

New England Biolabs Certificate of Analysis

Product Name: Pyrophosphatase, inorganic (yeast)
Catalog Number: M2403S
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: 10115040
Expiration Date: 07/2023
Storage Temperature: -20°C
Storage Conditions: 100 mM KCl, 20 mM Tris-HCl, 1 mM DTT, 0.1 mM EDTA, 50 % Glycerol, (pH 8.0 @ 25°C)
Specification Version: PS-M2403S/L v2.0

Pyrophosphatase, inorganic (yeast) Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M2403SVIAL	Pyrophosphatase, inorganic (yeast)	10113015	Pass

Assay Name/Specification	Lot # 10115040
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.	Pass
Non-Specific DNase Activity (16 Hour) 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.	Pass
Exonuclease Activity (Radioactivity Release) A 50 μl reaction in NEBuffer 4 containing 1 μg of a mixture of single and double-stranded [^3H] 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
Endonuclease Activity (Nicking)	Pass

Assay Name/Specification	Lot # 10115040
<p>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.</p>	
<p>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 µmol of inorganic phosphate from dNTPs as determined by the AAM assay.</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.

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20 Jul 2021



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20 Jul 2021