

New England Biolabs Product Specification

Product Name: Φ X174 RF I DNA
Catalog #: N3021S/L
Concentration: 1,000 μ g/ml
Unit Definition: N/A
Shelf Life: 24 months
Storage Temp: -20°C
Storage Conditions: 10 mM Tris-HCl (pH 8.0), 1 mM EDTA
Specification Version: PS-N3021S/L v1.0
Effective Date: 07 Jul 2014

Assay Name/Specification (minimum release criteria)

A260/A280 Assay - The ratio of UV absorption of Φ X174 RF I DNA at 260 and 280 nm is between 1.8 and 2.0.

DNA Concentration (A260) - The concentration of Φ X174 RF I DNA is between 1000 and 1050 μ g/ml as determined by UV absorption at 260 nm.

Electrophoretic Pattern (Plasmid) - The banding pattern of Φ X174 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.

Non-Specific DNase Activity (DNA, 16 hour) - A 50 μ l reaction in 1X NEBuffer 2 containing 5 μ g of Φ X174 RF I DNA incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.

Restriction Digest (Linearization) - A 50 μ l reaction in CutSmart™ Buffer containing 5 μ g of Φ X174 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.



Derek Robinson
Director of Quality Control

Date 07 Jul 2014

