -20 °C or lower, for at least 1 month.