

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: *10076188*
Expiration Date: *04/2022*
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	10065549	Pass
B0658AVIAL	10X Hi-T7™ RNA Polymerase Reaction Buffer	10075147	Pass

Assay Name/Specification	Lot # 10076188
<p>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.</p>	Pass
<p>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.</p>	Pass
<p>Protein Purity Assay (SDS-PAGE) Hi-T7™ RNA Polymerase is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.</p>	Pass
<p>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.</p>	Pass

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



Bhairavi Jani
Production Scientist
02 Jun 2020



Michael Tonello
Packaging Quality Control Inspector
02 Jun 2020