240 County Road
Ipswich, MA 01938-2723
Tel 978-927-5054
Fax 978-921-1350
www.neb.com
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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 µmol of inorganic phosphate from ATP in 1 minute at 30°C in a total reaction of 50 µl.*
Packaging Lot Number:	*10239516*
Expiration Date:	*10/2025*
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	10236207	**Pass**
B0398SVIAL	Apyrase Reaction Buffer	10236206	**Pass**

Assay Name/Specification	**Lot # 10239516**
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 30ºC 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 for 4 hours at 30ºC releases <0.1% of the total radioactivity.	**Pass**
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 37ºC results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	**Pass**
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	**Pass**

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Assay Name/Specification	Lot # 10239516
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 37ºC. 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.

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.

Nicole Castagnozzi
Production Scientist
15 May 2024

Michael Tonello
Packaging Quality Control Inspector
17 May 2024