

New England Biolabs Certificate of Analysis

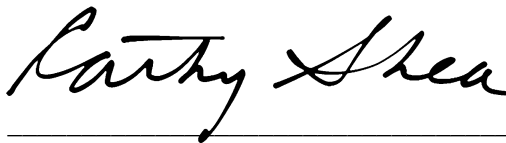
Product Name: *TeIN Protelomerase*
Catalog Number: *M0651S*
Concentration: *5,000 U/ml*
Unit Definition: *One unit is defined as the amount of enzyme required to digest 0.5 µg of pMiniT-TeiRL Bsal-linearized DNA in 30 minutes at 30°C in a total reaction volume of 50 µl.*
Lot Number: *10013305*
Expiration Date: *06/2019*
Storage Temperature: *-20°C*
Storage Conditions: *100 mM NaCl , 10 mM Tris-HCl , 1 mM DTT , 0.1 mM EDTA , 50 % Glycerol, (pH 7.4 @ 25°C)*
Specification Version: *PS-M0651S v2.0*

TeIN Protelomerase Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0651SVIAL	TeIN Protelomerase	10010133	Pass

Assay Name/Specification	Lot # 10013305
Endonuclease Activity (Circular Single Stranded DNA) A 50 µl reaction in ThermoPol® Reaction Buffer containing 1 µg of M13mp18 Single-stranded DNA and a minimum of 25 units of TeIN Protelomerase incubated for 4 hours at 37°C results in <20% conversion to linear DNA as determined by agarose gel electrophoresis.	Pass
Exonuclease Activity (Radioactivity Release) A 50 µl reaction in ThermoPol® Reaction Buffer containing 1 µg of a mixture of single and double-stranded [³ H] E. coli DNA and a minimum of 25 units of TeIN Protelomerase incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
Endonuclease Activity (Nicking) A 50 µl reaction in ThermoPol® Reaction Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 50 units of TeIN Protelomerase incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.	Pass
Protein Purity Assay (SDS-PAGE)	Pass

Assay Name/Specification	Lot # 10013305
<p>TelN Protelomerase is $\geq 95\%$ pure as determined by SDS-PAGE analysis using Coomassie Blue detection.</p>	
<p>Functional Testing (Covalent End Integrity) A 50 μl reaction in ThermoPol[®] Reaction Buffer containing 0.5 μg of pMiniT-TelRL DNA and 5 units TelN Protelomerase incubated for 30 minutes at 30°C followed by heat inactivation and the subsequent addition of 10 units of T5 exonuclease incubated for 1 hour at 37°C results in $\leq 10\%$ loss of starting material as determined by agarose gel electrophoresis.</p>	Pass
<p>Non-Specific DNase Activity (16 Hour) A 50 μl reaction in ThermoPol[®] Reaction Buffer containing 1 μg of HaeIII digested PhiX174 RF I DNA and a minimum of 50 units of TelN Protelomerase 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

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



Cathy Shea
Production Scientist
27 Jun 2018



Michael Tonello
Packaging Quality Control Inspector
28 Jun 2018