

## New England Biolabs Certificate of Analysis

**Product Name:** *Pyrophosphatase, Inorganic (E. coli)*  
**Catalog Number:** M0361S  
**Concentration:** 100 U/ml  
**Unit Definition:** One unit is the amount of enzyme that will generate 1  $\mu$ mol of phosphate per minute from inorganic pyrophosphate under standard reaction conditions.  
**Packaging Lot Number:** 10168742  
**Expiration Date:** 06/2024  
**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

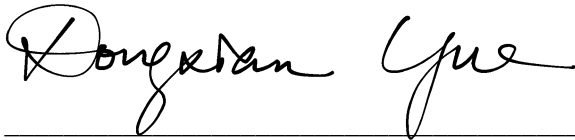
Pyrophosphatase, Inorganic (E. coli) Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0361SVIAL	Pyrophosphatase, Inorganic (E. coli)	10153898	Pass

Assay Name/Specification	Lot # 10168742
<b>Protein Purity Assay (SDS-PAGE)</b> Pyrophosphatase, Inorganic (E. coli) is $\geq$ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	Pass
<b>RNase Activity (Extended Digestion)</b> A 10 $\mu$ l 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, >90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.	Pass
<b>Phosphatase Activity (pNPP)</b> A 100 $\mu$ 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>Endonuclease Activity (Nicking)</b> A 50 $\mu$ l reaction in NEBuffer 4 containing 1 $\mu$ g of supercoiled PhiX174 DNA and a minimum of 0.5 units of Pyrophosphatase, Inorganic (E. coli) incubated for 4 hours	Pass

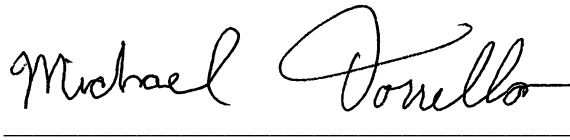
Assay Name/Specification	Lot # 10168742
<p>at 37°C results in &lt;10% conversion to the nicked form as determined by agarose gel electrophoresis.</p> <p><b>Exonuclease Activity (Radioactivity Release)</b> A 50 µl reaction in NEBuffer 4 containing 1 µg of a mixture of single and double-stranded [<sup>3</sup>H] E. coli DNA and a minimum of 0.5 units of Pyrophosphatase, Inorganic (E. coli) incubated for 4 hours at 37°C releases &lt;0.1% of the total radioactivity.</p>	<p><b>Pass</b></p>

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

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Dongxian Yue  
Production Scientist  
23 Jun 2022



Michael Tonello  
Packaging Quality Control Inspector  
02 Nov 2022