PRODUCT INFORMATION SHEET

Thermostable Inorganic Pyrophosphatase

PRODUCT SPECIFICATIONS

Product Name: Recombinant Thermostable Inorganic Pyrophosphatase, RUO Grade

Product number/code: PyroPh-SAC-Pyrophosphatase enzyme, His purified, 274-002

Product Description: Thermostable Inorganic Pyrophosphatase is prepared using Crisbio®, a novel expression system that utilizes a recombinant baculovirus carrying a *Sulfolobus acidocaldarius* gene to inoculate *Trichoplusia ni* chrysalises

Source of Protein: Engineered Baculovirus carrying the Thermostable Pyrophosphatase gene from *S. acidocaldarius* inoculated in *Trichoplusia ni*

Unit Availability: 2000 U and 1000 U

Unit Definition: One unit (U) will release 1.0 µmol of inorganic orthophosphate per minute at pH 9.0 at 75°C

Shelf Life: 2 years from manufacturing date. Shelf life currently under assessment with stability studies

Storage Temp: -20°C

Storage Buffer: 10 mM Tris-HCl pH 7.5, 50 mM NaCl, 1 mM DTT, 0.1 mM EDTA and 50% Glycerol

Limitations of Use:
For research and development use only. Not suitable for human or animal therapeutic or clinical diagnostic use. SDS sheets relevant to this product are available upon request.

Cocoon Bioscience S.L. • Parque Científico y Tecnológico de Bizkaia, 802. • Derio 48160 Bizkaia , Spain
Ph: +34 608 454 632 • support@cocoonbio.com • www.cocoonbio.com

Date revised: July 2025 D-PS-PyroPh-SAC_v04

PRODUCT INFORMATION SHEET

Assay	SDS-PAGE Purity	SDS-PAGE Western Blot Identity[1]	Enzyme Activity	DNase Activity	Residual gDNA
Specification	≥ 95%	Specific Band Detection	≥ 2000 U/ml	Not detected[2]	≤ 100 pg/mg

[1] performed during manufacture process

[2]< LOD of the assay (< RFU of 0.02 U control, in 50 enzyme units tested)

QUALITY CONTROL ANALYSIS

Enzyme Activity is determined by Absorption Spectrophotometry:
The phosphate released after pyrophosphate hydrolysis by pyrophosphatase is measured by means of a color reaction. Dilutions of the enzyme in 50mM Tris-HCl pH 9.0, 10mM $MgCl_2$ and 10mM sodium pyrophosphate are assayed. After a 10 min incubation at 75°C, the 2-orthophosphate product reacts with ammonium molybdate to form phosphomolybdic acid. The phosphomolybdic acid is reduced by ferrous sulphate giving a blue color to the reaction. This color can be measured at 660 nm. A phosphate standard curve is used to quantify the product formed.

Protein Purity is evaluated by SDS-PAGE of concentrated and diluted enzyme solutions followed by Coomassie stain. Purity is assessed by comparing the aggregate mass of non-specific bands in the concentrated sample to the mass of the protein of interest band in the diluted sample.

Limitations of Use:
For research and development use only. Not suitable for human or animal therapeutic or clinical diagnostic use. SDS sheets relevant to this product are available upon request.

Cocoon Bioscience S.L. • Parque Científico y Tecnológico de Bizkaia, 802. • Derio 48160 Bizkaia , Spain
Ph: +34 608 454 632 • support@cocoonbio.com • www.cocoonbio.com

Date revised: July 2025 D-PS-PyroPh-SAC_v04

PRODUCT INFORMATION SHEET

DNase Contamination is detected by Fluorometric Assay:

Use of a fluorogenic substrate that emits fluorescence after cleavage by the presence of DNases.

Residual (genomic) DNA Contamination is evaluated by quantitative PCR:

Amplification of specific genomic sequence of *T ni*.

Limitations of Use:

For research and development use only. Not suitable for human or animal therapeutic or clinical diagnostic use. SDS sheets relevant to this product are available upon request.

Cocoon Bioscience S.L. • Parque Científico y Tecnológico de Bizkaia, 802. • Derio 48160 Bizkaia , Spain
Ph: +34 608 454 632 • support@cocoonbio.com • www.cocoonbio.com