

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.*
Lot Number: *10042371*
Expiration Date: *04/2021*
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	10042372	Pass
B7204SVIAL	CutSmart® Buffer	10042783	Pass

Assay Name/Specification	Lot # 10042371
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
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

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

Stephanie Cornelio

Stephanie Cornelio
Production Scientist
19 Apr 2019

Mary Conlon

Mary Conlon
Packaging Quality Control Inspector
13 May 2019