

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.*
Packaging Lot Number: *10160881*
Expiration Date: *07/2023*
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*

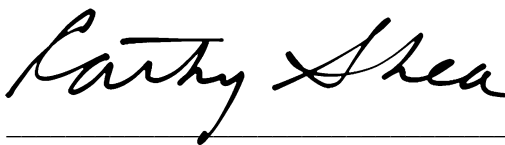
TeIN Protelomerase Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0651SVIAL	TeIN Protelomerase	10156107	Pass
B9004SVIAL	ThermoPol® Reaction Buffer Pack	10165338	Pass

Assay Name/Specification	Lot # 10160881
<p>Functional Testing (Covalent End Integrity) A 50 µl reaction in ThermoPol® Reaction Buffer containing 0.5 µg of pMiniT-TeIRL DNA and 5 units TeIN 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 ≤ 10% loss of starting material as determined by agarose gel electrophoresis.</p>	Pass
<p>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.</p>	Pass
<p>Exonuclease Activity (Radioactivity Release) A 50 µl reaction in ThermoPol® Reaction Buffer containing 1 µg of a mixture of single and double-stranded [³H] 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.</p>	Pass

Assay Name/Specification	Lot # 10160881
<p>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.</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 TeIN 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
<p>Protein Purity Assay (SDS-PAGE) TeIN Protelomerase is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.</p>	Pass

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.



Cathy Shea
Production Scientist
19 Jul 2022



Michael Tonello
Packaging Quality Control Inspector
08 Nov 2022