

## New England Biolabs Certificate of Analysis

**Product Name:** *PhiX174 Virion DNA*  
**Catalog Number:** *N3023S*  
**Concentration:** *1,000 µg/ml*  
**Unit Definition:** *N/A*  
**Lot Number:** *10014946*  
**Expiration Date:** *07/2020*  
**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
N3023SVIAL	PhiX174 Virion DNA	10014947	Pass

Assay Name/Specification	Lot # 10014946
<b>A260/A280 Assay</b> The ratio of UV absorption of $\phi$ X174 Virion DNA at 260 and 280 nm is between 1.8 and 2.0.	Pass
<b>DNA Concentration (A260)</b> The concentration of $\phi$ X174 Virion DNA is between 1000 and 1050 µg/ml as determined by UV absorption at 260 nm.	Pass
<b>Electrophoretic Pattern (Plasmid)</b> 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> 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> 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

Assay Name/Specification	Lot # 10014946
<p><b>Restriction Digest (Single Stranded, Resistant)</b> 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><b>Pass</b></p>

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



Vanessa Mathieu-Sheltry  
Production Scientist  
06 Jul 2018



Michael Tonello  
Packaging Quality Control Inspector  
30 Aug 2018