

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