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New England Biolabs
Certificate of Analysis

Product Name:	*E. coli Poly(A) Polymerase*
Catalog #:	*M0276S/L*
Concentration:	*5,000 units/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.*
Lot #:	*0171804*
Assay Date:	*04/2018*
Expiration Date:	*04/2020*
Storage Temp:	*-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*
Effective Date:	*07 May 2018*

Assay Name/Specification (minimum release criteria)	**Lot #0171804**
Endonuclease Activity (Nicking) - A 50 µl reaction in Poly(A) Polymerase Reaction Buffer containing 1 µg of 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.	**Pass**
Exonuclease Activity (Radioactivity Release) - A 50 µl reaction in Poly(A) Polymerase Reaction Buffer containing 1 µg of a mixture of single and double-stranded [^{3}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**
Protein Purity Assay (SDS-PAGE) - *E. coli* Poly(A) Polymerase 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 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**

Authorized by
Derek Robinson
07 May 2018

Inspected by
Bhairavi Jani
03 Apr 2018

ISO 9001 Registered Quality Management
ISO 14001 Registered Environmental Management
ISO 13485 Registered Medical Devices