

New England Biolabs Product Specification

Product Name: M13mp18 Single-stranded DNA
Catalog #: N4040S
Concentration: 250 µg/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-N4040S v2.0
Effective Date: 07 Jul 2014

Assay Name/Specification (minimum release criteria)

A260/A280 Assay - The ratio of UV absorption of M13mp18 Single-stranded DNA at 260 and 280 nm is between 1.8 and 2.0.

DNA Concentration (A260) - The concentration of M13mp18 Single-stranded DNA is between 250 and 260 µg/ml as determined by UV absorption at 260 nm.

Electrophoretic Pattern (Plasmid) - 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.

Mung Bean Nuclease Digest (Sensitive) - 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.

Non-Specific DNase Activity (DNA, 16 hour) - 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.

Restriction Digest (Single Stranded, Resistant) - 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.



Derek Robinson
Director of Quality Control

Date 07 Jul 2014

