

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: 10218703
Expiration Date: 10/2024
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	10182400	Pass
B0398SVIAL	Apyrase Reaction Buffer	10181129	Pass

Assay Name/Specification	Lot # 10218703
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 [³ H] 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 MgCl ₂ containing 2.5 p-Nitrophenyl Phosphate (pNPP) and a minimum of 5 units of Apyrase incubated for 4	Pass

Assay Name/Specification	Lot # 10218703
<p>hours at 37°C yields <0.0001 unit of alkaline phosphatase activity as determined by spectrophotometric analysis.</p> <p>Protein Purity Assay (SDS-PAGE) Apyrase is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.</p> <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 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.</p>	<p style="text-align: center;">Pass</p> <p style="text-align: center;">Pass</p>

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

One or more products referenced in this document may be covered by a 3rd-party trademark. Please visit www.neb.com/trademarks for additional information.



Ana Egana
Production Scientist
06 Dec 2023



Josh Hersey
Packaging Quality Control Inspector
06 Dec 2023