

New England Biolabs Certificate of Analysis

Product Name: MscI
Catalog Number: R0534S
Concentration: 5,000 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: 10193708
Expiration Date: 03/2025
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-R0534S/L v3.0

| MscI Component List | | | |
|---------------------|-----------------------|------------|----------------------|
| NEB Part Number | Component Description | Lot Number | Individual QC Result |
| R0534SVIAL | MscI | 10183377 | Pass |
| B6004SVIAL | rCutSmart™ Buffer | 10189225 | Pass |

| Assay Name/Specification | Lot # 10193708 |
|--|----------------|
| Exonuclease Activity (Radioactivity Release) A 50 µl reaction in CutSmart® Buffer containing 1 µg of a mixture of single and double-stranded [³ H] 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. | Pass |
| 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. | Pass |
| 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. | Pass |
| Protein Purity Assay (SDS-PAGE) MscI is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection. | Pass |

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

One or more products referenced in this document may be covered by a 3rd-party trademark. Please visit www.neb.com/trademarks for additional information.


YunJie Sun
Production Scientist
23 Mar 2023


Michael Tonello
Packaging Quality Control Inspector
23 Jul 2023