NEW ENGLAND BioLabs Inc.
be INSPIRED drive DISCOVERY stay GENUINE
240 County Road
Ipswich, MA 01938-2723
Tel 978-927-5054
Fax 978-921-1350
www.neb.com
info@neb.com

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:	*10073747*
Expiration Date:	*05/2022*
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	10073746	**Pass**
B7204SVIAL	CutSmart® Buffer	10065748	**Pass**

Assay Name/Specification	**Lot # 10073747**
Protein Purity Assay (SDS-PAGE) MscI is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	**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 37ºC results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	**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 16ºC. Of these ligated fragments, >95% can be recut with MscI.	**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 37ºC releases <0.1% of the total radioactivity.	**Pass**

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

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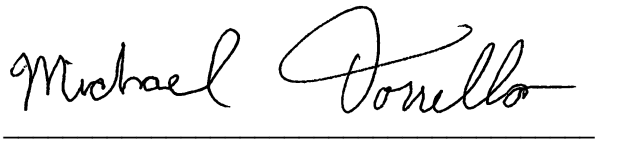
Penghua Zhang
Production Scientist
26 May 2020



Michael Tonello
Packaging Quality Control Inspector
26 May 2020