

## New England Biolabs Certificate of Analysis

**Product Name:** *PhiX174 Virion DNA*  
**Catalog Number:** *N3023L*  
**Concentration:** *1,000 µg/ml*  
**Unit Definition:** *N/A*  
**Lot Number:** *10041287*  
**Expiration Date:** *04/2021*  
**Storage Temperature:** *-20°C*  
**Storage Conditions:** *10 mM Tris-HCl (pH 8.0), 1 mM EDTA*  
**Specification Version:** *PS-N3023S/L v1.0*

| PhiX174 Virion DNA Component List |                       |            |                      |
|-----------------------------------|-----------------------|------------|----------------------|
| NEB Part Number                   | Component Description | Lot Number | Individual QC Result |
| N3023LVIAL                        | PhiX174 Virion DNA    | 10041288   | Pass                 |

| Assay Name/Specification   | Lot # 10041287 |
|--|----------------|
| <b>Electrophoretic Pattern (Plasmid)</b><br>The banding pattern of $\phi$ X174 Virion DNA on a 1.2% agarose gel is evaluated against a control lot for sharpness and relative intensity as determined by gel electrophoresis using Ethidium Bromide.   | Pass           |
| <b>Mung Bean Nuclease Digest (Sensitive)</b><br>A 100 µl reaction in Mung Bean Nuclease Reaction Buffer containing 5 µg of $\phi$ X174 Virion DNA and 10 units of Mung Bean Nuclease incubated for 1 hour at 30°C results in complete digestion of the DNA as determined by agarose gel electrophoresis. | Pass           |
| <b>Non-Specific DNase Activity (DNA, 16 hour)</b><br>A 50 µl reaction in 1X NEBuffer 2 containing 5 µg of $\phi$ X174 Virion DNA incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.                           | Pass           |
| <b>Restriction Digest (Single Stranded, Resistant)</b><br>A 50 µl reaction in CutSmart™ Buffer containing 5 µg of $\phi$ X174 Virion DNA and a minimum of 20 units of XhoI incubated for 1 hour at 37°C results in no detectable digestion of the DNA as determined by agarose gel electrophoresis.      | Pass           |
| <b>A260/A280 Assay</b><br>The ratio of UV absorption of $\phi$ X174 Virion DNA at 260 and 280 nm is between 1.8 and  | Pass           |

| Assay Name/Specification   | Lot # 10041287     |
|--|--------------------|
| <p>2.0.</p> <p><b>DNA Concentration (A260)</b><br/>The concentration of <math>\phi</math>X174 Virion DNA is between 1000 and 1050 <math>\mu</math>g/ml as determined by UV absorption at 260 nm.</p> | <p><b>Pass</b></p> |

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



Vanessa Mathieu-Sheltry  
Production Scientist  
02 Apr 2019



Michael Tonello  
Packaging Quality Control Inspector  
05 Jun 2019