

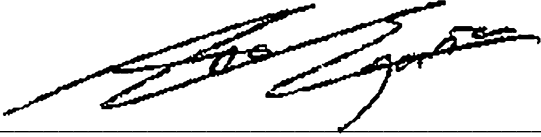
## New England Biolabs Certificate of Analysis

**Product Name:** *PhiX174 RF II DNA*  
**Catalog Number:** *N3022L*  
**Concentration:** *1,000 µg/ml*  
**Unit Definition:** *N/A*  
**Packaging Lot Number:** *10074411*  
**Expiration Date:** *05/2022*  
**Storage Temperature:** *-20°C*  
**Storage Conditions:** *10 mM Tris-HCl (pH 8.0), 1 mM EDTA*  
**Specification Version:** *PS-N3022S/L v1.0*

PhiX174 RF II DNA Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
N3022LVIAL	PhiX174 RF II DNA	10074410	Pass

Assay Name/Specification	Lot # 10074411
<b>A260/A280 Assay</b> The ratio of UV absorption of $\phi$ X174 RF II DNA at 260 and 280 nm is between 1.8 and 2.0.	Pass
<b>DNA Concentration (A260)</b> The concentration of $\phi$ X174 RF II 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 RF II 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>Non-Specific DNase Activity (DNA, 16 hour)</b> A 50 µl reaction in 1X NEBuffer 2 containing 5 µg of $\phi$ X174 RF II 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 (Linearization)</b> A 50 µl reaction in CutSmart™ Buffer containing 5 µg of $\phi$ X174 RF II DNA DNA and 20 units of XhoI incubated for 1 hour at 37°C produces > 95% linearization resulting in a single band of approximately 5386 bp as determined by agarose gel electrophoresis.	Pass

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



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Ana Egana  
Production Scientist  
07 May 2020



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Michael Tonello  
Packaging Quality Control Inspector  
07 May 2020