NEW ENGLAND BioLabs Inc.
be INSPIRED drive DISCOVERY stay GENUINE
240 County Road
Ipswich, MA 01938-2723
Tel 978-927-5054
Fax 978-921-1350
www.neb.com
info@neb.com

# New England Biolabs
# Certificate of Analysis

| | |
|---|---|
| *Product Name:* | *TelN 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-TelRL BsaI-linearized DNA in 30 minutes at 30°C in a total reaction volume of 50 µl.* |
| *Lot Number:* | *10039486* |
| *Expiration Date:* | *02/2020* |
| *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* |

| **TelN Protelomerase Component List** | | | |
|---|---|---|---|
| **NEB Part Number** | **Component Description** | **Lot Number** | **Individual QC Result** |
| M0651SVIAL | TelN Protelomerase | 10030882 | **Pass** |

| **Assay Name/Specification** | **Lot # 10039486** |
|---|---|
| **Endonuclease Activity (Circular Single Stranded DNA)**<br>A 50 µl reaction in ThermoPol® Reaction Buffer containing 1 µg of M13mp18 Single-stranded DNA and a minimum of 25 units of TelN Protelomerase incubated for 4 hours at 37ºC results in <20% conversion to linear DNA as determined by agarose gel electrophoresis. | **Pass** |
| **Endonuclease Activity (Nicking)**<br>A 50 µl reaction in ThermoPol® Reaction Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 50 units of TelN Protelomerase 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)**<br>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 TelN Protelomerase incubated for 4 hours at 37°C releases <0.1% of the total radioactivity. | **Pass** |
| **Functional Testing (Covalent End Integrity)** | **Pass** |

NEW ENGLAND BioLabs Inc.
be INSPIRED drive DISCOVERY stay GENUINE
240 County Road
Ipswich, MA 01938-2723
Tel 978-927-5054
Fax 978-921-1350
www.neb.com
info@neb.com

| Assay Name/Specification | Lot # 10039486 |
|---|---|
| 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 ≤ 10% loss of starting material as determined by agarose gel electrophoresis. | |
| **Non-Specific DNase Activity (16 Hour)**<br>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 37ºC results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis. | **Pass** |
| **Protein Purity Assay (SDS-PAGE)**<br>TelN Protelomerase is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection. | **Pass** |

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

Cathy Shea
Production Scientist
07 Feb 2019

Michael Tonello
Packaging Quality Control Inspector
23 May 2019