

## New England Biolabs Certificate of Analysis

**Product Name:** *E.coli Poly (A) Polymerase*  
**Catalog Number:** M0276L  
**Concentration:** 5,000 U/ml  
**Unit Definition:** One unit is defined as the amount of enzyme that will incorporate 1 nmol of AMP into RNA in a 20 µl volume in 10 minutes at 37°C.  
**Packaging Lot Number:** 10148904  
**Expiration Date:** 09/2023  
**Storage Temperature:** -20°C  
**Storage Conditions:** 20 mM Tris-HCl, 300 mM NaCl, 1 mM EDTA, 1 mM DTT, 0.1 % Triton®X-100, 50% Glycerol, (pH 7.5 @ 25°C)  
**Specification Version:** PS-M0276S/L v1.0

E.coli Poly (A) Polymerase Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0276LVIAL	E.coli Poly (A) Polymerase	10121340	Pass
B0756AVIAL	Adenosine-5'-Triphosphate (ATP)	10137596	Pass
B0276SVIAL	Poly(A) Polymerase Reaction Buffer	10141265	Pass

Assay Name/Specification	Lot # 10148904
<b>RNase Activity (Extended Digestion)</b> A 10 µl reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA and a minimum of 5 units of E. coli Poly(A) Polymerase is incubated at 37°C. After incubation for 4 hours, >90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.	Pass
<b>Protein Purity Assay (SDS-PAGE)</b> E. coli Poly(A) Polymerase is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	Pass
<b>Exonuclease Activity (Radioactivity Release)</b> A 50 µl reaction in Poly(A) Polymerase Reaction Buffer containing 1 µg of a mixture of single and double-stranded [ <sup>3</sup> H] E. coli DNA and a minimum of 15 units of E. coli Poly(A) Polymerase incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
<b>Endonuclease Activity (Nicking)</b> A 50 µl reaction in Poly(A) Polymerase Reaction Buffer containing 1 µg of	Pass


Assay Name/Specification	Lot # 10148904
supercoiled PhiX174 DNA and a minimum of 15 units of E. coli Poly(A) Polymerase incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.	

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

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