

## New England Biolabs Certificate of Analysis

**Product Name:** *Therminator™ DNA Polymerase*  
**Catalog Number:** *M0261S*  
**Concentration:** *2,000 U/ml*  
**Unit Definition:** *One unit is defined as the amount of enzyme that will incorporate 10 nmol of dNTP into acid insoluble material in 30 minutes at 75°C.*  
**Packaging Lot Number:** *10137267*  
**Expiration Date:** *12/2023*  
**Storage Temperature:** *-20°C*  
**Storage Conditions:** *10 mM Tris-HCl , 100 mM KCl , 1 mM DTT , 0.1 mM EDTA , 50 % Glycerol, (pH 7.4 @ 25°C)*  
**Specification Version:** *PS-M0261S/L v2.0*

| Therminator™ DNA Polymerase Component List |                                 |            |                      |
|--|---------------------------------|------------|----------------------|
| NEB Part Number                            | Component Description           | Lot Number | Individual QC Result |
| M0261SVIAL                                 | Therminator™ DNA Polymerase     | 10135568   | Pass                 |
| B9004SVIAL                                 | ThermoPol® Reaction Buffer Pack | 10113098   | Pass                 |

| Assay Name/Specification  | Lot # 10137267 |
|---|----------------|
| <p><b>Exonuclease Activity (Radioactivity Release)</b><br/>           A 50 µl reaction in ThermoPol® Reaction Buffer containing 1 µg of a mixture of single and double-stranded [<sup>3</sup>H] E. coli DNA and a minimum of 20 units of Therminator™ DNA Polymerase incubated for 4 hours at 37°C and 75°C releases &lt;0.1% of the total radioactivity.</p>                                   | Pass           |
| <p><b>Non-Specific DNase Activity (16 Hour)</b><br/>           A 50 µl reaction in NEBuffer 2 containing 1 µg of T3 or T7 DNA in addition to a reaction containing Lambda-HindIII DNA and a minimum of 2 units of Therminator™ DNA 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><b>Endonuclease Activity (Nicking)</b><br/>           A 50 µl reaction in ThermoPol® Reaction Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 20 units of Therminator™ DNA Polymerase incubated for 4 hours at 37°C results in &lt;10% conversion to the nicked form as determined by agarose gel electrophoresis.</p>  | Pass           |
| <p><b>Protein Purity Assay (SDS-PAGE)</b></p>   | Pass           |

