LeadGMP® Inorganic Pyrophosphatase, His Tag, E. coli

Catalog Number	LDG007R-GMP
Package	10 U / 100 U / Customized package

For full product information, images and publications, please visit our website.

Specifications

Species of Origin

Yeast

Expression System

Escherichia coli

Concentration

0.1 U/ µL

Storage Buffer

20 mM Tris-HCl, 100 mM NaCl, 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, pH 8.0

Purity

>95% as determined by SDS-PAGE analysis.

Molecular weight

The protein has a calculated MW of 33 kDa.
The protein migrates as 35 kDa under reducing condition (SDS-PAGE analysis).

Activity

One unit is the amount of enzyme that will generate 1 µmol of phosphate per minute from inorganic pyrophosphate (ppi) under standard reaction conditions
(a 10 minute reaction at 25°C in 100 mM Tris-HCl, 2 mM MgCl2 and 2 mM PPi in a reaction volume of 0.5 mL, pH7.2).

Endotoxin Level

<0.1 EU per 1 µg of the protein by the LAL method.

Mycoplasma

Not detected

Form

Liquid

Background

Tainan Headquarter
+886-6-2536677
bd@leadgene.com.tw

Innovation & Research Center
+886-2-27065528

CLD Center
+886-6-2536677

Background

Inorganic pyrophosphatase (PPase) is an enzyme that catalyzes the hydrolysis of inorganic pyrophosphate (PPi) into two phosphate ions. This reaction is crucial for cellular phosphate metabolism and energy balance. In humans, the PPA1 gene encodes this enzyme, which is ubiquitously expressed across various tissues. PPases are essential in processes such as DNA synthesis, lipid metabolism, and calcium absorption. They are found in both prokaryotic and eukaryotic organisms, highlighting their fundamental role in biology.

Instruction

Shipping

The product is shipped with polar packs. Upon receipt, store it immediately at -20°C or lower for long term storage.

Stability & Storage

This product is stable after storage at:
● -20°C for long-term storage under sterile conditions. Avoid repeated free-thaw cycles.

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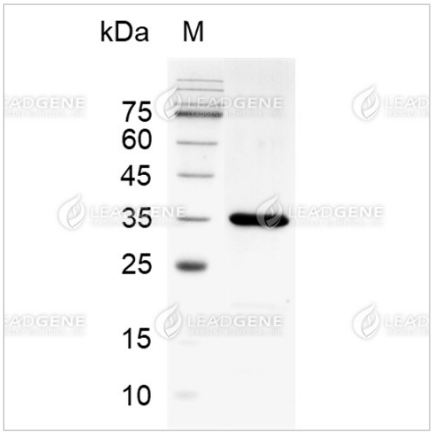
Manufacturing Specifications

LeadGMP® recombinant proteins are manufactured in ISO 13485:2016 and GMP certified facility. The processes include:

- Animal-free reagent and laboratory
- Manufactured and tested under GMP guideline
- Testing and traceability of raw material
- Records of the maintenance and equipment calibration
- Personnel training records
- Batch-to-batch consistency
- Documentation of QA control and process changes
- Manufactured and tested under an ISO 13485:2016 certified quality management system
- Stability monitor of product shelf-life

Image



SDS-PAGE analysis of LeadGMP® Inorganic Pyrophosphatase.

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