Creative Enzymes®

Nucleoside Phosphorylase from bacterial, Recombinant

Cat. No. NATE-0607

Lot. No. (See product label)

Introduction

Description

In enzymology, a purine-nucleoside phosphorylase (EC 2.4.2.1) is an enzyme that catalyzes the chemical reaction:purine nucleoside + phosphate↔ purine + alpha-D-ribose 1-phosphate. Thus, the two substrates of this enzyme are purine nucleoside and phosphate, whereas its two products are purine and alpha-D-ribose 1-phosphate. This enzyme belongs to the family of glycosyltransferases, specifically the pentosyltransferases. This enzyme participates in 3 metabolic pathways:purine metabolism, pyrimidine metabolism, and nicotinate and nicotinamide metabolism.

Applications

Nucleoside phosphorylase is used in coupled enzyme systems to measure protein dephosphorylation. Bacterial nucleoside phosphorylase has been used in a study that identified and characterized two adenosine phosphorylase activities in Mycobacterium smegmatis. Bacterial nucleoside phosphorylase has also been used in a study to investigate the inhibitionof pyrimidine and purine nucleoside phosphorylases by a 3,5-dichlorobenzoyl-substituted 2-deoxy-D-ribose-1-phosphate derivative.

Synonyms

purine-nucleoside phosphorylase; inosine phosphorylase; PNP; PNPase; PUNPI; PUNPII; inosine-guanosine phosphorylase; nucleotide phosphatase; purine deoxynucleoside phosphorylase; purine deoxyribonucleoside phosphorylase; purine nucleoside phosphorylase; purine ribonucleoside phosphorylase; 9030-21-1; EC 2.4.2.1

Product Information

Species	Bacterial
Source	E. coli
Form	lyophilized powder
EC Number	EC 2.4.2.1
CAS No.	9030-21-1
Activity	> 10 units/mg protein

Storage and Shipping Information

Storage	−20°C