

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 µmol of phosphate per minute from inorganic pyrophosphate under standard reaction conditions.
Packaging Lot Number: 10193037
Expiration Date: 06/2025
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

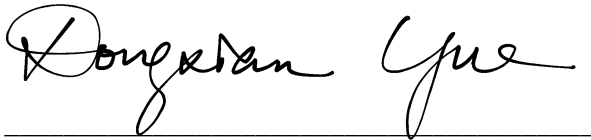
Pyrophosphatase, Inorganic (E. coli) Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0361SVIAL	Pyrophosphatase, Inorganic (E. coli)	10193036	Pass

Assay Name/Specification	Lot # 10193037
Endonuclease Activity (Nicking) A 50 µl reaction in NEBuffer 4 containing 1 µg 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
Exonuclease Activity (Radioactivity Release) A 50 µl reaction in NEBuffer 4 containing 1 µg of a mixture of single and double-stranded [³ 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
Phosphatase Activity (pNPP) A 100 µl 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
Protein Purity Assay (SDS-PAGE)	Pass

Assay Name/Specification	Lot # 10193037
<p>Pyrophosphatase, Inorganic (E. coli) is $\geq 95\%$ pure as determined by SDS-PAGE analysis using Coomassie Blue detection.</p> <p>RNase Activity (Extended Digestion) 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, >90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.</p>	<p>Pass</p>

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

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Dongxian Yue
Production Scientist
21 Jun 2023



Josh Hersey
Packaging Quality Control Inspector
22 Jun 2023