

New England Biolabs Certificate of Analysis

Product Name: Hi-T7™ RNA Polymerase (High Concentration)
Catalog Number: M0470T
Concentration: 1,000,000 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: 10145540
Expiration Date: 05/2024
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-M0470T v1.0

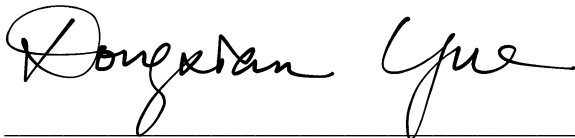
Hi-T7™ RNA Polymerase (High Concentration) Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0470TVIAL	Hi-T7™ RNA Polymerase (High Concentration)	10145539	Pass
B2534AVIAL	MgCl ₂ Solution	10124360	Pass
B0658AVIAL	10X Hi-T7™ RNA Polymerase Reaction Buffer	10151841	Pass

Assay Name/Specification	Lot # 10145540
RNase Activity (Extended Digestion) A 10 µl reaction in 1X 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
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	Pass

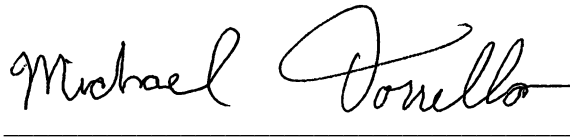
Assay Name/Specification	Lot # 10145540
Coomassie Blue detection.	

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

One or more products referenced in this document may be covered by a 3rd-party trademark. Please visit www.neb.com/trademarks for additional information.



Dongxian Yue
Production Scientist
23 May 2022



Michael Tonello
Packaging Quality Control Inspector
23 May 2022