240 County Road
Ipswich, MA 01938-2723

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New England Biolabs
Certificate of Analysis

Product Name:	*PhiX174 RF I DNA*
Catalog Number:	*N3021S*
Concentration:	*1,000 µg/ml*
Unit Definition:	*N/A*
Packaging Lot Number:	*10228153*
Expiration Date:	*08/2025*
Storage Temperature:	*-20°C*
Storage Conditions:	*10 mM Tris-HCl (pH 8.0), 1 mM EDTA*
Specification Version:	*PS-N3021S/L v1.0*

PhiX174 RF I DNA Component List			
NEB Part Number	**Component Description**	**Lot Number**	**Individual QC Result**
N3021SVIAL	PhiX174 RF I DNA	10201519	**Pass**

Assay Name/Specification	Lot # 10228153
A260/A280 Assay The ratio of UV absorption of ϕX174 RF I DNA at 260 and 280 nm is between 1.8 and 2.0.	**Pass**
DNA Concentration (A260) The concentration of ϕX174 RF I DNA is between 1000 and 1050 µg/ml as determined by UV absorption at 260 nm.	**Pass**
Electrophoretic Pattern (Plasmid) The banding pattern of ϕX174 RF I 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**
Non-Specific DNase Activity (DNA, 16 hour) A 50 µl reaction in 1X NEBuffer 2 containing 5 µg of ϕX174 RF I DNA incubated for 16 hours at 37ºC results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	**Pass**
Restriction Digest (Linearization) A 50 µl reaction in CutSmart™ Buffer containing 5 µg of ϕX174 RF I 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**

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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
24 Aug 2023

Michael Tonello
Packaging Quality Control Inspector
01 Mar 2024