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New England Biolabs Certificate of Analysis

Product Name: T7 RNA Polymerase

Catalog Number: M0251L
Concentration: 50,000 U/ml

Unit Definition: One unit is defined as the amount of enzyme that will incorporate 1

nmol ATP into acid-insoluble material in a total reaction volume of 50 µl in 1 hour at 37°C in 1X RNA Polymerase Reaction Buffer.

Lot Number: 10046341
Expiration Date: 04/2021
Storage Temperature: -20°C

Storage Conditions: 100 mM NaCl , 50 mM Tris-HCl (pH 7.9), 1 mM EDTA , 20 mM BME , 0.1 %

Triton X-100, 50 % Glycerol

Specification Version: PS-M0251S/L v3.0

T7 RNA Polymerase Component List				
NEB Part Number	Component Description	Lot Number	Individual QC Result	
M0251LVIAL	T7 RNA Polymerase	10040639	Pass	
B9012SVIAL	RNAPol Reaction Buffer	10043370	Pass	

Assay Name/Specification	Lot # 10046341
Protein Purity Assay (SDS-PAGE)	Pass
T7 RNA Polymerase is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	
Promoter Specificity A 50 µl reaction in RNAPol Reaction Buffer in the presence of 2 mM NTPs containing 1 µg of Lambda DNA as a template and a minimum of 200 units of T7 RNA Polymerase incubated for 1 hour at 37°C results in <1.5% of the amount of product incorporated as compared to a control reaction using T7 DNA as a template.	Pass
Non-Specific DNase Activity (16 Hour) A 50 µl reaction in RNAPol Reaction Buffer containing 1 µg of Lambda DNA and a minimum of 250 units of T7 RNA Polymerase incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	Pass
Exonuclease Activity (Radioactivity Release) A 50 µl reaction in RNAPol Reaction Buffer containing 1 µg of a mixture of single	Pass



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

37°C. After incubation for 4 hours, >90% of the substrate RNA remains intact as

determined by gel electrophoresis using fluorescent detection.

Dongxian Yue Production Scientist

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03 Jun 2019

Michael Tonello

Packaging Quality Control Inspector

10 Jun 2019

