

New England Biolabs Certificate of Analysis

Product Name: *MscI*
Catalog Number: *R0534M*
Concentration: *25,000 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: *10153288*
Expiration Date: *06/2024*
Storage Temperature: *-20°C*
Storage Conditions: *150 mM KCl, 10 mM Tris-HCl, 1 mM DTT, 0.1 mM EDTA, 50 % Glycerol, 200 µg/ml BSA, 0.05 % Triton®X-100, (pH 7.4 @ 25°C)*
Specification Version: *PS-R0534M v3.0*

| MscI Component List | | | |
|---------------------|-----------------------|------------|----------------------|
| NEB Part Number | Component Description | Lot Number | Individual QC Result |
| R0534MVIAL | MscI | 10153287 | Pass |
| B6004SVIAL | rCutSmart™ Buffer | 10156433 | Pass |

| Assay Name/Specification | Lot # 10153288 |
|---|----------------|
| <p>Ligation and Recutting (Terminal Integrity) After a 20-fold over-digestion of Lambda DNA with MscI, >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 MscI.</p> | Pass |
| <p>Non-Specific DNase Activity (16 Hour) A 50 µl reaction in CutSmart® Buffer containing 1 µg of Lambda DNA and a minimum of 25 units of MscI 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>Exonuclease Activity (Radioactivity Release) A 50 µl reaction in CutSmart® Buffer containing 1 µg of a mixture of single and double-stranded [³H] E. coli DNA and a minimum of 50 units of MscI incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.</p> | Pass |
| <p>Protein Purity Assay (SDS-PAGE) MscI is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.</p> | Pass |

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

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29 Aug 2022



Michael Tonello
Packaging Quality Control Inspector
29 Aug 2022