

## New England Biolabs Certificate of Analysis

**Product Name:** MboII  
**Catalog Number:** R0148S  
**Concentration:** 5,000 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:** 10213815  
**Expiration Date:** 10/2025  
**Storage Temperature:** -20°C  
**Storage Conditions:** 250 mM NaCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 0.15% Triton X-100, 200 µg/ml BSA  
**Specification Version:** PS-R0148S/L v1.0

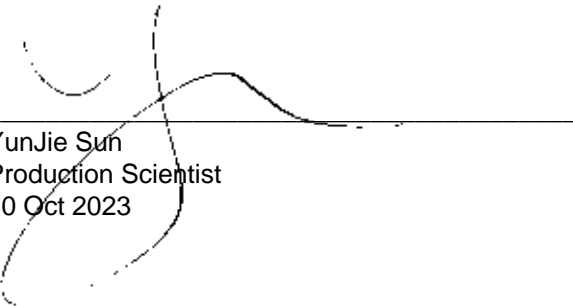
MboII Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0148SVIAL	MboII	10209157	Pass
B7024AVIAL	Gel Loading Dye, Purple (6X)	10204842	Pass
B6004SVIAL	rCutSmart™ Buffer	10204840	Pass

Assay Name/Specification	Lot # 10213815
<b>Exonuclease Activity (Radioactivity Release)</b> A 50 µl reaction in CutSmart™ Buffer containing 1 µg of a mixture of single and double-stranded [ <sup>3</sup> H] E. coli DNA and a minimum of 5 units of MboII incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
<b>Ligation and Recutting (Terminal Integrity)</b> After a 10-fold over-digestion of Lambda dam- DNA with MboII, ~50% 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 MboII.	Pass
<b>Non-Specific DNase Activity (16 Hour)</b> A 50 µl reaction in CutSmart™ Buffer containing 1 µg of Lambda dam- DNA and a minimum of 5 Units of MboII incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	Pass
<b>Protein Purity Assay (SDS-PAGE)</b>	Pass

Assay Name/Specification	Lot # 10213815
Mboll is >95% pure as determined by SDS PAGE analysis using Coomassie Blue detection.	

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](http://www.neb.com/trademarks) for additional information.



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10 Oct 2023



Josh Hersey  
Packaging Quality Control Inspector  
26 Nov 2023