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New England Biolabs Certificate of Analysis

Product Name: Hi-T7 RNA Polymerase

Catalog Number: M0658S
Concentration: 50,000 U/ml

Unit Definition: One unit is defined as the amount of enzyme required to incorporate

1 nmol ATP into acid-insoluble material in 1 hour at 50°C.

Packaging Lot Number: 10132825
Expiration Date: 01/2024
Storage Temperature: -20°C

Storage Conditions: 50 mM Tris-HCl, 100 mM NaCl, 1 mM EDTA, 1 mM DTT, 0.1% Triton®X-100,

50% Glycerol, (pH 7.9 @ 25°C)

Specification Version: PS-M0658S v1.0

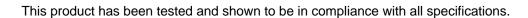
Hi-T7 RNA Polymerase Component List				
NEB Part Number	Component Description	Lot Number	Individual QC Result	
M0658SVIAL	Hi-T7® RNA Polymerase	10132824	Pass	
B0658AVIAL	10X Hi-T7™ RNA Polymerase Reaction Buffer	10135389	Pass	

Assay Name/Specification	Lot # 10132825
Endonuclease Activity (Nicking) A 50 μl reaction in NEBuffer 4 containing 1 μg of supercoiled PhiX174 DNA and a	Pass
minimum of 150 units of Hi-T7™ RNA Polymerase incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.	
Exonuclease Activity (Radioactivity Release) A 50 μl reaction in NEBuffer 4 containing 1 μg of a mixture of single and double-stranded [³H] E. coli DNA and a minimum of 150 units of Hi-T7™ RNA Polymerase incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
Protein Purity Assay (SDS-PAGE) Hi-T7™ RNA 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 50 units of Hi-T7™ RNA 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



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Bhairavi Jani Production Scientist

03 Feb 2022

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Packaging Quality Control Inspector

03 Feb 2022