

New England Biolabs Certificate of Analysis

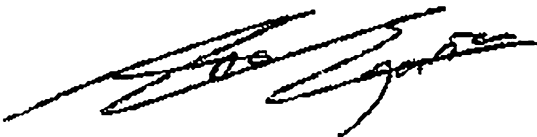
Product Name: Apyrase
Catalog Number: M0398L
Concentration: 500 U/ml
Unit Definition: One unit is defined as the amount of enzyme that catalyses the release of 1 μ mol of inorganic phosphate from ATP in 1 minute at 30°C in a total reaction of 50 μ l.
Lot Number: 10016796
Expiration Date: 01/2020
Storage 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	10015074	Pass
B0398SVIAL	Apyrase Reaction Buffer	0031704	Pass

Assay Name/Specification	Lot # 10016796
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 1 μ l 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
Protein Purity Assay (SDS-PAGE) Apyrase is \geq 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	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 hours at 37°C yields <0.0001 unit of alkaline phosphatase activity as determined by spectrophotometric analysis.	Pass
Endonuclease Activity (Nicking) A 50 μ l reaction in Apyrase Reaction Buffer containing 1 μ g of supercoiled PhiX174	Pass

Assay Name/Specification	Lot # 10016796
<p>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.</p>	
<p>Exonuclease Activity (Radioactivity Release) A 50 µl reaction in Apyrase Reaction Buffer containing 1 µg 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.</p>	Pass
<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

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



Ana Egana
Production Scientist
30 Jul 2018



Michael Tonello
Packaging Quality Control Inspector
30 Jul 2018