

New England Biolabs Certificate of Analysis


Product Name: *MluI*
Catalog Number: *R0198L*
Concentration: *10,000 U/ml*
Unit Definition: *One unit is defined as the amount of enzyme required to digest 1 µg of Lambda DNA in 1 hour at 37°C in a total reaction volume of 50 µl.*
Packaging Lot Number: *10058401*
Expiration Date: *11/2021*
Storage Temperature: *-20°C*
Storage Conditions: *100 mM NaCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 200 µg/ml BSA*
Specification Version: *PS-R0198S/L v1.0*

| MluI Component List | | | |
|---------------------|------------------------------|------------|----------------------|
| NEB Part Number | Component Description | Lot Number | Individual QC Result |
| R0198LVIAL | MluI | 10058400 | Pass |
| B7203SVIAL | NEBuffer™ 3.1 | 10053972 | Pass |
| B7024SVIAL | Gel Loading Dye, Purple (6X) | 10053978 | Pass |

| Assay Name/Specification | Lot # 10058401 |
|--|----------------|
| <p>Non-Specific DNase Activity (16 Hour) A 50 µl reaction in NEBuffer 3.1 containing 1 µg of Lambda DNA and a minimum of 100 Units of MluI incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.</p> | Pass |
| <p>Ligation and Recutting (Terminal Integrity) After a 10-fold over-digestion of Lambda DNA with MluI, >95% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 16°C. Of these ligated fragments, >95% can be recut with MluI.</p> | Pass |
| <p>Exonuclease Activity (Radioactivity Release) A 50 µl reaction in NEBuffer 3.1 containing 1 µg of a mixture of single and double-stranded [³H] E. coli DNA and a minimum of 100 units of MluI incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.</p> | Pass |
| <p>Endonuclease Activity (Nicking) A 50 µl reaction in NEBuffer 3.1 containing 1 µg of supercoiled pUC19 DNA and a minimum of 30 units of MluI incubated for 4 hours at 37°C results in <20% conversion</p> | Pass |

| Assay Name/Specification | Lot # 10058401 |
|--|----------------|
| to the nicked form as determined by agarose gel electrophoresis. | |

This product has been tested and shown to be in compliance with all specifications.


Loren Duquette
Production Scientist
16 Sep 2019


Michael Tonello
Packaging Quality Control Inspector
25 Nov 2019