

New England Biolabs Certificate of Analysis

Product Name: MboI
Catalog Number: R0147M
Concentration: 25,000 U/ml
Unit Definition: One unit is defined as the amount of enzyme required to digest 1 µg of Lambda DNA (dam-) in 1 hour at 37°C in a total reaction volume of 50 µl.
Packaging Lot Number: 10131157
Expiration Date: 12/2023
Storage Temperature: -20°C
Storage Conditions: 50 mM KCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 200 µg/ml BSA
Specification Version: PS-R0147T/M v1.0

MboI Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0147MVIAl	MboI	10131156	Pass
B7024AVIAl	Gel Loading Dye, Purple (6X)	10127723	Pass
B6004SVIAl	rCutSmart™ Buffer	10130601	Pass

Assay Name/Specification	Lot # 10131157
Ligation and Recutting (Terminal Integrity) After a 10-fold over-digestion of Lambda dam- DNA with MboI, >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 MboI.	Pass
Non-Specific DNase Activity (16 Hour) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of Lambda dam- DNA and a minimum of 50 Units of MboI incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	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 MboI incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
Endonuclease Activity (Nicking)	Pass

Assay Name/Specification	Lot # 10131157
A 50 µl reaction in CutSmart™ Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 50 units of MboI incubated for 4 hours at 37°C results in <20% conversion to the nicked form as determined by agarose gel electrophoresis.	

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

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Penghua Zhang
Production Scientist
19 Jan 2022



Josh Hersey
Packaging Quality Control Inspector
19 Jan 2022