

## New England Biolabs Certificate of Analysis

**Product Name:** M13mp18 RF I DNA  
**Catalog #:** N4018S  
**Concentration:** 100 µg/ml  
**Lot #:** 0421604  
**Assay Date:** 04/2016  
**Expiration Date:** 4/2018  
**Storage Temp:** -20°C  
**Storage Conditions:** 10 mM Tris-HCl (pH 8.0), 1 mM EDTA  
**Specification Version:** PS-N4018S v1.0  
**Effective Date:** 08 Jul 2014

Assay Name/Specification (minimum release criteria)	Lot #0421604
<b>A260/A280 Assay</b> - The ratio of UV absorption of M13mp18 RF I DNA at 260 and 280 nm is between 1.8 and 2.0.	<b>Pass</b>
<b>DNA Concentration (A260)</b> - The concentration of M13mp18 RF I DNA is between 100 and 110 µg/ml as determined by UV absorption at 260 nm.	<b>Pass</b>
<b>Electrophoretic Pattern (Plasmid)</b> - The banding pattern of M13mp18 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.	<b>Pass</b>
<b>Non-Specific DNase Activity (DNA, 16 hour)</b> - A 50 µl reaction in 1X NEBuffer 2 containing 2.5 µg of M13mp18 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.	<b>Pass</b>
<b>Restriction Digest (Linearization)</b> - A 50 µl reaction in CutSmart™ Buffer containing 5 µg of M13mp18 RF I DNA and 20 units of XbaI incubated for 1 hour at 37°C produces > 95% linearization resulting in a single band of approximately 7249 bp as determined by agarose gel electrophoresis.	<b>Pass</b>



Authorized by  
Derek Robinson  
08 Jul 2014



Inspected by  
Vanessa Mathieu-Sheltry  
08 Apr 2016

