

## New England Biolabs Certificate of Analysis

**Product Name:** *Pyrophosphatase, Inorganic (E. coli)*  
**Catalog Number:** M0361L  
**Concentration:** 100 U/ml  
**Unit Definition:** One unit is the amount of enzyme that will generate 1  $\mu\text{mol}$  of phosphate per minute from inorganic pyrophosphate under standard reaction conditions.  
**Packaging Lot Number:** 10144327  
**Expiration Date:** 04/2024  
**Storage Temperature:** -20°C  
**Storage Conditions:** 100 mM NaCl, 20 mM Tris-HCl (pH 8.0), 1 mM DTT, 0.1 mM EDTA, 50 % Glycerol  
**Specification Version:** PS-M0361S/L v2.0

Pyrophosphatase, Inorganic (E. coli) Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0361LVIAL	Pyrophosphatase, Inorganic (E. coli)	10144326	Pass

Assay Name/Specification	Lot # 10144327
<b>Endonuclease Activity (Nicking)</b> A 50 $\mu\text{l}$ reaction in NEBuffer 4 containing 1 $\mu\text{g}$ of supercoiled PhiX174 DNA and a minimum of 0.5 units of Pyrophosphatase, Inorganic (E. coli) incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.	Pass
<b>Exonuclease Activity (Radioactivity Release)</b> A 50 $\mu\text{l}$ reaction in NEBuffer 4 containing 1 $\mu\text{g}$ of a mixture of single and double-stranded [ $^3\text{H}$ ] E. coli DNA and a minimum of 0.5 units of Pyrophosphatase, Inorganic (E. coli) incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
<b>Phosphatase Activity (pNPP)</b> A 100 $\mu\text{l}$ reaction in NEBuffer 4 containing 10 mM p-Nitrophenyl Phosphate (pNPP) and a minimum of 1 unit Pyrophosphatase, Inorganic (E. coli) incubated for 1 hour at 37°C yields <0.0001 unit of alkaline phosphatase activity as determined by spectrophotometric analysis.	Pass
<b>RNase Activity (Extended Digestion)</b>	Pass

Assay Name/Specification	Lot # 10144327
<p>A 10 µl reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA and a minimum of 0.1 unit of Pyrophosphatase, Inorganic (E. coli) is incubated at 37°C. After incubation for 16 hours, &gt;90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.</p> <p><b>Protein Purity Assay (SDS-PAGE)</b> Pyrophosphatase, Inorganic (E. coli) is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.</p>	<p><b>Pass</b></p>

This product has been tested and shown to be in compliance with all specifications.

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