

New England Biolabs Certificate of Analysis

Product Name: Apyrase
Catalog Number: M0398L
Concentration: 500 U/ml
Unit Definition: One unit is defined as the amount of enzyme that catalyses the release of 1 µmol of inorganic phosphate from ATP in 1 minute at 30°C in a total reaction of 50 µl.
Packaging Lot Number: 10092633
Expiration Date: 02/2023
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
M0398LVIAL	Apyrase	10111622	Pass
B0398SVIAL	Apyrase Reaction Buffer	10111626	Pass

Assay Name/Specification	Lot # 10092633
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
Endonuclease Activity (Nicking) A 50 µl reaction in Apyrase Reaction Buffer containing 1 µg 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 µl reaction in Apyrase Reaction Buffer containing 1 µg of a mixture of single and double-stranded [³ H] E. coli DNA and a minimum of 5 units of Apyrase incubated	Pass

Assay Name/Specification	Lot # 10092633
for 4 hours at 30°C releases <0.1% of the total radioactivity.	
<p>Non-Specific DNase Activity (16 Hour) A 50 µl reaction in NEBuffer 4 containing 1 µg 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.</p>	Pass
<p>Phosphatase Activity (pNPP) A 200 µl 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 hours at 37°C yields <0.0001 unit of alkaline phosphatase activity as determined by spectrophotometric analysis.</p>	Pass

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

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Production Scientist
05 Oct 2021



Josh Hersey
Packaging Quality Control Inspector
05 Oct 2021