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New England Biolabs
Certificate of Analysis

Product Name:	*M13mp18 RF I DNA*
Catalog #:	*N4018S*
Concentration:	*100 µg/ml*
Unit Definition:	*N/A*
Lot #:	*0421709*
Assay Date:	*09/2017*
Expiration Date:	*9/2019*
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 #0421709**
A260/A280 Assay - The ratio of UV absorption of M13mp18 RF I DNA at 260 and 280 nm is between 1.8 and 2.0.	**Pass**
DNA Concentration (A260) - The concentration of M13mp18 RF I DNA is between 100 and 110 µg/ml as determined by UV absorption at 260 nm.	**Pass**
Electrophoretic Pattern (Plasmid) - 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.	**Pass**
Non-Specific DNase Activity (DNA, 16 hour) - 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.	**Pass**
Restriction Digest (Linearization) - 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.	**Pass**

Authorized by
Derek Robinson
08 Jul 2014

Inspected by
Vanessa Mathieu-Sheltry
15 Sep 2017

nqa ISO 9001 Registered Quality Management
nqa ISO 14001 Registered Environmental Management
nqa ISO 13485 Registered Medical Devices