

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.
Lot Number: 10043150
Expiration Date: 04/2021
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

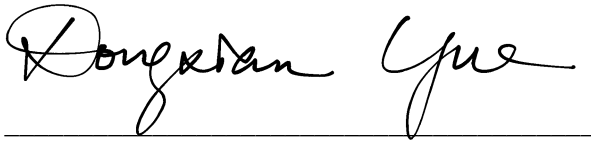
Pyrophosphatase, Inorganic (*E. coli*) Component List

NEB Part Number	Component Description	Lot Number	Individual QC Result
M0361SVIAL	Pyrophosphatase, Inorganic (<i>E. coli</i>)	10043151	Pass

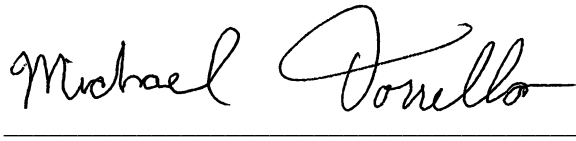
Assay Name/Specification	Lot # 10043150
Endonuclease Activity (Nicking) A 50 µl reaction in NEBuffer 4 containing 1 µg of supercoiled PhiX174 DNA and a minimum of 0.5 units of Pyrophosphatase, Inorganic (<i>E. coli</i>) incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined 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] <i>E. coli</i> DNA and a minimum of 0.5 units of Pyrophosphatase, Inorganic (<i>E. coli</i>) 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 (<i>E. coli</i>) 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 # 10043150
<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.



Dongxian Yue
Production Scientist
17 May 2019



Michael Tonello
Packaging Quality Control Inspector
10 Oct 2019