

New England Biolabs Certificate of Analysis

Product Name: Apyrase
Catalog Number: M0398S
Concentration: 500 U/ml
Unit Definition: One unit is defined as the amount of enzyme that catalyses the release of 1 μ mol of inorganic phosphate from ATP in 1 minute at 30°C in a total reaction of 50 μ l.
Packaging Lot Number: 10282241
Expiration Date: 08/2026
Storage Temperature: -20°C
Storage Conditions: 20 mM MES, 50 mM NaCl, 1 mM DTT, 0.1 mM CaCl₂, 0.1 % Tween® 20, 50 % Glycerol, (pH 6.5 @ 25°C)
Specification Version: PS-M0398S/L v1.0

Apyrase Component List

NEB Part Number	Component Description	Lot Number	Individual QC Result
M0398SVIAL	Apyrase	10273668	Pass
B0398SVIAL	Apyrase Reaction Buffer	10273672	Pass

Assay Name/Specification

Lot # 10282241

Endonuclease Activity (Nicking)

A 50 μ l reaction in Apyrase Reaction Buffer containing 1 μ g of supercoiled PhiX174 DNA and a minimum of 5 units of Apyrase incubated for 4 hours at 30°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 Apyrase Reaction Buffer containing 1 μ g of a mixture of single and double-stranded [³H] E. coli DNA and a minimum of 5 units of Apyrase incubated for 4 hours at 30°C releases <0.1% of the total radioactivity.

Pass

Non-Specific DNase Activity (16 Hour)

A 50 μ l reaction in NEBuffer 4 containing 1 μ g of PhiX174-HaeIII DNA and a minimum of 5 units of Apyrase incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.

Pass

Phosphatase Activity (pNPP)

A 200 μ l reaction in 1M Diethanolamine, pH 9.8, 0.5 mM MgCl₂ containing 2.5 p-Nitrophenyl Phosphate (pNPP) and a minimum of 5 units of Apyrase incubated for 4

Pass

Assay Name/Specification	Lot # 10282241
hours at 37°C yields <0.0001 unit of alkaline phosphatase activity as determined by spectrophotometric analysis.	
Protein Purity Assay (SDS-PAGE) Apyrase is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	Pass
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 1 µl of Apyrase 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

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

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Production Scientist
27 Jan 2025



Josh Hersey
Packaging Quality Control Inspector
15 May 2025