

New England Biolabs Certificate of Analysis

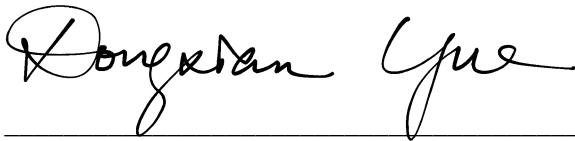
Product Name: SP6 RNA Polymerase
Catalog Number: M0207S
Concentration: 20,000 U/ml
Unit Definition: One unit is defined as the amount of enzyme required to incorporate 1 nmol ATP into an acid-insoluble material in 1 hour at 37°C.
Lot Number: 10034633
Expiration Date: 08/2020
Storage Temperature: -20°C
Storage Conditions: 50 mM Tris-HCl, 100 mM NaCl, 20 mM βME, 1 mM EDTA, 0.1 % Triton®X-100, 50 % Glycerol, (pH 7.9 @ 25°C)
Specification Version: PS-M0207S/L v1.0

SP6 RNA Polymerase Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0207SVIAL	SP6 RNA Polymerase	10018031	Pass
B9012SVIAL	RNAPol Reaction Buffer	0181804	Pass

Assay Name/Specification	Lot # 10034633
<p>Endonuclease Activity (Nicking) A 50 µl reaction in RNAPol Reaction Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 100 units of SP6 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 RNAPol Reaction Buffer containing 1 µg of a mixture of single and double-stranded [³H] E. coli DNA and a minimum of 100 units of SP6 RNA Polymerase incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.</p>	Pass
<p>Non-Specific DNase Activity (16 Hour) A 50 µl reaction in RNAPol Reaction Buffer containing 1 µg of Lambda DNA and a minimum of 100 units of SP6 RNA Polymerase incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.</p>	Pass
<p>Promoter Specificity A 50 µl reaction in RNAPol Reaction Buffer in the presence of 2 mM NTPs containing 1</p>	Pass

Assay Name/Specification	Lot # 10034633
<p>µg of Lambda DNA as a template and a minimum of 100 units of SP6 RNA Polymerase incubated for 1 hour at 37°C results in <1.5% of the amount of product incorporated as compared to a control reaction using SP6 DNA as a template.</p>	
<p>Protein Purity Assay (SDS-PAGE) SP6 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 RNAPol Reaction Buffer containing 40 ng of a 300 base single-stranded RNA and a minimum of 20 units of SP6 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.



Dongxian Yue
Production Scientist
16 Aug 2018



Michael Tonello
Packaging Quality Control Inspector
13 Feb 2019