

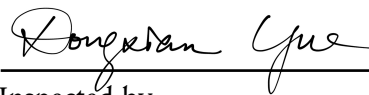
New England Biolabs Certificate of Analysis

Product Name: Pyrophosphatase, Inorganic (*E. coli*)
Catalog #: M0361S/L
Concentration: 100 units/ml
Unit Definition: One unit is the amount of enzyme that will generate 1 μ mol of phosphate per minute from inorganic pyrophosphate under standard reaction conditions.
Lot #: 0031606
Assay Date: 06/2016
Expiration Date: 06/2018
Storage Temp: -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
Effective Date: 27 Apr 2015

Assay Name/Specification (minimum release criteria)	Lot #0031606
Endonuclease Activity (Nicking) - A 50 μ l reaction in NEBuffer 4 containing 1 μ g 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 μ l reaction in NEBuffer 4 containing 1 μ g 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 μ l reaction in NEBuffer 4 containing 10 mM <i>p</i> -Nitrophenol 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) - Pyrophosphatase, Inorganic (<i>E. coli</i>) is \geq 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	Pass
RNase Activity (Extended Digestion) - A 10 μ 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 (<i>E. coli</i>) 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



Authorized by
Derek Robinson
27 Apr 2015



Inspected by
Dongxian Yue
14 Jun 2016

