

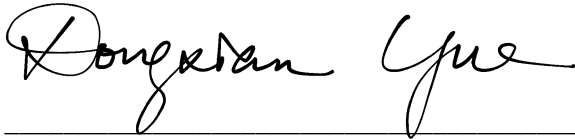
New England Biolabs Certificate of Analysis

Product Name: Hi-T7 RNA Polymerase - 5000 units
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.
Lot Number: 10014907
Expiration Date: 07/2020
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 - 5000 units Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0658SVIAL	Hi-T7® RNA Polymerase	10013742	Pass
B0658AVIAL	10X Hi-T7™ RNA Polymerase Reaction Buffer	10013743	Pass

Assay Name/Specification	Lot # 10014907
Endonuclease Activity (Nicking) A 50 µl reaction in NEBuffer 4 containing 1 µg of supercoiled PhiX174 DNA and a 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.	Pass
Exonuclease Activity (Radioactivity Release) A 50 µl reaction in NEBuffer 4 containing 1 µg of a mixture of single and double-stranded [³ H] 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

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



Dongxian Yue
Production Scientist
27 Jun 2018



Josh Hersey
Packaging Quality Control Inspector
10 Jul 2018