

New England Biolabs Certificate of Analysis

Product Name: Pyrophosphatase, inorganic (yeast)
Catalog Number: M2403L
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: 10018046
Expiration Date: 08/2020
Storage Temperature: -20°C
Storage Conditions: 100 mM KCl , 20 mM Tris-HCl (pH 8.0), 1 mM DTT , 0.1 mM EDTA , 50 % Glycerol
Specification Version: PS-M2403S/L v1.0

Pyrophosphatase, inorganic (yeast) Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M2403LVIAL	Pyrophosphatase, inorganic (yeast)	10018047	Pass

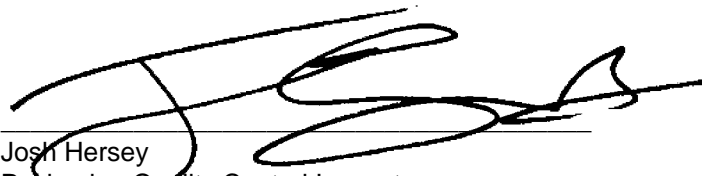
Assay Name/Specification	Lot # 10018046
dNTPase Activity A 0.5 ml reaction in ThermoPol Reaction Buffer in the presence of 200 µM each dNTPs and a minimum of 1 unit Pyrophosphatase, Inorganic (yeast) incubated for 1 hour at 37°C results in <0.05 µM of inorganic phosphate from dNTPs as determined by the AAM assay.	Pass
Endonuclease Activity (Nicking) A 50 µl reaction in NEBuffer 4 containing 1 µg of supercoiled PhiX174 DNA and a minimum of 1 unit of Pyrophosphatase, Inorganic (yeast) 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 1 unit of Pyrophosphatase, Inorganic (yeast) incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
Non-Specific DNase Activity (16 Hour)	Pass

Assay Name/Specification	Lot # 10018046
<p>A 50 µl reaction in NEBuffer 4 containing 1 µg of Lambda DNA and a minimum of 1 unit of Pyrophosphatase, Inorganic (yeast) incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.</p>	
<p>Phosphatase Activity (pNPP) A 100 µl reaction in NEBuffer 3 containing 10 mM p-Nitrophenyl Phosphate (pNPP) and a minimum of 1 unit Pyrophosphatase, Inorganic (yeast) incubated for 1 hour at 37°C yields <0.0001 unit of alkaline phosphatase activity as determined by spectrophotometric analysis.</p>	Pass
<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 (yeast) is incubated at 37°C. After incubation for 4 hours, >90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.</p>	Pass

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



Tim Meixsell
Production Scientist
16 Aug 2018



Josh Hersey
Packaging Quality Control Inspector
17 Aug 2018