

New England Biolabs Certificate of Analysis

Product Name: *PhiX174 Virion DNA*
Catalog Number: *N3023L*
Concentration: *1,000 µg/ml*
Unit Definition: *N/A*
Packaging Lot Number: *10203702*
Expiration Date: *07/2025*
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 | 10198895 | Pass |

| Assay Name/Specification | Lot # 10203702 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| A260/A280 Assay The ratio of UV absorption of ϕ X174 Virion DNA at 260 and 280 nm is between 1.8 and 2.0. | Pass |
| DNA Concentration (A260) The concentration of ϕ X174 Virion DNA is between 1000 and 1050 µg/ml as determined by UV absorption at 260 nm. | Pass |
| Electrophoretic Pattern (Plasmid) The banding pattern of ϕ 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 |
| Mung Bean Nuclease Digest (Sensitive) A 100 µl reaction in Mung Bean Nuclease Reaction Buffer containing 5 µg of ϕ 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 |
| Non-Specific DNase Activity (DNA, 16 hour) A 50 µl reaction in 1X NEBuffer 2 containing 5 µg of ϕ 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 |

| Assay Name/Specification | Lot # 10203702 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| <p>Restriction Digest (Single Stranded, Resistant) A 50 µl reaction in CutSmart™ Buffer containing 5 µg of φX174 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.</p> | <p>Pass</p> |

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.



Vanessa Mathieu-Sheltry
Production Scientist
13 Jul 2023



Michael Tonello
Packaging Quality Control Inspector
07 Aug 2023