

New England Biolabs Certificate of Analysis

Product Name: TelN Resolvase
Catalog #: M0651S
Concentration: 5,000 units/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 #: 0031802
Assay Date: 02/2018
Expiration Date: 02/2019
Storage Temp: -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 v1.0
Effective Date: 15 Feb 2017

Assay Name/Specification (minimum release criteria)	Lot #0031802
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 TelN Resolvase incubated for 4 hours at 37°C results in <20% conversion to linear DNA as determined by agarose gel electrophoresis.	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 TelN Resolvase 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 ThermoPol® Reaction Buffer containing 1 µg of a mixture of single and double-stranded [³ H] <i>E. coli</i> DNA and a minimum of 25 units of TelN Resolvase incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
Functional Testing (Covalent End Integrity) - A 30 µl reaction in CutSmart® Buffer containing 0.5 µg of pMiniT-TelRL DNA and 5 units TelN Resolvase 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.	Pass
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 Resolvase incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	Pass

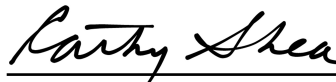


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Protein Purity Assay (SDS-PAGE) - TelN Resolvase is $\geq 95\%$ pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	Pass



Authorized by
Derek Robinson
15 Feb 2017



Inspected by
Cathy Shea
27 Feb 2018

