

## Native Microorganism Purine-nucleoside phosphorylase

Cat. No. DIA-216

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  $\leftrightarrow$  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.

**Applications** This enzyme is useful for enzymatic determination of inorganic phosphorus, 5'-nucleotidase and adenosine deaminase when coupled with xanthine oxidase and uricase.

**Synonyms** EC 2.4.2.1; 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

### Product Information

<b>Source</b>	Microorganism
<b>Appearance</b>	White amorphous powder, lyophilized
<b>EC Number</b>	EC 2.4.2.1
<b>CAS No.</b>	9030-21-1
<b>Molecular Weight</b>	approx. 120 kDa
<b>Activity</b>	Gradelll 15U/mg-solid or more
<b>Contaminants</b>	Catalase < 20% 5'-Nucleosidase < $1.0 \times 10^{-3}\%$ Adenosine deaminase < $1.0 \times 10^{-3}\%$ ATPase < $1.0 \times 10^{-2}\%$
<b>Isoelectric point</b>	4.1 $\pm$ 0.1
<b>pH Stability</b>	pH 6.0-9.0 (30°C, 16hr)
<b>Optimum pH</b>	7.5-8.0
<b>Thermal stability</b>	below 60°C (pH 7.7, 30min)
<b>Optimum temperature</b>	65°C
<b>Michaelis Constant</b>	$6.4 \times 10^{-5}$ M (Inosine), $3.2 \times 10^{-4}$ M (Pi)
<b>Inhibitors</b>	p-Chloromercuribenzoate, SDS, Hg <sup>++</sup> , Ag <sup>+</sup>
<b>Stabilizers</b>	K-Gluconate, mannitol, EDTA

## ***Storage and Shipping Information***

***Stability***      Stable at -20°C for at least 12 months