

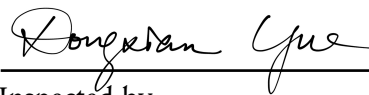
New England Biolabs Certificate of Analysis

Product Name: *E. coli RNA Polymerase, Core Enzyme*
Catalog #: *M0550S*
Concentration: *1,000 units/ml*
Unit Definition: *One unit is defined as the amount of enzyme required to incorporate 1 nmole NTP into RNA in 10 minutes at 37°C in the presence of sigma factor 70.*
Lot #: *0031802*
Assay Date: *02/2018*
Expiration Date: *02/2020*
Storage Temp: *-20°C*
Storage Conditions: *20 mM Tris-HCl, 100 mM NaCl, 1 mM DTT, 0.1 mM EDTA, 50 % Glycerol, (pH 7.5 @ 25°C)*
Specification Version: *PS-M0550S v1.0*
Effective Date: *13 Jun 2018*

Assay Name/Specification (minimum release criteria)	Lot #0031802
Endonuclease Activity (Nicking) - A 50 µl reaction in NEBuffer 4 containing 1 µg of supercoiled PhiX174 DNA and a minimum of 5 units of <i>E. coli</i> RNA Polymerase, Core Enzyme 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] <i>E. coli</i> DNA and a minimum of 5 units of <i>E. coli</i> RNA Polymerase, Core Enzyme incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	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 1 unit of <i>E. coli</i> RNA Polymerase, Core Enzyme 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



Authorized by
Derek Robinson
13 Jun 2018



Inspected by
Dongxian Yue
01 Feb 2018

