

## New England Biolabs Certificate of Analysis

**Product Name:** M13mp18 Single-stranded DNA  
**Catalog #:** N4040S  
**Concentration:** 250 µg/ml  
**Unit Definition:** N/A  
**Lot #:** 0161412  
**Assay Date:** 12/2014  
**Expiration Date:** 12/2016  
**Storage Temp:** -20 °C  
**Storage Conditions:** 10 mM Tris-HCl (pH 8.0), 1 mM EDTA  
**Specification Version:** PS-N4040S v1.0  
**Effective Date:** 08 Jul 2014

Assay Name/Specification (minimum release criteria)	Lot #0161412
<b>A260/A280 Assay</b> - The ratio of UV absorption of M13mp18 Single-stranded 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 Single-stranded DNA is between 250 and 260 µg/ml as determined by UV absorption at 260 nm.	<b>Pass</b>
<b>Electrophoretic Pattern (Plasmid)</b> - The banding pattern of M13mp18 Single-stranded 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>Mung Bean Nuclease Digest (Sensitive)</b> - A 100 µl reaction in Mung Bean Nuclease Reaction Buffer containing 2.5 µg of M13mp18 Single-stranded 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.	<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 Single-stranded 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 (Single Stranded, Resistant)</b> - A 50 µl reaction in CutSmart™ Buffer containing 2.5 µg of M13mp18 Single-stranded 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.	<b>Pass</b>



Authorized by  
Derek Robinson  
08 Jul 2014



Inspected by  
Vanessa Mathieu-Sheltry  
09 Dec 2014

