Creative Enzymes®

Native Bacillus sp. Purine Nucleoside Phosphorylase

Cat. No. DIA-164

Lot. No. (See product label)

Introduction

Description	Purine nucleoside phosphorylase (also known as PNPase) is an enzyme (EC 2.4.2.1) involved in purine metabolism. PNP metabolizes adenosine into adenine, inosine into hypoxanthine, and guanosine into guanine, in each case creating ribose phosphate. NP encodes the enzyme purine nucleoside phosphorylase that together with adenosine deaminase (ADA) serves a key role in purine catabolism, referred to as the salvage pathway. Mutations in either enzyme result in a severe combined immunodeficiency (SCID). Confusingly, the same abbreviation (PNPase), is also used for another, otherwise unrelated, enzyme, namely Polynucleotide Phosphorylase.
Applications	Useful for enzymatic determination of inorganic phosphate
Synonyms	inosine phosphorylase; PNPase; PUNPI; PUNPII; inosine-guanosine phosphorylase; nucleotide phosphatase; purine deoxynucleoside phosphorylase; purine deoxyribonucleoside phosphorylase; purine nucleoside phosphorylase; purine ribonucleoside phosphorylase; purine-nucleoside: phosphate ribosyltransferase; EC 2.4.2.1

Product Information

Source	Bacillus sp.
Appearance	Colourless to light brown solution
Form	Liquid
EC Number	EC 2.4.2.1
CAS No.	9030-21-1
Activity	> 500U/mL
Contaminants	NADH oxidase < 0.002%
pH Stability	6.0-10.0 (37°C (Tris-HCl buffer)
Optimum pH	8
Thermal stability	Stable at 65°C and below (pH 8.5, 10 mins)
Inhibitors	Ag+, Hg2+
Pathway	Nicotinate and nicotinamide metabolism; Purine metabolism; Pyrimidine metabolism; Nucleotide metabolism.
Function	purine-nucleoside phosphorylase activity; purine-nucleoside phosphorylase activity; purine-nucleoside phosphorylase activity.

Storage and Shipping Information

Storage	-20°C